

Sunshine Act Meetings

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Friday, February 15, 1985

This section of the FEDERAL REGISTER contains notices of meetings published under the "Government in the Sunshine Act" (Pub. L. 94-409) 5 U.S.C. 552b(e)(3).

Dated: February 12, 1985.

Sheldon D. Butts,

Deputy Secretary.

[FR Doc. 85-3895 Filed 2-13-85; 12:34 pm]

BILLING CODE 8355-01-M

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1

CONSUMER PRODUCT SAFETY COMMISSION

Commission Meeting

TIME AND DATE: See times below, Wednesday, February 20, 1985.

LOCATION: Room 456, Westwood Towers, 5401 Westbard Avenue, Bethesda, Maryland.

STATUS: Open to the public.

MATTERS TO BE CONSIDERED: 8:30 a.m.:

1. Commission Staff Briefing

The staff will brief the Commission on various matters

8:30 a.m.:

2. Topical Drugs: Coverage Under PPPA

The Commission will consider findings with respect to the involvement of topical prescription drugs in childhood injuries and whether there is need for special packaging requirements under the Poison Prevention Packaging Act

10:30 a.m. (approximately):

3. Home Sprinkler Demonstration

The U.S. Fire Administration will provide a demonstration of the Early Suppression, Fast Response Residential Sprinkler System

Closed to the public:

4. Compliance Status Report

The staff will brief the Commission on various Compliance matters

For a recorded message containing the latest agenda information, call 301-492-5709.

CONTACT PERSON FOR ADDITIONAL INFORMATION: Sheldon D. Butts, Office of the Secretary, 5401 Westbard Ave., Bethesda, Md. 20207, 301-492-6800.

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FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

February 12, 1985.

TIME AND DATE: 9:30 a.m., Thursday, February 21, 1985.

PLACE: Room 600, 1730 K Street, N.W., Washington, D.C.

STATUS: Open.

MATTERS TO BE CONSIDERED: The Commission will hear oral argument in the following cases which have been consolidated for purposes of oral argument.

1. Jim Walter Resources, Inc., Docket No. SE 84-23;

2. Jim Walter Resources, Inc., Docket No. SE 84-57; and

3. Southern Ohio Coal Company, Docket Nos. WEVA 84-186, and WEVA 84-94-R. (The three cases involve an issue pertaining to the validity of citations issued for violations of notices of safeguard issued pursuant to 30 CFR 75.1403-5(g)).

TIME AND DATE: 2:00 p.m., Thursday, February 21, 1985.

STATUS: Open.

MATTERS TO BE CONSIDERED: The Commission will hear oral argument in the following:

1. Southern Ohio Coal Company, Docket Nos. LAKE 82-93-R, etc. (Issues include whether miners may be compensated under section 103(f) of the Mine Act for participation in closeout conferences following inspections.)

TIME AND DATE: Following Oral Argument in the above case.

STATUS: Closed (Pursuant to 5 U.S.C. 552b(c)(10)).

MATTERS TO BE CONSIDERED: The Commission will consider and act on all of the above cases. It was determined by a unanimous vote of Commissioners that this meeting be closed.

Any person intending to attend this meeting who requires special accessibility features and/or auxiliary aids, such as sign language interpreters, must inform the Commission in advance of those needs. Thus, the Commission may, subject to the limitations of 29 CFR 2706.150(a)(3) and 2706.160(e), ensure

access for any handicapped person who gives reasonable advance notice.

CONTACT PERSON FOR MORE INFORMATION:

Jean Ellen (202) 653-5632.

Jean H. Ellen,

Agenda Clerk.

[FR Doc. 85-4006 Filed 2-13-85; 2:24 pm]

BILLING CODE 6735-01-M

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FOREIGN CLAIMS SETTLEMENT COMMISSION

[Meeting Notice No. 2-85]

Announcement in Regard to Commission Meetings and Hearings

The Foreign Claims Settlement Commission, pursuant to its regulations (45 CFR Part 504), and the Government in the Sunshine Act (5 U.S.C. 552b), hereby gives notice in regard to the scheduling of open meetings and oral hearings for the transaction of Commission business and other matters specified, as follows:

Date, Time, and Subject Matter

Monday, February 25, 1985 at 10:30 a.m.

Consideration of Amended Final Decisions and Petitions to Reopen claims in the Czech II Program.

Subject matter listed above, not disposed of at the scheduled meeting, may be carried over to the agenda of the following meeting.

All meetings are held at the Foreign Claims Settlement Commission, 1111 20th Street, NW., Washington, D.C. Requests for information, or advance notices of intention to observe a meeting, may be directed to: Administrative Officer, Foreign Claims Settlement Commission, 1111 20th Street, NW., Room 409, Washington, DC 20579. Telephone: (202) 653-6155.

Dated at Washington, D.C. on February 11, 1985.

Judith H. Lock,

Administrative Officer.

[FR Doc. 85-3969 Filed 2-13-85; 10:53 am]

BILLING CODE 4410-01-M

4

POSTAL SERVICE

(Board of Governors)

Vote to Close Meeting

At its meetings on February 4-5, 1985, the Board of Governors of the United

States Postal Service unanimously voted to close to public observation its meeting scheduled for March 4, 1985, in Washington, D.C. The meeting will involve discussions of (1) personnel matters and (2) labor relations.

The meeting is expected to be attended by the following persons: Governors Babcock, Camp, Griesemer, McKean, Peters, Ryan, Sullivan and Voss; Postmaster General Carlin; Deputy Postmaster General Strange; Secretary to the Board Harris; General Counsel Cox; Senior Assistant Postmaster General Coughlin; and Counsel to the Governors Califano.

As to the first of the agenda items, the Board of Governors has determined that, pursuant to section 552b(c)(6) of Title 5, United States Code, and section 7.3(f) of Title 39, Code of Federal Regulations, the discussion of personnel matters is exempt from the open meeting requirement of the Government in the Sunshine Act [5 U.S.C. 552b(b)], because it is likely to disclose information of a personal nature where disclosure would constitute a clearly unwarranted invasion of personal privacy. The Board also determined that the public interest does not require that the Board's discussion of this matter be open to the public.

As to the second agenda item, the Board determined that pursuant to section 552b(c)(3) of Title 5, United States Code, and section 7.3(c) of Title 39, Code of Federal Regulations, this portion of the meeting is exempt from the open meeting requirement of the Government in the Sunshine Act because it is likely to disclose information that may be used in connection with the negotiation of future collective bargaining agreements under chapter 12 of Title 39, United States Code, which is specifically exempted from disclosure by section 401(c)(3) of Title 39, United States Code.

In accordance with section 552b(f)(1) of Title 5, United States Code, and section 7.6(a) of Title 39, Code of Federal Regulations, the General Counsel of the United States Postal Service has certified that in his opinion the meeting to be closed may properly be closed to public observation, pursuant to sections 552b(c) (3) and (6) of Title 5 and section 410(c)(3) of Title 39, United States Code, and sections 7.3 (c) and (f) of Title 39, Code of Federal Regulations.

David F. Harris,

Secretary.

[FR Doc. 85-3976 Filed 2-13-85; 11:34 am]

BILLING CODE 7710-12-M

5

SYNTHETIC FUELS CORPORATION

Joint Meeting of the Board of Directors and the Advisory Committee to the Board of Directors

ACTION: Notice of meeting.

SUMMARY: Interested members of the public are invited to attend and observe the Joint Meeting of the Board of Directors and the Advisory Committee to the Board of Directors of the United States Synthetic Fuels Corporation to be held at the time, date and place specified below. This public announcement is made pursuant to the open meeting requirements of section 116(f)(1) of the Energy Security Act (94 Stat. 611, 637; 42 U.S.C. 8701, 8712(f)(1)) and section 4 of the Corporation's Statement of Policy on Public Access to Board meetings. During the meeting, the Board of Directors will consider a resolution to close a portion of the meeting pursuant to Article II, section 4 of the Corporation's By-laws, section 116(f) of the said Act and sections 4 and 5 of the said policy.

Matters to be considered:

Open Session (Ramada Inn Renaissance)

- I. Call to Order
- II. Advisory Committee—Discussion: The Long-Term Role of Synthetic Fuels in the Nation's Growth and Security

Open Session (2121 K Street)

- III. Approval of Board Minutes
- IV. Consideration of Revised Business Plan
- V. Coal-Water Solicitation
- VI. New Solicitation Options
- VII. Report of Compensation Committee
- VIII. Financial Interests of Directors Related to Projects Considered at Meeting
- IX. Third General Solicitation Issues
- X. Review of Project Resource/Technology Combinations for Fourth General and Retrofit Solicitations:
 - A. Fourth General Solicitation Projects
 - B. Retrofit Solicitation Projects
- XI. Resolution to Close Meeting

Closed Session

- XII. Report on Evaluation of Fourth General and Retrofit Solicitation Projects and Solicitation Schedule

TIME AND DATE:

9:45 a.m., February 19, 1985—Advisory Committee to the Board of Directors
12:30 p.m., February 19, 1985—Board of Directors

PLACE:

Advisory Committee, Ramada Inn Renaissance, New Hampshire Ballroom, 1143 New Hampshire Avenue, NW., Washington, D.C.
Board of Directors, 2121 K Street, NW., Room 503, Washington, D.C. 20586

PERSON TO CONTACT FOR MORE

INFORMATION: If you have any questions regarding this meeting, please contact Mr. Owen Malone, Assistant Secretary, at (202) 822-6341.

United States Synthetic Fuels Corporation.

Len Rawicz,

Acting Vice President, General Counsel and Secretary.

February 12, 1985.

[FR Doc. 85-3946 Filed 2-14-85; 8:45 am]

BILLING CODE 7692-01-M

Register Federal

Friday
February 15, 1985

Part II

Environmental Protection Agency

40 CFR Part 57

Nonferrous Smelter Orders Covering the
Period January 1, 1983, to January 1,
1988; Final Rules

ENVIRONMENTAL PROTECTION AGENCY**40 CFR Part 57****[OAR-FRL-2732-3]****Nonferrous Smelter Orders Covering the Period January 1, 1983, to January 1, 1988****AGENCY:** Environmental Protection Agency.**ACTION:** Final rules.

SUMMARY: The regulations promulgated today establish the minimum required contents of primary nonferrous smelter orders (NSOs) issued under Section 119 of the Clean Air Act during the second NSO period which extends through January 1, 1988. The regulations also establish the criteria and procedures EPA will use in issuing NSOs and in evaluating NSOs issued by States.

Under Section 119, NSOs may be granted to eligible smelters by States, with EPA approval, or directly by EPA. An NSO permits a smelter to defer complying with its State Implementation Plan (SIP) emission limitation for sulfur dioxide for the period of the order. During this deferral, the smelter is required to use an interim level of continuous emission reduction technology in combination with any other necessary interim measures to maintain the national ambient air quality standards (NAAQS) for sulfur dioxide (SO₂) and to satisfy certain other requirements. EPA proposed these regulations on September 19, 1983 (48 FR 42050). In response to a number of comments received on the proposal, a Supplemental Notice was published on September 4, 1984 (48 FR 34870) setting forth certain changes in the proposed regulations. This rulemaking action addresses comments on both the proposal and on the Supplemental Notice.

DATES: These rules are effective March 18, 1985. Judicial review of these rules may be obtained by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit on or before April 16, 1985.

ADDRESSES: Docket Numbers EPA-82-35 and DSSE 78-1 contain the documents upon which these rules are based. Those dockets are open for public inspection and copying between 8:00 A.M. and 4:00 P.M. Monday through Friday at: U.S. Environmental Protection Agency, Central Docket Section, West Tower Lobby, Gallery 1, Waterside Mall, 401 M Street, SW., Washington, D.C. 20460.

FOR FURTHER INFORMATION

CONTACT: Mr. Laxmi N. Kesari, Stationary Source Compliance Division (EN 341), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460. Telephone (202) 382-2838.

SUPPLEMENTARY INFORMATION: The remainder of this notice discusses the background of this rulemaking and its basis, including discussion of the public comments made on the proposed regulation and Supplemental Notice. The text of the final regulation follows this discussion.

Background

Section 119 was added to the Clean Air Act when the Act was amended in 1977. A very thorough discussion of the history and content of Section 119 and how it fits into the overall air pollution control strategy governed by the Clean Air Act was published in the preamble to the proposed first period NSO regulation. Please refer to 44 FR 6284-6286 (January 31, 1979) for that complete discussion. A brief summary of that discussion follows.

Under Title I of the Clean Air Act, EPA has set national ambient air quality standards (NAAQS) for certain pollutants ("criteria pollutants") including sulfur dioxide (SO₂). Title I also requires the NAAQS to be met through the establishment of State Implementation Plans (SIPs) governing emission sources of these pollutants.

Emissions of sulfur dioxide by industrial sources generally fall into two categories, stack emissions and fugitive emissions. Fugitive emissions are generally defined as those released through leaks or at transfer points. Because stack emissions are responsible for the great majority of sulfur dioxide emissions, control efforts have traditionally been directed primarily at stack emissions.

The effects of stack emissions on ambient air quality can be mitigated by either constant emission reduction or dispersion techniques. Constant emission reduction techniques diminish the overall atmospheric loading of pollutants through the use of technologies that remove pollutants from waste gas on a continuous basis or raw materials (including fuels) that prevent pollutants from being generated.

Dispersion techniques, on the other hand, do not reduce total emissions into the atmosphere on a continuous basis. Dispersion techniques include tall stacks, which disperse emissions over a wide geographic area, and supplementary control systems (SCS), which vary emissions over time according to meteorological conditions.

Reflecting Congressional concern about the potential adverse environmental effects results from the use of dispersion techniques, the 1977 amendments sharply restrict the permissible use of dispersion techniques in place of constant controls to meet national ambient air quality standards. However, because of its concern about the unusual economic and technological problem facing the primary nonferrous metals industry, Congress enacted Section 119, authorizing EPA to grant limited suspensions from the requirement for constant controls for primary nonferrous smelters. Specifically, Section 119 permits issuance of a "primary nonferrous smelter order" (NSO) to a primary nonferrous smelter if no constant control method applicable to the smelter which would enable it to meet the applicable SO₂ SIP emission limit has been adequately demonstrated to be reasonably available (as determined by the Administrator, taking into account the cost of compliance, nonair quality health and environmental impact, and energy considerations). An NSO may temporarily defer the requirements for compliance with SO₂ SIP stack emission limitations and schedules for installation of the pollution control equipment necessary to meet those limitations. An NSO may also temporarily defer compliance with any other SIP requirements which are integrally related to such requirements and would be pointless to enforce in light of the deferral of such requirements. However, under an NSO a smelter must prevent exceedances of the National Ambient Air Quality Standards (NAAQS) through the use of dispersion techniques and interim continuous emission reduction controls, along with other interim measures. Section 119 authorizes EPA to issue to a smelter nonferrous smelter orders extending over two periods, the first expiring on January 1, 1983, and the second expiring on January 1, 1988. A second period NSO must contain a schedule requiring compliance with the SO₂ SIP emission limitations as expeditiously as practicable if the technology necessary for full compliance is adequately demonstrated to be reasonably available by or before January 1, 1988.

On June 24, 1980, EPA promulgated national regulations to implement Section 119 during the first NSO period (See 45 FR 42514). The regulations comprise Part 57 of Title 40 of the Code of Federal Regulations and include criteria for determining whether a smelter is eligible for a first period NSO. Under the first period NSO rules, a

smelter was eligible for an NSO if the Administrator determined, based on the financial information submitted in the smelter owner's application, that the weak stream constant control equipment necessary for the smelter to meet the SO₂ SIP stack emission limit was not adequately demonstrated to be reasonably available taking into account cost and other factors.

The first period NSO regulations also provided for the establishment of interim requirements to minimize emissions and further ensure that the smelter's emissions did not result in violations of the NAAQS for SO₂. Those requirements included the use of dispersion techniques, the assumption of legal liability by a smelter relying on such techniques for violations of the NAAQS in the area affected by its emissions, the evaluation and control of fugitive emissions, and related monitoring and reporting requirements. The regulations also required the efficient use of an interim level of continuous emission reduction technology, and established criteria and procedures for a waiver of that requirement for a smelter without such controls which would be forced to close by the imposition of the interim continuous emission control requirement.

The smelter was also required, during the first NSO period, to conduct a research and development (R&D) project designed to produce technology to aid both the smelter and the industry in general in complying with SO₂ SIP limitations.

On September 19, 1983, EPA proposed regulations (48 FR 42050) setting forth the requirements for obtaining an NSO during the second NSO period, which extends through January 1, 1988. EPA retained much of the first period regulations because many of the statutory requirements are also applicable to the second NSO period. Some changes were proposed, however, in order to implement the requirements contained in Section 119 specific to the second NSO period.

Certain changes were also necessitated by the Court decision in *Kennecott Corp. v. EPA*, 684 F.2d 1007 (D.C. Cir. 1982). In that case, the Court vacated and remanded that part of the first period NSO regulations dealing with the eligibility test, concluding that the test used was too strict a benchmark for determining eligibility for an NSO. The Court also held that molybdenum roasters were incorrectly excluded from NSO coverage. Changes reflecting the Court's decision were included in the proposed second period NSO regulations. For complete explanations

of those individual sections of the first period regulations that are retained in the proposed second period NSO regulations, the reader should refer to the detailed discussion in the preamble to the proposed and final first period NSO regulations (see 45 FR 42514, June 24, 1980; 44 FR 6284, January 31, 1979; and EPA Docket Number DSSE-78-1.) The preamble to the proposed second period NSO regulations discusses major differences between the first and second period regulations.

EPA received comments on the proposed second period rules from companies operating smelters, environmental groups, State and Federal agencies, and other interested members of the public. A public hearing was held in Phoenix, Arizona on October 19, 1983. Ten written submissions were received and seven parties testified at the public hearing. EPA considered all comments in developing the final regulations.

EPA issued a Supplemental Notice on September 4, 1984 (49 FR 34870-34874). That notice proposed certain changes in the financial eligibility tests in response to comments. Two major revisions proposed affect the benchmark used in the Rate of Return Test: removing the depreciation add-back on SO₂ controls installed after 1977 and substituting constant dollars for historical (nominal) dollars as the measure of book value of net investment. The latter revision was proposed as an option to be considered along with book value of net investment in historical dollars.

Two important changes in the Profit Protection Test were also proposed. The definition of the pre-control case was changed to encompass operating the smelter with all controls installed as of the NSO application date, rather than as of 1977, and interest on long-term debt was included as a deductible expense in calculating profits.

Other changes proposed in the Supplemental Notice included correction of the potential overstatement of the horizon value in the Rate of Return Test and Interim Controls Waiver Test and revision of the Interim Controls Waiver Test to reflect what the Agency considered to be more realistic assumptions concerning the length of operation and pollution control costs for an applicant smelter. The Agency also provided additional documentation and clarification of EPA's forecast of smelting charges and annual price change indices and provided updates of some of the forecasts. In addition, the Agency specified guidelines for smelter-generated forecasts.

Comments on the Proposed Regulations and EPA's Responses and Changes

The following discussion contains a summary of major public comments and comments resulting in changes in the rules, the Administrator's responses to these comments, and an explanation of the changes. Responses to other comments, or in some cases more detailed responses to major comments, may be found in the Supplemental Response to Comments (Docket Item No. IV-A-9).

Subpart A—General

Several companies objected to various aspects of the proposed financial eligibility tests. Several changes were made in the tests in response to these comments. Such changes were explained in the Supplemental Notice of September 4, 1984 (49 FR 34870-74). Major comments on the initial proposal not addressed or not completely addressed in the Supplemental Notice and major comments on the Supplemental Notice are discussed below. Responses to other comments can be found in the docket (Docket Item No. IV-A-9).

A. The Rate of Return Test Benchmark

1. *Background and Summary of Comments on Initial Proposal.* Once a smelter selects the most cost-effective adequately demonstrated constant control technology, it must demonstrate that the cost of such technology is economically unreasonable in order to be eligible for an NSO under Section 119(b)(3). (This showing must also be made in order for the smelter to be excused from being placed on a schedule for compliance under Section 119(c)(1) of the Clean Air Act.) In *Kennecott Corp. v. EPA*, 684 F.2d 1007 (D.C. Cir. 1982), the Court interpreted Section 119(b)(3) as mandating an NSO eligibility standard short of a closure test (a closure test being one that would require installation of all constant control technology necessary to attain the SO₂ SIP emission limits unless such a requirement would result in a smelter shutdown). Beyond that, however, neither the Court nor Congress defined "economically unreasonable." Moreover, "economically unreasonable" is not defined by economic or financial theory. Therefore, in the Agency's judgment, Section 119(b)(3) does not mandate the use of some unique NSO eligibility test. Rather, the Agency has considerable discretion in structuring an eligibility test that it deems to be fair so long as such test is less stringent than a closure test.

A closure test determines whether it is in the economic interest of an owner to continue operating the smelter with constant controls or, instead, to liquidate the smelter and invest the proceeds elsewhere. Such a test can accomplish this by comparing the present value of the smelter's future cash flows (i.e., the discounted value of all future cash flows) to the smelter's liquidation value.¹

The first NSO regulations adopted as an eligibility test the Net Income Test, which can be characterized as a modified closure test. Under the Net Income Test, a smelter would be eligible for an NSO if installation of required constant controls would reduce the present value of its forecast Net Income (as defined in the test) to less than its liquidation value. The Court in *Kennecott* interpreted the Net Income Test to be a closure test and therefore inconsistent with the intent of Congress.

The purpose of the proposed second period NSO regulations was to set forth an NSO eligibility test that would be less stringent than a closure test and that would take into account economic consequences other than closure. To accomplish this, EPA proposed a Rate of Return Test together with a Profit Protection Test. The Rate of Return Test has the same basic structure as a closure test. That is, it compares the discounted value of future cash flows to some other benchmark value. As originally proposed, that other value was the book value of net investment expressed in nominal dollars (i.e., historical year's dollars). If the discounted value of future cash flows were less than book value, the smelter would become eligible for an NSO.

In the initial proposal of the second period NSO regulations, EPA explained that the consequence of a reduction in the rate of return to less than the required rate (i.e., reduction of present value of future cash flows to less than book value) is a reduced ability to attract capital. A significant impairment in an enterprise's ability to attract capital would reduce its ability to make necessary sustaining capital investments and threaten its long-term viability.

The originally-proposed Rate of Return Test would be less stringent than a closure test so long as book value is greater than liquidation value. In proposing the use of book value as a benchmark, the Agency indicated that

book value of nonferrous smelters should generally be higher than liquidation value because, as a result of their very limited alternative use, smelters have relatively low liquidation values. Accordingly, the Agency determined that the Rate of Return Test as initially proposed should afford an applicant smelter protection from adverse economic consequences short of closure.

Three parties objected to the use of book value as the benchmark: Kennecott Minerals Company, Asarco and Magma responding jointly, and the Arizona Department of Health Services. Kennecott claimed that the test is more stringent than the Net Income Test when applied to its smelters. Asarco and Magma objected to book value for several major reasons. They argued that book value does not treat identical smelters identically, discriminates against older smelters, and does not take into account technological progress. While they endorsed the general structure of the Rate of Return Test, they endorsed the use of replacement value as a benchmark, maintaining that it was more appropriate than book value. The Arizona Department of Health Services simply endorsed its own test, which uses replacement cost as a benchmark.

2. Selection of Book Value Expressed in Constant Dollars as the Benchmark. As a result of these objections, the Agency reconsidered the use of book value of net investment expressed in nominal dollars as the benchmark for the Rate of Return Test, and proposed book value on a constant dollar basis as an alternative in the Supplemental Notice. This latter figure is among the financial data that the Financial Accounting Standards Board (FASB) requires large companies to report. This requirement is described in Financial Accounting Standards Statement No. 33 (Docket Item No. IV-A-6d).

When financial statements (i.e., asset and liability balance sheets) are based on historical costs and nominal dollars, valuations are measured at the time assets are acquired or liabilities are incurred. The unit of measurement is the nominal dollars expended or received at the time of the transaction. Thus, such financial statements may include assets or liabilities whose dollar values represent differing degrees of purchasing power, depending on when the transactions occurred.

Constant dollar accounting also employs valuations at the time of the original transaction—the historical cost. However, the unit of measurement is changed from nominal dollars to constant dollars (i.e., current year's

dollars), so that all items are expressed in terms of dollars having the same purchasing power. Book value in constant dollars will generally be larger than book value in nominal historical dollars.

The comments on the proposed alternative benchmark (book value of net investment in constant dollars) indicate support for the proposal. Asarco and Magma endorsed the proposed benchmark because they believe that it will provide a larger cushion against closure, that it "moves in the direction" of replacement cost, and that it would lessen the bias against older smelters. The Arizona Department of Health Services reiterated its endorsement of its own test while noting that the proposed benchmark is closer to the test in the Arizona NSO regulations.

After reviewing the comments originally received regarding book value of net investment expressed in nominal dollars and those received on the proposed use of book value of net investment valued in constant dollars, the Agency has decided to select the latter as the benchmark for the Rate of Return Test. The rationale for this decision is explained below.

(a) Book Value Expressed in Constant Dollars Provides a Greater Cushion Against Closure. A closure test would result if liquidation value were used as the benchmark in the Rate of Return Test. However, the Court in the *Kennecott* decision rejected a closure test as being too stringent. Thus, the benchmark should generally be larger than liquidation value.

The Kennecott Minerals Company, in its comments on the proposal to use book value (in nominal dollars) as the benchmark, indicated that with respect to its smelters, the Rate of Return Test was more stringent than the already-rejected Net Income Test, which the court interpreted to be a closure test. Although EPA believes that the book value of a nonferrous smelter's net investment normally exceeds its liquidation value, it is possible that book value might fall below liquidation value and cause the Rate of Return Test to be more stringent than a closure test. It is much less likely, however, that book value expressed on a constant dollar basis will fail to exceed liquidation value. Expressing historical investment values in current year's dollars raises the value of net investment, thereby providing somewhat greater insurance against closure.

(b) Book Value Expressed in Constant Dollars Treats Smelters Equitably, Treats Identical Smelters Identically, and Does Not Discriminate Against

¹ The appropriate discount factor is the weighted average cost of capital for the nonferrous metals industry. This represents the rate of return on an investment that an average investor would require before making an investment in that industry.

Older Smelters. Book value of net investment values assets and liabilities as of the time they were acquired or incurred. Because the unit of measurement is the nominal dollar as of the transaction date, the dollar values represent differing degrees of purchasing power. When transactions are valued in nominal dollars, book value depends on the timing of the transaction and the inflation rate over time, not just the real or productive values of the asset or liability. This difference in purchasing power could cause differences between the book value of two smelters whose book values would be the same if valued in constant dollars (dollars of the current year). EPA does not believe that it would be equitable to use a benchmark that would result in a more stringent test simply because investments were made when the dollar had greater purchasing power (before inflation had caused the price of the same equipment to rise). Use of book value in nominal dollars, as initially proposed, would have this effect. The use of a book value restated in current year's dollars corrects for this problem, creating a fair test that treats smelters equitably.

Book value in constant dollars not only corrects for the effect of inflation on investment values as initially recorded, but it also properly accounts for differences in investment values caused by intensity of usage. Smelters designed for the same productive capacity and built at the same time would not necessarily have identical book values (in constant dollars) because of the deterioration in the productivity of the equipment. The smelter owners also may have made different levels of sustaining capital investments, which serve both to increase book value (in constant dollars) and to increase productivity. Since firms depreciate assets at a rate approximating their economic deterioration, a smelter whose book value (in constant dollars) is lower because of a greater number of years of depreciation or because of a lower level of sustaining capital investment is likely to have a depreciated asset that operates less efficiently and that may require greater sustaining capital investments in the future. This, in turn, will normally result in lower future cash flows. Since book value (in constant dollars) and cash flows are positively correlated, a smelter with lower book value and lower associated cash flows would be in a similar position relative to passing the test to that of a smelter with higher book value and higher associated cash flows. Thus, the Rate of Return

Test using book value expressed in constant dollars as the benchmark treats smelters of different productive capacities, different ages, and different investment schedules with comparable stringency.

Asarco and Magma argued that the Rate of Return test with book value as the benchmark would not treat identical smelters identically and would discriminate against older smelters. As discussed above, the new benchmark treats all smelters with comparable stringency. Therefore, identical smelters are treated with the same stringency and older smelters are treated with a stringency comparable to that of newer smelters. Although older smelters may have a lower book value (in either nominal or constant dollars) than a newer smelter, lower book value indicates lower productivity and lower cash flows. Since book value and cash flows move in the same direction, an older smelter would be treated in a manner comparable to a newer smelter.²

In sum, EPA believes that the objections to using book value (in nominal dollars) as the benchmark either have been adequately addressed by substituting the new benchmark and by other changes described in the Supplemental Notice or else do not constitute legitimate problems.

3. Rejection of Replacement Value. Asarco and Magma and the Arizona Department of Health Services endorse the use of replacement value as the benchmark in the Rate of Return Test. Replacement value is the cost of replacing the productive capacity of the smelter, taking into account deterioration of the assets in use and technological progress. The Agency rejects using replacement value because replacement value is very difficult to measure and because there is no good reason to account for new technology.

Estimates of replacement value are not readily available and are difficult to calculate. The Securities and Exchange Commission (SEC) required large companies to report replacement value between 1976 and 1979, but it is no longer required. The FASB has never

required reporting of replacement value. The SEC, when it did require replacement cost data, did not specify a consistent method for calculating replacement cost, recognizing that the computation "requires subjective judgments in its application." One of Asarco and Magma's experts recognized the difficulty in measuring replacement value and agreed that book value of net investment in plant and equipment in constant dollars is a sound improvement over book value in nominal dollars.

Asarco and Magma also supported replacement value as the benchmark because it takes technological progress into account. However, there is no theoretical basis for requiring the benchmark to account for investment in new technology rather than the investment already made in existing equipment.

B. Other Comments on Subpart A

(1) Comment: Certain background information regarding segments of an integrated nonferrous facility other than the smelter is unnecessary. This includes historical annual operating capacity and historical production for these non-smelter segments (Exhibit A) and the financial statements of unconsolidated subsidiaries (Exhibit C). (Asarco/Magma)

Response: EPA requires information concerning non-smelting operating segments to evaluate affiliated party transaction price calculations. The Agency agrees, however, that the information in Exhibits A and C specified by Asarco and Magma is unnecessary for this evaluation. Information regarding non-smelter operating segments that is used in documenting the affiliated party transaction price calculations is required elsewhere in Appendix A.

Therefore, the Agency is deleting the following requirements:

- Exhibit A, part (d): Historical annual operating capacity for non-smelter operating segments.
- Exhibit A, part (e): Historical production for non-smelter operating segments.
- Exhibit C: SEC 10-K reports, financial statements and Business Segment Information Reports for unconsolidated subsidiaries.

(2) Comment: The Profit Protection Test, by using accounting profits, does not properly account for the capital cost of additional controls. According to financial theory, accounting income is not the correct measure to use in a capital budgeting analysis. EPA should correct the test by treating capital costs as cash items or by deducting principal

² Asarco and Magma also stated in their comments on the initial proposal that the use of differing accounting methods with respect to depreciation arbitrarily causes differing book values (in nominal dollars), thereby resulting in differential treatment. EPA does not regard the use of accounting methods as a problem in the eligibility tests. Depreciation assumptions for use in accounting records are made in accordance with generally accepted accounting principles and are based on management's judgment of the expected useful life of the equipment. Depreciation life estimates that vary from one smelter to another reflect differences caused by factors such as operating intensity and maintenance policies.

and interest payments associated with financing the controls. (Asarco/Magma)

Response: The Kennecott decision indicated that one of the purposes of Section 119 was to protect nonferrous smelters against significant reductions in profitability as a result of constant control requirements. The Agency believes that both the Rate of Return Test and the Profit Protection Test accomplish this purpose, but in different ways. The Rate of Return Test provides a cushion against closure. The Profit Protection Test assures that the present value of future profits will not be reduced by an unreasonable percentage as a result of constant control requirements.

Profits, as defined by the accounting profession, are reported to shareholders and used by investors in evaluating the health of the company and are one measure of profitability. Therefore, the Agency considers profit reductions relevant in determining eligibility for an NSO. The Profit Protection Test measures the extent to which profits would fall when constant controls were installed.

Asarco and Magma are correct in stating that accounting profits form an inappropriate basis for a capital budgeting analysis. The Profit Protection Test, however, was not designed to perform a capital budgeting analysis. The Profit Protection Test was designed as an adjunct to the Rate of Return Test. Its purpose is to guard against unreasonable declines in accounting profits. If cash flows were substituted for profits, as suggested in the comment, the test would fail to measure the impact of constant controls on profits. The use of cash flows also would not have any theoretical basis in this context.

The Profit Protection Test, in keeping with generally accepted accounting principles governing construction of an income statement, accounts for capital costs by deducting depreciation and interest payments associated with financing the investment in pollution control equipment. Capital expenditures or principal payments made in financing such expenditures are not properly included in a profit computation.

Interest payments deducted in computing profits should include interest on both long-term and short-term debt. The Profit Protection Test schedules in the proposed regulations incorrectly called for deducting only interest on short-term debt. This was an oversight. The test was changed to deduct interest on all debt, as noted in the Supplemental Notice.

(3) *Comment:* Decreases in profits of less than 50 percent are significant: "A profit reduction of only 20 percent over

such a period of time would certainly be considered highly significant by any economic manager or by the capital markets." (Asarco/Magma)

Response: Neither the Act nor the Kennecott decision gives any clear guidance as to the maximum reduction in profitability that should be considered reasonable, and no such guidance is provided by economic or financial theory. As the commenters acknowledge, the choice of a particular percentage of profit reduction in the Profit Protection Test is a matter of judgment. The commenters offer no rationale for their suggestion of a 20 percent reduction. As a matter of judgment, the Administrator considers a 50% reduction in profits a reasonable figure to use in the Profit Protection Test, taking into account the fact that the Profit Protection Test is being used as an adjunct to the Rate of Return Test.

(4) *Comment:* Forecast of smelting charges and the transportation charge, which were expressed in real dollar terms, should not be inflated to current dollars with the GNP deflator. There was no support in the docket for the assumption that copper prices or transportation charges rise with inflation in the U.S. economy. (Asarco/Magma)

Response: Smelting charges can be expected to fluctuate over time for two reasons: (1) Changes in the supply and demand relationship for smelting services, and (2) changes in the general price level. The smelting charge forecasts estimated by Commodities Research Unit (CRU) reflect expected changes resulting from supply and demand changes. They incorporate the effect of factors such as general economic conditions, the relative prices of substitute products, and the cost of operating and materials, but they do not depend on the general purchasing power of the dollar. The forecasts themselves are stated in 1981 dollars, and any relative prices and costs used in forecasting the smelting charges were also stated in 1981 dollars. When prices are stated in constant dollars (as these are in 1981 dollars), they do not reflect changes in the overall price level. Increases in the overall price level devalue the purchasing power of the dollar so that more dollars are required to purchase the same amount of goods or services. All prices in the economy tend to reflect this overall increase. Such price increases are not accounted for in the smelting charge forecasts. Therefore, the CRU smelting charge forecasts should be inflated by a general price index to account for this overall price level increase. The forecast GNP deflator is such an index.

Transportation charges. EPA recognizes that a general price index provides only a general estimate of the price changes in the transportation of copper, but considers it a reasonable surrogate for the desired index, one that forecasts price increases in commercial freight transport. Data Resources Incorporated (DRI) forecasts a price index for transportation, but this index includes only passenger transport, for example, auto repair, road tolls, insurance premiums minus claims paid, and tickets for intra-city and inter-city mass transit. EPA does not consider this index to be a better index of commercial freight service prices than the GNP deflator. Accordingly, the regulations continue to allow the use of the GNP deflator for determining price changes in transportation costs of copper. However, Appendix A to the regulations has been modified to allow an applicant smelter to supply forecasts of an appropriate transportation index to inflate the transportation costs as long as the forecast meets the established guidelines for forecasting changes in wages, energy, and GNP.

(5) *Comment:* The science of forecasting smelting charges and indices used in the eligibility test is inexact and subject to error. A smelter's economic future could be jeopardized if it failed to qualify for an NSO on the basis of overly-optimistic forecasts. EPA should insure against overly-optimistic forecasts by utilizing conservative assumptions in generating its forecasts or by incorporating a means of taking error into account in the financial tests. (Asarco/Magma)

Response: EPA believes that the financial eligibility tests provide a reasonable approach for planning purposes with respect to utilization of price forecasts and cash flow estimates. The forecasts of smelting charges and cost indices used by EPA represent the best estimates of the forecasting expert at the time the forecasts were made. While forecasting yields estimates that are subject to some degree of error, EPA believes that it is appropriate to require smelters to use best estimates, i.e., estimates of what may reasonably be considered the most likely future smelting charges and costs at the time of the NSO application. Error in forecasting may lead to forecasts that are either too high or too low, and thus may work to the benefit as well as the detriment of a smelter. Accordingly, the Agency believes that best estimates are the most reasonable figures to use for planning purposes and therefore are appropriate for use in the NSO eligibility tests. It should be noted that only Asarco and

Magma have raised this issue, whereas Phelps Dodge endorsed using best estimates.

Conservatism is introduced into the forecasts generated by the smelters themselves, even if their forecasts are best estimates. Econometric forecasting is an inexact science and is based on assumptions and judgments on which experts may reasonably differ. Therefore, experts may differ as to what constitutes a best estimate. EPA will accept an estimate from a smelter as long as it is sufficiently documented and is based on reasonable assumptions and judgments.

The reasonableness of using best estimates of forecasts for planning purposes is underscored by the fact that the financial eligibility tests allow for conservatism by employing a method of taking into account the risks and uncertainties of the nonferrous smelter industry in a uniform way. The discount rate used to discount cash flows and profits in the eligibility tests is computed from the weighted average cost of capital formula for the nonferrous metals industry. This formula takes into account investors' risk preferences regarding the nonferrous metals industry, including the additional risk created by the requirement to install air pollution controls necessary to meet SIP limits.³

(6) *Comment:* The economic tests should look at how the costs of installing controls would affect the rate of return or profitability of the smelter's parent organization considering all of its resources, not just the rate of return or profitability of the smelter.

(Environmental Defense Fund, Southwest Environmental Services)

Response: As the commenters have noted, the two economic eligibility tests do in fact evaluate the economic impact of the installation of constant controls on the smelters alone. Contrary to the claim of the commenters, however, EPA's adoption of a smelter specific eligibility test is entirely appropriate. This approach is a continuation of the approach taken in the first period NSO regulations, in consistent with the language of Section 119, and is supported by the case law and legislative history.

The eligibility test in the first period NSO regulations focused entirely on the

economic impact on the individual smelter. Under that test, a smelter was eligible for an NSO if the present value of the smelter's future cash flows minus remaining depreciation of the smelter would be reduced to less than the liquidation (or salvage) value of the smelter after the installation of constant controls. Although the test was found invalid by the Court in *Kennecott v. EPA*, 684 F.2d 1007 (D.C. Cir. 1982), on the grounds that it was a closure test, no party challenged the basic approach of focusing on the smelter-specific impacts alone.

The most straightforward reading of the language of Section 119 is that an NSO may be granted under an eligibility test which looks only at the economic status of the smelter as a distinct entity. Section 119(b)(3) states that an NSO "may be issued to a primary nonferrous smelter if," among other things:

(3) *such smelter is unable to comply with such requirement by the applicable date for compliance because no means of emission limitation applicable to such smelter which will enable it to achieve compliance with such requirement has been adequately demonstrated to be reasonably available (as determined by the Administrator, taking into account the cost of compliance . . .).* (Emphasis added.)

This language focuses on the smelter alone. It contains no references to the parent company of the smelter.

The legislative history also indicates that EPA has authority to determine NSO eligibility by relying exclusively on a smelter-specific cost analysis. When it enacted Section 119 in 1977, Congress "intended to adopt the substance of EPA's then existing smelter policy," described in EPA's Stack Height Increase Guideline (41 FR 7450-7502, Feb. 18, 1976), and in *Kennecott v. EPA*, ("Kennecott I") 526 F.2d 1149 (9th Cir. 1975). See H.R. Rep. No. 95-294, 95th Cong., 1st Sess. at 61, 63 (1977) and *Kennecott v. EPA* ("Kennecott II") 684 F.2d 1007, 1014 (D.C. Cir. 1982). Under the Stack Height Increase Guideline, existing smelters were temporarily permitted to use reasonably available control technology (RACT) instead of best available control technology (BACT) if they could demonstrate BACT was economically unreasonable. The portion of the Guideline quoted in the House Report indicates that economic reasonableness was determined on a smelter-specific basis. For example, the Guideline specifies that retrofit of BACT "onto a specific existing source may be extremely onerous for economic reasons" and further indicates that EPA would not require BACT "where a source demonstrates . . . that, as applied to the source, BACT is

economically unreasonable" (Emphasis added). 41 FR 7452; See H.R. Rep. No. 95-294, *supra* at 63.⁴

Kennecott II, the only case which has considered the purpose and meaning of the NSO eligibility requirements in Section 119, also supports the conclusion that EPA is authorized under Section 119 to consider the economic impacts of constant controls on the smelter as a distinct entity. In that decision, the court emphasized that "Section 119(b)(3) clearly focuses on an individual smelter's, not an industry's, application for an NSO, and on whether such smelter is eligible, considering costs and other site-specific factors." (First emphasis in original, other emphasis added.) 684 F.2d 1007, 1015, n. 18.

In support of its position, the commenter relies on a statement by Senator Muskie during the Senate consideration of the Conference Report in which he indicated:

In determining what costs are reasonable for a source to bear, the Congress intends that the Administrator shall consider the resources of the owner of the source, or of any other entity of which the owner is a subsidiary or affiliate, rather than looking only to the resources of the source itself. 123 Cong. Rec. S137000 (August 4, 1977) (daily ed.)

To EPA's knowledge, Senator Muskie's view is not supported elsewhere in the legislative history. In contrast, as discussed above, the other elements of the legislative history, including EPA's pre-1977 smelter policy, appear to focus primarily on the smelter itself. Therefore, EPA continues to believe that its interpretation is the better approach, consistent with the statute and the legislative history, and with longstanding regulatory interpretation.

Finally, the Agency believes that a meaningful and equitable financial eligibility test which takes into account the resources of the parent organization of a smelter would be extremely difficult to establish.

(7) *Comment:* The copper smelting charge forecasts provided by EPA are demonstrably too high as indicated by currently available information (Magma/Asarco).

⁴It is also apparent from the facts of *Kennecott I* that EPA determined economic reasonableness of constant controls on a smelter-specific basis in its pre-1977 smelter policy. The court in that decision explained that EPA did not require the *Kennecott* smelter at McGill, Nevada to install all the weak stream controls necessary to achieve the standards, but instead allowed it to temporarily rely in part on supplementary control systems "because the required investment would be uneconomic at that smelter" (Emphasis added) 526 F.2d at 1156.

³The Agency rejects the suggestion of one of Asarco and Magma's consultants that cash flows and profits be discounted at a higher discount rate based on the assumption of a greater uncertainty of a smelter's continued operation with pollution controls installed. As noted above, the discount rate employed in the eligibility test already takes into account the risk created by the requirement to install pollution controls.

Response: EPA acknowledges that the forecasts to date have turned out to be too high. This has resulted from unexpected events which have occurred since Commodities Research Unit (CRU), EPA's contractor, completed its smelting charge forecasts for EPA in December 1982. The length and severity of the depression in the copper market has been considerably greater than anticipated by CRU. As a consequence, the tonnage of copper concentrates included in CRU's supply calculations have been lower than anticipated, resulting in copper smelting charges lower than those forecast. In addition, as explained in CRU's analysis, smelting charges in the U.S. are determined largely by the smelting charges in Japan. The unexpected strength of the U.S. dollar compared to the Japanese yen has further resulted in a fall of U.S. smelting charges below those forecast by CRU to date.

In light of these facts, EPA recognizes that updated forecasts are needed. However, the Agency will continue to allow copper smelters to use CRU's December 1982 forecasts if they so choose. Based on current information, the Agency believes that a smelter which qualifies for an NSO under these forecasts would qualify for an NSO under updated forecasts.

In any event, the Agency will allow a smelter to use its own smelting charge forecasts under the criteria discussed in the following response to comment. In addition, the Agency may update its own forecasts, as necessary.

(8) *Comment:* EPA should allow smelters to use smelter charge forecasts prepared by in-house personnel. It would be too costly for a single smelter to hire an outside forecasting firm to generate a model for forecasting toll charges and none of the firms capable of performing such forecasts may be available within the time limits provided for an NSO application (Kennecott, Magma/Asarco). Use of smelter charges generated by in-house personnel could be conditioned upon such forecasts being certified as reasonable by an independent expert. (Asarco/Magma)

Response: The Agency recognizes that its current requirement that smelter-generated smelting forecasts be generated by a forecasting authority with expertise comparable to CRU's may make it difficult for smelters to obtain forecasts within the time needed to make a timely NSO application and that a smelter could incur substantial costs if the forecast were performed only for that specific smelter. Accordingly, EPA believes that it is reasonable to give smelter owners the option of using smelting charge forecasts

prepared by in-house personnel provided certain conditions are satisfied. Specifically, if in-house personnel are relied upon, the Agency has determined that the following conditions should be satisfied:

1. The in-house forecasts must be certified as being based on sound methodology by an independent forecasting authority with expertise comparable to that of the forecasters that prepared the EPA-supplied smelting charges. The independent forecasting authority shall also provide a brief explanation of the basis for the conclusion reached in the certification.
2. The smelter owner shall provide EPA with the documentation of the forecasting methodology employed which must at a minimum be comparable to the documentation supporting EPA's smelting charge forecasts. The smelter owner shall also make available upon request by EPA such additional documentation of the methodology and underlying data as EPA considers appropriate for evaluation of the forecasts.

The requirement for certification by an independent forecasting authority should help provide for greater objectivity and, given the sophisticated nature of economic forecasting, greater assurance of the soundness of the methodology utilized in conducting the forecasts. In addition, while a smelter which relies on forecasts of an independent forecasting authority may not be able to obtain permission from the forecasting authority to provide EPA complete documentation of the methodology and data base employed, a smelter employing its own methodology and data base is less likely to be under any such constraint and should be able to provide additional documentation upon request by EPA.

(9) *Comment:* EPA failed to make publicly available sufficient documentation of the methodology used by its contractor, Commodities Research Unit, in developing the smelting charge forecasts provided by EPA (Magma/Asarco).

Response: EPA believes that the more detailed description of CRU's methodology for developing the smelting charge forecasts which was announced as being available for public comment in the Supplemental Notice provides sufficient detail to allow meaningful comment on the validity of the methodology. CRU explained the major steps and assumptions in its methodology, described qualitatively the nature of the data base used in its methodology, and described how that data base was incorporated into its methodology. EPA believes that the

description made publicly available establishes that CRU's methodology was based on sound principles of economics and econometric forecasting.

CRU was unable to provide for public comment the specific equations and much of the underlying data used in its methodology because such information is confidential proprietary information, disclosure of which would undermine the marketability of CRU's products. However, the Agency believes that it has made available sufficient information, including a qualitative description of the critical assumptions made and methods used by CRU. Moreover, the docket clearly establishes CRU's special expertise for forecasting smelter charges.⁴ The Agency does not believe that the requirements for notice and opportunity for comment in Section 307(d)(3) of the Clean Air Act can reasonably be interpreted as requiring disclosure of all underlying data and information used by a recognized forecasting authority where such data and information are proprietary and therefore protectable as confidential business information under 40 CFR Part 2. Such a requirement would seriously impair the Agency's ability to acquire the services of experts and would therefore be contrary to public interest.

EPA has decided, however, not to rely on CRU's estimate of 1981 transportation costs for shipping concentrates from an Arizona mine to a Japanese smelter, for purposes of estimating total smelting charges. EPA has decided that the transportation costs relied upon should be the most recent available and is requiring smelter applicants to provide and document current estimates of transportation costs from Arizona mines to Japan. This change has been made in Appendix A. Appendix A already requires smelters to provide their own estimates of the costs of transporting concentrates from mines in States other than Arizona to Japan.

⁴ CRU is an international consultancy specializing in the economic, commercial, and strategic aspects of the nonferrous metals industry and other mineral industries. It conducts studies which utilize econometric forecasting models, in conjunction with specialized industry information, to develop short-term or long-term market outlooks for the nonferrous metals industry. In addition, it maintains a comprehensive catalogue of mine, smelter, and refinery capacities in the non-socialist world and their likely development in the future. Such information forms the basis for much of its market analysis and forecasting. CRU's expertise in the minerals industry is widely recognized as exemplified by its long list of corporate clients, including several nonferrous metal companies. Moreover, even Magma and Asarco, in the comments on the draft NSO regulations prior to proposal, suggested that CRU was best equipped to develop smelting charge forecasts.

(10) Several commenters dispute EPA's criteria for selecting and listing several SO₂ control technologies as being "adequately demonstrated" for purposes of determining a smelter's eligibility for an NSO.

(10a) *Comment:* The regulation is not clear whether sulfuric acid plants are to be used as a means of control for weak or strong SO₂ streams

(§ 57.102(b)(1)(i)(A)). (Asarco/Magma).

Response: The adequately demonstrated technologies listed in § 57.102(b) are intended to be limited to weak stream controls.* EPA considers a sulfuric acid plant to be adequately demonstrated for control of weak SO₂ streams when it is used in conjunction with a replacement technology or process modification which converts a weak stream to a strong stream. For example, if a reverberatory furnace is replaced by an electric furnace, the furnace offgas will not be a strong SO₂ stream that would be treatable in a sulfuric acid plant. Process modifications, such as supplemental sulfur burning, could also be employed to upgrade a weak stream to a strong stream. Section 57.102 has been clarified in this regard.

(10b) *Comment:* The following technologies are not adequately demonstrated for purposes of determining a smelter's eligibility for an NSO: Magnesium oxide scrubbing, lime/limestone scrubbing, ammonia scrubbing, citrate scrubbing, DMA scrubbing, strong/weak stream gas blending, coal reduction, double alkali flue gas desulfurization, and oxygen enrichment or oxygen sprinkle smelting. There is no legal basis for EPA to assert that technologies not specifically included in its list can now be found adequately demonstrated. (Asarco/Magma) Technologies which have only been used in pilot scale operations should not be listed. (Dept. of Commerce)

Response: The Agency has carefully reviewed the record and the comments concerning adequately demonstrated technologies and is modifying the regulations to delete from the list certain technologies that it believes have not been adequately demonstrated for the nonferrous smelting industry. EPA believes it is appropriate to list as adequately demonstrated technologies those that have been applied to weak metallurgical gas streams at either full scale level or at a pilot scale level, if the application achieved a reasonable

degree of success and did not cause unreasonable nonair quality health and environmental effects. However, the Agency has determined that the listed technologies which have been used only on a pilot scale have not been sufficiently documented as of yet and therefore should not be retained.

The Agency believes that it is appropriate to limit the weak stream control technologies or techniques which must be considered by a smelter in applying for an NSO to those specifically determined by EPA in this rulemaking to be adequately demonstrated. Accordingly, the regulations have been modified to make clear that smelters are required to consider only the technologies or techniques which have been retained in § 57.102(b).

With respect to the specific technologies cited by the commenters, EPA is retaining or deleting technologies as follows:

Technologies Retained:

1. Sulfuric acid plant, in conjunction with replacement technology or process modification;
2. Magnesium oxide scrubbing;
3. Lime/limestone scrubbing;
4. Ammonia scrubbing;
5. Strong stream/weak stream gas blending;
6. Flash smelting;
7. Oxygen enrichment;
8. Supplemental Sulfur burning in conjunction with acid plant;
9. Electric furnace;
10. Noranda process;
11. Fluid bed roaster; and
12. Continuous smelting (Mitsubishi) process.

Technologies Deleted:

1. Citrate scrubbing;
2. DMA (N,N-dimethylaniline) scrubbing;
3. Coal reduction; and
4. Double alkali FGD.

A detailed explanation and rationale for retaining or deleting the above technologies from § 57.102(b) is provided in the Supplemental Response to Comments.

(11) *Comment:* The final second period NSO regulations should ensure expedited approval of second period NSOs issued by States without burdening the smelter and the States with unnecessary reapplication requirements and new State proceedings where NSO eligibility was based on the financial eligibility test in the first period NSO regulations. Even if EPA's regulations require submission of additional data, a new State hearing may not be required. (Kennebecott). EPA should approve second NSOs on the

basis of Arizona's findings in issuing first period NSOs. (State of Arizona)

Response: EPA believes that it is within its authority under section 119 to approve in whole or in part a second period NSO issued by a State prior to promulgation of the second period NSO regulations without requiring reapplication or opportunity for a new hearing under certain circumstances. Specifically, the Agency believes that a complete reapplication would not be required with respect to NSO eligibility and/or all or part of the terms of the NSO where the Agency determines that the second period NSO was issued by a State consistent with the procedural requirements of section 119, and the Agency can make a determination that the NSO complies with the NSO regulations based on the information before it and such supplementary information as the Agency may request a smelter to submit. In addition, EPA believes that where minor amendments are needed to bring the provisions of an already-issued second period NSO into compliance with the final NSO regulations, EPA may approve the NSO after the State makes such amendments. The final NSO regulations have been modified in accordance with these conclusions.

Shortly after promulgation of these regulations, EPA intends either to propose action on outstanding second period NSOs which have already been issued and submitted to EPA for approval or require submission of any supplementary information that EPA considers appropriate for evaluating such NSOs.

With respect to the State of Arizona's comment, EPA believes that under Section 119(a)(3)(B) and (c)(2), a smelter which received a first period NSO must submit a new application with updated information prior to receiving a second period NSO and that a second period NSO cannot be approved by EPA unless it was preceded by a hearing. Accordingly, EPA has determined that it does not have authority to approve a second period NSO solely on the basis of an application for a first period NSO and the State proceedings on which the first period NSO was based.

(12) *Comment:* "EPA's authority to disapprove state schedules [for final compliance in NSOs] limited. . . . Section 119(c)(1) does not grant EPA independent authority to set compliance schedules." While EPA has some authority to disapprove a compliance schedule in a State-issued NSO, "it cannot do so without holding a hearing under Section 119(a)(1); and its burden of proof in overturning state

*While the eligibility tests take into account the cumulative impact of all controls necessary to meet the SO₂ SIP limits, NSO eligibility may be based only on the affordability of weak stream controls.

technological findings is a heavy one." (Kennecott)

Response: Section 119(a)(1) provides EPA the authority to determine whether an NSO has been issued in accordance with the requirements of the Act. One of the requirements of Section 119 is that a second period NSO set forth compliance schedules which require compliance with a smelter's SIP limitation as expeditiously as practicable after the Administrator determines the means of compliance have been adequately demonstrated to be reasonably available. Section 119(c)(1). It is clear, therefore, that EPA has authority to determine whether a State compliance schedule does in fact provide for compliance as expeditiously as practicable. The cases cited by Kennecott are not in any way inconsistent with this conclusion. See e.g., *Florida Power and Light Co. v. Costle*, 650 F.2d 579, 586-7 (5th Cir. 1981), citing *Northern Ohio Lung Assn. v. EPA*, 572 F.2d 1143, 1148-49 (6th Cir. 1978). However, EPA will approve a State compliance schedule if it concludes that the State's determination that the schedule provides for compliance as expeditiously as practicable is reasonable.

(13) *Comment:* EPA is assuming that smelters that did not apply for a first NSO may now apply for a second NSO. "The proposed regulation must be changed to reflect Congress [sic] intent that there be a first and second NSO, and that the time period for application for the first NSO is now passed." (Southwest Environmental Services.)

Response: Congress enacted Section 119 because the costs of some of the pollution control technology necessary for nonferrous smelters to meet their SIP requirements were believed to be great and because primary nonferrous smelters were facing technological and economic problems. See H.R. Rep. No. 95-294, *supra*, at 63. Congress recognized that the relief provided by Section 119 might be necessary up to ten years after enactment of that section.

The scheme of the statute provides for issuance of two consecutive NSOs, each to be limited to no more than five years. However, EPA does not believe it to be consistent with Congressional intent that a smelter that cannot now afford the necessary controls under the statutory standard should be ineligible for a second period NSO solely on the grounds that it did not apply for a first period NSO. The statute refers separately to first and second orders because Congress likely contemplated that in general a smelter needing a second period NSO would have also needed a first period NSO. However, the

fact of the matter is that the NSO eligibility test in EPA's regulations governing the first NSO period was found by the court in *Kennecott II* to be too stringent and thus was vacated. Moreover federally-approved SO₂ SIP emission limitations for some smelters were not in effect during the first NSO period. Thus, some smelters could not apply for a federally approved or issued NSO. For example, SO₂ SIP limits were not in effect for Arizona smelters until early 1983 (48 FR 1717, January 14, 1983). In addition, EPA does not believe that a smelter should automatically be precluded from applying for an NSO if new, more stringent SIP limitations are promulgated or if a smelter experiences a change in financial circumstances.

Subpart B—The Application and NSO Process

(1) *Comment:* The proposed regulations do not articulate how EPA will determine whether the NSO applicant has justified the selection of the appropriate control technology based on economic considerations. (Dept. of Commerce)

Response: The Agency intends that the most economically feasible control technology established to be applicable to the smelter pursuant to § 57.102 be selected by considering initial capital costs of the technologies, future operating costs, and any other relevant economic considerations. The Agency presumes that the most economically feasible technology should generally be the technology which would result in the greatest present value of future cash flows or profits, unless some other compelling factor is provided. The smelter will be required to provide reasonable justification for the selection of its technology along with a justification for its rejection of the other applicable technologies.

(2) *Comment:* The period of time between submitting a letter of intent to apply for an NSO and submitting a completed application should be shortened from 90 days to 60 days. (Environmental Defense Fund)

Response: In view of the fact that the previous NSO regulations were effective for some years, and the smelting industry has significant familiarity with them, the Agency sees the reduction of time from 90 to 60 days as a reasonable change. The Supplemental Notice proposed to change § 57.202(a) of the regulation accordingly and these regulations reflect that change.

(3) *Comment:* No SIP limit should be suspended for more than 180 days beyond the promulgation of these regulations. (Environmental Defense Fund)

Response: The statute does not define a period of time by which smelters must apply for an NSO after final regulations have been issued. However, a smelter's SO₂ SIP emission limitation are not suspended under the regulations until a letter of intent to apply for an NSO has been filed by the smelter.⁷ After a smelter has filed a letter of intent to apply for an NSO, the regulations provide for the continued suspension of the SIP limitations over what EPA considers a reasonable period of time for preparation of a complete application by the smelter, for States to act on the NSO applications, and for EPA to take action on the NSOs. EPA's experience during the first NSO period has shown that the act of approving the NSO requires proper coordination between a smelter, State, and EPA and requires a minimum of 90 days for the issuing agency to act on the NSO application. EPA will also need a reasonable amount of time to act on an NSO issued by a State. Section 119 contemplates that EPA action on a State-issued NSO could take 90 days. Thus, in order for these regulations to be properly implemented, a period of up to 180 days or more after application may be required.

These regulations do not specify a time limit by which a smelter must file a notice of intent to apply for an NSO in order to suspend the SO₂ SIP emission limitations. EPA believes it is reasonable to not do so for the reasons given in the Preamble to the first NSO period regulations. Specifically, Congress did not intend to limit the time during which NSO applications could be made, and any smelters that are making good faith efforts to satisfy their SIP requirements and might be able to meet their SIP emission limits should be encouraged to try to do so without jeopardizing their opportunity to apply for an NSO on the same terms as other smelters. (See 45 FR 42528.)

(4) *Comment:* A new application or detailed analyses should not automatically be required merely because an emission limitation or compliance strategy has changed. (Kennecott)

Response: Pursuant to Sections 114 and 119 of the Act, EPA may require a smelter that has been issued an NSO to submit, upon relaxation of the smelter's SO₂ SIP limit, such supplementary information as EPA considers necessary

⁷ EPA intends that suspension of the emission limitation encompasses suspension of schedules for installation of the necessary pollution control equipment and the integrally related requirements which the NSO itself may defer, as described above.

to determine whether circumstances concerning the new limitation or compliance schedule require modification of the NSO. Such changed circumstances might change the determination on whether the means of compliance are adequately demonstrated to be reasonably available, or require a new compliance schedule.

Accordingly, a section has been added to the regulations specifying that upon relaxation of an SO₂ SIP limit, a smelter which has been issued an NSO shall submit such supplementary information as EPA considers appropriate for determining whether the means of compliance with the new limit is reasonably available under the eligibility tests. The new section also requires the issuing agency to make a determination under the eligibility tests based on such supplementary information and to amend the NSO for the purpose of requiring compliance with the new SIP limit as expeditiously as practicable if the means of full compliance is found to be reasonably available. The new section specifies that EPA will take action to approve or disapprove the issuing agency's determination and NSO amendment, if any, and that EPA will take appropriate remedial action after a disapproval.

Subpart C—Constant Controls and Related Requirements

Comment: Magma/Asarco commented that the Agency's selective prohibition of bypass during scheduled maintenance and excess gas production has no basis in the provisions of section 119(d)(1). The proposed no-bypass rules would require either substantial additions to Magma's existing control equipment or significant reductions in production, and thereby also violate section 119(c)(1).

Magma also submitted information in an attempt to establish that the prohibition against bypass would result in substantial losses of profits or necessitate a substantial expansion of acid plant capacity at great expense.

Kennecott also commented that EPA has no authority to prohibit strong stream bypass of acid plants under section 119, and therefore has no authority to prohibit acid plant bypass during the phasing in and out of process and air pollution control equipment.

Response: Despite these comments, EPA's position continues to be that in enacting Section 119 Congress intended to adopt EPA's pre-1977 smelter policy and thus authorize EPA to require treatment of all strong streams with continuous emission reduction controls, unless a smelter qualifies for a waiver under section 119(d)(2). A discussion of

the basis for this conclusion with responses to specific issues and theories raised by Magma and Kennecott is provided in the Supplemental Response to Comments (Docket Item No. IV-A-9).

Scheduled Maintenance. While EPA is authorized to prohibit acid plant bypass of strong streams, EPA has determined that there may be limited circumstances when excess emissions due to bypass might be excused. In this regard, EPA has adopted an excess emissions policy which allows State Implementation Plans (SIPs) to contain provisions specifying when, as a matter of enforcement discretion, excess emissions during malfunction, start-up and shut-down, and scheduled maintenance might be excused if the smelter establishes that certain conditions are met. See Memorandum on "Policy and Excess Emissions During Start-ups, Shut-down, Maintenance, and Malfunctions," from Kathleen M. Bennett, former Assistant Administrator for Air, Noise and Radiation to Regional Administrators, February 15, 1983.

EPA continues to believe, however, that production foregone during scheduled maintenance can, as a general rule, be made up at other times. Magma is the only smelter company which submitted comments to demonstrate otherwise.

Nevertheless, EPA believes that in limited circumstances, some incentive for performing necessary maintenance in order to avoid malfunctions (which in turn would result in bypass) may be appropriate. Accordingly, EPA will consider SIP revisions applicable to smelters receiving NSO or NSO provisions which allow for the exercise of enforcement discretion in accordance with EPA policy as set forth in the memorandum cited above and as further explained in EPA's approval of a Montana SIP revision concerning Asarco's E. Helena, Montana smelter. See 49 FR 18482-18484 (May 1, 1984).

This approach would require the State to justify its exercise of enforcement discretion, demonstrating that excess emissions during scheduled maintenance could not have been avoided through better scheduling of maintenance or through better operation and maintenance practices. Relevant factors to be taken into account in this regard include whether the smelter can document that production losses which would result from a shut-down of processing equipment during maintenance of pollution control equipment could not have been made up when the smelter would not otherwise be operating at maximum capacity, whether the smelter can demonstrate that it has taken all measures to conduct

its scheduled maintenance as expeditiously as practicable, and whether it was impossible or impracticable to shut down the smelter during scheduled maintenance. See 49 FR 18483-4. It should be noted that even with approval of an enforcement discretion provision, EPA would retain its authority to consider and determine independently whether to take enforcement action on the basis of the criteria just enumerated.

In addition, any exercise of enforcement discretion may not excuse a smelter from the requirement to maintain the NAAQS as required by Subpart D of the regulations. Thus, EPA will take enforcement action against NAAQS violations during periods of scheduled maintenance as at any other time.

Bypass Due to Excess Gas Production. Based on its review of Magma's comments, EPA believes that the costs of upgrading an acid plant in order to avoid bypass during excess gas production could potentially result in costs significantly greater than the costs associated with improved maintenance and operation of the existing constant control system.

In the first NSO regulations, EPA stated that Congress intended the provision for waiver of the strong stream control requirements to apply exclusively to smelters having no existing acid plant and that it was included for the benefit of the copper smelters operated by Kennecott at McGill, Nevada and Phelps Dodge at Douglas, Arizona.

EPA has reconsidered its position on this matter and has concluded that it would be consistent with Congressional intent to extend the applicability of the waiver provisions of Subpart H to smelters which already have some acid plant capacity. Although section 119(d)(3) was intended primarily for the benefit of the two smelters just mentioned, EPA does not believe that Congress intended to prohibit bypass due to excess gas production if the costs of increasing acid plant capacity to the level needed to prevent such bypass would, in fact, result in permanent or temporary closure, which is the criterion under the waiver of interim constant controls provision. Accordingly, the regulation has been changed to allow for a waiver of the prohibition against bypass of continuous reduction technology due to excess gas production if a smelter can establish that the cost of acid plant upgrading or additional acid plant capacity needed to prevent bypass would result in closure under the waiver test in Subpart H. It should be noted that

this change does not extend applicability of the waiver provision to the cost of improved operation and maintenance. A smelter applying for a waiver of the requirement for upgrading or additional acid plant capacity must establish that bypass due to excess gas production cannot be prevented with improved operation and maintenance.

A new section has also been added to Subpart C which establishes the interim strong stream control requirements for a smelter with some strong stream controls that applies for a waiver of the requirement for any necessary additional pollution control equipment to avoid bypass. That section applies while the application for a waiver is pending and after the granting of any such waiver. During such time, the smelter would be required to implement maintenance and operation measures which would reduce to the maximum extent feasible the potential for bypass of existing interim controls.

Phasing In and Out of Equipment. Kennecott's reference to "phasing in and out of process and air pollution control equipment" in its comment is ambiguous. However, the Agency assumes that Kennecott is referring to bypass during a start-up of an acid plant following a prolonged shut down or curtailment of smelter operations. The Agency notes that the regulations already allow for bypass during acid plant start-up under such circumstances in § 57.304(e).

Subpart D—Supplementary Control System Requirements

(1) *Comment:* The regulations should clearly state that any violations of the NAAQS in the designated liability areas shall be grounds for revocation of the NSO. (Environmental Defense Fund)

Response: EPA may take enforcement action against a smelter under Section 113 for violation of an NSO provision or take the measures described in Section 119(f) (which include enforcement action under Section 113 and revocation of the NSO) for violation of any requirement of subsection (c) or (d) of § 119. Section 119(d) provides the statutory authorization for EPA's requirement for maintenance of the NAAQS under Subpart D of the regulations. EPA therefore considers any violation of the NAAQS in the designated liability area which constitutes an NSO violation under Subpart D to be a violation of § 119(d). Accordingly, EPA can take appropriate enforcement action for such violation pursuant to Section 119(f). The type of enforcement action will be determined by the particular facts in each case. Because the statute is clear on EPA's enforcement authority, the

Agency does not believe it is necessary or appropriate to change the regulation so as to specify a particular enforcement action for each set of circumstances.

(2) *Comment:* Under the regulations as now written (§ 57.402(c)(3)), an exceedance of the NAAQS is not a violation if the smelter is operating in accordance with the SCS manual and the approved fugitive plan. The regulations provide no clear direction to amend the SCS manual and fugitive plan to make sure that violations are not repeated. This shifts the responsibility for the violation onto EPA as the agency approving the operating manual and fugitive plans. (Southwest Environmental Services)

Response: The proposed regulations provide for continuing evaluation and improvement of the SCS control plans and subsequent amendments of the NSO so as to require any necessary SCS improvements. EPA is modifying the regulations so as to provide also for continuing review and improvement of the fugitive emission control plan and subsequent amendment of the NSO. If the NAAQS are not maintained, appropriate enforcement action will be taken. If the SCS and fugitive control provisions of the NSO are not sufficiently improved by the amendment process, the Agency's action could include revocation of the NSO or issuance of a Federal NSO containing the necessary requirements. It should also be noted that under the regulations NAAQS violations in the DLA are, with only a few exceptions specified in Subpart D, considered violations of the NSO even if the smelter operates in accordance with its SCS manual and other NSO requirements, and EPA's authority to enforce against such NAAQS violations is in no way limited by the source's compliance with the manual.

Subpart E—Fugitive Emission Evaluation and Control

(1) *Comment:* The waiver provisions of the regulations should apply to engineering controls which might be required for fugitive emissions since such controls constitute continuous emission reduction technology and can be extremely expensive. (Kennecott)

Response: EPA believes that the terminology "continuous emission reduction technology" as used in Sections 119(d)(1)(C) and (2) refers only to methods of reducing the amount of strong stream gases emitted into the atmosphere from stacks and not for the control of fugitive emissions which are by definition gases emitted into the atmosphere from locations in a source other than a stack, including leaks and

other irregular openings. * Accordingly, EPA does not believe that Congress intended the waiver provisions of Section 119(d)(2) to apply to any fugitive emission controls which may be required under Subpart E of the regulation.

The Agency bases this conclusion on the following factors. First, the engineering techniques which could be required under § 57.503 are designed to *capture and vent* fugitive emissions through appropriate stacks. Such techniques do not of themselves reduce emissions, but rather prevent the escape of gases from process equipment before such gases can be vented through stacks. Thus, the Agency does not believe that these techniques constitute continuous emission reduction technology within the meaning of Section 119(d)(1)(C) and (2).

Second, EPA does not believe that Congress intended to allow a waiver of any emissions control requirement which was determined in advance to be essential for maintaining the NAAQS with some reasonable degree of reliability. Section 119(d)(1) and the legislative history make clear that the waiver of the requirement for interim continuous emission reduction measures does not relieve as smelter from its obligations to maintain the NAAQS and any liability for such violations. See Conf. Rep. No. 95-564, *supra*, at 138. Accordingly, EPA does not believe that one can reasonably interpret the waiver provisions to apply to interim measures which are determined to be critical to maintenance of the NAAQS.⁹

(2) *Comment:* A smelter should be denied an NSO unless it can show at the outset that the NAAQS will be protected at all times from fugitive emissions. (Environmental Defense Fund)

Response: The Agency believes that smelters receiving NSOs should be provided a reasonable amount of time to

*The authority to require fugitive emissions controls comes from the general requirement in Section 119(d)(1)(A) that NSOs contain such provisions as the Administrator may consider necessary to assure attainment and maintenance of the national primary and secondary ambient air quality standards, rather than from the more specific requirements of Section 119(d)(1)(C).

*EPA also believes that application of the waiver provisions to strong stream stack emission controls and not fugitive emissions controls is reasonable for other reasons. As explained in the first NSO rulemaking, an SCS in some cases may be far less effective in adequately curtailing fugitive emissions than stack emissions in order to maintain the NAAQS. See 44 FR 6292. Thus, while reduction of strong stream stack emissions would increase the reliability of an SCS in maintaining the NAAQS in general, engineering techniques to capture fugitive emissions could, in some cases, be essential for maintaining the NAAQS with a reasonable degree of certainty.

evaluate the impact of fugitive emissions and to implement an appropriate control strategy. Due to the fact that the NSO eligibility test in the first NSO regulations was vacated by the Court in the *Kennecott* decision, the Agency does not believe it would be equitable in all cases to deny a smelter an NSO on the grounds that it has not already satisfied the requirements of Subpart E. However, the Agency believes that the schedule for implementing fugitive control requirements in a second period NSO should take into account the extent to which the impact of fugitive emissions has already been studied and the extent to which any fugitive controls have already been installed. The regulations have been clarified in this regard. It should be noted that the schedules for compliance with Subpart E in §§ 57.704 and 57.502 are thus not intended to allow a smelter to delay meeting the requirements of Subpart E beyond the earliest time practicable.

Subpart F—Research and Development

Comment: While Section 119 requires a smelter owner to commit reasonable resources to research and development (R&D) of appropriate emission control technology, it does not provide that the particular smelter applying for an NSO must have its own emissions control research. In addition, a requirement would be inappropriate where a particular smelter has indicated that it intends to shut down by the end of 1987. (Phelps Dodge).

Response: The requirement for R&D in Section 119(d)(1)(C) is clearly intended to ensure that R&D be conducted by the owner of each smelter receiving an NSO in order to enhance the likelihood that means of continuous emission limitations necessary for full compliance with SO₂ SIP limits will be available for each such smelter by the end of the second NSO period. See H.R. Rep. No. 95-294, *supra*, at 62. EPA recognizes that a particular R&D project may be applicable to more than one smelter. Accordingly, the regulations do not in any way preclude an R&D project being conducted jointly by more than one smelter so long as the owner of each smelter receiving an NSO is committing resources for R&D that will satisfy the requirements of Subpart F of the regulations.

Phelps Dodge maintains that an R&D requirement would not be reasonable with respect to one of its smelters because it has expressed its intention to close that smelter after December 31, 1987 unless the existing law is changed or economic circumstances dramatically change. The Agency believes that it is authorized by Section 119 and that it

would generally be reasonable to require a smelter receiving second period NSOs to perform R&D even if such R&D will not necessarily guarantee availability of more cost-effective technology which would allow a smelter to meet its SO₂ SIP limits by January 1, 1988. The requirement for R&D in Section 119(d)(1)(C)(ii) does not distinguish between first and second period NSOs and it is apparent from the statutory scheme and legislative history that Congress generally intended R&D to be conducted during the second NSO period as well as the first, unless a smelter were on a schedule for full compliance before the end of the second NSO period. The reasonableness of the R&D requirement during the second NSO period is underscored by the fact that Congress recognized the possibility that the necessary development work for full compliance using pollution control technology might not be completed by the end of the second NSO period. See H.R. Rep. No. 95-294, *supra*, at 62.

Nevertheless, the Administrator believes that R&D may not be reasonable if a smelter fully intends to close after January 1, 1988 if not otherwise in compliance and if the smelter has made an unconditional commitment to that effect. Accordingly, the regulations have been changed to authorize the exemption of a smelter (which is not otherwise on a compliance schedule for full compliance by January 1, 1988) from the R&D requirements in Subpart F provided that the smelter owner certifies that the smelter will either comply with its SIP limits or close after January 1, 1988 until it can comply with its SIP limitations.

Subpart G—Compliance Schedule Requirements

(1) *Comment:* Proposed rule § 57.201(d)(2) allows the issuance of a second period NSO without a compliance schedule if no adequately demonstrated technology is found to be reasonably available to enable a smelter to comply by January 1, 1988. This rule violates Section 119(c)(1), which requires that each second period NSO must contain compliance schedules. (State of Arizona)

Response: EPA understands Arizona's comment to maintain that a second period NSO must contain schedules for compliance with a smelter's SIP emission limit by January 1, 1988 even if the technology necessary to comply has not been adequately demonstrated to be reasonably available. The regulations already require that second period NSOs contain schedules of compliance with the interim control requirements,

such as those regarding strong stream controls and any required fugitive emission controls.¹⁰ However, the regulations do not require second period NSOs to contain schedules for compliance with SIP emission limits unless the technology has been adequately demonstrated to be reasonably available by January 1, 1988.¹¹ EPA believes that these requirements are entirely consistent with Section 119.

Section 119(c)(1) specifies that second period NSOs "shall set forth compliance schedules containing increments of progress which require compliance with the requirement postponed as expeditiously as practicable." However, this requirement is qualified by Section 119(c)(1) which provides that "the increments of progress shall be limited" (emphasis added) to installing the necessary means of emission limitation only "after the Administrator determines such means have been adequately demonstrated to be reasonably available within the meaning of Subsection (b)(3)." Thus, a straightforward reading of the statute indicates, contrary to the comment, that compliance schedules for full compliance with SIP limits are not required in a second period NSO unless the Administrator has determined that the necessary constant controls are affordable under the same criteria used for determining NSO eligibility. It therefore follows that Section 119 does not require increments of progress toward installing the necessary constant controls for full compliance by a certain date unless the controls are demonstrated to be reasonably available by that date. It should be noted, however, that full compliance with SIP SO₂ emission limits is required under Section 119 after January 1, 1988, whether or not an NSO contains increments of progress for installing the pollution control equipment necessary for complying with those limits. In

¹⁰ Section 57.201(d)(2)(ii) is not in any way intended to apply to compliance schedules for interim measures as is apparent when read in the context of all of § 57.201(d)(2) and other provisions of the regulations. It has been clarified in this regard. A waiver from the requirement for strong stream controls may be obtained only pursuant to Subpart H of the regulations.

¹¹ It should be noted that the regulations do not preclude a State from imposing more stringent requirements under Section 116 of the Clean Air Act, such as a schedule for compliance with SIP emission limits by January 1, 1988 (see § 57.101(b)). However, the regulations do not require that second period NSOs contain a schedule for compliance by January 1, 1988 in order to be approvable unless the necessary controls are adequately demonstrated to be reasonably available by that time under the NSO financial eligibility test.

addition, as indicated by Section 119(d)(1), and as explained elsewhere in this notice, a finding that controls are adequately demonstrated to be reasonably available under the NSO eligibility test need not be made before requiring installation of strong stream controls and other interim control measures required by Section 119(d).

(2) *Comment:* The regulations allow unacceptable delay in implementing the SCS and providing for maintenance of the NAAQS. Section 57.703 allows a smelter 15 months after issuance of an NSO to assume liability for NAAQS violations. Section 57.701, by requiring compliance with requirements of an NSO only as expeditiously as practicable, allows the Agency to postpone indefinitely the obligation to protect the NAAQS. The Act requires protection of the NAAQS at all times. Accordingly, the Agency must determine in advance before issuance of an NSO that a smelter's SCS will reliably achieve compliance with the NAAQS and must make clear that the obligation to protect the NAAQS is effective immediately upon issuance of the NSO. (Environmental Defense Fund)

Response: EPA believes that the commenter has misconstrued the intent and overall effect of EPA's regulations concerning compliance schedules, in particular the schedules for installation of an SCS and assumption of liability for NAAQS violations.

The general schedule requirements, § 57.701, which provide that the NSO require compliance as expeditiously as practicable, were not intended to allow delay beyond the deadlines specified in § 57.703 (Compliance with the supplementary control system requirements), nor beyond those specified in the other provisions of Subpart G of the regulations (Compliance schedule requirements). EPA has reworded § 57.701 to clarify that the requirement that an NSO provide for compliance as expeditiously as practicable is intended to require imposition of tighter deadlines than those provided for in Subpart G if practicable and to require that any schedule reflect the extent to which any required measures have already been completed.

Section 57.703(a) of the proposed regulations states that an NSO must provide for the immediate operation of any existing supplementary control system and, if the existing SCS system complies with Subpart D, must provide for the smelter to immediately assume liability for violations of the NAAQS detected at existing monitor sites. In addition, the proposed regulation states that a smelter with an existing SCS

complete all requirements of Subpart D within six months of the effective date of the NSO.

Section 57.703(a) has been reworded to clarify that smelters must begin operating existing SCS systems immediately upon issuance of an NSO, and assume liability for NAAQS violations upon the effective date of the NSO. EPA believes that requiring a smelter to operate its SCS as of the date an NSO is issued will assist EPA in its subsequent evaluation of a smelter's existing SCS system and SCS development plan. It will also enhance the ability of the smelter to ensure against NAAQS violations at existing monitors while the NSO is in effect. In addition, EPA is authorized by Section 119 to enforce NAAQS only while the NSO is in effect. It is, therefore, reasonable that a smelter's assumption of liability for NAAQS violations detected at existing monitors begin on the effective date of the NSO. Section 57.703(a) has also been reworded consistent with EPA's intention that a smelter's assumption of liability for NAAQS violations upon the effective date of the NSO is required if the smelter has the basic components of an SCS system, e.g. air quality monitors, a weather monitor and an operational manual or its equivalent.

In addition, § 57.703(a) has been reworded to clarify that within six months of the effective date of the NSO a smelter with an existing SCS must complete all measures in its approved SCS development plan, and shall assume liability for all NAAQS violations detected anywhere in the smelter's DLA, except as provided in Subpart D. Finally, § 57.703(a) clarifies that the requirements in Subpart D requiring action after six months of issuance of the NSO continue to apply.

EPA believes that every smelter likely to need an NSO already has an existing SCS in place and will, therefore, be governed by the scheduling requirements contained in § 57.703(a) of the regulations. Nevertheless, § 57.703(b) sets forth the scheduling requirements for any smelter without an existing SCS to install and begin operation of an SCS and to assume liability for NAAQS violations.

Proposed § 57.703(b)(1) provided that installation and operation of the required SCS system was to be completed within six months of issuance of an NSO, and proposed § 57.703(b)(2) provided that within nine months thereafter the smelter submit its SCS report, comply with all other requirements of Subpart D and assume liability for all violations of the NAAQS within its DLA. The regulations have

been changed in response to comment to require that within six months of the effective date of the NSO any smelter without an existing SCS system complete the measures required in its SCS development plan and assume liability for any NAAQS violations detected at the new SCS monitors. Section 57.703(b)(2) provides that liability for all NAAQS violations detected anywhere in the DLA be assumed within nine months thereafter.

Thus, § 57.703(b) has been tightened in that it requires any smelter with a new SCS system to assume liability for NAAQS violations detected by the new SCS as soon as it becomes operational, i.e. within six months of the effective date of the NSO. By imposing liability for NAAQS violations on such smelters within the same time the new SCS is required to be operational, smelters with a new SCS are placed in the same position as those existing systems.¹²

Finally, it is appropriate to allow up to nine months from the date an SCS becomes operational before imposing liability for all NAAQS violations detected anywhere in the DLA, as compared to the six months allowed smelters with existing SCS, since a smelter with no prior experience in implementing and operating an SCS is likely to need additional time to evaluate the efficiency of the SCS and make adjustments to insure against NAAQS violations at all locations in the DLA with a reasonable degree of reliability.¹³

(3) *Comment:* The regulations should require each NSO to contain a deadline for SIP compliance that may not be later than January 2, 1988. Section 113(b)(3) authorizes EPA to seek immediate compliance for any violation of a

¹² While the requirement for assumption of liability of existing monitoring sites has been tightened, a smelter receiving an NSO has been given some additional time to make its new SCS operational by requiring completion of the measures specified in its SCS development plan within 6 months of the effective date of the NSO, rather than the date of issuance.

¹³ EPA is also making a clarification and minor change to § 57.405(b). The section now makes clear that the final SCS report is to be submitted within 6 months of the required date for completion of the measures required under the approved SCS development plan. In the event a smelter is unable, because of time restraints, to evaluate fully in the final SCS report the reliability of its upgraded SCS system during the three-month period of the year which has the meteorological conditions posing the greatest risk of NAAQS violations, the NSO must require the smelter to provide such evaluation in a supplemental report, which may be submitted as part of the semi-annual report required under § 57.402(f). An NSO must also require a smelter to submit, promptly after the required date for completing the measures required under the SCS development plan, a report describing how such measures have been implemented.

Section 119 order. If an order failed to incorporate a deadline for SIP compliance, EPA would be foreclosed from pursuing any judicial relief until at least 30 days after the Administrator issued a notice under Section 113(a)(1). (Environmental Defense Fund)

Response: The regulations (§ 57.106) provide that each NSO shall state its expiration date and that no NSO shall expire later than January 1, 1988. Accordingly, any exemption in an NSO from the requirement to comply with the applicable SIP emission limits must expire no later than January 1, 1988 and the SIP limits automatically become enforceable on January 2, 1988.

The House Report states that a "second [NSO] may not extend beyond January 1, 1988," H.R. Rep. No. 95-244, *supra*, at 62 (emphasis added) and nothing in the language of Section 119 itself is inconsistent with this legislative history. Thus, the Agency believes that while the SIP emission limits of smelters receiving second period NSOs in all cases must become enforceable after January 1, 1988, Congress intended that where an NSO is not required to contain a compliance schedule under Section 119(c)(1), Federal enforcement of the SIP emission limit should be preceded by a notice of violation under Section 113(a)(1). Accordingly, the Agency is not changing the provision in the regulations providing for expiration of a second period NSO no later than January 1, 1988.

It should be noted, however, that EPA may take enforcement action under Section 113(b) and 113(c)(1) without first issuing an NOV for violations of the provisions of the NSO. Accordingly, immediate enforcement action may be taken for any violations of an NSO provision, including interim and final compliance dates included within the terms of the NSO.

(4) **Comment:** The State should be able to extend initial compliance schedules in NSOs up to 1988 where justified. (Kennecott)

Response: EPA will allow amendment to NSOs pursuant to § 57.104(a)(1) permitting extensions up to January 1, 1988 of compliance dates which were initially determined to correspond to an expeditious schedule provided reasonable justification is given for such extension. EPA will generally consider a justification reasonable only if unavoidable or unexpected events subsequent to issuance of the NSO make it impossible or impracticable to achieve compliance according to the original schedule. Any NSO amendments allowing extensions under

this change in the regulations must be submitted to EPA for approval.

Subpart H—Waiver of Interim Requirement for Use of Continuous Emission Reduction Technology

(1) **Comment:** Interim constant control waivers issued under first period NSOs should remain valid throughout the second NSO period. Section 57.702 of the proposed regulations seems to recognize this intent of the statute by requiring immediate compliance with constant control requirements contained in first orders unless the smelter received a waiver under the first NSO. (Kennecott)

Response: The proposed regulations do not allow any smelter to operate without interim constant controls unless it applies and qualifies for a waiver under the requirements of Subpart H of the regulations. Kennecott has misconstrued the intent of § 57.702 of the proposed regulations. That section was intended only to make clear that a smelter which received a waiver of the interim constant control requirements during the first NSO period would not be required to be in compliance with the interim control requirements immediately upon issuance of a second period NSO and until they had an opportunity to apply for a waiver of those requirements during the second NSO period.¹⁴

EPA believes that Section 119 authorizes EPA to require that a smelter reapply for a waiver in accordance with Section 119(d)(2) notwithstanding the fact the smelter received a positive Federal recommendation for a waiver from the interim controls requirement during the first NSO period. Congress recognized that the circumstances of a smelter could change over a ten-year period. Accordingly, rather than allowing for a single ten-year exemption from meeting the SO₂ SIP requirements, Congress provided for two five-year exemptions, requiring reapplication for an NSO upon expiration of the first five-year period. EPA believes that in so doing, Congress intended to require reevaluation after five years of a smelter's ability to comply not only with the SIP emission limits, but also with the interim constant control requirements. Therefore, EPA has determined that the procedural requirements of Section 119(d)(2) and Subpart H should be applied to any smelter seeking a waiver

of the interim constant control requirements of Section 119(d) and that the regulation should remain unchanged in this regard.

(2) **Comment:** The proposed § 57.816 imposes a condition that Congress did not impose in Section 119(d)(2) of the Act and that probably violates Section 116 of the Act by making a positive recommendation by the Administrator necessary to granting a waiver of the interim control requirement. (Phelps Dodge)

Response: EPA is making a technical correction to § 57.816 to conform it exactly to the statutory language. This language is the same as the language in the first NSO regulations, as amended on December 24, 1980 (45 FR 85015).

The Agency also notes that Section 116, which allows States to adopt more stringent measures than those prescribed by EPA, has no bearing on the issue of whether a State may grant a waiver in the absence of a positive Federal recommendation.

Other Changes

Certain clarifications and minor changes were made in the regulations other than those described above. Certain changes in Subpart G of the regulation (concerning schedules for compliance with NSO requirements) were made in order to eliminate ambiguity and to allow for greater administrative efficiency in implementing the NSO process. In particular, with respect to schedules for implementing certain NSO requirements which were linked to issuance of NSOs during the first NSO period, the regulations were modified to require implementation as expeditiously as practicable in light of measures already completed. The Agency believes that the change makes the schedules more realistic and equitable in light of the ambiguity of the proposed schedules, the reversal of a major portion of the first NSO regulation and the consequent disruption of the NSO process, and the fact that only one NSO was federally approved during the first NSO period. In addition, clarification of § 57.402(c)(3) was made and clarification and minor changes to § 57.405(b) were made in order to implement the requirements of Subpart D of the regulation more effectively. Clarifications were also made in §§ 57.201(d) and 57.203(b), indicating that an NSO application must contain information which will enable the issuing agency to determine whether a smelter securing an NSO can comply with its SIP SO₂ emission limitations on

¹⁴ § 57.702 has been modified so as to base the compliance schedule requirements for all smelters on what is feasible in light of the interim constant controls already in place.

or before January 1, 1988 under the financial eligibility tests. Certain clarifications were also made in Appendix A.

Information Collection Requirements; Regulatory Impact Analysis

Collection of information requirements contained in this rule were submitted to the Office of Management and Budget for review under Section 3504(h) of the Paperwork Reduction Act. OMB granted approval for the information collection required by these regulations.

Under Executive Order 12291, EPA must judge whether this regulation requires a Regulatory Impact Analysis. EPA has determined that this regulation is not major and thus does not require a Regulatory Impact Analysis because it merely provides for interim relief for some entities and it requires no expenditures other than those already required under existing regulations promulgated under the Clean Air Act. Therefore, the Agency has not prepared a Regulatory Impact Analysis for this regulation. EPA has submitted this regulation to the Office of Management and Budget (OMB) for review in accordance with Executive Order 12291. All documents submitted to OMB have been placed in the docket. No written comments were received from OMB.

Applicability of the Regulatory Flexibility Act

As required by the Regulatory Flexibility Act (15 U.S.C. 601), the Agency has reviewed the impact of this regulation on small entities. I hereby certify that this rule will not have a significant impact on a substantial number of small entities. These regulations regulate the primary nonferrous industry. This rule affects fewer than ten entities and merely provides interim relief to the entities affected from expenditures already required under existing regulations promulgated under the Clean Air Act.

List of Subjects in 40 CFR Part 57

Administrative practice and procedure, Air pollution control, Metals, research.

Dated: February 4, 1985.

Lee M. Thomas,
Administrator.

These regulations revise Part 57, Subparts A-J, as promulgated on June 24, 1980 (45 FR 42514) and as subsequently amended.

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Appendix A—Primary Nonferrous Smelter Order (NSO) Application

Authority: Secs. 110, 114, 119, 301, Clean Air Act, as amended (42 U.S.C. 7410, 7414, 7419, and 7601); sec. 406 of Pub. L. 95-95.

Subpart A—General

§ 57.101 Purpose and scope.

(a) *Applicability of the regulations.* The regulations in Subparts A through H govern:

(1) The eligibility of smelters for a Primary Nonferrous Smelter Order (NSO) under Section 119 of the Clean Air Act;

(2) The procedures through which an NSO can be approved or issued by EPA; and

(3) The minimum contents of each NSO required for EPA issuance or approval under Section 119. Subpart I et seq., will contain NSOs in effect for individual smelters.

(b) *State authority to adopt more stringent requirements.* Nothing in this part shall preclude a State from imposing more stringent requirements, as provided by Section 116 of the Clean Air Act.

§ 57.102 Eligibility.

(a) A primary copper, lead, zinc, molybdenum, or other nonferrous smelter is eligible for an NSO if it meets the following conditions:

(1) The smelter was in existence and operating on August 7, 1977;

(2) The smelter is subject to an approved or promulgated sulfur dioxide (SO₂) State Implementation Plan (SIP) emission limitation which is adequate to ensure that National Ambient Air Quality Standards (NAAQS) for SO₂ are achieved without the use of any unauthorized dispersion techniques; and

(3) The Administrator determines, based on a showing by the smelter owner, that no means of emission limitation applicable to the smelter which would enable it to comply with its SIP stack emission limitation for SO₂ has been adequately demonstrated to be reasonably available (taking into account the cost of compliance, nonair quality health and environmental impact, and energy considerations) in accordance with § 57.201(d)(1).

(b) For the purposes of these regulations:

(1) The following means of emission limitation shall be considered adequately demonstrated for nonferrous smelters. (Taking into account nonair quality health and environmental impact and energy considerations, but not the cost of compliance).

(i) Retrofit Control Technologies:

(A) Sulfuric acid plant in conjunction with an adequately demonstrated replacement technology or process modification;

(B) Magnesium oxide (concentration) scrubbing;

(C) Lime/limestone scrubbing; and

(D) Ammonia scrubbing.

(ii) Replacement or Process

Modifications:

(A) Flash smelting;

(B) Oxygen enrichment;

(C) Supplemental sulfur burning in conjunction with acid plant;

(D) Electric Furnace;

(E) Noranda process;

(F) Fluid bed roaster;

(G) Continuous smelting (Mitsubishi) process; and

(H) Strong stream/weak stream gas blending.

(2) Each adequately demonstrated means of emission limitation which would enable a smelter to comply with its SIP emission limitation for SO₂ shall be considered applicable to the smelter unless the smelter operator demonstrates that the use of a particular system at that smelter is technically unreasonable, for reasons specific to that site.

(3) An applicable means of emission limitation which would enable a smelter to comply with its SIP emission limitation for SO₂ shall be considered adequately demonstrated to be reasonably available to the smelter (taking into account the cost of compliance) if the information submitted

under § 57.107(a) and § 57.203(b) (plus any necessary supplemental information) shows, according to the criteria, procedures, and tests contained in Appendix A to this part and in accordance with § 57.201(d)(1), that either of the following two tests are met.

(i) The Rate of Return Test.

The present value of the smelter's future net cash flow (during and after investment in constant control technology) is more than book value of the smelter's net investment in constant dollars.

(ii) The Profit Protection Test.

The constant control technology expenditure reduces the present value of the smelter's forecast pretax profits by less than 50%.

(c) When applying for an NSO, a smelter must establish, for purposes of applying the financial eligibility tests, which adequately demonstrated constant control technology applicable to that smelter is the most economically feasible for use at that smelter.

§ 57.103 Definitions.

(a) *The Act* means the Clean Air Act, as amended.

(b) *Active use* refers to an SO₂ constant control system installed at a smelter before August 7, 1977 and not totally removed from regular service by that date.

(c) *Adequate SO₂ emission limitation* means a SIP emission limitation which was approved or promulgated by EPA as adequate to attain and maintain the NAAQS in the areas affected by the stack emissions without the use of any unauthorized dispersion technique.

(d) *Administrative Law Judge* means an administrative law judge appointed under 5 U.S.C. 3105 (see also 5 CFR Part 930, as amended by 37 FR 16787), and is synonymous with the term "Hearing Examiner" as formerly used in Title 5 of the United States Code.

(e) *The Administrator* means the Administrator of the United States Environmental Protection Agency, or the Administrator's authorized representative.

(f) *Ambient air* shall have the meaning given by 40 CFR 50.1(e), as that definition appears upon promulgation of this subpart, or as hereafter amended.

(g) *Ambient air quality* refers only to concentrations of sulfur dioxide in the ambient air, unless otherwise specified.

(h) *An approved measure* refers to one contained in an NSO which is in effect.

(i) *Assistant Administrator for Air and Radiation* means the Assistant Administrator for Air and Radiation of the United States Environmental Protection Agency.

(j) *Constant controls, control technology, and continuous emission reduction technology* mean systems which limit the quantity, rate, or concentration, excluding the use of dilution, and emissions of air pollutants on a continuous basis.

(k) *Effective date of an NSO* means the effective date listed in the Federal Register publication of EPA's issuance or approval of an NSO.

(l) *EPA and the Agency* means the Administrator of the United States Environmental Protection Agency, or the Administrator's authorized representative.

(m) *Fugitive emissions* means any air pollutants emitted to the atmosphere other than from a stack.

(n) *Issuance of an NSO* means the final transmittal of the NSO pursuant to § 57.107(a) by an issuing agency (other than EPA) to EPA for approval, or the publication of an NSO issued by EPA in the Federal Register.

(o) *Issuing agency*, unless otherwise specifically indicated, means the state or local air pollution control agency to which a smelter's owner has applied for an NSO, or which has issued the NSO, or EPA, when the NSO application has been made to EPA. Any showings or demonstrations required to be made under this part to the issuing agency, when not EPA, are subject to independent determinations by EPA.

(p) *Judicial Officer* means an attorney who is a permanent or temporary employee of the United States Environmental Protection Agency.

(q) *Malfunction* means any unanticipated and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner. Failures that are caused entirely or in part by poor design, poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions. A malfunction exists only for the minimum time necessary to implement corrective measures.

(r) *Maximum production capacity* means either the maximum demonstrated rate at which a smelter has produced its principal metallic final product under the process equipment configuration and operating procedures prevailing on or before August 7, 1977, or a rate which the smelter is able to demonstrate by calculation is attainable with process equipment existing on August 7, 1977. The rate may be expressed as a concentrate feed rate to the smelter.

(s) *NAAQS and National Ambient Air Quality Standards*, unless otherwise specified, refer only to the National Primary and Secondary Ambient Air Quality Standards for sulfur dioxide.

(t) *Scheduled maintenance* means any periodic procedure, necessary to maintain the integrity or reliability of emissions control performance, which can be anticipated and scheduled in advance. In sulfuric acid plants, it includes among other items the screening or replacement of catalyst, the re-tubing of heat exchangers, and the routine repair and cleaning of gas handling/cleaning equipment.

(u) *Smelter owner and operator* means the owner or operator of the smelter, without distinction.

(v) *Supplementary control system (SCS)* means any technique for limiting the concentration of a pollutant in the ambient air by varying the emissions of that pollutant according to atmospheric conditions. For the purposes of this part, the term supplementary control system does not include any dispersion technique based solely on the use of a stack the height of which exceeds good engineering practice (as determined under regulations implementing Section 123 of the Act).

(w) *Unauthorized dispersion technique* refers to any dispersion technique which, under Section 123 of the Act and the regulations promulgated pursuant to that section, may not be used to reduce the degree of emission limitation otherwise required in the applicable SIP.

(x) Unless otherwise specified in this part, all terms shall have the same meaning given them by the Act.

§ 57.104 Amendment of the NSO.

An NSO shall be amended whenever necessary for compliance with the requirements and purposes of this part.

(a)(1) *Issuance of amendment.* A State or local issuing agency may issue an amendment of any NSO it has issued. Any amendment issued by a State or local issuing agency shall be subject to approval by EPA to the same extent as was the original NSO. Any smelter owner may apply to the agency which originally issued its NSO for an amendment of the NSO at any time. Such an application shall be accompanied by whatever documentation is required by that agency (or EPA) to support the requested amendment.

(2)(i) Notwithstanding the requirements of paragraph (a)(1) of this section, amendments to SIP compliance schedule interim compliance dates in State-issued NSO's need not be submitted for EPA approval if the

amendment does not delay the interim date by more than three months from the date as approved by the Administrator and if the final compliance date is unchanged. Delays longer than 3 months shall be handled according to the provisions of § 57.104(a)(1).

(ii) Changes made in accordance with this subparagraph may be effective immediately but must be submitted to EPA within seven days. EPA will give public notice of receipt of such changes by publication of a Notice in the Federal Register.

(3) In any case in which the issuing agency fails to issue an amendment necessary for compliance with the requirements and purposes of this part, EPA may, after first giving the issuing Agency notice, issue such amendment.

(b) *Revision of SCS Manual.* Operation in accordance with the revised provisions of an SCS operational manual (see § 57.402(e)) shall not be considered a violation of an NSO while the application for approval of those revisions as NSO amendments is pending before the issuing agency (or EPA) for approval. Provided, that:

(1) No violations of NAAQS occur in the smelter's Designated Liability Area during that time; and

(2) The smelter operator has not been informed by the issuing agency or EPA that its application is not adequately documented, unless such deficiency has been remedied promptly.

(c) *Notice and Opportunity for Hearing.* Notice and opportunity for public hearing shall be provided before issuance of all major amendments.

§ 57.105 Submittal of required plans, proposals, and reports.

(a) The failure of a smelter owner to submit any plan, report, document or proposal as required by its NSO or by this part shall constitute a violation of its NSO.

(b) If the Administrator determines that a nonferrous smelter is in violation of a requirement contained in an NSO approved under these regulations, the Administrator shall, as provided by Section 119(f) of the Act: (1) Enforce such requirement under Section 113(a), (b), or (c) of the Act; (2) revoke the order after notice and opportunity for hearing; (3) give notice of noncompliance and commence action under Section 120 of the Act; or (4) take any appropriate combinations of these actions.

(c) Under Section 304 of the Act, any person may commence a civil action against an owner or operator of a smelter which is alleged to be in violation or any order approved under this part.

§ 57.106 Expiration date.

Each NSO shall state its expiration date. No NSO issued under this regulation shall expire later than January 1, 1988.

§ 57.107 The State of local agency's transmittal to EPA.

(a) Content and bases of the State or local agency's NSO. Issuance of an NSO by a State or local agency shall be completed by the issuing agency's transmittal to the appropriate EPA Regional Office of:

(1) The text of the NSO;

(2) The application submitted by the smelter owner, except for Appendix A to this part, all correspondence between the issuing agency and the applicant relating to the NSO, and any material submitted in support of the application;

(3) A concise statement of the State or local agency's findings and their bases; and

(4) All documentation or analyses prepared by or for the issuing agency in support of the NSO.

(b) The State or local agency's enforcement plan. The transmittal under paragraph (a) of this section shall be accompanied by a description of the issuing agency's plans for monitoring compliance with and enforcement of the NSO. The transmittal shall also include a description of the resources which will be used to implement those plans. If the enforcement plans appear inadequate, EPA may require that the NSO be modified such that the NSO will be adequately enforced.

§ 57.108 Comparable existing SIP provisions.

Notwithstanding any other provision of this part, an NSO may contain provisions to which the affected smelter is subject under the applicable EPA-approved State Implementation Plan (SIP) for sulfur dioxide in lieu of the corresponding provisions which would otherwise be required under this part if the Administrator determines that those SIP provisions are substantially equivalent to the corresponding NSO provisions which would otherwise be required, and if the Administrator determines that the smelter is in substantial compliance with those SIP provisions. For the purposes of this section, provisions to which the affected smelter is subject under the applicable EPA-approved State Implementation Plan are those which became effective before the smelter owner applied for the NSO.

§ 57.109 Maintenance of pay.

The Administrator will not approve or issue an NSO for any smelter unless he has approved or promulgated SIP provisions which are applicable to the smelter and which satisfy the requirements of Section 110(a)(6) of the Clean Air Act.

§ 57.110 Reimbursement of State or local agency.

As a condition of issuing an NSO, any issuing agency may require the smelter operator to pay a fee to the State or local agency sufficient to defray the issuing agency's expenses in issuing and enforcing the NSO.

§ 57.111 Severability of provisions.

The provisions promulgated in this part and the various applications thereof are distinct and severable. If any provision of this part or the application thereof to any person or circumstances is held invalid, such invalidity shall not affect other provisions, or the application of such provisions to other persons or circumstances, which can be given effect without the invalid provision of application.

Subpart B—The Application and the NSO Process**§ 57.201 Where to apply.**

Any eligible smelter may apply for an NSO to the appropriate EPA Regional Office or to the appropriate State or local air pollution control agency.

(a) When application is made to EPA, all parts of the application required to be submitted under this subpart shall be sent directly to the Director, Stationary Source Compliance Division (EN-341), U.S. Environmental Protection Agency, 401 M Street SW., Washington, D.C. 20460, Attention: Confidential Information Unit. In addition, the smelter owner shall send a copy of the application, except that part required to be submitted under § 57.203(b) (eligibility), directly to the appropriate EPA Regional Office.

(b) When application is made to the appropriate State or local agency, the smelter owner shall submit one complete copy of all parts of the application required to be submitted under this subpart to that agency, in addition to the application requirements contained in § 57.201(a), above. If the smelter owner is requesting an advance eligibility determination pursuant to § 57.203(b), such request must be made in writing and shall accompany the copy of the application being sent to the Director of the Stationary Source Compliance Division of the Environmental Protection Agency.

(c) If the smelter owner is requesting a waiver of the interim constant control requirement of § 57.301, such request must be sent directly to the Director, Stationary Source Compliance Division, at the time of application, in accordance with § 57.802.

(d) The NSO Process. (1) A smelter desiring an NSO shall apply for an NSO by submitting an application under Subpart B including the financial information required in Appendix A and including the information necessary to make the determinations required by this subparagraph and § 57.201(d)(2). The issuing agency shall analyze the financial information according to the financial eligibility test prescribed by Subpart A and described in Appendix A. The issuing Agency shall then determine whether the smelter is able to comply with its SIP on or before the date required in the SIP by installing adequately demonstrated technology which is reasonably available. See also § 57.102(a)(3). If the test demonstrates that adequately demonstrated technology is not reasonably available to the smelter to allow it to comply with the SIP by the required compliance date, the smelter is eligible for an NSO.

(2)(i) If the smelter is determined to be eligible for an NSO under § 57.201(d)(1), the issuing Agency shall apply the Appendix A financial eligibility tests again before issuing an NSO in order to determine if the smelter can comply with its SIP requirements on or before January 1, 1988 by installing adequately demonstrated technology which is reasonably available.

(ii) If application of the tests shows that the smelter could comply by or before January 1, 1988, the issuing agency shall notify the smelter of this determination, and shall not issue an NSO to the smelter unless the NSO contains a SIP compliance schedule meeting the requirements of § 57.705. Such a compliance schedule must provide for compliance with the smelter's SO₂ SIP as expeditiously as practicable and in no case later than January 1, 1988. A smelter must submit to the issuing agency information necessary to determine a compliance schedule meeting the requirements of § 57.705. This information shall be submitted by a smelter within thirty days after the smelter is notified by the issuing agency that a SIP compliance schedule is required. The Administrator may consider an NSO application to be withdrawn for SIP enforcement purposes if a smelter fails to submit such information within the time required under this paragraph.

(iii) If no adequately demonstrated technology is found to be reasonably

available to enable a smelter to comply by January 1, 1988, it would be excused from the compliance schedule requirement in § 57.201(d)(2)(ii), but it would be subject to reevaluation of its ability to comply by that date at any time during the term of the NSO. (See § 57.201(d)(3)).

(3) At any time during the term of an NSO which does not contain a SIP compliance schedule, EPA or the issuing agency may reevaluate the availability of technology to the smelter. If EPA or the issuing agency determines that adequately demonstrated technology is reasonably available to permit the smelter to comply with its SIP by or before January 1, 1988, the NSO shall be amended within 3 months time after such determination. The amendment shall require compliance with all SIP requirements by or before January 1, 1988, and shall include a compliance schedule meeting the requirements of § 57.705. The determination that adequately demonstrated technology is reasonably available shall be made by reapplying the same Appendix A financial eligibility tests required by Subpart B, updated by economic data reflecting current operating conditions and currently demonstrated control technology. Any such determination and amendment shall be governed by the provisions of this part and Section 119 of the Clean Air Act.

(4) Notice and opportunity for public hearing in accordance with Section 119 of the Clean Air Act must be provided before issuance of any NSO.

(e) A smelter that does not have any constant SO₂ controls or whose existing constant SO₂ controls when in full operation and optimally maintained are not sufficient to treat all strong SO₂ streams may apply for a waiver of the requirements of Subpart C to install interim constant controls by submitting an application under Subpart H. A waiver may be granted only with respect to the requirement to eliminate bypass of constant controls through the installation of new constant control equipment, not with respect to the requirements for optimum maintenance and operation of existing equipment. EPA shall then determine the smelter's ability to afford installation of the required additional interim constant SO₂ control equipment at the smelter based on financial eligibility information analyzed according to the financial test prescribed in Appendix A. A waiver of the requirement for additional interim constant controls will be granted if EPA determines in accordance with the procedures of Subpart H that imposition of this requirement would necessitate

closure of the smelter for at least one year.

§ 57.202 How to apply.

(a) *Letter of intent.* To initiate an application for an NSO, the owner or operator of a smelter shall send a letter of intent to an appropriate air pollution control agency. The letter of intent shall contain a statement of the owner's intent to apply for an NSO, and an agreement to provide any information required under this part. The letter of intent shall be signed by a corporate official authorized to make such commitments. Upon receipt of any letter of intent by the issuing agency, the SIP emission limitation for sulfur dioxide, as to that applicant, shall be deemed suspended for 60 days. The 60 day suspension may be extended for good cause at the discretion of the Administrator.

(b) *Complete application.* (1) Within the period referred to in paragraph (a) of this section, the smelter owner shall submit its completed application pursuant to § 57.201. Receipt of all parts of a substantially complete application postmarked within the original or extended application period shall be deemed to continue the suspension of the SIP emission limitation for SO₂ until the issuing agency issues or declines to issue an NSO. This suspension shall in all cases terminate, however, 90 days after receipt of the substantially completed application, unless extended for good cause at the discretion of the Administrator. If, in the Administrator's judgment, good faith effort has been made to submit a complete application, additional time may be granted to allow for correction of minor deficiencies.

(2) If an issuing agency transmits an NSO to EPA for approval before the expiration of the suspension of the federal SIP emission limitation, the suspension shall continue until EPA approves or disapproves the NSO.

§ 57.203 Contents of the application.

(a) *Claim of confidentiality.* The smelter owner may make a business confidentiality claim covering all or part of the information in the NSO application in accordance with 40 CFR Part 2, Subpart B (41 FR 36906 *et seq.*, September 1, 1976 as amended by 43 FR 39997 *et seq.*, September 8, 1978). A claim is effective only if it is made at the time the material is submitted to the issuing agency or EPA. A claim shall be made by attaching to the information a notice of confidentiality. Information claimed as confidential will be handled by EPA under the provisions of 40 CFR Part 2, Subpart B. If no claim accompanies the information, it may be

made available to the public without further notice.

(b) Each smelter owner shall make the showing required by § 57.102(a)(3) by completing and submitting Appendix A to this part and any necessary supplemental information to the issuing agency as a part of its application. Each smelter shall also submit as part of its application the information which, in conjunction with the information required by Appendix A, is necessary for the issuing agency to make the determination required by § 57.201(d)(2). Any smelter owner or State may, at its option, simultaneously submit this material to EPA for an advance eligibility determination.

(c) *Current operating information.* A complete NSO application shall also contain the following information:

(1) A process flow diagram of the smelter, including current process and instrumentation diagrams for all processes or equipment which may emit or affect the emission of sulfur dioxide; the characteristics of all gas streams emitted from the smelter's process equipment (flow rates, temperature, volumes, compositions, and variations over time); and a list of all monitoring data and strip charts, including all data, charts, logs or sheets kept with respect to the operation of any process equipment which may emit or affect the emission of sulfur dioxide;

(2) The smelter's maximum daily production capacity (as defined in § 57.103(r)), the operational rate (in pounds of concentrate charged to the smelting furnace per hour) of each major piece of process equipment when the smelter is operating at that capacity; and the smelter's average and maximum daily production rate for each product, co-product, or by-product, by year, for the past four years;

(3) The optimal conversion efficiency (defined in terms of percent of total SO₂ removed from the input flow stream) of any acid plant or other sulfur dioxide control system under the normal process operating conditions (excluding malfunctions) most conducive to optimal conversion efficiency;

(4) The average conversion efficiency of any acid plant or other sulfur dioxide control system during normal process operations (excluding malfunctions), by month, during the past four years.

(5) The percent of the time the acid plant or other control system was available for service during each month for the past four years, excluding downtime for scheduled maintenance, and a full explanation of any major or recurring problems with the system during that time;

(6) The frequency and duration of times during the past four years when the SO₂ system was unavailable because of scheduled maintenance of the system;

(7) A description of all scheduled, periodic, shutdowns of the smelter during the past four years, including their purpose, frequency and duration; and the same information with respect to unscheduled shutdowns;

(8) The gas volume, rates, and SO₂ concentration which the control system was actually designed to accommodate, taking into account any modifications made after its installation;

(9) The average monthly sulfur balance across the process and control equipment, including fugitive emissions, for the past 4 years; and

(10) A description of engineering techniques now in use at the smelter to prevent the release of fugitive emissions into the atmosphere at low elevations.

(d) *The smelter owner's proposals.* The smelter owner shall submit as part of its application, draft NSO provisions which would implement the requirements of Subparts C through G of this part. The issuing agency may use these proposals as the basis for any NSO that may be granted, or may modify these proposals in any way it deems necessary in order to comply with the requirements of this Part.

(e) A smelter may submit as part of its application, information necessary to determine any SIP compliance schedule which might be required under § 57.201(d)(2).

(f) *Additional information.* The smelter owner shall designate in its application a corporate officer responsible and authorized to supply supplemental technical and economic information and explanations as required by the issuing agency during the formulation of the NSO. Failure to supply such information and explanations shall constitute a failure to submit a complete application.

(g) *Request for a waiver of constant controls.* Any request for a waiver of the requirement interim constant control of all strpmg streams of § 57.301 shall be made in accordance with § 57.802. The criteria and procedures for granting the waiver are governed by Subpart H of this part.

(h) Unless a smelter applies for a waiver in accordance with Subpart H, a smelter shall submit as part of its application a proposed schedule for compliance with the interim constant control requirements of Subpart C which satisfies the requirements of § 57.702.

§ 57.204 EPA action on second period NSOs which have already been issued.

(a) EPA may approve a second period NSO issued by a State before the date of publication of these regulations in the Federal Register, without requiring a complete reapplication under this Subpart and new State proceedings, provided:

(1) The second period NSO was issued by the State consistent with the procedural requirements of § 119 of the Clean Air Act;

(2) EPA can make a determination that the smelter is eligible for a second period NSO and whether the smelter can comply with its SO₂ SIP limits on or before January 1, 1988 under the financial eligibility tests in these regulations on the basis of available information and such supplementary information as the Agency may request the smelter to submit; and

(3) The provisions of the NSO are consistent with the requirements of these regulations.

(b) Should EPA require a smelter to submit information before taking final action on an NSO referred to in paragraph (a), of this section, it shall specify a reasonable period for submission of such information in light of the nature of the information being required. The duration of such period shall not exceed the period allowed for submission of a complete application under § 57.202 (a) and (b).

(c) The Agency shall consider the SIP emission limitation for SO₂ to be suspended with respect to a smelter which received an NSO described in Subpart (A) until EPA takes final action on such NSO. Such suspension shall terminate if the smelter does not submit supplementary information within the time specified under subsection (b).

§ 57.205 Submission of supplementary information upon relaxation of an SO₂ SIP emission limitation.

(a) In the event an SO₂ SIP limit is relaxed subsequent to EPA approval or issuance of a second period NSO, the smelter issued the NSO shall submit to the issuing agency and EPA such supplementary information that EPA considers appropriate for purposes of determining whether the means of compliance with the new SIP limit are adequately demonstrated to be reasonably available under the financial eligibility tests specified in § 57.102(b)(3). The smelter shall submit such information within sixty days of notification by EPA. This time limit may be extended by EPA for good cause.

(b) Upon receipt of any supplementary information required under paragraph (a), the issuing agency shall promptly

reevaluate the availability of the means of compliance with the new SIP limit under the NSO eligibility tests specified in § 57.102(b)(3). If the issuing agency determines that the demonstrated control technology necessary to attain the new SO₂ SIP limit is adequately demonstrated to be reasonably available under the eligibility tests, so as to permit the smelter to comply with the new SIP limit on or before January 1, 1988, the NSO shall be amended within the time contemplated by § 57.202(a) after receipt of the supplementary information. Such amendment shall require compliance with the new SO₂ SIP limit as expeditiously as practicable in accordance with § 57.201(d)(3). The issuing agency, if not EPA, shall promptly submit its determination and any necessary NSO amendments to EPA.

(c) EPA shall take action to approve or disapprove the issuing agency's determination and NSO amendment, if any, within a reasonable time after receipt of such determination and amendment.

(d) If EPA disapproves the issuing agency's determination or NSO amendment, or if a smelter fails to submit any supplementary information as required under paragraph (a), EPA and/or the issuing agency shall take appropriate remedial action. EPA shall take appropriate remedial action if the issuing agency does not make any determination and amendment required by this section within the time contemplated by § 57.202(a).

Subpart C—Constant Controls and Related Requirements**§ 57.301 General requirements.**

Each NSO shall require an interim level of sulfur dioxide constant controls to be operated at the smelter, unless a waiver of this requirement has been granted to the owner under Subpart H of this part. Except as otherwise provided in § 57.304, the interim constant controls shall be properly operated and maintained at all times. The NSO shall require the following gas streams to be treated by interim constant controls:

(a) In copper smelters, off-gases from fluidized bed roasters, flash furnaces, NORANDA reactors, electric furnaces and copper converters;

(b) In lead smelters, off-gases from the front end of the sintering machine and any other sinter gases which are recirculated;

(c) In zinc smelters, off-gases from multi-hearth roasters, flash roasters and fluidized bed roasters; and

(d) In all primary nonferrous smelters, all other strong SO₂ streams.

(e) In all primary nonferrous smelters, any other process streams which were regularly or intermittently treated by constant controls at the smelter as of August 7, 1977.

§ 57.302 Performance level of interim constant controls.

(a) *Maximum feasible efficiency.* Each NSO shall require: that the smelter operate its interim constant control systems at their maximum feasible efficiency, including the making of any improvements necessary to correct the effects of any serious deficiencies; that the process and control equipment be maintained in the way best designed to ensure such operation; and that process operations be scheduled and coordinated to facilitate treatment of process gas streams to the maximum possible extent. Maximum feasible efficiency shall be expressed in the NSO in the form of a limitation on the concentration of SO₂ in the tail gas of each individual control system in combination with an appropriate averaging period, as provided below in paragraphs (b) and (c) of this section.

(b) *The limitation level for SO₂ concentration in the control system tail gas.* The level at which the concentration limitation is set shall take into account fluctuations in the strength and volume of process off-gases to the extent that those fluctuations affect the SO₂ content of the tail gas and cannot be avoided by improved scheduling and coordination of process operations. The limitation shall exclude the effect of any increase in emissions caused by process or control equipment malfunction. The limitation shall take into account unavoidable catalyst deterioration in sulfuric acid plants, but may prescribe the frequency of catalyst screening or replacement. The NSO shall also prohibit the smelter owner from using dilution air to meet the limitation.

(c) *Averaging period.* (1) The averaging period shall be derived in combination with the concentration limitation and shall take into account the same factors described in paragraph (b). The averaging period established under this paragraph should generally not exceed the following:

(i) For sulfuric acid plants on copper smelters, 12-hour running average;

(ii) For sulfuric acid plants on lead smelters, 6-hour running average;

(iii) For sulfuric acid plants on zinc smelters, 2-hour running average;

(iv) For dimethylaniline (DMA) scrubbing units on copper smelters, 2-hour running average.

(2) A different averaging period may be established if the applicant

demonstrates that such a period is necessary in order to account for the factors described in paragraph (b) of this section: Provided, that the period is enforceable and satisfies the criteria of paragraph (a) of this section.

(d) *Improved performance.* (1) The performance level representing maximum feasible efficiency for any existing control system (e.g., a sulfuric acid plant or a DMA scrubber) shall require the correction of the effects of any serious deficiencies in the system. For the purpose of this paragraph, at least the following problems shall constitute serious deficiencies in acid plants:

(i) Heat exchangers and associated equipment inadequate to sustain efficient, autothermal operation at the average gas strengths and volumes received by the acid plant during routine process equipment operation;

(ii) Failure to completely fill all available catalyst bed stages with sufficient catalyst;

(iii) Inability of the gas pre-treatment system to prevent undue frequent plugging or fouling (deterioration) of catalyst or other components of the acid plant; or

(iv) Blower capacity inadequate to permit the treatment of the full volume of gas which the plant could otherwise accommodate, or in-leakage of air into the flues leading to the plant, to the extent that this inadequacy results in bypassing of gas around the plant.

(2) Notwithstanding any contrary provisions of § 57.304(c) (malfunction demonstration), no excess emissions (as defined in § 57.304(a)) shall be considered to have resulted from a malfunction in the constant control system if the smelter owner has not upgraded serious deficiencies in the constant control system in compliance with the requirements of § 57.302(d)(1), unless the smelter owner demonstrates under § 57.304(c) that compliance with those requirements would not have affected the magnitude of the emission.

(e) *Multiple control devices.* (1) At any smelter where off-gas streams are treated by various existing control systems (e.g., multiple acid plants or a DMA scrubber and an acid plant), the NSO shall require the use of those systems in the combination that will result in the maximum feasible net SO₂ removal.

(2) To the extent that compliance with this requirement is demonstrated by the smelter operator to result in excess emissions during unavoidable start up and shut down of the control systems, those excess emissions shall not constitute violations of the NSO.

§ 57.303 Total plantwide emission limitation.

(a) *Calculation of the emission limitation.* Each NSO shall contain a requirement limiting the total allowable emissions from the smelter to the level which would have been associated with production at the smelter's maximum production capacity (as defined in § 57.103(r)) as of August 7, 1977. This limitation shall be expressed in units of mass per time and shall be calculated as the sum of uncontrolled process and fugitive emissions, and emissions from any control systems (operating at the efficiency prescribed under § 57.302). These emission rates may be derived from either direct measurements or appropriately documented mass balance calculations.

(b) *Compliance with the emission limitation.* Each NSO shall require the use of specific, enforceable testing methods and measurement periods for determining compliance with the limitation established under paragraph (a) of this section.

§ 57.304 Bypass, excess emissions and malfunctions.

(a) *Definition of excess emissions.* For the purposes of this subpart, any emissions greater than those permitted by the NSO provisions established under § 57.302 (performance level of interim constant controls) or § 57.303 (plantwide emission limitation) of this subpart shall constitute excess emissions. Emission of any gas stream identified under § 57.301 (a), (b), (c), (d) or (e) of this subpart that is not treated by a sulfur dioxide constant control system shall also constitute an excess emission under this subpart.

(b) *The excess emission report.* Each NSO shall require the smelter to report all excess emissions to the issuing agency, as provided in § 57.305(b). The report shall include the following:

(1) Identity of the stack or other emission points where the excess emissions occurred;

(2) Magnitude of the excess emissions expressed in the units of each applicable emission limitation, as well as the operating data, documents, and calculations used in determining the magnitude of the excess emissions;

(3) Time and duration of the excess emissions;

(4) Identity of the equipment causing the excess emissions;

(5) Nature and cause of such excess emissions;

(6) Steps taken to limit the excess emissions, and when those steps were commenced;

(7) If the excess emissions were the result of a malfunction, the steps taken

to remedy the malfunction and to prevent the recurrence of such malfunction; and

(8) At the smelter owner's election, the demonstration specified in paragraph (c) of this section.

(c) *Malfunction demonstration.* Except as provided in § 57.302(e)(2) or in paragraph (d) or (e) of this section, any excess emission shall be a violation of the NSO unless the owner demonstrates in the excess emissions report required under paragraph (b) of this section that the excess emission resulted from a malfunction (or an unavoidable start up and shut down resulting from a malfunction) and that:

(1) The air pollution control systems, process equipment, or processes were at all times maintained and operated, to the maximum extent practicable, in a manner consistent with good practice for minimizing emissions;

(2) Repairs were made as expeditiously as practicable, including the use of off-shift labor and overtime;

(3) The amount and duration of the excess emissions were minimized to the maximum extent practicable during periods of such emissions; and

(4) The excess emissions were not part of a recurring pattern indicative of serious deficiencies in, or inadequate operation, design, or maintenance of, the process or control equipment.

(d) *Scheduled maintenance exception.* Excess emissions occurring during scheduled maintenance shall not constitute violations of the NSO to the extent that:

(1) The expected additional annual sulfur dioxide removal by any control system (including associated process changes) for which construction had not commenced (as defined in 40 CFR 60.2 (g) and (i)) as of August 7, 1977 and which the smelter owner agrees to install and operate under Subpart F, would have offset such excess emissions if the system had been in operation throughout the year in which the maintenance was performed;

(2) The system is installed and operated as provided in the NSO provisions established under Subpart F; and

(3) The system performs at substantially the expected efficiency and reliability subsequent to its initial break-in period.

(e) An NSO may provide that excess emissions which occur during acid plant start-up as the result of the cooling of acid plant catalyst due to the unavailability of process gas to an acid plant during a prolonged SCS curtailment or scheduled maintenance are not excess emissions. If the NSO

does so provide, it shall also require the use of techniques or practices designed to minimize these excess emissions, such as the sealing of the acid plant during prolonged curtailments, the use of auxiliary heat or SO₂ injected during the curtailment, or the preheating of the acid plant before start-up of the process equipment it serves.

(f) Requirements for a smelter with constant controls that applies for a waiver.

(1) If a smelter that has some interim constant controls applies for a waiver in accordance with Subpart H, the following requirements shall apply pending action on the waiver application and following final action granting or approving a waiver:

(i) The NSO shall require the smelter to implement maintenance and operation measures designed to reduce to the maximum extent feasible the potential for bypass of existing interim constant controls.

(ii) Upon application for a waiver under Subpart H, the smelter shall submit to the issuing agency for its approval and to EPA proposed maintenance and operation measures for compliance with the requirements of paragraph (i).

(iii) The remainder of this Subpart shall apply except that: (A) The emission limitations required under this Subpart shall be based only on existing constant control equipment as upgraded through the improved maintenance and operation required by this paragraph, and (B) bypass of existing controls shall not constitute excess emissions, provided the maintenance and operation requirements and emission limitations prescribed by the NSO are satisfied.

(2) After any denial of a waiver by the issuing Agency, or any disapproval by EPA of a waiver granted by the issuing agency, the NSO shall be amended consistent with the requirements of this Subpart and § 57.702.

§ 57.305 Compliance monitoring and reporting.

(a) *Monitoring.* (1) Each NSO shall require compliance with the control system performance requirements established pursuant to this subpart to be determined through the use of continuous monitors for measuring SO₂ concentration.

(i) Such monitors must be installed, operated and maintained in accordance with the performance specifications and other requirements contained in Appendix D to 40 CFR Part 52 or Part 60. The monitors must take and record at least one measurement of SO₂ concentration from the effluent of each control system in each 15-minute period.

Failure of the monitors to record at least 95% of the 15-minute periods in any 30-day period shall constitute a violation of the NSO.

(ii) The sampling point shall be located at least 8 stack diameters (diameter measured at sampling point) downstream and 2 diameters upstream from any flow disturbance such as a bend, expansion, constriction, or flame, unless another location is approved by the Administrator.

(iii) The sampling point for monitoring emissions shall be in the duct at the centroid of the cross section if the cross sectional area is less than 4.645m² (50 ft²) or at a point no closer to the wall than 0.914m (3 ft) if the cross sectional area is 4.645m² (50 ft²) or more. The monitor sample point shall be in an area of small spatial concentration gradient and shall be representative of the concentration in the duct.

(iv) The measurement system(s) installed and used pursuant to this paragraph shall be subject to the manufacturer's recommended zero adjustment and calibration procedures at least once per 24-hour operating period unless the manufacturer specifies or recommends calibration at shorter intervals, in which case such specifications or recommendations shall be followed. Records of these procedures shall be made which clearly show instrument readings before and after zero adjustment and calibration.

(2) Each NSO shall require the monitoring of any ducts or flues used to bypass gases, required under this subpart to be treated by constant controls, around the smelter's sulfur dioxide constant control system(s) for ultimate discharge to the atmosphere. Such monitoring shall be adequate to disclose the time of the bypass, its duration, and the approximate volume and SO₂ concentration of gas bypassed.

(b) *Reporting.* (1) Each NSO shall require that the smelter maintain a record of all measurements required under paragraph (a) of this section. Results shall be summarized monthly and shall be submitted to the issuing agency within 15 days after the end of each month. The smelter owner shall retain a record of such measurements for one year after the NSO period terminates.

(2) Each NSO shall require that the smelter maintain a record of all measurements and calculations required under § 57.303(b). Results shall be summarized on a monthly basis and shall be submitted to the issuing agency at 6-month intervals. The smelter owner shall retain a record of such measurements and calculations for at least one year after the NSO terminates.

(3) The report required under § 57.304(b) shall accompany the report required under paragraph (b)(1) of this section.

(c) *Quality Assurance and Continuous Data.*—(1) *Quality Assurance.* Each NSO shall require that the smelter submit a plan for quality assurance to the issuing agency for approval and that all monitoring performed by continuous monitors shall be verified for quality assurance by the smelter. Such plans must follow current EPA guidelines for quality assurance, in order to be approvable.

(2) *Continuous data.* Manual source testing methods equivalent to 40 CFR Part 60, Appendix A shall be used to determine compliance if the continuous monitoring system malfunctions.

Subpart D—Supplementary Control System Requirements

§ 57.401 General requirements.

Except as provided in Subpart E, each NSO shall require the smelter owner to prevent all violations of the NAAQS in the smelter's designated liability area (DLA) through the operation of an approved supplementary control system (SCS).

§ 57.402 Elements of the supplementary control system.

Each supplementary control system shall contain the following elements:

(a) *Air quality monitoring network.* An approvable SCS shall include the use of appropriate ambient air quality monitors to continuously measure the concentration of sulfur dioxide in the air in the smelter's DLA.

(1) The monitors shall be located at all points of expected SO₂ concentrations necessary to anticipate and prevent possible violations of NAAQS anywhere in the smelter's DLA. The determination of the locations where such concentrations may occur shall take into account all recorded or probable meteorological and operating conditions (including bypassing of control equipment), as well as the presence of other sources of SO₂ significantly affecting SO₂ concentrations in the DLA.

(2) The number and location of sites shall be based on dispersion modeling, measured ambient air quality data, meteorological information, and the results of the continuing review required by paragraph (f) of this section. The system shall include the use of at least 7 fixed monitors unless the issuing agency determines, on the basis of a demonstration by the smelter owner, that the use of fewer monitors would not limit coverage of points of high SO₂.

concentration or otherwise reduce the capability of the smelter owner to prevent any violations of the NAAQS in the smelter's DLA.

(3) All monitors shall be continuously operated and maintained and shall meet the performance specifications contained in 40 CFR Part 53. The monitors shall be capable of routine real time measurement of maximum expected SO₂ concentrations for the averaging times of SO₂ NAAQS.

(b) *Meteorological network.* The SCS must have a meteorological assessment capability adequate to predict and identify local conditions requiring emission curtailment to prevent possible violations of the NAAQS. The meteorological assessment capability shall provide all forecast and current information necessary for successful use of the SCS operational manual required by paragraph (e) of this section.

(c) *Designated liability area.* The system shall be required to prevent all violations of the NAAQS within the smelter's DLA. The DLA of any smelter is the area within which the smelter's emissions may cause or significantly contribute to violations of the NAAQS for SO₂ when the smelter is operating at its maximum production capacity under any recorded or probable meteorological conditions. The boundaries of that area shall be specified in the NSO.

(1) Unless an acceptable demonstration is made under paragraph (c)(2) of this section, the DLA shall be a circle with a center point at the smelter's tallest stack and a minimum radius as given in the following table:

RADIUS FOR SO₂ Emissions at Maximum Production Capacity¹

Emissions rate in tons per hour	Emission rate in grains per sec.	Radius in kilometers
16 or less	4,000 or less	11
24	6,000	16
32	8,000	24
40	10,000	32
48 or more	12,000 or more	40

¹ Maximum emission rates for periods not to exceed 24 hours. Minimum radii may be determined from the table by linear interpolation.

(2) The NSO may provide for a DLA with different boundaries if the smelter owner can demonstrate through the use of appropriate dispersion modeling and ambient air quality monitoring data that the smelter's controlled emissions could not cause or significantly contribute to a violation of the NAAQS beyond the boundaries of such a different area under any recorded or probable meteorological conditions.

(3) A violation of the NAAQS in the DLA of any smelter shall constitute a violation of that smelter's NSO, unless

the issuing agency determines on the basis of a showing by the smelter owner that the smelter owner had taken all emission curtailment action indicated by the SCS operational manual and that the violation was caused in significant part by:

(i) Emissions of another source(s) which were in excess of the maximum permissible emissions applicable to such source(s).

(ii) Fugitive emissions of another source(s), or

(iii) The smelter's own fugitive emissions: Provided, that the smelter is in compliance with all requirements of or under Subpart E of this part.

(4) For the purposes of this section, maximum permissible emissions for other sources are the highest of:

(i) SIP emission limitation;

(ii) Orders in effect under Section 113(d) of the Clean Air Act; or

(d) *Overlapping designated liability areas.* Notwithstanding any other provisions of this subpart, the following requirements shall apply whenever the designated liability areas of 2 or more smelters do, or may, overlap:

(1) In the case of any NSO applicant that would have a DLA which would overlap with the DLA of any other smelter that has applied for an NSO or has an NSO in effect, the NSO applicant shall include in its application an enforceable joint plan, agreed to by such other smelter(s). In determining whether a joint plan is required, the NSO applicant shall calculate its DLA according to the table in paragraph (c)(1) of this section. The DLA of the other smelter shall be calculated according to the table in paragraph (c)(1) unless the other smelter has an NSO in effect, in which case the boundaries in that NSO shall be used. The enforceable joint plan shall provide for:

(i) Emission curtailment adequate to ensure that the NAAQS will not be violated in any areas of overlapping DLAs; and

(ii) Conclusive prospective allocation of legal liability in the event that the NAAQS are violated in the area of overlapping DLAs.

Such plans may, but need not, include the operation of a joint SCS system. Each NSO shall require adherence by the NSO applicant owner to the joint plan for emission curtailment and allocation of liability, unless the issuing agency determines, pursuant to the provisions of paragraph (c)(2) of this section, that the NSO applicant's DLA does not overlap with that of any other smelter.

(2) In the case of any NSO applicant that would have a DLA which would overlap with the DLA of any other smelter whose owner has not applied for an NSO (and does not have an NSO in effect), the NSO applicant's submittal shall contain a written consent, signed by a corporate official empowered to do so. The consent shall state that if, at any time thereafter, the owner of the other smelter applies for an NSO, and the other smelter's DLA would overlap with the NSO applicant's DLA, the NSO applicant will negotiate and submit an enforceable joint plan for emission curtailment and allocation of liability (as described in paragraph (d)(1) of this section). In determining whether it is necessary to submit such a consent, each smelter's DLA shall be calculated according to the table set forth in paragraph (c)(1) of this section. The consent shall state that a joint plan shall be submitted within 90 days of the issuing agency's notification to the NSO applicant of receipt of the other smelter's letter of intent, unless the issuing agency determines that the DLAs do not overlap. Failure of the NSO applicant to submit such a plan shall constitute grounds for denial of its NSO application or a violation of an effective NSO, as applicable.

(e) *The SCS operational manual.* Each NSO shall require the smelter to be operated in accordance with the provisions of an SCS operational manual approved by the issuing agency. The SCS operational manual shall describe the circumstances under which, the extent to which, and the procedures through which emissions shall be curtailed to prevent violations of the NAAQS in the smelter's DLA. Failure to curtail emissions when and as much as indicated by the manual or to follow the provisions of the manual implementing the requirements of paragraph (e)(3) of this section shall constitute a violation of the NSO.

(1) The operational manual shall prescribe emission curtailment decisions based on the use of real time information from the air quality monitoring network dispersion model estimates of the effect of emissions on air quality, and meteorological observations and predictions.

(2) The operational manual shall also provide for emission curtailment to prevent violation of the NAAQS within the smelter's DLA which may be caused in part by stack emissions, and to the extent practicable fugitive emissions, from any other source (unless that other source is a smelter subject to an NSO).

(3) The SCS operational manual shall include (but not be limited to):

(i) A clear delineation of the authority of the SCS operator to require all other smelter personnel to implement the operator's curtailment decisions;

(ii) The maintenance and calibration procedures and schedules for all SCS equipment;

(iii) A description of the procedures to be followed for the regular acquisition of all meteorological information necessary to operate the system;

(iv) The ambient concentrations and meteorological conditions that will be used as criteria for determining the need for various degrees of emission curtailment;

(v) The meteorological variables as to which judgments may be made in applying the criteria stated pursuant to paragraph (e)(3)(iv) of this section;

(vi) The procedures through which and the maximum time period within which a curtailment decision will be made and implemented by the SCS operator;

(vii) The method for immediately evaluating the adequacy of a particular curtailment decision, including the factors to be considered in that evaluation;

(viii) The procedures through which and the time within which additional necessary curtailment will immediately be effected; and

(ix) The procedures to be followed to protect the NAAQS in the event of a mechanical failure in any element of the SCS.

(f) *Continuing review and improvement of the SCS.* Each NSO shall require the smelter owner to conduct an active program to continuously review the design and operation of the SCS to determine what measures may be available for improving the performance of the system. Among the elements of this program shall be measures to locate and examine possible places both inside and outside the DLA where unmonitored NAAQS violations may be occurring. Such measures shall include the use of modeling as appropriate and mobile ambient air quality monitors, following up on information and complaints from members of the public, and other appropriate activities. The NSO shall also require the submission of a semi-annual report to the issuing agency detailing the results of this review and specifying measures implemented to prevent the recurrence of any violations of NAAQS.

§ 57.403 Written consent.

(a) *The consent.* The NSO shall include a written consent, signed by a corporate official empowered to do so, in the following form:

As a condition of receiving a Primary Nonferrous Smelter Order (NSO) under Section 119 of the Clean Air Act, for the smelter operated by (name of company) at (location), the undersigned official, being empowered to do so, consents for the company as follows:

(1) In any civil proceeding (judicial or administrative) to enforce the NSO, the company will not contest:

(a) Liability for any violation of the National Ambient Air Quality Standards for sulfur dioxide in the smelter's designated liability area (DLA), except on the ground that a determination under 40 CFR 57.402(c)(3) was clearly wrong; or

(b) The conclusive allocation of liability under NSO provisions satisfying 40 CFR 57.402(d)(1) between the company's smelter and any other smelter(s) for any violation of the National Ambient Air Quality Standards for sulfur dioxide in an area of overlapping DLAs.

(2) The issuing agency (as defined in 40 CFR 57.103) will be allowed unrestricted access at reasonable times to inspect, verify calibration of, and obtain data from ambient air quality monitors operated by the company under the requirements of the NSO.

(b) *Rights not waived by the consent.* This consent shall not be deemed to waive any right(s) to judicial review of any provisions of an NSO that are otherwise available to the smelter owner or operator under Section 307(b) of the Clean Air Act.

§ 57.404 Measurements, records, and reports.

(a) *Measurements.* Each NSO shall require the smelter owner to install, operate, and maintain a measurement system(s) for continuously monitoring sulfur dioxide emissions and stack gas volumetric flow rates in each stack (except a stack used exclusively for bypassing control equipment) which could emit 5 percent or more of the smelter's total potential (uncontrolled) hourly sulfur dioxide emissions.

(1) Such monitors shall be installed, operated, and maintained in accordance with the performance specifications and other requirements contained in Appendices D and E to 40 CFR Part 52. The monitors must take and record at least one measurement of sulfur dioxide concentration and stack gas flow rate from the effluent of each affected stack in each fifteen-minute period. (The NSO shall require the smelter operator to devise and implement any procedures necessary for compliance with these performance specifications.)

(2) The sampling point shall be located at least eight stack diameters (diameter measured at sampling point) downstream and two diameters upstream from any flow disturbance such as a bend, expansion, constriction,

or flame, unless another location is approved by the Administrator.

(3) The sampling point for monitoring emissions shall be in the duct at the centroid of the cross section if the cross sectional area is less than 4.645 m² (50 ft²) or at a point no closer to the wall than 0.914 m (3 ft) if the cross sectional area is 4.645 m² (50 ft²) or more. The monitor sample point shall be in an area of small spatial concentration gradient and shall provide a sample which is representative of the concentration in the duct.

(4) The measurement system(s) installed and used pursuant to this paragraph shall be subject to the manufacturer's recommended zero adjustment and calibration procedures at least once per 24-hour operating period unless the manufacturer specifies or recommends calibration at shorter intervals, in which case such specifications or recommendations shall be followed. Records of these procedures shall be made which clearly show instrument readings before and after zero adjustment and calibration.

(5) The results of such monitoring, calibration, and maintenance shall be submitted in the form and with the frequency specified in the NSO.

(b) *Records.* Each NSO shall require the smelter owner to maintain records of the air quality measurements made, meteorological information acquired, emission curtailment ordered (including the identity of the persons making such decisions), and calibration and maintenance performed on SCS monitors during the operation of the SCS. These records shall be maintained for the duration of the NSO.

(c) *Reports.* Each NSO shall require the smelter owner to:

(1) Submit a monthly summary indicating all places and times at which the NAAQS for SO₂ were violated in the smelter's DLA, and stating the SO₂ concentrations at such times;

(2) Immediately notify EPA and the state agency any time concentrations of SO₂ in the ambient air in the smelter's DLA reaches 0.3 part per million (800 micrograms/cubic meter), 24-hour average, or exceed the warning stage in any more stringent emergency plan in the applicable State Implementation Plan; and

(3) Make such other reports as may be specified in the NSO.

§ 57.405 Formulation, approval, and implementation of requirements.

(a) *SCS content of the application.* The requirements of § 57.203(d) shall be satisfied with respect to this subpart as follows:

(1) Each NSO application shall include a complete description of any supplementary control system in operation at the smelter at the time of application and a copy of any SCS operational manual in use with that system.

(2) Each NSO application shall contain proposed NSO provisions for compliance with the requirements of §§ 57.401, 57.402(c), (d), and (f), 57.403, 57.404, and 57.405(b)(2).

(3) Each NSO application shall include a specific plan for the development of a system fulfilling the requirements of § 57.402(a), (b), and (e) (covering air quality monitoring network, meteorological network, and the SCS operational manual).

(b) *SCS content of the order.* (1) Each NSO shall include an approved version of the plan described in paragraph (a)(3) of this section and shall provide increments of progress towards its completion. Each NSO shall require, upon completion of the measures specified in the approved plan, submission of a report which describes each element of the SCS and explains why the elements satisfy the requirements of the plan and submission of a copy of the SCS operational manual developed under the plan.

(2) Each NSO shall require the submission of a final report, within 6 months of the required date for completion of the measures specified in the approved plan evaluating the performance and adequacy of the SCS developed pursuant to the approved plan. The report shall include:

(i) A detailed description of how the criteria that form the basis for particular curtailment decisions were derived;

(ii) A complete description of each SCS element listed in § 57.402 (a) through (d) (covering monitoring, meteorology, and the DLA), and an explanation of why the elements fulfill the requirements of those sections;

(iii) A reliability study demonstrating that the SCS will prevent violations of the NAAQS in the smelter's DLA at all times. The reliability study shall include a comprehensive analysis of the system's operation during one or more three-month seasonal periods when meteorological conditions creating the most serious risk of NAAQS violations are likely to occur. Where it is impossible, because of time restraints, to include in such a study and analysis of the three month seasonal period with meteorological conditions creating the most serious risk of NAAQS violations, the study shall analyze the system's operation on the basis of all available information. The NSO shall provide that in such case, a supplemental reliability

study shall be submitted after the end of the worst case three-month period as a part of the next semi-annual report required under § 57.402(f).

(iv) A copy of the current SCS operational manual.

(c) *Amendment of the NSO.* Each NSO shall be amended, if necessary, within 3 months of completion of the measures required under the SCS development plan and also, if necessary, within three months of submission of the final report or any supplement to the final report required under paragraph (b)(2) of this section, to reflect the most current approved elements of the SCS and, as appropriate, to fulfill all other requirements of this subpart. Each NSO shall also be subsequently amended (as provided in § 57.104) whenever necessary as a result of the program required by § 57.402(f) or to reflect improved SCS operating procedures or other system requirements.

Subpart E—Fugitive Emission Evaluation and Control

§ 57.501 General requirements.

(a) Each NSO shall require the smelter owner to use such control measures as may be necessary to ensure that the smelter's fugitive emissions do not result in violations of the NAAQS for SO₂ in the smelter's DLA.

(b) A smelter which is operating under an NSO containing a SIP compliance schedule established in accordance with § 57.705 is required to be making progress toward compliance with any fugitive control requirements contained in its respective SIP and need not meet the other requirements contained in this subpart.

(c) A smelter which is subject to an NSO which does not contain a SIP compliance schedule must meet the provisions of §§ 57.502 and 57.503.

§ 57.502 Evaluation.

(a) *Evaluation at the time of application.* Any smelter owner may demonstrate at the time of application for an NSO that the smelter's SO₂ fugitive emissions will not cause or significant contribute to violations of the NAAQS in the smelter's DLA. If such demonstration is not made, the smelter owner shall submit the design and workplan for a study adequate to assess the sources of significant fugitive emissions from the smelter and their effects upon ambient air quality.

(b) *Evaluation during the first 6 months of the NSO.* The design and workplan of the study shall be approved, if adequate, by the issuing agency and included in the NSO. The study shall commence no later than the date when

the NSO becomes effective and an analysis of its results shall be submitted to the issuing agency within 6 months of the effective date of the NSO. The study shall include an appropriate period during which the ambient air shall be monitored to determine the impact of fugitive emissions of sulfur dioxide, arsenic (at copper smelters only), lead (at lead and zinc smelters only), and total suspended particulates on the ambient air quality in the smelter's DLA.

§ 57.503 Control measures.

The NSO of any smelter subject to the requirements of § 57.502(b) shall be amended, if necessary, within 6 months of EPA's receipt of the analysis specified in § 57.502(b), as provided in § 57.704(c) to implement the requirement of § 57.501. Measures required to be implemented may include:

(a) *Additional supplementary control.* The use of the supplementary control system, if the additional use of the system does not interfere with the smelter owner's ability to meet the requirements of Subpart D; and

(b) *Engineering and maintenance techniques.* The use of engineering and maintenance techniques to detect and prevent leaks and capture and vent fugitive emissions through appropriate stacks. These techniques include but are not limited to:

(1) For reactors, installation and proper operation of primary hoods;

(2) For roasters, installation and proper operation of primary hoods on all hot calcine transfer points;

(3) For furnaces, installation and proper operation of primary hoods on all active matte tap holes, matte launders, slag skim bays, and transfer points;

(4) For converters, installation and proper operation of primary hoods for blowing operations, and where appropriate, secondary hoods for charging and pouring operations;

(5) For sintering machines, installation and proper operation of primary hoods on the sinter bed, all hot sinter ignition points, all concentrate laydown points, and all hot sinter transfer points;

(6) For blast furnaces, installation and proper operation of primary hoods on all active slag and lead bullion furnace tap holes and transfer points;

(7) For dross reverberatory furnaces, installation and proper operation of primary hoods on all active charging and discharging points;

(8) Maintenance of all ducts, flues and stacks in a leak-free condition to the maximum extent possible;

(9) Maintenance of all process equipment under normal operating conditions in such a fashion that out-

leakage of fugitive gases will be prevented to the maximum extent possible;

(10) Secondary or tertiary hooding on process equipment where necessary; and

(11) Partial or complete building evacuation as appropriate.

§ 57.504 Continuing evaluation of fugitive emission control measures.

Each NSO shall require the smelter owner to conduct an active program to continuously review the effectiveness of the fugitive emission control measures implemented pursuant to § 57.503 in maintaining the NAAQS and, if such measures are not sufficiently effective, to evaluate what additional measures should be taken to assure that the NAAQS will be maintained with a reasonably degree of reliability. The NSO shall also require submission of a semi-annual report to the issuing Agency detailing the results of this review and evaluation. Such a report may be submitted as part of the report required under § 57.402(f).

§ 57.505 Amendments of the NSO.

An NSO shall be amended within three months of submission of any report required under § 57.504 so as to require additional fugitive emission control measures if such report establishes that such additional measures are necessary to assure that the NAAQS will be maintained with a reasonable degree of reliability.

Subpart F—Research and Development Requirements

§ 57.601 General requirements.

(a) This subpart is not applicable to NSOs which contain a SIP compliance schedule in accordance with § 57.705.

(b) The requirements of this subpart may be waived with respect to a smelter if the owner of that smelter submits with its NSO application a written certification by a corporate official authorized to make such a certification that the smelter will either comply with its SO₂ SIP limits by January 2, 1988 or close after January 1, 1988 until it can comply with such limits.

(c) Except as provided in paragraphs (a) and (b), each NSO shall require the smelter to conduct or participate in a specific research and development program designed to develop more effective means of compliance with the sulfur dioxide control requirements of the applicable State Implementation Plan than presently exist.

§ 57.602 Approval of proposal.

(a) *The smelter owner's proposal.* The smelter owner's NSO application shall

include a proposed NSO provision for implementing the requirement of § 57.601, a fully documented supporting analysis of the proposed program, and an evaluation of the consistency of the proposed program with the criteria listed in § 57.603. The application shall also specify:

(1) The design and substantive elements of the research and development program, including the expected amount of time required for their implementation;

(2) The annual expected capital, operating, and other costs of each element in the program;

(3) The smelter's current production processes, pollution control equipment, and emissions which are likely to be affected by the program;

(4) Potential or expected benefits of the program;

(5) The basis upon which the results of the program will be evaluated; and

(6) The names, positions, and qualifications of the individuals responsible for conducting and supervising the project.

(b) *EPA approval.* (1) If the issuing agency will not be EPA, the smelter owner or the issuing agency may also submit to EPA the information specified in paragraph (a) of this section at the same time the information is submitted to the issuing agency. As soon as possible after the receipt of the information described in paragraph (a) of this section, EPA shall certify to the issuing agency and to the applicant whether or not in the judgment of the Administrator the smelter owner's final proposals are approvable. If EPA does not receive an advance copy of the proposal, the ultimate approval will occur when the NSO is approved rather than in advance of receipt of the NSO. (2) A prerequisite for approval of an R&D proposal by EPA and any issuing agency is that the planned work must yield the most cost effective technology possible.

(c) *Optional preproposal.* The smelter owner may, at its option, submit to EPA for its approval and comment a preproposal generally describing the project the owner intends to propose under paragraph (a) of this section. A preproposal may be submitted to EPA any time prior to the submission of a proposal under paragraph (a) of this section. As soon as possible after the receipt of a preproposal, EPA shall certify to the applicant (and to any other issuing agency, as applicable) whether or not the project would be approvable. This certification may include comments indicating necessary modifications which would make the project approvable.

§ 57.603 Criteria for approval.

The approvability of any proposed research and development program shall be judged primarily according to the following criteria:

(a) The likelihood that the project will result in the use of more effective means of emission limitation by the smelter within a reasonable period of time and that the technology can be implemented at the smelter in question, should the smelter be placed on a SIP compliance schedule at some future date when adequately demonstrated technology is reasonably available;

(b) Whether the proposed funding and staffing of the project appear adequate for its successful completion;

(c) Whether the proposed level of funding for the project is consistent with the research and development expenditure levels for pollution control found in other industries;

(d) The potential that the project may yield industrywide pollution control benefits;

(e) Whether the project may also improve control of other pollutants of both occupational and environmental significance;

(f) The potential effects of the project on energy conservation; and

(g) Other non-air quality health and environmental considerations.

§ 57.604 Evaluation of projects.

The research and development proposal shall include a provision for the employment of a qualified independent engineering firm to prepare written reports at least annually which evaluate each completed significant stage of the research and development program, including all relevant information and data generated by the program. All reports required by this paragraph shall be submitted to EPA and also to the issuing agency if it is not EPA.

§ 57.605 Consent.

Each NSO shall incorporate by reference a binding written consent, signed by a corporate official empowered to do so, requiring the smelter owner to:

(a) Carry out the approved research and development program;

(b) Grant each issuing agency and EPA and their contractors access to any information or data employed or generated in the research and development program, including any process, emissions, or financial records which such agency determines are needed to evaluate the technical or economic merits of the program;

(c) Grant physical access to representatives and contractors of each issuing agency to each facility at which such research is conducted;

(d) Grant the representatives and contractors of EPA and the issuing agency reasonable access to the persons conducting the program on behalf of the smelter owner for discussions of progress, interpretation of data and results, and any other similar purposes as deemed necessary by EPA or any issuing agency.

§ 57.606 Confidentiality.

The provisions of Section 114 of the Act and 40 CFR Part 2 shall govern the confidentiality of any data or information provided to EPA under this subpart.

Subpart G—Compliance Schedule Requirements

§ 57.701 General requirements.

This section applies to all smelters applying for an NSO. Each NSO shall require the smelter owner to meet all of the requirements within the NSO as expeditiously as practicable but in no case later than the deadlines contained in this subpart or any other section of these regulations. For requirements not immediately effective, the NSO shall provide increments of progress and a schedule for compliance. Each schedule must reflect the extent to which any required equipment or systems are already in place and the extent to which any required reports or studies have already been completed. Requirements for smelters to submit compliance schedules and the procedures which they must follow are outlined below.

§ 57.702 Compliance with constant control emission limitation.

(a) This section applies to all smelters which receive an NSO, but only to the extent this section is compatible with any SIP compliance schedule required by §§ 57.201(d)(2) and 57.705.

(b) Any NSO issued to a smelter not required to immediately comply with the requirements of Subpart G under § 57.701 shall contain a schedule for compliance with those requirements as expeditiously as practicable but in no case later than 6 months from the effective date of the NSO, except as follows: Where a waiver is requested in accordance with Subpart H, an NSO may be issued without a schedule for compliance with the requirements for which a waiver is being considered consistent with Subpart H, pending a final decision on the request under Subpart H. If a waiver is requested in accordance with Subpart H, compliance

with the requirements of Subpart C which were deferred as a result of such request shall be achieved as expeditiously as practicable after, but in no case later than 6 months from a final decision by the issuing agency to deny a waiver under Subpart H or disapproval by EPA of a waiver granted by the issuing agency. The time limits specified herein may be extended only if a smelter operator demonstrates that special circumstances warrant more time, in which case the compliance schedule shall require compliance as expeditiously as practicable. An NSO which does not contain a schedule for compliance with all the requirements of Subpart C because a waiver has been requested in accordance with Subpart H shall be amended in accordance with § 57.104 within three months after a final decision under Subpart H so as to either grant a waiver of any remaining requirements of Subpart C, or deny such a waiver and place the smelter on a compliance schedule for meeting those requirements. If the issuing agency grants a waiver and such waiver is disapproved by EPA, the issuing agency shall promptly amend the NSO so as to place the smelter on a compliance schedule meeting any remaining requirements of Subpart C.

(c) Any schedule required under this section shall contain the following information and increments of progress to the extent applicable:

(1) Description of the overall design of the SO₂ control system(s) to be installed;

(2) Descriptions of specific process hardware to be used in achieving compliance with interim SO₂ constant controls including gas capacity values;

(3) The date by which contracts will be let or purchase orders issued to accomplish any necessary performance improvements;

(4) The date for initiating on-site construction or installation of necessary equipment;

(5) The date by which on-site construction or installation of equipment is to be completed; and

(6) The date for achievement of final compliance with interim emission limitations.

§ 57.703 Compliance with the supplementary control system requirements.

This section applies to all nonferrous smelters applying for an NSO.

(a) Schedules for smelters with existing SCS. Each NSO shall require immediately upon issuance of the NSO operation of any existing supplementary control system and immediately upon the effective date of the NSO the assumption of liability for all violations

of the NAAQS detected by any monitor in the SCS system. Each NSO shall require that within six months of the effective date of the NSO the smelter complete any measures specified in the smelter's approved SCS development plan not implemented at the time the NSO is issued, and assume liability for all violations of the NAAQS detected anywhere in the DLA (except as provided in Subpart D of these regulations). Other requirements of Subpart D such as the requirements for submission of reports records, and for ongoing evaluation of the SCS shall be complied with at the times specified in Subpart D and § 57.701.

(b) Compliance schedule for smelters with no existing SCS system. Where a smelter has no SCS at the time of issuance of the NSO, the NSO shall require compliance with the requirements of Subpart D according to the following schedule:

(1) Within six months after the effective date of the NSO the smelter shall install all operating elements of the SCS system, begin operating the system, complete all other measures specified in its approved SCS development plan, begin compliance with the requirements of § 57.404, and assume liability for any violations of the NAAQS within its designated liability area (except as provided by Subpart D), detected by the SCS monitors in place.

(2) Within nine months thereafter the smelter shall submit the SCS Report, assume liability for all violations of the NAAQS detected anywhere within its designated liability area, and comply with all other requirements of Subpart D, except for those which Subpart D specifies are to be satisfied at or after the close of such nine-month period, including requirements for submission of studies, reports, and records, and the requirements for continued review and evaluation of the SCS.

§ 57.704 Compliance with fugitive emission evaluation and control requirements.

This section applies only to smelters not required to submit SIP Compliance Schedules under § 57.705. Each NSO shall require that smelters satisfy each of the requirements of Subpart E as expeditiously as practicable, taking into account the extent to which those requirements have already been satisfied, and in any event, within any deadlines specified below.

(a) *Plan for fugitive emission control.* The NSO shall provide that within a reasonable period after the submission of the report on the fugitive emission control study required by § 57.502, but

within a period allowing sufficient time for compliance with the requirement of § 57.503 for amendment of the NSO, the smelter owner shall submit to the issuing agency for its approval a proposed fugitive emission control plan, including increments of progress, for compliance with the requirements of §§ 57.501 and 57.503.

(b) *SCS Report.* If the fugitive emission control plan submitted under paragraph (a) of this section proposes to meet the requirements of §§ 57.501 and 57.503 through the additional use of a supplementary control system, the plan shall demonstrate that the use of supplementary controls at that smelter to prevent violations of the NAAQS resulting from fugitive emissions is practicable, adequate, reliable, and enforceable. The plan shall contain increments of progress providing for completion of the implementation of each additional measure, and for corresponding compliance with the requirements of paragraphs (b) and (c) of § 57.404, within four months of approval of the plan by the issuing agency. The plan shall also provide that within three months after completion of implementation of those additional measures, the smelter shall fully comply with the requirements of §§ 57.401 and 57.501 (including the assumption of liability for violations of NAAQS within its designated liability area), and shall submit an additional SCS report for the approval of the issuing agency. This additional final report shall correspond to that submitted under § 57.405(b)(2), except that it need not contain the 3-month study described in § 57.405(b)(2)(iii).

(c) *NSO amendment.* The amendments of the NSO required under § 57.503 shall be affected by the issuing agency as follows:

(1) With respect to the additional use of SCS, upon approval or promulgation of the plan submitted under paragraph (a) of this section and upon approval or promulgation of the requirements for the system described in the additional SCS Report under paragraph (b) of this section;

(2) With respect to the additional use of engineering techniques, upon approval or promulgation of the compliance schedule required by paragraph (a) of this section.

§ 57.705 Contents of SIP Compliance Schedule required by § 57.201(d) (2) and (3).

This section applies to smelters which are required to submit a SIP Compliance Schedule as discussed below.

(a) Each SIP Compliance Schedule required by § 57.201(d) (2) and (3) must contain the following elements:

(1) Description of the overall design of the SO₂ control system(s) to be installed;

(2) Descriptions of specific process hardware to be used in achieving compliance with the SIP emission limitation including gas capacity values;

(3) The date by which contracts will be let or purchase orders issued to accomplish any necessary performance improvements;

(4) The date for initiating on-site construction or installation of necessary equipment;

(5) The date by which on-site construction or installation of equipment is to be completed;

(6) The date for achievement of final compliance with SIP emission limitations; and

(7) Any other measures necessary to assure compliance with all SIP requirements as expeditiously as practicable.

(b) *Operations of SCS.* Smelters to which § 57.705 is applicable must comply with all elements of § 57.703.

Subpart H—Waiver of Interim Requirement for Use of Continuous Emission Reduction Technology

§ 57.801 Purpose and scope.

(a) This subpart shall govern all proceedings for the waiver of the interim requirement that each NSO provide for the use of constant controls.

(b) In the absence of specific provisions in this subpart, and where appropriate, questions arising at any stage of the proceeding shall be resolved at the discretion of the Presiding Officer or the Administrator, as appropriate.

§ 57.802 Request for waiver.

(a) *General.* (1) Each smelter owner requesting a waiver shall complete, sign, and submit Appendix A (Test for Eligibility for Interim Waiver). Copies of Appendix A may be obtained from any EPA Regional Administrator, or from the Director, Stationary Source Compliance Division (EN-341), United States Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460. Claims of confidentiality shall be made as provided in § 57.203.

(2) The smelter owner shall append to the completed and signed Appendix A full copies of all documents, test results, studies, reports, scientific literature and assessments required by Appendix A. To the extent that the material consists of generally available published material, the smelter owner may cite to the material in lieu of appending it to Appendix A. The smelter owner shall specifically designate those portions of any documents relied upon and the facts

or conclusions in Appendix A to which they relate.

(b) *Effect of submitting incomplete application.* (1) The Administrator, or a person designated by him to review applications for waivers, may advise the smelter owner in writing whenever he determines that additional information is needed in order to make the waiver eligibility determinations required by Section 119(d)(2) of the Act. The smelter owner shall promptly supply such information. All additional information requested under this paragraph and filed in the manner required by paragraph (d) shall be deemed part of Appendix A.

(2) Failure to comply with the requirements of paragraphs (a) and (b)(1) of this section shall be grounds for denial of the requested waiver.

(c) *Time for requesting waivers.* Any request for a waiver must be submitted to the Administrator by the smelter owner at the time of the application for an NSO from the State or the Administrator, as the case may be. Where a smelter was issued a second period NSO by a State before these regulations went into effect, a request for a waiver shall be made and a completed Appendix A shall be submitted, within sixty days of the effective date of these regulations, unless an extension is granted by the Administrator, or his designee, for good cause.

(d) *Submission of request.* A copy of Appendix A (plus attachments) which has been completed for the purpose of requesting a waiver of constant control requirements shall be filed with the Administrator, addressed as follows: Director, Stationary Source Compliance Division (EN-341), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460, Attn: Confidential Information Unit.

(e) *Eligibility.* A smelter shall be eligible for consideration under this subpart only if it establishes that (1) its existing strong stream controls, if any, lack the capacity while in full operation to treat all strong stream sulfur dioxide emissions and (2) bypass of strong stream controls due to excess strong stream sulfur dioxide emissions cannot be avoided with improved operation and maintenance of existing strong stream controls and process equipment.

(f) *Criteria for Decision.* The Administrator shall grant or approve a waiver, whichever is appropriate, for any eligible smelter as to which he finds, in accordance with the methods and procedures specified in Appendix A, that:

(1) The higher of the two net present values of future cash flows completed

under the two alternative sets of assumptions set forth in the instructions to schedule D.6 in Appendix A in less than liquidation (salvage) value; or

(2) The smelter's average variable costs at all relevant levels of production (after installation of interim constant control equipment) would exceed the weighted average price of smelter output for one year or more.

§ 57.803 Issuance of tentative determination; notice.

(a) *Tentative determination.* (1) The EPA staff shall formulate and prepare:

(i) A "Staff Computational Analysis," using the financial information submitted by the smelter owner under § 57.802 to evaluate the economic circumstances of the smelter for which the waiver is sought;

(ii) A tentative determination as to whether an interim requirement for the use of constant controls would be so costly as to necessitate permanent or prolonged temporary cessation of operations at the smelter for which the waiver is requested. The tentative determination shall contain a "Proposed Report and Findings" summarizing the conclusions reached in the Staff Computational Analysis, discussing the estimated cost of interim controls, and assessing the effect upon the smelter of requiring those controls. The tentative determination shall also contain a proposed recommendation that the waiver be granted or denied, based upon the Proposed Report and Findings, and stating any additional considerations supporting the proposed recommendation. This tentative determination shall be a public document.

(2) In preparing the Proposed Report and Findings, the EPA staff shall attempt to the maximum extent feasible to avoid revealing confidential information which, if revealed, might damage the legitimate business interests of the applicant. The preceding sentence notwithstanding, the tentative determination shall be accompanied by a listing of all materials considered by EPA staff in developing the tentative determination. Subject to the provisions of § 57.814(a), full copies of all such materials shall be included in the administrative record under § 57.814, except that, to the extent the material consists of published material which is generally available, full citations to that material may be given instead.

(b) *Public notice.* Public notice of EPA's tentative determination to grant or deny an application for a waiver shall be given by:

(1) Publication at least once in a daily newspaper of general circulation in the area in which the smelter is located; and

(2) Posting in the principal office of the municipality in which the smelter is located.

(c) *Individual notice.* Individual notice of EPA's tentative determination to grant or deny an application for a waiver shall be mailed to the smelter owner by certified mail, return receipt requested, and to the air pollution control agency for the State in which the smelter is located.

(d) *Request for individual notice.* EPA shall mail notice of its tentative determination to grant or deny an application for waiver to any person upon request. Each such request shall be submitted to the Administrator in writing, shall state that the request is for individual notice of tentative determination to grant or deny any application for a waiver under Section 119(d) of the Clean Air Act, and shall describe the notice or types of notices desired (e.g., all notices, notices for a particular Region, notices for a particular State, notice for a particular city).

(e) *Form of notice.* The notice of tentative determination required to be distributed under paragraphs (b), (c), and (d) of this section shall include, in addition to any other materials, the following:

(1) A summary of the information contained in Appendix A;

(2) The tentative determination prepared under paragraph (a) of this section: Provided, that except in the case of the smelter owner, a summary of the basis for the grant or denial of the waiver may be provided in lieu of the formal determinations required by paragraph (a)(1) of this section;

(3) A brief description of the procedures set forth in § 57.804 for requesting a public hearing on the waiver request, including a statement that such request must be filed within 30 days of the date of the notice;

(4) A statement that written comments on the tentative determination submitted to EPA within 60 days of the date of the notice will be considered by EPA in making a final decision on the application; and

(5) The location of the administrative record and the location at which interested persons may obtain further information on the tentative determination, including a copy of the index to the record, the tentative determination prepared under paragraph (a) of this section, and any other nonconfidential record materials.

§ 57.804 Request for hearing; request to participate in hearing.

(a) *Request for hearing.* Within 30 days of the date of publication or receipt of the notice required by § 57.803, any person may request the Administrator to hold a hearing on the tentative determination by submitting a written request containing the following:

(1) Identification of the person requesting the hearing and his interest in the proceeding;

(2) A statement of any objections to the tentative determination; and

(3) A statement of the issues which such person proposes to raise for consideration at such hearing.

(b) *Grant or denial of hearing; notification.* Whenever (1) the Administrator has received a written request satisfying the requirements of paragraph (a) of this section which presents genuine issues as to the effect on the smelter of the requirement for use of constant controls, or (2) the Administrator determines in his discretion that a hearing is necessary or appropriate the Administrator shall give written notice of his determination to each person requesting such hearing and the smelter owner, and shall provide public notice of his determination in accordance with § 57.803(b). If the Administrator determines that a request filed under paragraph (a) of this section does not comply with the requirements of paragraph (a) or does not present genuine issues, he shall be given written notice of his decision to deny a hearing to the person requesting the hearing.

(c) *Form of notice of hearing.* Each notice of hearing disseminated under paragraph (b) of this section shall contain:

(1) A statement of the time and place of the hearing;

(2) A statement identifying the place at which the official record on the application for waiver is located, the hours during which it will be open for public inspection, and the documents contained in the record as of the date of the notice of hearing;

(3) The due date for filing a written request to participate in the hearing under paragraph (d) of this section;

(4) The due date for making written submissions under 57.805; and

(5) The name, address, and office telephone number of the hearing Clerk for the hearing.

(d) *Request to participate in hearing.* Each person desiring to participate in any hearing granted under this section, including any person requesting such a hearing, shall file a written request to participate with the Hearing Clerk by

the deadline set forth in the notice of hearing. The request shall include:

(1) A brief statement of the interest of the person in the proceeding;

(2) A brief outline of the points to be addressed;

(3) An estimate of the time required; and

(4) If the request is submitted by an organization, a nonbinding list of the persons to take part in the presentation. As soon as practicable, but in no event later than two weeks before the scheduled date of the hearing, the Hearing Clerk shall make available to the public and shall mail to each person who asked to participate in the hearing a hearing schedule.

(e) *Effect of denial of or absence of request for hearing.* If no request for a hearing is made under this section, or if all such requests are denied under paragraph (b) of this section, the tentative determination issued under § 57.803 shall be treated procedurally as if it were a recommended decision issued under § 57.811(b)(2), except that for purposes of §§ 57.812 and 57.813 the term "hearing participant" shall be construed to mean the smelter owner and any person who submitted comments under § 57.803(e)(4).

§ 57.805 Submission of written comments on tentative determination.

(a) *Main comments.* Each person who has filed a request to participate in the hearing shall file with the Hearing Clerk no later than 30 days before the scheduled start of the hearing (or such other date as may be set forth in the notice of hearing) any comments which he has on the request for waiver and EPA's tentative determination, based on information which is or reasonably could have been available to that person at the time.

(b) *Reply comments.* Not later than two weeks after a full transcript of the hearing becomes available (or such other date as may be set forth in the notice of hearing), each person who has filed a request to participate in the hearing shall file with the Hearing Clerk any comments he may have on:

(1) Written comments submitted by other participants pursuant to paragraph (a) of this section;

(2) Written comments submitted in response to the notice of hearing;

(3) Material in the hearing record; and

(4) Material which was not and could not reasonably have been available prior to the deadline for submission of main comments under paragraph (a) of this section.

(c) *Form of comments.* All comments should be submitted in quadruplicate and shall include any affidavits, studies,

tests or other materials relied upon for making any factual statements in the comments.

(d) *Use of comments.* (1) Written comments filed under this section shall constitute the bulk of the evidence submitted at the hearing. Oral statements at the hearing should be brief, and restricted either to points that could not have been made in written comments, or to emphasizing points which are made in the comments, but which the participant believes can be more forcefully urged in the hearing context.

(2) Notwithstanding the foregoing, within two weeks prior to either deadline specified by paragraph (a) of this section for the filing of main comments, any person who has filed a request to participate in the hearing may file a request with the Presiding Officer to submit all or part of his main comments orally at the hearing in lieu of submitting written comments. The Presiding Officer shall, within one week, grant such request if he finds that such person will be prejudiced if he is required to submit such comments in written form.

§ 57.806 Presiding Officer.

(a) *Assignment of Presiding Officer.*

(1) The Administrator shall, as soon as practicable after the granting of a request for hearing under § 57.803, request that the Chief Administrative Law Judge assign an Administrative Law Judge as Presiding Officer. The Chief Administrative Law Judge shall thereupon make the assignment.

(2) If all parties to the hearing waive their right to have the Agency or an Administrative Law Judge preside at the hearing, the Administrator shall appoint an EPA employee having the qualifications of a Judicial Officer as defined in § 57.103 to serve as Presiding Officer.

(b) *Powers and duties of Presiding Officer.* It shall be the duty of the Presiding Officer to conduct a fair and impartial hearing, assure that the facts are fully elicited, and avoid delay. The Presiding Officer shall have authority to:

(1) Chair and conduct administrative hearings held under this subpart;

(2) Administer oaths and affirmations;

(3) Receive relevant evidence;

Provided, that the administrative record, as defined in § 57.814, shall be received in evidence;

(4) Consider and rule upon motions, dispose of procedural requests, and issue all necessary orders;

(5) Hold conferences for the settlement or simplification of the issues or the expediting of the proceedings; and

(6) Do all other acts and take all measures necessary for the maintenance of order and for the efficient, fair and impartial conduct of proceedings under this subpart.

§ 57.807 Hearing.

(a) *Composition of hearing panel.* The Presiding Officer shall preside at the hearing held under this subpart. An EPA panel shall also take part in the hearing. In general, the membership of the panel shall consist of EPA employees having special expertise in areas related to the issues to be addressed at the hearing, including economists and engineers. For this reason, the membership of the panel may change as different issues are presented for discussion.

(b) *Additional hearing participants.* Either before or during the hearing, the Presiding Officer, after consultation with the panel, may request that a person not then scheduled to participate in the hearing (including an EPA employee or a person identified by any scheduled hearing participant as having knowledge concerning the issues raised for discussion at the hearing) make a presentation or make himself available for cross-examination at the hearing.

(c) *Questioning of hearing participants.* The panel members may question any person participating in the hearing. Cross-examination by persons other than panel members shall not be permitted at this stage of the proceeding except where the Presiding Officer determines, after consultation with the panel, that circumstances compel such cross-examination. However, persons in the hearing audience, including other hearing participants, may submit written questions to the Presiding Officer for the Presiding Officer to ask the participants, and the Presiding Officer may, after consultation with the panel, and in his sole discretion, ask these questions.

(d) *Submission of additional material.* Participants in the hearing shall submit for the hearing record such additional material as the hearing panel may request within 10 days following the close of the hearing, or such other period of time as is ordered by the Presiding Officer. Participants may also submit additional information for the hearing record on their own accord within 10 days after the close of the hearing.

(e) *Transcript.* A verbatim transcript shall be made of the hearing.

§ 57.808 Opportunity for Cross-examination.

(a) *Request for cross-examination.* After the close of the panel hearing conducted under this part, any participant in that hearing may submit a

written request for cross-examination. The request shall be received by EPA within one week after a full transcript of the hearing becomes available and shall specify:

(1) The disputed issue(s) of material fact as to which cross-examination is requested. This shall include an explanation of why the questions at issue are factual, rather than of an analytical or policy nature; the extent to which they are in dispute in the light of the record made thus far, and the extent to which and why they can reasonably be considered material to the decision on the application for a waiver; and

(2) The person(s) the participant desires to cross-examine, and an estimate of the time necessary. This shall include a statement as to why the cross-examination requested can be expected to result in full and true disclosure resolving the issue of material fact involved.

(b) *Order granting or denying request for cross-examination.* As expeditiously as practicable after receipt of all requests for cross-examination under paragraph (a) of this section, the Presiding Officer, after consultation with the hearing panel, shall issue an order either granting or denying each such request, which shall be disseminated to all persons requesting cross-examination and all persons to be cross-examined. If any request for cross-examination is granted, the order shall specify:

(1) The issues as to which cross-examination is granted;

(2) The persons to be cross-examined on each issue;

(3) The persons allowed to conduct cross-examination;

(4) Time limits for the examination of witnesses; and

(5) The date, time and place of the supplementary hearing at which cross-examination shall take place. In issuing this ruling, the Presiding Officer may determine that one or more participants have the same or similar interests and that to prevent unduly repetitious cross-examination, they should be required to choose a single representative for purposes of cross-examination. In such a case, the order shall simply assign time for cross-examination by that single representative without identifying the representative further.

(c) *Supplementary hearing.* The Presiding Officer and at least one member of the original hearing panel shall preside at the supplementary hearing. During the course of the hearing, the Presiding Officer shall have authority to modify any order issued under paragraph (b) of this section. A

verbatim transcript shall be made of this hearing.

(d) *Alternatives to cross-examination.*

(1) No later than the time set for requesting cross-examination, a hearing participant may request that alternative methods of clarifying the record (such as the submittal of additional written information) be used in lieu of or in addition to cross-examination. The Presiding Officer shall issue an order granting or denying such request at the time he issues (or would have issued) an order under paragraph (b) of this section. If the request is granted, the order shall specify the alternative provided and any other relevant information (e.g., the due date for submitting written information).

(2) In passing on any request for cross-examination submitted under paragraph (a) of this section, the Presiding Officer may, as a precondition to ruling on the merits of such request, require that alternative means of clarifying the record be used whether or not a request to do so has been made under the preceding paragraph. The person requesting cross-examination shall have one week to comment on the results of utilizing such alternative means, following which the Presiding Officer, as soon as practicable, shall issue an order granting or denying such person's request for cross-examination.

§ 57.809 Ex parte communications.

(a) *General.* (1) No interested person outside the Agency or member of the Agency trial staff shall make or knowingly cause to be made to any member of the decisional body an ex parte communication relevant to the merits of the proceedings.

(2) No member of the decisional body shall make or knowingly cause to be made to any interested person outside the Agency or member of the Agency trial staff an ex parte communication relevant to the merits of the proceedings.

(b) *Effect of receipt of ex parte communication.* (1) A member of the decisional body who receives or who makes or knowingly causes to be made a communication prohibited by this subsection shall place in the record all written communications or memoranda stating the substance of all oral communications together with all written responses and memoranda stating the substance of all responses.

(2) Upon receipt by any member of the decisionmaking body of an ex parte communication knowingly made or knowingly caused to be made by a party or representative of a party in violation of this section, the person presiding at the stage of the hearing then in progress

may, to the extent consistent with justice and the policy of the Clean Air Act, require the party to show cause why its claim or interest in the proceedings should not be dismissed, denied, disregarded, or otherwise adversely affected on account of such violation.

(c) *Definitions.* For purposes of this section, the following definitions shall apply:

(1) "Agency trial staff" means those Agency employees, whether temporary or permanent, who have been designated by the Agency as available to investigate, litigate, and present the evidence arguments and position of the Agency in the evidentiary hearing or non-adversary panel hearing. Appearance as a witness does not necessarily require a person to be designated as a member of the Agency trial staff.

(2) "Decisional body" means any Agency employee who is or may reasonably be expected to be involved in the decisional process of the proceeding including the Administrator, Judicial Officer, Presiding Officer, the Regional Administrator (if he does not designate himself as a member of the Agency trial staff), and any of their staff participating in the decisional process. In the case of a non-adversary panel hearing, the decisional body shall also include the panel members whether or not permanently employed by the Agency.

(3) "Ex parte communication" means any communication, written or oral, relating to the merits of the proceeding between the decisional body and an interested person outside the Agency or the Agency trial staff which was not originally filed or stated in the administrative record or in the hearing. Ex parte communications do not include:

(i) Communications between Agency employees other than between the Agency trial staff and the member of the decisional body;

(ii) Discussions between the decisional body and either:

(A) Interested persons outside the Agency; or

(B) The Agency trial staff if all parties have received prior written notice of such proposed communications and have been given the opportunity to be present and participate therein.

(4) "Interested person outside the Agency" includes the smelter owner, any person who filed written comments in the proceeding, any person who requested the hearing, any person who requested to participate or intervene in the hearing, any participant or party in the hearing and any other interested

person not employed by the Agency at the time of the communications, and the attorney of record for such persons.

§ 57.810 Filing of briefs, proposed findings, and proposed recommendations.

Unless otherwise ordered by the Presiding Officer, each hearing participant may, within 20 days after reply comments are submitted under § 57.805(b), or if a supplementary hearing for the purpose of cross-examination has been held under § 57.808(c), within 20 days after the transcript of such supplemental hearing becomes available or if alternative methods of clarifying the record have been used under § 57.808(d), within 20 days after the alternative methods have been employed, file with the Hearing Clerk and serve upon all other hearing participants proposed findings and proposed recommendations to replace in whole or in part the findings and recommendations contained in the tentative determination. Any such person may also file, at the same time, a brief in support of his proposals, together with references to relevant pages of transcript and to relevant exhibits. Within 10 days thereafter each participant may file a reply brief concerning alternative proposals. Oral argument may be held at the discretion of the Presiding Officer on motion of any hearing participant or sua sponte.

§ 57.811 Recommended decision.

As soon as practicable after the conclusion of the hearing, one or more responsible employees of the Agency shall evaluate the record for preparation of a recommended decision and shall prepare and file a recommended decision with the Hearing Clerk. The employee(s) preparing the decision will generally be members of the hearing panel and may include the Presiding Officer. Such employee(s) may consult with and receive assistance from any member of the hearing panel in drafting a recommended decision and may also delegate the preparation of the recommended decision to the panel or to any member or members of it. This decision shall contain the same elements as the tentative determination. After the recommended decision has been filed, the Hearing Clerk shall serve a copy of such decision on each hearing participant and upon the Administrator.

§ 57.812 Appeal From or Review of Recommended Decision.

(a) *Exceptions.* (1) Within 20 days after service of the recommended decision, any hearing participant may take exception to any matter set forth in such decision or to any adverse order or

ruling of the Presiding Officer prior to or during the hearing to which such participant objected, and may appeal such exceptions to the Administrator by filing them in writing with the Hearing Clerk. Such exceptions shall contain alternative findings and recommendations, together with references to the relevant pages of the record and recommended decision. A copy of each document taking exception to the recommended decision shall be served upon every other hearing participant. Within the same period of time each party filing exceptions shall file with the Administrator and shall serve upon all hearing participants a brief concerning each of the exceptions being appealed. Each brief shall include page references to the relevant portions of the record and to the recommended decision.

(2) Within 10 days of the service of exceptions and briefs under paragraph (a)(1) of this section, any hearing participant may file and serve a reply brief responding to exceptions or arguments raised by any other hearing participant together with references to the relevant portions of the record, recommended decision, or opposing brief. Reply briefs shall not, however, raise additional exceptions.

(b) *Sua sponte review by the Administrator.* Whenever the Administrator determines sua sponte to review a recommended decision, notice of such intention shall be served upon the parties by the Hearing Clerk within 30 days after the date of service of the recommended decision. Such notice shall include a statement of issues to be briefed by the hearing participants and a time schedule for the service and filing of briefs.

(c) *Scope of appeal or review.* The appeal of the recommended decision shall be limited to the issues raised by the appellant, except when the Administrator determines that additional issues should be briefed or argued. If the Administrator determines that briefing or argument of additional issues is warranted, all hearing participants shall be given reasonable written notice of such determination to permit preparation of adequate argument.

(d) *Argument before the Administrator.* The Administrator may, upon request by a party or sua sponte, set a matter for oral argument. The time and place for such oral argument shall be assigned after giving consideration to the convenience of the parties.

§ 57.813 Final decision.

(a) *After review.* As soon as practicable after all appeal or other

review proceedings have been completed, the Administrator shall issue his final decision. Such a final decision shall include the same elements as the recommended decision, as well as any additional reasons supporting his decisions on exceptions filed by hearing participants. The final decision may accept or reject all or part of the recommended decision. The Administrator may consult with the Presiding Officer, members of the hearing panel or any other EPA employee in preparing his final decision. The Hearing Clerk shall file a copy of the decision on all hearing participants.

(b) *In the absence of review.* If no party appeals a recommended decision to the Administrator and if the Administrator does not review it sua sponte, he shall be deemed to have adopted the recommended decision as the final decision of the Agency upon the expiration of the time for filing any exceptions under § 57.812(a).

(c) *Timing of judicial review.* For purposes of judicial review, final Agency action on a request for a waiver of the interim requirement that each NSO provide for the use of constant controls shall not occur until EPA approves or disapproves the issuance of an NSO to the source requesting such a waiver.

§ 57.814 Administrative record.

(a) *Establishment of record.* (1) Upon receipt of request for a waiver, an administrative record for that request shall be established, and a Record and Hearing Clerk appointed to supervise the filing of documents in the record and to carry out all other duties assigned to him under this subpart.

(2) All material required to be included in the record shall be added to the record as soon as feasible after its receipt by EPA. All material in the record shall be appropriately indexed. The Hearing Clerk shall make appropriate arrangements to allow members of the public to copy all nonconfidential record materials during normal EPA business hours.

(3) Confidential record material shall be indexed under paragraph (a)(2). Confidential record material shall, however, be physically maintained in a separate location from public record material.

(4) Confidential record material shall consist of the following:

(i) Any material submitted pursuant to § 57.802 for which a proper claim of confidentiality has been made under section 114(c) of the Act and 40 CFR Part 2; and

(ii) The Staff Computational Analysis prepared under § 57.803

(b) *Record for issuing tentative determination.* The administrative record for issuing the tentative determination required by § 57.803 shall consist of the material submitted under § 57.802 and any additional materials supporting the tentative determination.

(c) *Record for acting on requests for cross-examination.* The administrative record for acting on requests for cross-examination under § 57.808 shall consist of the record for issuing the tentative determination, all comments timely submitted under §§ 57.803(e)(4) and 57.805, the transcript of the hearing, and any additional material timely submitted under § 57.807(d).

(d) *Record for preparation of recommended decision.* The administrative record for preparation of the recommended decision required by § 57.811 shall consist of the record for acting on request for cross-examination, the transcript of any supplementary hearing held under § 57.808(c), any materials timely submitted in lieu of or in addition to cross-examination under § 57.808(d), and all briefs, proposed findings of fact and proposed recommendations timely submitted under § 57.810.

(e) *Record for issuance of final decision.* (1) Where no hearing has been held, the administrative record for issuance of the Administrator's final decision shall consist of the record for issuing the tentative determination, any comments timely submitted under § 57.803(e)(4), any briefs or reply briefs timely submitted under § 57.812 (a) through (c), and the transcript of any oral argument granted under § 57.812(d).

(2) Where a hearing has been held, the administrative record for issuance of the Administrator's final decision shall consist of the record of preparation of the recommended decision, any briefs or reply briefs submitted under § 57.812 (a) through (c), and the transcript of any oral argument granted under § 57.812(d).

§ 57.815 State Notification.

The Administrator shall give notice of the final decision in writing to the air pollution control agency of the State in which the smelter is located.

§ 57.816 Effect of Negative recommendation.

No waiver of the interim requirement for the use of constant controls shall be granted by the Administrator or a State unless the Administrator or a State first takes into account the Administrator's report, findings, and recommendations as to whether the use of constant controls would be so costly as to

necessitate permanent or prolonged temporary cessations of operation of the smelter.

Subparts I and J—[Reserved]

Appendix A—Primary Nonferrous Smelter Order (NSO) Application

Instructions

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1. General Instructions

1.1 Purpose of the Application

This application provides financial reporting schedules and the accompanying instructions for EPA's determination of eligibility for a nonferrous smelter order (NSO), and for a waiver of the interim constant controls requirement of an NSO. Although the determination of eligibility for an NSO is prerequisite for the determination of a waiver, Appendix A, as a matter of convenience to applicants, includes both the

NSO and waiver tests and reporting schedules.

In order to support an NSO eligibility determination, the applicant must submit operating and financial data as specified by the schedules included in this application. Specific instructions for completing each schedule are provided in subsequent sections of the instructions. In general, applicants must provide:

(a) Annual income statements, balance sheets and supporting data covering the five most recent fiscal years for the smelter for which the NSO requested.

(b) Forecasts of operating revenues, operating costs, net income from operations and capital investments for the firm's smelter operations subject to this application, on the basis of anticipated smelter operations without any sulfur dioxide air pollution control facilities that have not been installed as of the NSO application date.

(c) Forecasts of operating revenues, operating costs, net income from operations and capital investments for the firm's smelter operations subject to this application, on the basis of anticipated smelter operations with expected additional sulfur dioxide control facilities required to comply with the smelter's SIP emission limitation.

(d) For smelters applying for a waiver of interim constant controls, forecasts of operating revenues, operating costs, and capital investments for the firm's smelter operations prepared on the basis of two alternative assumptions: (1) Installation of additional pollution control facilities required to comply with interim constant control requirements, no installation of any additional SO₂ controls that the smelter would otherwise be required to install but for the issuance of an NSO, and closure of the smelter after January 1, 1988; and (2) installation of additional pollution control facilities required to comply with interim constant control requirements, installation of any additional SO₂ controls required to comply with the smelter's SIP emission limitation by January 2, 1988, and continued operation of the smelter after January 1, 1988.

1.2 NSO Financial Tests

EPA will use separate tests to determine eligibility for an NSO and to evaluate applications for a waiver of the interim constant control requirement. The two tests for NSO eligibility employ a present value approach for determining the reasonable availability of constant control technology that will enable an applicant to achieve full compliance with its SIP sulfur dioxide emission limitation. The tests for the waiver of the interim constant control requirements employ variable costing and discounted cash flow standards for evaluating an applicant's economic capability to implement those requirements.

1.2.1 *NSO Eligibility Tests.* Each applicant must establish that the system of production and/or constant control technology that will enable the smelter to achieve full compliance with its SIP SO₂ emission limitation standard is not reasonably available. An applicant will determine financial eligibility for an NSO by

passing at least one of the following two tests.

(a) *Profit Protection Test.* The smelter will experience a reduction in pre-tax profits of 50 percent or more after undertaking the required installation of constant controls.

(b) *Rate of Return Test.* The smelter will earn a rate of return on historical net investment, expressed in constant dollars, below the industry average cost of capital after undertaking the required installation of constant controls.

1.2.2 Temporary Waiver from Interim Controls. Applicants that do not have an existing constant control system or whose constant controls are not sufficient when in operation and optimally maintained to treat all strong streams in accordance with Subpart C, may apply for a waiver of the requirements of Subpart C with respect to any interim constant controls not already installed. Applicants will be eligible for a temporary waiver of the requirement for interim constant controls not already installed, if they can establish pursuant to the procedures in this application that the imposition of such control requirements would economically necessitate closure of the smelter facility for a period of one year or longer. The economic justification for a non-permanent closure under this temporary waiver test is defined as a situation in which the smelter's projected operating revenues for one or more years during which the NSO is in effect are inadequate to cover variable operating costs anticipated after installing the required interim control technology. Temporary waivers will be granted for only the period of time over which applicants can establish an inability by the firm to cover its variable operating costs. Interim control waiver requests based on the smelter's projected inability to earn adequate income after installation of interim pollution control equipment will be subject to the permanent waiver test.

1.2.3 Permanent Waiver from Interim Controls. Applicants that do not have an existing constant control system or whose constant controls are not sufficient when in operation and optimally maintained to treat all strong streams in accordance with Subpart C, may apply for a waiver of the requirements of Subpart C with respect to any interim constant controls not already installed. Applicants will be eligible for a permanent waiver of the requirement for interim constant controls not already installed, if they can establish pursuant to the procedures in this application that an imposition of such control requirements would necessitate permanent closure of the smelter. Economic justification for a permanent closure is defined as a situation in which the present value of future cash flows anticipated from the smelter after installing the required interim control technology is less than the smelter's current salvage value under an orderly plan of liquidation. Future cash flows are determined under two alternative assumptions. The higher present value of cash flows computed under these assumptions is then compared to salvage value.

1.2.4 EPA Contact for NSO Inquiries. Inquiries concerning this portion of the

requirements for NSO application should be addressed to Laxmi M. Kesari, Environmental Protection Agency, EN 341, 401 M Street SW., Washington, D.C. 20460.

1.2.5 Certification. The NSO Certification Statement must be signed by an authorized officer of the applicant firm.

1.3 Confidentiality

Applicants may request that information contained in this application be treated as confidential. Agency regulations concerning claims of confidentiality of business information are contained in 40 CFR Part 2 Subpart B (41 FR 36902 *et seq.*, September 1, 1976, as amended by 43 FR 39997 *et seq.*, September 8, 1978). The regulations provide that a business may, if it desires, assert a business confidentiality claim covering part or all of the information furnished to EPA. The claim must be made at the same time the applicable information is submitted. The manner of asserting such claims is specified in 40 CFR 2.203(b). Information covered by such a claim will be handled by the Agency in accordance with procedures set forth in the Subpart B regulations. EPA will not disclose information on a business that has made a claim of confidentiality, except to the extent of and in accordance with 40 CFR Part 2, Subpart B. However, if no claim of confidentiality is made when information is furnished to EPA, the information may be made available to the public without notice to the business.

2. NSO Financial Reporting Overview

2.1 Revenue and Cost Assignment. The amounts assigned to operations of the smelter subject to this NSO application should include (1) revenues and costs directly attributable to the smelter's operating activities and (2) indirect operating costs shared with other segments of the firm to the extent that a specific causal and beneficial relationship can be identified for the allocation of such costs to the smelter. Do not allocate revenues and costs associated with central administrative activities for which specific causal and beneficial relationships to the activities of the smelter cannot be established. Nonallocable items include, but are not restricted to, amounts such as dividend and interest income on centrally administered portfolio investments, central corporate administrative office expenses and, except for schedules supporting the Profit Protection Test, interest on long-term debt financing arrangements. Provide a detailed explanation of amounts classified as nontraceable on a separate schedule and attach as part of Exhibit B.

2.2 Transfer Prices on Affiliated Part Transactions. Certain transactions by the smelter subject to an NSO application may reflect sales to or purchases from "affiliated" customers or suppliers with whom the smelter has a common bond of ownership and/or managerial control. In preparing this application, affiliated party transactions shall be defined as transactions with any entity that the firm, or its owners, controls directly or indirectly either through an ownership of 10 percent or more of the entity's voting interests or through an exercise of managerial responsibility. Applicants must attach as part of Exhibit B supporting schedules explaining

the pricing policies established on affiliated party transactions incorporated in the financial reporting schedules.

Prices on inter-segment material and product transfers within a firm, or on external purchases from and sales to other affiliated suppliers and customers, may differ from the prices on comparable transactions with unaffiliated suppliers and customers. In this event, applicants also must present in the Exhibit B supporting schedules and incorporate in the NSO financial reporting schedules appropriate adjustments for restating affiliated party transactions. Affiliated party transactions must be restated at either (a) equivalent prices on comparable transactions with unaffiliated parties if such price quotations can be obtained or (b) prices that provide the selling entity with a normal profit margin above its cost of sales if a meaningful comparison with unaffiliated transaction prices cannot be established.

A "normal" profit margin is defined as the gross operating profit per dollar of operating revenue that will provide an average after-tax rate of return on permanent capital (total assets less current liabilities). This average rate of return is defined differently for the historical and forecast periods. The applicant must use a rate of return of 8.0 percent for the historical period. This figure is based on a historical average earned rate of return for the nonferrous metals industry.¹ EPA may update this figure periodically. The updates will be available in the rulemaking docket or from the **INFORMATION CONTACT** noted in the Federal Register. For the forecast period, the applicant must use a rate of return equal to the current weighted average cost of capital for the nonferrous metals industry, as computed in Section 2.6.

Forecast smelting charges for integrated smelters can be computed from forecast market smelting charges. Integrated copper smelters may use as the basis of their forecast revenues the forecast copper smelting charges provided by EPA, adjusted as described in Section 2.4.1. An applicant may submit other forecasts, providing the forecast methodology is in accordance with the guidelines in Section 2.5 and fully documented as part of Exhibit B.

2.3 Forecasting Requirements. NSO applicants must provide the Agency with financial forecasts in Schedules B.1 through B.6 and C.1 through C.2. Applicants requesting either a temporary or permanent waiver from interim constant control requirements also must provide an additional set of financial forecasts in Schedules D.1 through D.4.

2.3.1 Forecast Period. The forecast period must include at least two full years following completion and startup of the required pollution control system. The forecast period shall be from 1984 through 1990 for an NSO application filed in 1984. If an application is filed in a later year, the 1984 through 1990 period should be adjusted accordingly. All references in this Appendix to the period

¹ The derivation of this figure is explained in two memoranda to EPA (Item Nos. B-A-1 and V-A-8a in EPA Docket No. A-82-35).

1984 through 1990 should be interpreted accordingly.

2.3.2 Forecast Adjustment by Control Case. Some line items that have the same title in several schedules may contain different information because they are based on different assumptions regarding pollution controls. Production interruptions or curtailments due to the installation of pollution control facilities may require adjustments to certain revenue and cost estimates in the respective control cases. For example, production curtailments associated with supplementary control systems may be the basis for the pre-control case, yet are eliminated when constant controls replace supplementary control systems in the constant controls case. The application of pollution control techniques that involve process changes in the smelter's operations (e.g., conversion to flash smelting) also may require specific forecasts by applications of associated impacts on incremental operating revenues and costs.

2.3.3 Nominal Dollar Basis. Applicants must make their financial forecasts in terms of nominal dollars. Forecasts of selected parameters provided by EPA will furnish guidelines to an applicant in preparing the required cost and revenue estimates. In particular, copper smelting charges provided in nominal-dollar terms must be used directly by the applicant as given; i.e., the stipulated charge estimates should not be inflated.

	1984	1985	1986	1987	1988	1989	1990
Copper smelting charge ¹ (cents per pound)	14.5	14.6	16.0	15.3	15.3	15.5	15.4
Annual Percentage Rates of Change							
Wages	5.0	5.7	5.8	6.1	6.4	6.7	7.0
Energy prices:							
Electricity	7.0	8.8	8.1	8.3	7.1	4.9	5.5
Natural gas	3.6	5.7	9.3	8.7	9.2	8.0	8.4
Coal	5.1	7.0	8.9	9.0	9.7	9.7	9.7
Fuel oil	1.6	4.2	7.7	6.8	9.8	9.5	9.9
GNP price deflator	4.8	5.0	5.0	5.2	5.8	5.8	5.9

¹ Reference charge for calculating smelter-specific copper smelting charges as described in Section 2.4.1.

2.4.1 Copper smelting charge. EPA will supply a forecast of reference copper smelting charges. These charges, which are f.o.b. U.S. mine, are based on an estimate of export smelting charges and on the differential value of copper in the U.S. and the world market. They must be used in forecasting unaffiliated party revenues for the period following the expiration of existing contracts and in forecasting affiliated party revenues for the entire forecast period. The applicant may submit its own smelting charge forecast for the post-contract period, provided that such forecast is in accordance with the guidelines in Section 2.5 and fully documented and substantiated as part of Exhibit B.

The EPA forecast export charge represents the world market copper smelting charge with copper valued at the London Metal Exchange (LME) copper price. This charge serves as the reference charge for the applicant copper smelter in calculating its smelting charges. Applicant copper smelters must derive their smelting charges from this world market charge as described in paragraph (a) below.

2.3.4 Tolling Service Equivalent Basis. Applicants must express all revenue forecasts on a tolling service equivalent basis. Thus, forecast revenues are computed as the product of the forecast quantity of processed concentrate, the forecast average product grade of the concentrate (the percent of metal in the concentrate), and the forecast smelting charge. Smelters that are not tolling smelters and that do not use the copper smelting charges provided by EPA (as described in Section 2.4.1) can forecast a smelting charge from forecast product grade of the concentrate, percent recovery, and product and concentrate prices. The forecast prices and derivation of the smelting charge must be in accordance with the guidelines in Section 2.5, and the methodology must be fully documented in Exhibit B.

2.4 EPA Furnished Forecast Data. In making projection for the period 1984 through 1990, applicants must, except as noted below, use the indices provided by EPA. The table below presents yearly values for each index (expressed as annual percentage rates of change) to be used by smelters applying for an NSO before January 1, 1985. If forecasts are needed for 1991 and EPA has not provided new forecasts, applicants should use the Data Resources, Inc. forecasts for 1991 (Docket Item No. IV-A-6c) and the average of CRU's forecasts for 1989 and 1990 (expressed in 1991 dollars).

The applicant may adjust the derived smelter-specific smelting charge to account for other factors, provided the adjustments are fully documented as part of Exhibit B. An example of such a factor is the unit deduction for metallurgical losses in smelting. Adjustment for this factor is discussed in paragraph (b) below.

(a) *The derivation of a smelter-specific smelting charge from the world market charge* is based on assumptions regarding transportation costs and the U.S. producer-world copper price differential. The EPA forecast export charge is the forecast smelting charge available at a Japanese smelter, with copper valued at the London Metal Exchange copper price. The charge includes no freight costs, which must be paid by the mine. A U.S. smelter determines its smelting charge to a mine by meeting the combined world market smelting charge, adjusted to reflect copper valued at the U.S. producer price, and the transportation charge from the mine to the Japanese smelter. This combined price is the highest that a mine is willing to pay for smelting.

The smelter's net smelting charge is equal to the combined world smelting charge,

adjusted to the U.S. producer price for copper (i.e., the export forecast charge plus the U.S. producer price premium), and the transportation cost between the mine and a Far East smelter, minus the cost of transporting the concentrate between the mine and the applicant smelter.

The applicant smelter's net smelting charge for concentrate from an individual mine is computed by first adding the U.S. producer Price-LME world price differential to the EPA-supplied forecast. The cost of transporting copper from the U.S. mine to the Far East is then added to this figure. The net smelting charge is obtained by subtracting from this total the cost of transporting copper from the mine to the applicant smelter. In making these calculations, an applicant must supply (and fully document in Exhibit B), the freight cost between the mine and the Far East and between the mine and the smelter. This freight cost must be converted to nominal dollars of the respective forecast years by applying the GNP percentage price change forecasts supplied by EPA or smelter-provided forecasts of transportation price changes. The smelter-provided forecasts of transportation price changes must comply with guidelines regarding such forecasts in Section 2.5.

An applicant must use a 3 cent per pound U.S. producer price premium (relative to the LME price) in calculating the smelter's net smelting charge. The applicant may substitute its own forecasts of the U.S. producer price premium if it can substantiate such forecasts in accordance with the guidelines in Section 2.5 regarding applicant-provided smelting charge forecasts of principal products. All supporting documentation for such applicant-supplied forecasts must be supplied in Exhibit B. Any updates of the producer price premium will be available in the rulemaking docket or from the **INFORMATION CONTACT** noted in the **Federal Register**.

The following two representative examples illustrate this methodology for making the transportation and U. S. producer price premium adjustment.

(1) The applicant smelter, located in Arizona, obtains concentrate from an adjacent mine. The freight charge from mine to smelter is zero. The mine is willing to pay the applicant smelter an amount no higher than the sum of the world market smelting charge (adjusted for the copper value differential) and the transportation cost of shipping copper from the mine to the Far East. This combined cost is the net charge received by the applicant smelter. If the export smelting charge is 12 cents per pound and the freight cost between the mine and the Far East is 13 cents per pound, the applicant smelter would calculate a net smelting charge equal to 28 cents: 12 cents plus 3 cents (for the U.S. producer price premium) plus 13 cents (for the freight cost between the mine and the Far East).

(2) The applicant smelter obtains concentrate from a nonadjacent mine. The mine will pay a charge no higher than the total market smelting charge, valued at the U.S. producer price, and the transportation costs between the mine and a Far East smelter. The applicant's net smelting charge

is equal to this combined cost minus the transportation costs for shipping the concentrate between mine and applicant smelter.

Suppose that the mine to Far East freight charge is 13 cents per pound and the mine to applicant smelter freight charge is 4 cents per pound. If the export smelting charge is 12 cents per pound, the net smelting charge is equal to 24 cents per pound: 12 cents plus 3 cents (for the U.S. producer price premium) plus 13 cents (for the freight cost to the Far East) minus 4 cents (for the freight cost to the applicant smelter).

(b) *The EPA forecast charges are based on a one unit deduction for metallurgical losses.* This means that if a concentrate grades 25 percent copper, the mine is only credited with 24 percent for metal return. The one unit deduction on 25 percent concentrate is equivalent to a 96 percent payment for contained copper. Should a smelter recover less than 96 percent, its revenue would be less than the EPA forecast smelting charge. Should a smelter recover more than 96 percent, its revenue would be greater than the EPA forecast smelting charge.

2.4.2 Indices (Annual Percentage Changes). These indices, which are expressed as annual percentage rate changes in price (wages, energy prices, and GNP price deflator) must be used only for estimating the rate of price increases for the forecast period following the expiration of the applicant's current contracts. The applicant may use alternative forecasts of annual percentage changes for the forecast period following the expiration of current contracts, if justification is provided. Any such alternative forecasts must be prepared by a widely-recognized forecasting authority with expertise comparable to that of the forecaster relied upon by EPA. In addition, the documentation of these forecasts must be comparable to that provided by EPA's forecaster.

The wage indices are to be applied to wage paid to manufacturing labor. The energy price indices are to be applied to prices of the respective energy products. The GNP price deflators are to be applied to prices for non-metal, non-labor, and non-energy inputs.

2.5 Applicant Generated Forecasts. Within the specified limitations, applicants may submit a method of forecasting smelting charges and by-product, co-product and other prices. The method selected must be explained and unit prices or costs provided where applicable. The forecast elements must be compatible with an applicant's historical cost and revenue elements to permit direct comparisons of historical and forecast data. Applicants must attach as part of Exhibit B appropriate schedules explaining variances between forecast and historical unit costs for the smelter.

Forecasts of the smelting charges of the smelter's principal product (i.e., copper, lead, zinc, etc.) may be prepared either by an independent forecasting authority or by the smelter's in-house personnel. If the forecasts are prepared by an independent forecasting authority, the following conditions must be satisfied: (1) The forecasting authority must have expertise comparable to that of the forecaster relied upon by EPA. (2) As much documentation of the forecasting

methodology as can reasonably be obtained must be made available to EPA. Such documentation must, at a minimum, be comparable to the documentation supporting EPA smelting charge forecasts.²

If the smelting charge forecasts are prepared by in-house personnel, the following conditions must be met: (1) The in-house forecasts must be certified as being based on sound methodology by an independent forecasting authority with expertise comparable to that of the forecaster who prepared the EPA-supplied smelting charges. The independent forecasting authority shall also provide a brief explanation of the basis for the conclusion reached in the certification. (2) The smelter owner shall provide EPA with the documentation of the forecasting methodology employed, which must at a minimum be comparable to the extent of documentation supporting EPA's smelting charge forecasts. The smelter owner shall also make available upon request by EPA such additional documentation of the methodology and underlying data as EPA considers appropriate for evaluation of the forecasts.

Forecasts of freight cost changes, which are applied to the freight costs used in calculating a smelter's net smelting charges, must be prepared by a widely-recognized forecasting authority. The forecaster's expertise must be comparable to that of the forecaster relied upon by EPA in forecasting the annual percentage changes in wages, energy prices, and GNP. The documentation of these forecasts must be comparable to that provided by EPA's forecaster.

To the maximum extent practicable, by-product, co-product and (when applicable) unaffiliated smelting charges must be stated at market prices adjusted to f.o.b. smelter. Adjustments of these pricing bases must be made to reflect differences in grades and types of production. All adjustments must be consistent with expected sales, grades and types of concentrate processed. Applicants must attach as part of Exhibit B schedules describing and explaining the methods used to forecast these revenue items and the adjustments required for these revenue forecasts.

Applicants must explain fully any changes from the historical data that are required to forecast labor productivity, ore-concentrate grade and composition, materials and energy consumption per unit of output, yield rates and other physical input/output relationships.

Existing contractual terms must be used in forecasting those sales or input costs or prices to which the applicant is committed by contracts. The use of contract-dictated prices must be disclosed and supported by attaching as part of Exhibit B the terms and duration of labor and other supplier arrangements.

Cost of compliance estimates need not be to the accuracy of final design/bid estimates; feasibility grade estimates will be acceptable. Updated cost of compliance estimates used in internal five year plans or specially prepared estimates of costs of compliance will generally be satisfactory.

² Documentation of the EPA forecasts is provided as part of Item NO. IV-A-2 in EPA Docket No. A-82-35.

2.6 Weighted Average Cost of Capital for Nonferrous Metal Producers. The industry average cost of capital is a weighted average of the rates of return for equity and debt. Its components are the interest rate and the return on equity specific to the nonferrous metals industry.

2.6.1 Computation. The applicant must compute the cost of capital according to the following formula:

$$R = (0.65 \times E) + (0.182 \times I)$$

R = weighted average cost of capital
E = return on equity
I = interest rate.

The components are calculated as follows.

(a) *Return on equity for the nonferrous metals industry.* The 20 year Treasury bond yield to maturity plus a risk premium of 8.6 percent.

(b) *Interest Rate.* The 20 year Treasury bond yield to maturity plus a risk premium of 3.0 percent.

(c) *Source of the 20 Year Treasury bond yield.* Federal Reserve Bulletin, most recent monthly issue. Use the average yield for the most recent full month.

2.6.2 Discount Factor. The discount factor corresponding to the weighted average cost of capital for any forecast year is computed according to the following equation:

$$DF = \frac{1}{(1+R)^N}$$

where

DF = discount factor

R = weighted average cost of capital

N = the number of years in the future (e.g., for the applicant applying in 1984, N = for the forecast year 1985).

The horizon value, which is described in Section 2.7, is computed as of 1990, the end of the detailed forecast period. The discount factor to be applied to the horizon value is the same as for any other 1990 figure. For example, if the application is made in 1984, the value of N is 7.

2.7 Horizon Value. The horizon value is the present value of a stream of cash flows or net income for 15 years beyond the last forecast year. Applicants must compute the horizon value by capitalizing the average forecast value of the last two forecast years using the current real weighted cost of capital. The line item instructions for schedules having a horizon value entry will specify the values to be capitalized.

The applicant averages the values of the last two years after expressing both values in terms of the last year's dollars. The two-year average value is then multiplied by 9.6. This is the factor associated with capitalizing a 15 year value stream at the current real weighted cost of capital of 8.2 percent.

Applicants must use a separate schedule to calculate the horizon value for the Rate of

³ The derivation of the formula and the basis of the parameters are explained in two memoranda to EPA (Item Nos. II-A-1 and IV-A-6a in EPA Docket No. A-82-35).

Return Test and the Interim Controls Test (Schedule C.5 and D.7, respectively). These separate schedules adjust for potential overstatements in the horizon value cash flows that may be caused by control equipment depreciation reported for tax purposes.

2.8 Data Entry

2.8.1 Rounding. All amounts (including both dollar values and physical units) reported in the schedules and exhibits accompanying this application must be rounded to the nearest thousand and expressed in thousands of dollars or units unless otherwise indicated in the instructions.

2.8.2 Estimates. Where an applicant's records cannot produce the specific data required by this application, the use of estimates will be allowed if a meaningful estimate can be made without significant distortion of the reported results. Data estimates must be supported by attaching on a separate sheet of paper as a part of Exhibit B an explanation identifying where such estimates are used and showing explicitly how the estimates were made.

2.8.3 Missing Data. Applicants must provide, where applicable, all operating and financial data requested by this application. Only substantially complete applications can be accepted for processing by the Agency. Questions concerning data entries for which information is not provided by or cannot reasonably be estimated from the applicant's existing accounting records should be addressed to the EPA Contact for NSO Inquiries.

2.8.4 Historical Period. The annual data requested in the historical schedules, Schedules A.1 through A.4, must be reported for each of the five fiscal years immediately preceding the year in which this application is filed. The historical period shall be from fiscal years 1979 through 1983 for an NSO application filed in 1984. If an application is filed in a later year, the references in this Appendix to the period 1979 through 1983 should be interpreted accordingly.

2.9 Use of Schedules

All applicants must complete Schedules A.1 through A.4, which record historical revenues, cost, and capital investment data. These schedules will be used by EPA to assist in evaluating forecast data. Completion of the remaining schedules depends on the test required of the applicant.

2.9.1 NSO Eligibility. An NSO applicant must pass one of the following two tests and complete the corresponding schedules.

(a) **Profit Protection Test.** The applicant must complete Schedules B.1 through B.7 to determine eligibility under the Profit Protection Test. Schedules B.1 and B.2 report the base case (without constant controls) revenue and cost forecast, respectively, and Schedule B.3 summarizes Schedules B.1 and B.2. Base case production forecasts should reflect any production curtailments associated with interim controls currently (preforecast) installed on smelters. Schedules B.4 and B.5 report the revenue and cost forecast, respectively, for the constant controls case, and Schedule B.6 summarizes Schedules B.4 and B.5 for the Profit Protection Test.

Schedule B.7 presents the calculations for the Profit Protection Test. The applicant enters the forecast profits from Schedules B.3 and B.6. The present value of the forecast profits is then computed for each case. If the present value of forecast pre-tax profits with constant controls is less than 50 percent of the present value of forecast pre-tax profits without controls (base case) the smelter passes the test and is eligible for an NSO. The smelter also passes the test if the present value of forecast pre-tax profits without controls (base case) is negative.

(b) **Rate of Return Test.** The applicant must complete Schedules B.4, B.5, and C.1 through C.5 to determine eligibility under the Rate of Return Test. Schedules B.4 and B.5 report the revenue and cost forecast, respectively, for the constant controls case, and Schedule C.1 summarizes Schedules B.4 and B.5 for the Rate of Return Test. Schedule C.2 reports forecast sustaining capital investment for the constant controls case. Schedule C.3 reports historical net investment for the most recent fiscal year expressed in constant dollars, i.e., dollars of the year in which the application is made.

Schedule C.4 presents the calculations for the Rate of Return Test. The applicant reports in Schedule C.4 the forecast cash flows from Schedules C.1 and C.2 and the horizon value from Schedule C.5, computes their present value, and subtracts the value of invested capital in constant dollars (taken from Schedule C.3) to yield net present value. If the net present value is less than zero, the smelter passes the test and is eligible to receive an NSO. This result indicates that the smelter is expected to earn a rate of return less than the industry average cost of capital.

2.9.2 Interim Control Waivers. An applicant for a waiver from interim controls must complete either a portion or all of Schedules D.1 through D.7, depending on whether the application is for a temporary or permanent waiver.

(a) **Temporary Waiver from Interim Controls Test.** The applicant must complete Schedules D.1 through D.3 to establish eligibility for a temporary waiver from interim controls. Schedules D.1 and D.2 report forecast revenue and cost data under the assumption of installation of interim constant control equipment and no installation of any additional SO₂ controls that the smelter would otherwise be required to install but for the issuance of the NSO. Schedule D.3 summarizes Schedules D.1 and D.2 and calculates gross operating profit. If gross operating profit is negative for any year during which the NSO is in effect, the applicant is eligible for a temporary waiver.

(b) **Permanent Waiver from Interim Controls Test.** The applicant must complete Schedules D.1 through D.7. All schedules except for Schedule D.5 must be completed twice, based on two alternative assumptions: (1) installation of interim constant control equipment, no installation of any additional SO₂ controls that the smelter would otherwise be required to install but for the issuance of the NSO, and closure of the smelter after January 1, 1988; and (2) installation of interim constant control equipment, installation of any additional SO₂ controls required to comply with the smelter's

SIP emission limitation by January 2, 1988, and continued operation of the smelter after January 1, 1988.

Schedules D.1 and D.2 report forecast revenue and cost data under each assumption. Schedule D.3 summarizes Schedules D.1 and D.2, and Schedule D.4 reports forecast sustaining capital under each assumption. Schedule D.5 reports cash proceeds from liquidation.

Schedule D.6 presents the calculations for the permanent waiver test. In Schedule D.6, the applicant reports cash flow projections from Schedules D.3 and D.4 and the horizon value from Schedule D.7, computes their present value and subtracts the current salvage value (taken from Schedule D.5) to yield net present value. The higher of the two net present value figures computed under the two alternative assumptions must be used in the test. If the higher net present value figure is negative, the applicant is eligible for a permanent waiver.

2.10 Use of Exhibits

In addition to data required by the schedules included in this application, the following information must be attached as exhibits.

2.10.1 Exhibit A. Background information on the firm's organizational structure and its associated accounting and financial reporting systems for primary nonferrous activities. This information must include, where applicable, the firm's:

(a) Operating association with an ownership control in consolidated subsidiaries, unconsolidated subsidiaries, joint ventures and other affiliated companies.

(b) Organizational subdivision of its primary nonferrous activities into profit centers, cost centers and/or related financial reporting entities employed to control the operation of its mines, concentrators, smelters, refineries and other associated facilities.

(c) Material and product flows among the smelter subject to this NSO application, other integrated facilities and its affiliated suppliers and/or customers. In the case of integrated facilities, applicants must provide process flow diagrams depicting the operating interrelationships among its mines, concentrators, smelters, refineries and other integrated facilities. For both integrated and nonintegrated facilities, applicants also must describe the proportion contributed to its primary nonferrous activities by material purchases from and product sales to affiliated suppliers and customers.

(d) Annual operating capacity over the five most recent fiscal years for the smelter subject to this application. Operating capacity must be defined in terms of the total quantity of throughput that could have been processed with the available facilities after giving appropriate allowance to normal downtime requirements for maintenance and repairs. Operating capacity data also must consider both capacity balancing requirements among processing steps and annual processing yield rates attainable for each facility.

(e) Weighted average analysis of concentrates processed and tonnage produced annually over each of the five most

recent fiscal years by the smelter subject to this application.

(f) Accounting system and policies for recording investment expenditures, operating revenues, operating costs and income taxes associated with its primary nonferrous activities. Applicants also must provide a complete description of allocation techniques employed for assigning investments, revenues, costs and taxes to individual profit, cost of departmental centers for which costs are accumulated. Applicants must further indicate the relationship of cost and/or departmental accounting entities to the firm's established profit centers.

(g) Annual five-year operating and capital expenditure plans (or budgets) by individual nonferrous profit center. These documents must include previous plans prepared for the five preceding fiscal years as well as the current one-year and five-year operating and capital expenditure plans. At least the current one-year and five-year plans must provide a specific breakdown of investment expenditures and operating costs associated with the operation and maintenance of each profit center's existing and proposed pollution control facilities.

2.10.2 Exhibit B. Supplemental description and explanation of items appearing in the financial reporting schedules. Other parts of Section 2 and the detailed instructions for the Schedules specify the information required in Exhibit B.

2.10.3 Exhibit C. Financial data documentation. Applicants must document annual balance sheet, income statement and supporting data reported for the firm's preceding five fiscal years or for that portion of the past five years during which the firm engaged in smelter operations. This documentation must be provided by attaching to the application:

(a) SEC 10-K reports filed by the parent corporation for each of the preceding five fiscal years.

(b) Certified financial statements prepared on a consolidated basis for the parent corporation and its consolidated subsidiaries. This requirement may be omitted for those years in which SEC 10-K reports have been attached to this Exhibit.

(c) Business Segment Information reports filed with the Securities and Exchange Commission by the firm for each of the preceding five years (as available).

Schedule A.1—Historical Revenue Data

General

Use Schedule A.1 to report annual historical revenue data for fiscal years 1979 through 1983. Revenues include product sales and associated operating revenues, net of returns and allowances, from smelter sales and/or transfers of copper, lead, zinc and molybdenum or other nonferrous metal products and tolling services to both unaffiliated and affiliated customers. The line items in Schedule A.1 are explained in the following instructions.

Lines 01, 14, 27 and 40—Primary Nonferrous Product Sales. Report for each year the total quantity of copper, lead, zinc and molybdenum or other nonferrous metal product sales.

Lines 02, 15, 28 and 41—Unaffiliated Customer Sales. Report for each year the

respective quantities of copper, lead, zinc and molybdenum or other nonferrous metal product sales to unaffiliated customers.

Lines 03, 16, 29 and 42—Unaffiliated Customer Revenues. Report for each year the total operating revenues derived from smelter sales of copper, lead, zinc and molybdenum or other nonferrous metals to unaffiliated customers.

Lines 04, 17, 30 and 43—Unaffiliated Customer Prices. Report for each year the average unit price received on smelter sales of copper, lead, zinc and molybdenum or other nonferrous metals to unaffiliated customers. The prices are computed as operating revenues reported on Lines 03, 16, 29 and 42 divided by the quantities reported on Lines 02, 15, 28 and 41, respectively.

Lines 05, 18, 31 and 44—Average Product Quality Grade. Report for each year the average quality rating assigned to copper, lead, zinc and molybdenum or other nonferrous metal products purchased by the smelter's unaffiliated customers.

Lines 06, 19, 32 and 45—Affiliated Customer Sales. Report for each year the respective quantities of copper, lead, zinc and molybdenum or other nonferrous metal product sales to affiliated customers.

Lines 07, 20, 33 and 46—Affiliated Customer Revenues. Report for each year the total operating revenues derived from smelter sales of copper, lead, zinc and molybdenum or other nonferrous metals to affiliated customers. These revenues should be stated at prices equivalent to those received on comparable sales to unaffiliated customers as described in Section 2.2. Attach as part of Exhibit B an explanation of the methodology used to state affiliated customer revenues.

Lines 08, 21, 34 and 47—Affiliated Customer Prices. Report for each year the average unit price received on smelter sales of copper, lead, zinc and molybdenum or other nonferrous metals to affiliated customers. The prices are computed as operating revenues reported on Lines 07, 20, 33 and 46 divided by the quantities reported on Lines 06, 19, 32 and 45, respectively.

Lines 09, 22, 35 and 48—Average Product Quality Grade. Report for each year the average quality rating assigned to copper, lead, zinc and molybdenum or other nonferrous metal products purchased by the smelter's affiliated customers.

Lines 10, 23, 36 and 49—Total Primary Product Revenues. Report for each year total operating revenues derived from the smelter's sales to unaffiliated and affiliated customers of copper (Lines 03 + 07), lead (Lines 16 + 20), zinc (Lines 29 + 33) and molybdenum or other nonferrous metals (Lines 42 + 46).

Lines 11, 24, 37 and 50—Transfer Price Adjustments. Report for each year operating revenue adjustments required to equate affiliated customer transfer prices with unaffiliated customer market prices on smelter sales of copper, lead, zinc and molybdenum or other nonferrous metals. Attach as part of Exhibit B an explanation of the method used for restating transfer prices where such adjustments are necessary.

Lines 12, 25, 38 and 51—Other Revenue Adjustments. Report for each year sales returns and allowances and other adjustments applicable to the smelter's

revenues derived from copper, lead, zinc and molybdenum or other nonferrous metal product sales. Attach as part of Exhibit B a schedule reporting the types and amounts of such adjustments.

Lines 13, 26, 39 and 52—Adjusted Product Revenues. Enter for each year the sums of Lines 10 through 12 for adjusted copper sales (Line 13), Lines 23 through 25 for adjusted lead sales (Line 26), Lines 38 through 38 for adjusted zinc sales (Line 39) and Lines 49 through 51 for adjusted molybdenum or other nonferrous metal sales (Line 52).

Line 53—Primary Metal Revenues. Enter for each year the sum of Lines 13, 26, 39 and 52.

Line 54—Toll Concentrates Processed. Report for each year the total quantity of toll concentrates processed.

Lines 55 to 58—Customer Toll Revenues. Report for each year the quantity of toll concentrates processed for unaffiliated customers (Line 55), total operating revenues derived from this processing (Line 56), average price charged per ton of concentrate processed (Line 57 = Line 56/55) and the average quality rating assigned to toll concentrates processed for unaffiliated customers (Line 58).

Lines 59 to 62—Affiliated Customer Toll Revenues. Report for each year the quantity of toll concentrates processed for affiliated customers (Line 59), total operating revenues derived from such processing (Line 60), average price charged per ton of concentrate processed (Line 61 = Line 60/59) and the average quality rating (Line 62) assigned to toll concentrates processed for affiliated customers.

Line 63—Tolling Service Revenues. Enter for each year the total of amounts reported on Lines 56 and 60.

Line 64—Transfer Price Adjustments. Report for each year operating revenue adjustments required to equate affiliated customer transfer prices with market prices charged to unaffiliated customers on the smelter's tolling services. Attach as part of Exhibit B an explanation of the method used for restating transfer prices where such adjustments are necessary.

Line 65—Other Revenue Adjustments. Report for each year other adjustments applicable to the smelter's tolling service revenues. Attach as part of Exhibit B a schedule reporting the types and amounts of such adjustments.

Line 66—Adjusted Tolling Service Revenues. Enter for each year the total of Lines 63 through 65.

Line 67—Co-Product Revenues. Report for each year the net revenues from sales of co-products derived from the smelter's operations. Attach as part of Exhibit B a schedule showing by individual type of co-product, the quantity produced and sold, market price per unit of sales and total revenues derived from the co-product sales.

Line 68—Pollution Control By-product Revenues. Report for each year revenues from the sale of by-products derived from operation of the smelter's pollution control facilities. Attach as part of Exhibit B a schedule showing by type of by-product produced, the quantity of output, market price

received per unit of output sold and total revenue derived from the by-product sales.

Line 69—Other By-product Revenues. Report for each year revenues from the sales of gold, silver and other by-products derived from the smelter's operations. Attach as part of Exhibit B a schedule providing additional documentation as specified in the instruction for Line 68.

Line 70—Total Co-product and By-product Revenues. Enter for each year the total of Lines 67 through 69.

Schedule A.2—Historical Cost Data

General

Use Schedule A.2 to report annual historical cost and input quantities for smelter operations for fiscal years 1979 through 1983. The line items in Schedule A.2 are explained in the following instructions.

Line 01—Total Quantity Purchased. Report for each year the total quantity of concentrates purchased by the smelter. This will be sum of Lines 02 and 06. Do not include the quantity of toll concentrates.

Line 02—Quantity Purchased. Report for each year the total quantity of concentrates purchased from unaffiliated suppliers by the smelter. Attach as a part of Exhibit B a description of the types and grades of these concentrates. Do not include the quantity of toll concentrates.

Line 03—Concentrate Cost. Report for each year the outlays paid to unaffiliated suppliers for concentrates. Attach as part of Exhibit B an explanation of the method(s) used in determining these outlays and relationship between concentrate prices and the types and grades of concentrates purchased from unaffiliated suppliers.

Line 04—Average Unit Price. Report for each year the average unit price paid for purchases of concentrates from unaffiliated suppliers. Generally, this value will be equivalent to Line 03 divided by Line 02. If this equivalency does not hold, attach as a part of Exhibit B an explanation of the variance.

Line 05—Average Concentrate Grade. Report for each year the average concentrate grade of concentrates purchased from unaffiliated suppliers. Attach as part of Exhibit B an explanation of this average. The average should correspond to the average price reported in Line 04.

Line 06—Quantity Purchased. Report for each year the total quantity of concentrates purchased from affiliated suppliers by the smelter. Attach as part of Exhibit B a description of the types and grades of these concentrates. Do not include the quantity of toll concentrates.

Line 07—Concentrate Cost. Report for each year the actual outlays paid to affiliated suppliers for concentrates. Attach as part of Exhibit B an explanation of the method(s) used in determining these outlays and relationship between concentrate prices and the types and grades of concentrates purchased from affiliated suppliers. Do not reflect any adjustments to market prices here.

Line 08—Average Unit Price. Report for each year the average unit price paid for purchases of concentrates from affiliated suppliers. Generally, this value will be equivalent to Line 07 divided by Line 06. If

this equivalency does not hold, attach as part of Exhibit B an explanation of the variance.

Line 09—Average Concentrate Grade. Report for each year the average concentrate grade of concentrates purchased from affiliated suppliers. Attach as part of Exhibit B an explanation of this average. The average should correspond to the average price reported in Line 08.

Line 10—Total Concentrate Cost. Enter for each year the sum of Lines 03 and 07.

Line 11—Transfer Price Adjustments. Enter for each year the amounts required to adjust outlays paid to affiliated suppliers to market value. Refer to Section 2.2 for instructions on the restatement of affiliated party transactions. Attach as part of Exhibit B a description and the computations of any required cost adjustments.

Line 12—Other Cost Adjustments. Enter for each year the amounts of any other cost adjustments required such as freight or allowances. Attach as part of Exhibit B the identification and the derivation of these adjustments.

Line 13—Adjusted Concentrate Cost. Enter for each year the adjusted concentrate cost reflecting the adjustments reported in Lines 11 and 12.

Line 14—Direct Labor Hours. Report for each year the quantity of direct labor hours required to support the processing levels previously reported. Attach as part of Exhibit B an explanation of the labor productivity factor involved.

Line 15—Average Hourly Wage Rate. Report for each year the average wage rate paid per unit of direct labor input. Attach as part of Exhibit B a description of direct labor costs factors under existing labor contracts and an explanation of the method(s) used to determine wage rates.

Line 16—Total Wage Payments. Enter for each year the product of Lines 14 and 15.

Line 17—Supplemental Employee Benefits. Report adjustments required to direct labor costs for other employee compensation under supplemental benefit plans. Attach as part of Exhibit B a description of such plans and their costs and an explanation of the method(s) used to determine such costs.

Line 18—Total Production Labor Cost. Enter for each year the total of Lines 16 and 17.

Lines 19, 22, 25, 28 and 31—Energy Quantities. Report for each year the quantity of energy by type required to support the processing levels reported in the smelter's revenue. Attach as part of Exhibit B, an explanation of energy use factors and quantities considered in determining the smelter's energy requirements.

Lines 20, 23, 26, 29 and 32—Unit Prices. Report for each year a price paid per unit of energy input by type of energy. Attach as part of Exhibit B, a description of the energy price factors under existing energy contracts and an explanation of the method(s) used to determine unit energy prices.

Lines 21, 24, 27, 30 and 33—Total Payments. Enter for each year the products of quantity and prices paid for electricity (Lines 19×20), natural gas (Lines 22×23), coal (Lines 25×26), fuel oil (Lines 28×29), and other (Lines 31×32).

Line 34—Total Energy Costs. Enter for each year the total of Lines 21, 24, 27, 30 and 33.

Schedule A.3—Historical Profit and Loss Summary

General

Use Schedule A.3 to report annual revenues, cost and income taxes assignable to operation of the smelter subject to this NSO application for fiscal years 1979 through 1983. Assignable revenues and costs should include only the results of transactions either (1) directly associated with smelter operations or (2) for which the applicant can establish a causal and beneficial relationship with smelter operations pursuant to instructions in Section 2.1. The line items in Schedule A.3 are explained in the following instructions.

Line 01—Primary Metal Sales. Enter the totals reported in Schedule A.1, Line 40.

Line 02—Co-Product and By-Product Sales. Report for each year annual revenues, net or returns and allowances, derived from smelter sales and/or transfers of co-products and by-products to both unaffiliated and affiliated customers. Attach as part of Exhibit B a supporting schedule for each major co-product and by-product component of smelter revenues. Segregate the revenues reported by major co-product and by-product components into their unaffiliated customer and affiliated customer elements. Report for each component's unaffiliated and affiliated customer revenue elements the (1) average grade of product sold, (2) actual quantity sold, (3) average price per unit, and (4) total smelter revenues. Also show for each product line any adjustments required to restate transfer prices and explain the basis for such adjustments. Refer to Section 2.2 for instructions on the restatement of affiliated customer revenues.

Line 03—Tolling Service Revenues. Enter the totals reported in Schedule A.1, Line 53.

Line 04—Other Operating Revenues. Report for each year annual revenues directly associated with smelter operations that have not previously been reported on Lines 01 through 03. Attach as part of Exhibit B a schedule showing the types and amounts of sales reported as other operating revenue. The following non-operating revenue and income items should not be included as other operating revenue or as a part of revenues reported on Lines 01 through 03.

- Royalties, licensing fees and other income from intangibles.
- Interest and dividend income on portfolio investments.
- Equity in income (loss) of unconsolidated subsidiaries and affiliates.
- Gain (loss) from discontinued operations and disposal of property.
- Minority interest adjustment to consolidated subsidiary income.
- Extraordinary items.

Line 05—Total Operating Revenue. Enter for each year the total of Lines 01 through 04.

Line 06—Concentrates Processed. Report the cost of concentrates processed and sold or transferred to unaffiliated and affiliated customers from Schedule A.2, Line 13. Concentrates purchased from unaffiliated

suppliers should be valued at the actual prices paid. Concentrates purchased from affiliated suppliers should be valued at or, if necessary, restated to equivalent prices quoted by unaffiliated suppliers. If prices used to report revenues are c.i.f. and concentrate costs are f.o.b. smelter, all transportation charges paid on the smelter's or buyer's account should be excluded from smelter expense. Attach as part of Exhibit B supporting schedules showing the:

- Annual value of concentrate purchases classified according to purchases from unaffiliated and affiliated suppliers.
- Cost of sales adjustments to concentrate purchases for net annual additions to or withdrawals from concentrate inventories, freight-in on concentrate purchases and inventory spoilage.
- Impact on cost of sales for restating, where applicable, the cost of concentrate purchases from affiliated suppliers to the equivalent prices paid to unaffiliated suppliers.
- Volumes, grades and net prices of concentrate purchases from unaffiliated and affiliated suppliers by type of concentrate purchased.
- Volumes, grades and net prices associated with toll concentrates processed by type of concentrate.

Line 07—Other Materials Costs. Report for each year annual costs incurred for flux, refractories, coke and other materials used by the smelter in its processing of concentrates. Materials purchased from unaffiliated suppliers should be valued at the actual prices paid after adjustment for transportation costs incurred. Materials purchased from affiliated suppliers should be valued at or, if necessary, restated to equivalent prices quoted by unaffiliated suppliers. Include in Exhibit B supporting schedules showing the:

- Annual value of material purchases classified according to purchases from unaffiliated and affiliated suppliers.
- Cost of sales adjustments to material purchases for net annual additions to or withdrawals from material inventories, freight costs on material purchases and inventory loss.
- Impact on cost of sales for restating, where applicable, the costs of material purchases from affiliated suppliers to equivalent prices paid to unaffiliated suppliers.
- Classification of other material costs by major cost factors for each cost component that exceeds 20 percent of any line item in the cost of sales schedule.

Line 08—Production Labor Costs. Report for each year total direct labor costs incurred by the smelter for processing purchased and toll concentrates, Schedule A.2, Line 18. Include in Exhibit B supporting schedules showing the:

- Manhours and wage rates for major labor classifications.
- Potential impact on wage rates of provision in the smelter's current labor contracts.
- Explanation of major variances observed in direct labor costs over the five-year period as a result of factors such as strikes or new labor contracts.

Line 09—Energy Costs. Enter the totals reported in Schedule A.2, Line 34.

Line 10—Pollution Control Costs. Report for each year expenses incurred for operating and maintaining pollution control facilities. All by-product credits associated with pollution control facility operations should be eliminated and reported on Line 02. Depreciation and amortization charges against the smelter's pollution control facilities should be reported separately on Line 18. Attach as part of Exhibit B supporting schedules showing the:

- Major pollution control cost elements with their values classified according to direct and indirect cost factors.

• Techniques used to allocate indirect pollution control costs to major cost pools.

Line 11—Production Overhead. Report for each year the total costs for indirect labor, indirect materials and other production overhead costs associated with the smelter. Attach as part of Exhibit B a schedule showing annual overhead costs by major cost components associated with the smelter's operations. For each cost component, where appropriate, identify the quantity and unit price element of overhead costs.

Line 12—Other Production Costs. Report for each year annual smelter overhead and other production costs not previously reported on Lines 06 through 11. By-product credits, if any, should be eliminated and reported on Line 02 as operating revenues. Attach as part of Exhibit B supporting schedules showing the:

- Major cost elements classified according to direct and indirect production costs.
- Disaggregation of major overhead cost components into their fixed and variable cost elements.
- Allocation techniques used in assigning indirect overhead costs to the major cost components.
- Elements of overhead costs represented by purchases from affiliated suppliers and adjustments, if any, required to restate these costs on the basis of equivalent prices paid to unaffiliated supplier.

Line 13—Total Cost of Sales. Enter for each year the total of Lines 06 through 12.

Line 14—Gross Operating Profit. Enter for each year the difference between Lines 05 and 13.

Line 15—Selling, General & Administrative (SG&A) Expenses. Report for each year SG&A expenses attributable to the smelter's annual operating activities. Exclude those operating costs to be reported separately on Lines 16 through 21 and those costs for which causal and beneficial relationships to the smelter cannot be established. Attach as part of Exhibit B supporting schedules (1) segregating SG&A expenses by major expense components, (2) classifying the major expense components according to those costs incurred directly by smelter operations and costs allocated to the smelter from indirect cost pools, and (3) explaining the basis used for indirect cost allocations.

Line 16—Taxes, Other Than Income Tax. Report for each year all taxes (exclusive of Federal, state, local and foreign income taxes) assignable to the smelter's operations. Attach as part of Exhibit B, a schedule that (1) segregates these operating taxes by major

component, (2) classifies each component according to direct and indirect cost elements, and (3) explains the basis used for indirect cost allocations.

Line 17—Research Costs. Report for each year research costs (exclusive of capitalized costs reported in Schedule A.4) that are assignable to the smelter's annual operations. Attach as part of Exhibit B a schedule (1) segregating exploration and research costs by major expense components, (2) classifying each expense component according to direct and indirect cost elements, and (3) explaining the basis used for indirect cost allocations.

Line 18—Pollution Control Depreciation and Amortization. Report for each year annual depreciation and amortization charges attributable to the smelter's investment in pollution control facilities and equipment. Reported charges should be computed in accordance with depreciation and amortization methods adopted for tax reporting purposes by the firm. Attach explanatory supporting schedules as part of Exhibit B.

Line 19—Other Facility Depreciation and Amortization. Report for each year annual depreciation and amortization charges (exclusive of charges reported on Line 18) assignable to the smelter's operations. Attach explanatory supporting schedules as part of Exhibit B.

Line 20—Interest on Short-Term Debt. Report for each year interest expense and associated financial charges on current liabilities in accordance with the assignment instructions in Section 2.1. Do not include interest on the portion of long-term debt due within the current year for each reporting period.

Line 21—Miscellaneous Operating Expenses. Report for each year any additional expenses assignable to the smelter's annual operations. Attach as part of Exhibit B a schedule (1) segregating these additional expenses into major expense components, (2) classifying each expense component according to costs incurred directly by the smelter and costs allocated to the smelter from indirect cost pools, and (3) explaining the basis used for indirect cost allocations.

Line 22—Total Other Operating Expenses. Enter for each year the total of Lines 15 through 21.

Line 23—Income from Operations. Enter for each year the difference between Lines 14 and 22.

Line 24—Gain/(Loss) from Disposition of Property. Report net gains or losses recognized during each year from disposition of property, plant and equipment. Report such gains or losses in accordance with the firm's normal practice for certified financial statement reporting. If such gains or losses are not significant and are classified otherwise, no reclassification need be made. A note to this effect must be included in Exhibit B.

Line 25—Miscellaneous Income and Expenses. Report minority interest in income, foreign currency translation effects, and other non-operating income and expenses directly assignable to the smelter and not recognized elsewhere on this schedule. Report such

items in accordance with the accounting methods used for certified financial reporting purposes.

Line 26—Total Other Income and Expenses. Enter for each year the sum of Lines 24 and 25.

Line 27—Net Taxable Income. Enter for each year the difference between Lines 23 and 26.

Schedule A.4—Historical Capital Investment Summary

General

Use Schedule A.4 to report annual end-of-period asset investments and current liabilities for fiscal years 1979 through 1983. These figures must correspond with the revenues and costs associated with operation of the smelter subject to this NSO application as reported in Schedule A.3.

The amounts assigned to the subject smelter should include both (1) investments and liabilities directly identifiable with the smelter's operating activities and (2) asset investments shared with other segments to the extent that a specific causal and beneficial relationship can be established for the intersegment allocation of such investments. Do not allocate to the smelter the costs of assets maintained for general corporate purposes. Provide a detailed explanation of amounts classified as nontraceable on a separate schedule and attach as part of Exhibit B.

Applicants shall also restate trade receivables and payables for transfer price adjustments on the smelter's transactions with affiliated customers. The line items in Schedule A.4 are explained in the following instructions.

Line 01—Cash on Hand and Deposit. Report for each year total cash balances assignable to the smelter's operations at the end of each year on the basis of causal and beneficial relationships with total corporate activities. Attach as part of Exhibit B in explanation of the basis used for allocation.

Line 02—Temporary Cash Investments. Report for each year temporary cash investments in time deposits or other short-term securities. Include only those investments either held by the smelter to meet current-period tax payments or other budgeted expenditures specifically identifiable with the smelter's continued operation. Exclude any temporary cash investments for which no specific future outlay requirement can be identified.

Attach as part of Exhibit B a schedule classifying temporary cash investments according to identifiable budgeted expenditure requirements.

Lines 03 and 04—Net Trade Receivables. Report for each year trade accounts and notes, net of reserves for uncollectible items, assignable to the smelter in relation to its unaffiliated (Line 03) and affiliated (Line 04) customer sales and transfers. Trade receivables reported by the smelter as due from affiliated customers should be stated or, if necessary, restated on credit terms equivalent to those received by unaffiliated customers on a sale of comparable products. Attach as part of Exhibit B a schedule showing adjustments in the smelter's receivables investments required to equate

trade credit terms extended to affiliated and unaffiliated customers.

Lines 05 and 06—Inventory Investments. Report for each year respective end-of-period investments in raw material, work-in-process and finished good inventories held to support the smelter's production and sale of products (Line 05) and associated inventories of other materials and supplies (Line 06). These inventories must be valued at current market prices. Inventory purchases from affiliated suppliers should also be stated at current market prices or, if necessary, restated at current market prices prevailing on purchases from unaffiliated suppliers. Attach explanatory supporting schedules as part of Exhibit B.

Line 07—Other Current Assets. Report for each year prepaid expenses, deferred charges, non-trade notes and accounts receivable, and other assets classified as current for certified financial statement reporting purposes that are assignable to the smelter's operations. Attach as part of Exhibit B a schedule classifying these other current assets according to their types and amounts.

Line 08—Total Current Assets. Enter for each year the total of Lines 01 through 07.

Lines 09 to 14—Property, Plant and Equipment. Report for each year by individual line item property, plant and equipment investments assignable to smelter operations. Include in gross facility investments at the end of each period both (1) property, plant and equipment directly associated with the smelter's operations and (2) facilities shared with other operating segments to the extent that a causal and beneficial relationship can be established for the inter-segment allocation of such facility investments.

Attach as part of Exhibit B a schedule reporting by individual line item the annual capital expenditures on additional property, plant and equipment investments in the smelter's operations. Further classify these annual capital expenditures into both (1) investments required to maintain the smelter versus investments in smelter expansion and improvement and (2) direct facility versus joint-use facility investments. Explain the method used for allocating capital expenditures on joint-use facilities to the smelter's operations. Refer to Line 17 instructions for additional reporting requirements on the smelter's facility investments.

Line 15—Total Smelter Investment. Enter for each year the total of Lines 09 through 14.

Line 16—Accumulated Depreciation and Amortization. Report for each year accumulated depreciation, amortization and other valuation charges recorded for certified financial statement reporting purposes in relation to smelter investment as reported on Line 15. Other valuation charges are defined in Financial Accounting Standards Board (FASB) Statement No. 19 as losses recognized in connection with an impairment in the value of an unimproved property below its acquisition cost. Refer to Line 17 instructions for additional reporting requirements on smelter facility investments.

Line 17—Net Smelter Investment. Enter for each year the difference between Lines 15

and 16. Attach as part of Exhibit B a schedule classifying gross facility investments, accumulated depreciation, amortization charges, and net facility investments by major pollution control and non-pollution control components. Identify for each asset component the direct versus joint-use investments assigned to the smelter and explain the basis used to allocate amounts associated with joint-use facilities to the smelter.

Line 18—Other Non-Current Assets. Report for each year other assets assignable to the smelter's operations. Attach as part of Exhibit B a schedule reporting by type and amount the major components of such investments.

Line 19—Total Smelter Capital Investment. Enter for each year the total of Lines 08, 17 and 18.

Line 20 and 21—Trade Accounts and Notes Payable. Report for each year trade accounts and notes due on the smelter's purchases from unaffiliated suppliers (Line 20) and on its intersegment transfers or purchases from affiliated suppliers (Line 21). Trade payables reported by the smelter as due to affiliated suppliers should be stated or, if necessary, restated on terms equivalent to those received from unaffiliated suppliers on a purchase of comparable materials. Attach as part of Exhibit B a schedule showing adjustments required on the smelter's trade payables to equate trade credit terms received from affiliated and unaffiliated suppliers.

Line 22—Other Expense Accruals. Report for each year payments classified as current for salaries and wages, other employee benefits, operating taxes and related operating expenses assignable to the smelter's operations. Attach as part of Exhibit B a schedule classifying by type and amount the major components of such accruals.

Line 23—Current Notes Payable. Report for each year payments due to nontrade creditors on short-term financing arrangements directly associated with the smelter's operations. Exclude current installments due on long-term debt financing arrangements, notes due to offices and directors, intersegment loans or advances and loans or advances from affiliated operating segments.

Line 24—Other Current Liabilities. Report for each year other nontrade payables classified as current obligations assignable to the smelter's operations.

Line 25—Total Current Liabilities. Enter for each year the total of Lines 20 through 24.

Line 26—Net Smelter Capital Investment. Enter for each year the difference between Lines 19 and 25.

Schedule B.1—Pre-Control Revenue Forecast

General

Use Schedule B.1 to report annual forecasts of operating revenues anticipated during the years 1984 through 1990 from operation of the smelter subject to this NSO application. These pre-control revenue projections should be based on revenues and production associated with operating the smelter without any SO₂ air pollution controls that have not

been installed as of the NSO application date. Forecast smelter revenues should be expressed on a tolling service equivalent basis as described in Section 2.3.4.

Copper smelters that will process concentrates containing an average of 1,000 pounds per hour or more of arsenic during the forecast period should assume that they will use best engineering techniques to control fugitive emissions of arsenic. All smelters should also assume that they will be required to meet all other regulatory requirements in effect at the time the application is made.

The line items in Schedule B.1 are explained in the following instructions. Attach as part of Exhibit B schedules to (1) explain the methods used to make the required forecasts, (2) explain differences, if any, between historical trends and the forecasts and (3) provide data and information to support the forecasts.

Lines 01 and 05—Concentrates Processed. Report for each year the forecast quantity of concentrates processed for unaffiliated parties (Line 01) and affiliated parties (Line 05).

Lines 02 and 06—Smelting Charge. Report for each year the forecast smelting charge for unaffiliated parties (Line 02) and affiliated parties (Line 06). See Section 2.4 for forecast copper smelting charges furnished by EPA.

Lines 03 and 07—Total Smelter Revenues. Report for each year the forecast total operating revenues derived from processing concentrates. The total for unaffiliated parties (Line 03) is equal to the product of Lines 01, 02, and 04, and for affiliated parties (Line 07), the product of Lines 05, 06, and 08.

Lines 04 and 08—Average Product Grade. Report for each year the forecast average quality rating assigned to concentrates processed for unaffiliated parties (Line 04) and affiliated parties (Line 08).

Line 09—Total Co-Product Revenues. Report for each year the forecast net revenues from sales of co-products derived from the smelter's operations. Attach as part of Exhibit B a schedule showing by individual type of co-product, the forecast quantity produced and sold, forecast market price per unit of sales, and forecast total revenues derived from the co-product sales.

Line 10—Total By-product Revenues From Pollution Control Facilities. Report for each year forecast revenues from the sale of by-products derived from operation of the smelter's pollution control facilities, excluding any SO₂ air pollution controls that have not been installed as of the NSO application date. Attach as part of Exhibit B a schedule showing by type of by-product produced (e.g., sulfuric acid) the forecast quantity of output, forecast market price per unit of output sold, and forecast total revenue derived from the by-product sales.

Line 11—Total By-product Revenues From Other Smelter Processing. Report forecast revenues from the sales of gold, silver, and other by-products derived from the smelter's operations. Attach as part of Exhibit B a schedule providing additional documentation as specified in the instructions for Line 10.

Line 12—Total Co-product and By-product Revenues. Enter for each year the total of Lines 09 through 11.

Schedule B.2—Pre-Control Cost Forecast

General

Use Schedule B.2 to report annual forecasts of operating costs anticipated during the years 1984 through 1990 from operation of the smelter subject to this NSO application. These pre-control cost projections should be based on costs and production associated with operating the smelter without any SO₂ air pollution controls that have not been installed as of the NSO application date.

Copper smelters that will process concentrates containing an average of 1,000 pounds per hour or more of arsenic during the forecast period should assume that they will use best engineering techniques to control fugitive emissions of arsenic. All smelters should also assume that they will be required to meet all other regulatory requirements in effect at the time the application is made.

The line items in Schedule B.2 are explained in the following instructions. Attach as part of Exhibit B schedules to (1) explain the methods used to make the required forecasts, (2) explain differences, if any, between historical trends and the forecasts, and (3) provide data and information to support the forecasts.

Line 01—Direct Labor Hours. Report for each year the quantity of direct labor hours required to support the processing levels previously reported. Attach as part of Exhibit B an explanation of the labor productivity factors involved.

Line 02—Average Hourly Wage Rate. Report for each year the forecast average wage rate per unit of direct labor input. Attach as part of Exhibit B a description of direct labor cost factors under any existing labor contracts that extend to the forecast period and an explanation of the methodology used to forecast wage rates. EPA-provided forecast wage indices are reported in Section 2.4.

Line 03—Total Wage Payments. Enter for each year the product of Lines 01 and 02.

Line 04—Supplemental Employee Benefits. Report for each year adjustments required to direct labor costs for other employee compensation under supplemental benefit plans. Attach as part of Exhibit B a description of such plans and their costs and an explanation of the methodology used to forecast such costs. EPA-provided forecast wage indices are reported in Section 2.4.

Line 05—Total Production Labor Cost. Enter for each year the total of Lines 03 and 04.

Lines 06, 09, 12, 15 and 18—Energy Quantities. Report for each year the quantity of energy by type required to support the processing levels reported in the smelter's revenue. Attach as part of Exhibit B an explanation of energy characteristics and use factors considered in forecasting the smelter's future energy requirements.

Lines 07, 10, 13, 16, and 19—Unit Prices. Report for each year the forecast price per unit of energy input by type of energy. Attach as part of Exhibit B a description of the energy price factors under any existing energy contracts that extend to the forecast period and an explanation of the methodology used to forecast unit energy prices. EPA-provided forecast energy indices are reported in Section 2.4.

Lines 08, 11, 14, 17, and 20—Total Payments. Enter for each year the products of quantity and prices paid for electricity (Lines 06×07), natural gas (Lines 09×10), coal (Lines 12×13), fuel oil (Lines 15×16), and other (Lines 18×19).

Line 21—Total Energy Costs. Enter for each year the total of Lines 08, 11, 14, 17, and 20.

Schedule B.3—Pre-Control Forecast Profit and Loss Summary

General

Use Schedule B.3 to report annual forecasts of operating revenues and operating costs derived in Schedules B.1 and B.2 for the years 1984 through 1990. The transfer of line items from Schedules B.1 and B.2 to this Schedule is explained in the following instructions.

Line 01—Smelter Revenues-Unaffiliated Parties. Enter the totals reported in Schedule B.1, Line 03.

Line 02—Smelter Revenues-Affiliated Parties. Enter the totals reported in Schedule B.1, Line 07.

Line 03—Co-product and By-product Sales Revenues. Enter the totals reported in Schedule B.1, Line 12.

Line 04—Other Operating Revenues. Report operating revenues anticipated from sources not accounted for under Lines 01 through 03. Refer to instructions for Line 04 of Schedule A.3 for items that should not be included in "Other Operating Revenues." Attach as part of Exhibit B a schedule showing annual amounts forecast by individual revenue component for "other" operating revenues associated with the smelter's forecast pre-control operations. Identify in the supporting schedule any differences in the "other" revenue components reported in this Schedule and Schedule A.3 and explain the reasons for such differences.

Line 05—Total Operating Revenues. Enter for each year the total of Lines 01 through 04.

Line 06—Material Costs. Report total costs forecast for flux, refractories, coke and other materials directly associated with the smelter's processing of concentrates. Attach as part of Exhibit B a schedule showing the annual amounts forecast by major material cost components. For each cost component, identify the forecast quantity and unit price elements of material cost and explain the basis for forecasting these quantity and price elements. Identify in the supporting schedule any differences in the "other" material cost components shown in this Schedule and Schedule A.3 and explain the reasons for such differences.

Line 07—Production Labor Costs. Enter the totals reported in Schedule B.2, Line 05.

Line 08—Energy Costs. Enter the totals reported in Schedule B.2, Line 21.

Line 09—Pollution Control Costs. Report the total costs forecast for expenses identifiable with operation and maintenance of all pollution control equipment and facilities except any SO₂ air pollution controls that have not been installed as of the NSO application date. By-product credits associated with operation of the pollution control facilities should be eliminated from the cost accounts, reclassified to Schedule

B.1. Line 10 and included in Line 03 of this Schedule. Attach a schedule as part of Exhibit B classifying pollution control costs by major cost components. Explain the basis used for estimating each of the cost components.

Line 10—Production Overhead Costs. Report the total costs forecast for indirect labor, indirect materials and other production overhead costs associated with the smelter's operations. Attach as part of Exhibit B a schedule showing annual overhead costs projected by major cost components associated with the smelter's operations. For each cost component, where appropriate, identify the forecast quantity and unit price elements of overhead costs and explain the basis for estimating these quantity and price elements. Also identify in the supporting schedule any differences in production overhead cost classifications used in this Schedule and Schedule A.3 and explain the reasons for such differences.

Line 11—Other Production Costs. Report other forecast production costs not previously reported on Lines 06 through 10. Attach as part of Exhibit B supporting schedules showing the basis of the forecasts.

Line 12—Total Cost of Sales. Enter for each year the sum of operating costs reported on Lines 06 through 11.

Line 13—Gross Operating Profit. Enter for each year the difference between Lines 05 and 12.

Line 14—Selling, General and Administrative Expenses. Report the total costs forecast for administrative, marketing and general corporate overhead functions that directly or indirectly support the smelter's operations. Refer to the NSO Financial Reporting Overview for a general discussion of indirect cost allocations from overhead cost pools. Attach as part of Exhibit B a schedule classifying selling, general and administrative expenses into major cost components. Indicate whether each component represents costs directly assignable to the smelter or indirect costs allocated from other business segments to the smelter. Explain the basis used for estimating the amount of expected costs included in each component and the basis used for allocating indirect cost elements to the smelter. Identify and explain any differences between the selling, general and administrative cost classification used in this Schedule and that used in Line 15 of Schedule A.3.

Line 15—Taxes, Other than Income Taxes. Report the total costs forecast for property taxes and associated levies paid to governmental units by or for the benefits of the smelter operation. Attach as part of Exhibit B a schedule classifying operating taxes by major component. Indicate whether each component represents taxes directly assignable to the smelter or taxes that have been allocated among more than one facility. Explain the basis used for estimating taxes and the basis for any allocation of taxes to the smelter. Identify and explain any differences between the component classifications used in this Schedule and those used in Line 16 of Schedule A.3.

Line 16—Research Costs. Report the estimates of research costs incurred directly

by or for the benefit of the smelter operations. Attach as part of Exhibit B a schedule classifying the costs by major direct and indirect assigned components. Explain the basis for estimating the costs assigned to each component. Identify and explain any differences between classifications used in this Schedule and those used in Line 17 of Schedule A.3.

Line 17—Pollution Control Facility Depreciation and Amortization. Report the estimates of depreciation and amortization charges associated with the smelter's actual and forecast investment in all pollution control equipment and facilities except any SO₂ air pollution controls that have not been installed as of the NSO application date. Reported charges should be computed in accordance with depreciation and amortization methods adopted for certified financial statement reporting purposes by the firm. Attach explanatory supporting schedules as part of Exhibit B.

Line 18—Other Smelter Facility Depreciation and Amortization. Report the pro forma estimates of depreciation and amortization charges associated with the smelter's investment in equipment and facilities other than those classified as pollution control facilities. Attach explanatory supporting schedules as part of Exhibit B.

Line 19—Interests. Report the estimates of interest and other financing charges on the smelter's current and long-term liabilities. Attach as part of Exhibit B a schedule showing the interest-bearing debt contracts identifiable with the smelter's operations, the interest rate projected for these contracts, and the estimated annual interest charges.

Line 20—Miscellaneous Operating Expenses. Report only the total operating expenses associated with or allocated to the smelter that cannot be appropriately classified in one of the preceding line items. Attach as part of Exhibit B a schedule showing the classification of these residual operating expenses into major cost components. Explain the basis used for forecasting the cost under each component. Identify each cost component in terms of direct or indirect cost and explain the basis used for allocating the indirect costs to smelter operations. Identify and explain any differences between cost classifications included in this Schedule and those used in Line 21 of Schedule A.3.

Line 21—Total Other Operating Expenses. Enter for each year the sum of operating costs reported on Lines 14 through 20.

Line 22—Income From Operations. Enter for each year the difference between Lines 21 and 13.

Schedule B.4—Constant Controls Revenue Forecast

General

Use Schedule B.4 to report annual forecasts of operating revenues anticipated during the years 1984 through 1990 from operation of the smelter subject to this NSO application. These constant controls revenue forecasts should be based on an assumption that the applicant immediately implements a program of additional pollution control facility investments sufficient to achieve full

compliance with the smelter's SIP stack emission limitations for sulfur dioxide. Forecast smelter revenues should be expressed on a tolling service equivalent basis as described in Section 2.3.4.

The assumed investment program should be based on whichever adequately demonstrated system, applicable to the smelter, that would be most economically beneficial subsequent to installation of the system. For this purpose, adequately demonstrated systems include those specified in Section 57.102(b)(1).

Copper smelters that will process concentrates containing an average of 1,000 pounds per hour or more of arsenic during the forecast period should assume that they will use best engineering techniques to control fugitive emissions of arsenic. All smelters should also assume that they will be required to meet all other regulatory requirements in effect at the time the application is made.

The line items in Schedule B.4 are explained in the following instructions. Attach as part of Exhibit B schedules to (1) explain the methods used to make the required forecasts, (2) explain differences, if any, between historical trends and the forecasts, and (3) provide data and information to support the forecasts.

Lines 01 and 05—Concentrates Processed. Report for each year the forecast quantity of concentrates processed for unaffiliated parties (Line 01) and affiliated parties (Line 05).

Lines 02 and 06—Smelting Charge. Report for each year the forecast smelting charge for unaffiliated parties (Line 02) and affiliated parties (Line 06). See Section 2.4 for forecast copper smelting charges furnished by EPA.

Lines 03 and 07—Total Smelter Revenues. Report for each year the forecast total operating revenues derived from processing concentrates. The total for unaffiliated parties (Line 03) is equal to the product of Lines 01, 02, and 04, and for affiliated parties (Line 07), the product of Lines 05, 06, and 08.

Lines 04 and 08—Average Product Grade. Report for each year the forecast average quality rating assigned to concentrates processed for unaffiliated parties (Line 04) and affiliated parties (Line 08).

Line 09—Total Co-Product Revenues. Report for each year the forecast net revenues from sales of co-products derived from the smelter's operations. Attach as part of Exhibit B a schedule showing by individual type of co-product, the forecast quantity produced and sold, forecast market price per unit of sales, and forecast total revenues derived from the co-product sales.

Line 10—Total By-product Revenues From Pollution Control Facilities. Report for each year forecast revenues from the sale of by-products derived from operation of the smelter's pollution control facilities. Attach as part of Exhibit B a schedule showing by type of by-product produced (e.g., sulfuric acid) the forecast quantity of output, forecast market price per unit of output sold, and forecast total revenue derived from the by-product sales.

Line 11—Total By-product Revenues From Other Smelter Processing. Report forecast revenues from the sales of gold, silver, and

other by-products derived from the smelter's operations. Attach as part of Exhibit B a schedule providing additional documentation as specified in the instructions for Line 10.

Line 12—Total Co-product and By-product Revenues. Enter for each year the total of Lines 09 through 11.

Schedule B.5—Constant Controls Cost Forecast

General

Use Schedule B.5 to report annual forecasts of operating costs anticipated during the years 1984 through 1990 from operation of the smelter subject to this NSO application. These constant controls cost forecasts should be based on an assumption that the applicant immediately implements a program of additional pollution control facility investments sufficient to achieve full compliance with the smelter's SIP stack emission limitations for sulfur dioxide.

The assumed investment program should be based on whichever adequately demonstrated system, applicable to the smelter, would be most economically beneficial subsequent to installation of the system. For this purpose, adequately demonstrated systems include those specified in § 57.102(b)(1).

Copper smelters that will process concentrates containing an average of 1,000 pounds per hour or more of arsenic during the forecast period should assume that they will use best engineering techniques to control fugitive emissions of arsenic. All smelters should also assume that they will be required to meet all other regulatory requirements in effect at the time the application is made.

The line items in Schedule B.5 are explained in the following instructions. Attach as part of Exhibit B schedules to (1) explain the methods used to make the required forecasts, (2) explain differences, if any, between historical trends and the forecasts, and (3) provide data and information to support the forecasts.

Line 01—Direct Labor Hours. Report for each year the quantity of direct labor hours required to support the processing levels previously reported. Attach as part of Exhibit B an explanation of the labor productivity factors involved.

Line 02—Average Hourly Wage Rate. Report for each year the forecast average wage rate per unit of direct labor input. Attach as part of Exhibit B a description of direct labor cost factors under any existing labor contracts that extend to the forecast period and an explanation of the methodology used to forecast wage rates. EPA-provided forecast wage indices are reported in Section 2.4.

Line 03—Total Wage Payments. Enter for each year the product of Lines 01 and 02.

Line 04—Supplemental Employee Benefits. Report for each year adjustments required to direct labor costs for other employee compensation under supplemental benefit plans. Attach as part of Exhibits B a description of such plans and their costs and an explanation of the methodology used to forecast such costs. EPA-provided forecast wage indices are reported in Section 2.4.

Lines 05—Total Production Labor Cost. Enter for each year the total of Lines 03 and 04.

Lines 06, 09, 12, 15 and 18—Energy Quantities. Report for each year the quantity of energy by type required to support the processing levels reported in the smelter's revenue. Attach as part of Exhibit B an explanation of energy characteristics and use factors considered in forecasting the smelter's future energy requirements.

Lines 07, 10, 13, 16, and 19—Unit Prices. Report for each year the forecast price per unit of energy input by type of energy. Attach as part of Exhibit B a description of the energy price factors under any existing energy contracts that extend to the forecast period and an explanation of the methodology used to forecast unit energy prices. EPA-provided forecast energy indices are reported in Section 2.4.

Lines 08, 11, 14, 17, and 20—Total Payments. Enter for each year the products of quantity and prices paid for electricity (Lines 06×07), natural gas (Lines 09×10), coal (Lines 12×13), fuel oil (Lines 15×16), and other (Lines 18×19).

Lines 21—Total Energy Costs. Enter for each year the total of Lines 08, 11, 14, 17, and 20.

Schedule B.6—Constant Controls Forecast Profit and Loss Summary for the Profit Protection Test

General

Use Schedule B.6 to report annual forecasts of operating revenues and operating costs derived in Schedules B.4 and B.5 for the years 1984 through 1990. These constant controls forecasts should be based on an assumption that the applicant immediately implements a program of additional pollution control facility investments sufficient to achieve full compliance with the smelter's SIP stack emission limitations for sulfur dioxide. The transfer of line items from Schedules B.4 and B.5 to this Schedule is explained in the following instructions.

Line 01—Smelter Revenues-Unaffiliated Parties. Enter the totals reported in Schedule B.4, Line 03.

Line 02—Smelter Revenues-Affiliated Parties. Enter the totals reported in Schedule B.4, Line 07.

Line 03—Co-product and By-product Sales Revenues. Enter the totals reported in Schedule B.4, Line 12.

Line 04—Other Operating Revenues. Report operating revenues anticipated from sources not accounted for under Lines 01 through 03. Refer to instructions for Line 04 of Schedule A.3 for items that should not be included in "Other Operating Revenues." Attach as part of Exhibit B a schedule showing annual amounts forecast by individual revenue component for "other" operating revenues associated with the smelter's forecast constant controls operations. Identify in the supporting schedule any differences in the "other" revenue components reported in this Schedule and Schedule A.3 and explain the reasons for such differences.

Line 05—Total Operating Revenues. Enter for each year the total of Lines 01 through 04.

Line 06—Material Costs. Report total costs forecast for flux, refractories, coke and other materials directly associated with the smelter's processing of concentrates. Attach as part of Exhibit B a schedule showing the annual amounts forecast by major material cost components. For each cost component, identify the forecast quantity and unit price elements of material cost and explain the basis for forecasting these quantity and price elements. Identify in the supporting schedule any differences in the "other" material cost components shown in this Schedule and Schedule A.3 and explain the reasons for such differences.

Line 07—Production Labor Costs. Enter the totals reported in Schedule B.5, Line 05.

Line 08—Energy Costs. Enter the totals reported in Schedule B.5, Line 21.

Line 09—Pollution Control Costs. Report the total costs forecast for expenses identifiable with operation and maintenance of all pollution control equipment and facilities. By-product credits associated with operation of the pollution control facilities should be eliminated from the cost accounts, reclassified to Schedule B.4, Line 10 and included in Line 03 of this Schedule. Attach a schedule as part of Exhibit B classifying pollution control costs by major cost components. Explain the basis used for estimating each of the cost components.

Line 10—Production Overhead Costs. Report the total costs forecast for indirect labor, indirect materials and other production overhead costs associated with the smelter's constant controls forecasts. Attach as part of Exhibit B a schedule showing annual overhead costs projected by major cost components associated with the smelter's operations. For each cost component, where appropriate, identify the forecast quantity and unit price elements of overhead costs and explain the basis for estimating these quantity and price elements. Also identify in the supporting schedule any differences in production overhead cost classifications used in this Schedule and Schedule A.3 and explain the reasons for such differences.

Line 11—Other Production Costs. Report other forecast production costs not previously reported on Lines 06 through 10. Attach as part of Exhibit B supporting schedules showing the basis of the forecasts.

Line 12—Total Cost of Sales. Enter for each year the sum of operating costs reported on Lines 06 through 11.

Line 13—Gross Operating Profit. Enter for each year the difference between Lines 05 and 12.

Line 14—Selling, General and Administrative Expenses. Report the total costs forecast for administrative, marketing and general corporate overhead functions that directly or indirectly support the smelter's operations. Refer to the NSO financial Reporting Overview for a general discussion of indirect cost allocations from overhead cost pools. Attach as part of Exhibit B a schedule classifying selling, general and administrative expenses into major cost components. Indicate whether each component represents costs directly assignable to the smelter or indirect costs allocated from other business segments to the

smelter. Explain the basis used for estimating the amount of expected costs included in each component and the basis used for allocating indirect cost elements to the smelter. Identify and explain any differences between the selling, general and administrative cost classification used in this Schedule and that used in Line 15 of Schedule A.3.

Line 15—Taxes, Other than Income Taxes. Report the total costs forecast for property taxes and associated levies paid to governmental units by or for the benefit of the smelter operation. Attach as part of Exhibit B a schedule classifying operating taxes by major component. Indicate whether each component represents taxes directly assignable to the smelter or taxes that have been allocated among more than one facility. Explain the basis used for estimating taxes and the basis for any allocation of taxes to the smelter. Identify and explain any differences between the component classifications used in this Schedule and those used in Line 16 of Schedule A.3.

Line 16—Research Costs. Report the estimates of research costs incurred directly by or for the benefit of the smelter operations. Attach as part of Exhibit B a schedule classifying the costs by major direct and indirect cost components. Explain the basis for estimating the costs assigned to each component. Identify and explain any differences between classifications used in this Schedule and those used in Line 17 of Schedule A.3.

Line 17—Pollution Control Facility Depreciation and Amortization. Report the estimates of depreciation and amortization charges associated with the smelter's actual and forecast investment in all pollution control equipment and facilities. Reported charges should be completed in accordance with depreciation and amortization methods adopted for certified financial statement reporting purposes by the firm. Attach explanatory supporting schedules as part of Exhibit B.

Line 18—Other Smelter Facility Depreciation and Amortization. Report the pro forma estimates of depreciation and amortization charges associated with the smelter's investment in equipment and facilities other than those classified as pollution control facilities. Attach explanatory supporting schedules as part of Exhibit B.

Line 19—Interest. Report the estimates of interest and other financing charges on the smelter's current and long-term liabilities. Attach as part of Exhibit B a schedule showing the interest-bearing debt contracts identifiable with the smelter's operations, the interest rate projected for these contracts, and the estimated annual interest charges.

Line 20—Miscellaneous Operating Expenses. Report only the total operating expenses associated with or allocated to the smelter that cannot be appropriately classified in one of the preceding line items. Attach as part of Exhibit B a schedule showing the classification of these residual operating expenses into major cost components. Explain the basis used for forecasting the cost under each component. Identify each cost component in terms of

direct or indirect cost and explain the basis used for allocating the indirect costs to smelter operations. Identify and explain any differences between cost classifications included in this Schedule and those used in Line 21 of Schedule A.3.

Line 21—Total Other Operating Expenses. Enter for each year the sum of operating costs reported on Lines 14 through 20.

Line 22—Income From Operations. Enter for each year the difference between Lines 21 and 13.

Schedule B.7—Profit Protection Test

General

Applicants must complete this Schedule and/or Schedule C.4 and the accompanying schedules if they seek eligibility for an NSO. The line items in Schedule B.7 are explained in the following instructions.

Line 01—Net Income from Operations. Enter for each year the amounts reported in Schedule B.3, Line 22.

Line 02—Discount Factors. Enter the discount factor for each year, computed as described in the instructions under Section 2.6.

Line 03—Present Value of Future Net Income. Enter for each year the product of Lines 01 and 02.

Line 04—Horizon Value. Enter under the Total column, the estimated horizon value of the smelter. This shall be computed by capitalizing the forecast net income from operations in Line 01 as described in the instructions under Section 2.7.

Line 05—Discount Factor. Enter under the Total column the appropriate discount factor corresponding to the weighted cost of capital, computed as described in the instructions under Section 2.6.

Line 06—Present Value of Horizon Value. Enter under the Total column the product of Lines 04 and 05.

Line 07—Present Value of Future Net Income. Enter under the Total Column the sum of amounts previously reported on Line 03 for 1984 through 1990.

Line 08—Total Present Value. Enter for each year the sum of Lines 06 and 07.

Line 09—Net Income from Operations. Enter for each year the amount reported in Schedule B.3, Line 22.

Line 10—Discount Factors. Follow the instructions for Line 02.

Line 11—Present Value of Future Net Income. Enter for each year the product of Lines 09 and 10.

Line 12—Horizon Value. Enter under the Total column, the estimated horizon value of the smelter. This shall be computed by capitalizing the forecast net income from operations in Line 09 as described in the instructions under Section 2.7.

Line 13—Discount Factor. Follow the instructions for Line 05.

Line 14—Present Value of Horizon Value. Enter under the Total column the product of Lines 12 and 13.

Line 15—Present Value of Future Net Income. Enter under the Total column the sum of amounts previously reported on Line 11 for 1984 through 1990.

Line 16—Total Present Value. Enter the sum of Lines 14 and 15.

Line 17—Ratio for Total Present Value of Constant Controls Case to Total Present

Value of Pre-Control Case. Enter the ratio of Lines 16 to 08. If this ratio is less than .50, the smelter passes the Profit Protection Test. An applicant also passes the Profit Protection Test if the reported total present value of pre-tax profits for the pre-control case on Line 08 is a negative value.

Schedule C.1—Constant Controls Forecast Profit and Loss Summary for the Rate of Return Test

General

Use Schedule C.1 to report forecast revenue and cost information derived in Schedules B.4 and B.5 for the years 1984 through 1990. These constant controls forecasts should be based on an assumption that the applicant immediately implements a program of additional pollution control facility investments sufficient to achieve full compliance with the smelter's SIP stack emission limitations for sulfur dioxide. The transfer of line items from Schedules B.4 and B.5 to this Schedule is explained in the following instructions.

Line 01—Smelter Revenues—Unaffiliated Parties. Enter the totals reported in Schedule B.4, Line 03.

Line 02—Smelter Revenues—Affiliated Parties. Enter the totals reported in Schedule B.4, Line 07.

Line 03—Co-product and By-product Sales Revenues. Enter the totals reported in Schedule B.4, Line 12.

Line 04—Other Operating Revenues. Report operating revenues anticipated from sources not accounted for under Lines 01 through 03. Refer to instructions for Line 04 of Schedule A.3 for items that should not be included in "Other Operating Revenues." Attach as part of Exhibit B a schedule showing annual amounts forecast by individual revenue component for "other" operating revenues associated with the smelter's forecast constant controls operations. Identify in the supporting schedule any differences in the "other" revenue components reported in this Schedule and Schedule A.3 and explain the reasons for such differences.

Line 05—Total Operating Revenues. Enter for each year the total of Lines 01 through 04.

Line 06—Material Costs. Report total costs forecast for flux, refractories, coke and other materials directly associated with the smelter's processing of concentrates. Attach as part of Exhibit B a schedule showing the annual amounts forecast by major material cost components. For each cost component, identify the forecast quantity and unit price elements of material cost and explain the basis for forecasting these quantity and price elements. Identify in the supporting schedule any differences in the "other" material cost components shown in this Schedule and Schedule A.3 and explain the reasons for such differences.

Line 07—Production Labor Costs. Enter the totals reported in Schedule B.5, Line 05.

Line 08—Energy Costs. Enter the totals reported in Schedule B.5, Line 21.

Line 09—Pollution Control Costs. Report the total costs forecast for expenses identifiable with operation and maintenance of all pollution control equipment and

facilities. By-product credits associated with operation of the pollution control facilities should be eliminated from the cost accounts, reclassified to Schedule B.4, Line 10 and included in Line 03 of this Schedule. Attach a schedule as part of Exhibit B classifying pollution control costs by major cost components. Explain the basis used for estimating each of the cost components.

Line 10—Production Overhead Costs. Report the total costs forecast for indirect labor, indirect materials and other production overhead costs associated with the smelter's constant controls forecasts. Attach as part of Exhibit B a schedule showing annual overhead costs projected by major cost components associated with the smelter's operations. For each cost component, where appropriate, identify the forecast quantity and unit price elements of overhead costs and explain the basis for estimating these quantity and price elements. Also identify in the supporting schedule any differences in production overhead cost classifications used in this Schedule and Schedule A.3 and explain the reasons for such differences.

Line 11—Other Production Costs. Report other forecast production costs not previously reported on Lines 06 through 10. Attach as part of Exhibit B supporting schedules showing the basis of the forecasts.

Line 12—Total Cost of Sales. Enter for each year the sum of operating costs reported on Lines 06 through 10.

Line 13—Gross Operating Profit. Enter for each year the difference between Lines 05 and 12.

Line 14—Selling, General and Administrative Expenses. Report the total costs forecast for administrative, marketing and general corporate overhead functions that directly or indirectly support the smelter's operations. Refer to the NSO Financial Reporting Overview for a general discussion of indirect cost allocations from overhead cost pools. Attach as part of Exhibit B a schedule classifying selling, general and administrative expenses into major cost components. Indicate whether each component represents costs directly assignable to the smelter or indirect costs allocated from other business segments to the smelter. Explain the basis used for estimating the amount of expected costs included in each component and the basis used for allocating indirect cost elements to the smelter. Identify and explain any differences between the selling, general and administrative cost classification used in this Schedule and that used in Line 15 of Schedule A.3.

Line 15—Taxes, Other than Income Taxes. Report the total costs forecast for property taxes and associated levies paid to governmental units by or for the benefit of the smelter operation. Attach as part of Exhibit B a schedule classifying operating taxes by major component. Indicate whether each component represents taxes directly assignable to the smelter or taxes that have been allocated among more than one facility. Explain the basis used for estimating taxes and the basis for any allocation of taxes to the smelter. Identify and explain any differences between the component classifications used in this Schedule and those used in Line 16 of Schedule A.3.

Line 16—Research Costs. Report the estimates of research costs incurred directly by or for the benefit of the smelter operations. Attach as part of Exhibit B a schedule classifying the costs by major direct and indirect costs components. Explain the basis for estimating the costs assigned to each component. Identify and explain any differences between classifications used in this Schedule and those used in Line 17 of Schedule A.3.

Line 17—Pollution Control Facility Depreciation and Amortization. Report the estimates of depreciation and amortization charges associated with the smelter's actual and forecast investment in all pollution control equipment and facilities. Reported charges should be computed in accordance with depreciation and amortization methods adopted for tax reporting purposes by the firm. Attach explanatory supporting schedules as part of Exhibit B.

Line 18—Other Smelter Facility Depreciation and Amortization. Report the pro forma estimates of depreciation and amortization charge associated with the smelter's investment in equipment and facilities other than those classified as pollution control facilities. Attach explanatory supporting schedules as part of Exhibit B.

Line 19—Interest on Short-Term Debt. Report the estimates of interest and other financing charges on forecast short-term obligations as classified in the smelter's current liabilities on Schedule A.4. Interest and associated financing charges on long-term debt should not be included as an expense identifiable with the smelter's operations. Attach as part of Exhibit B a schedule showing the interest-bearing, short-term debt contracts identifiable with the smelter's operations, the interest rate projected for these contracts, and the estimated annual interest charges. Identify and explain any differences between the classifications used in this Schedule and those used in Line 20 of Schedule A.3.

Line 20—Miscellaneous Operating Expenses. Report only the total operating expenses associated with or allocated to the smelter that cannot be appropriately classified in one of the preceding line items. Attach as part of Exhibit B a schedule showing the classification of these residual operating expenses into major cost components. Explain the basis used for forecasting the cost under each component. Identify each cost component in terms of direct or indirect cost and explain the basis used for allocating the indirect costs to smelter operations. Identify and explain any differences between cost classification included in this Schedule and those used in Line 21 of Schedule A.3.

Line 21—Total Other Operating Expenses. Enter for each year the sum of operating costs reported on Lines 14 through 20.

Line 22—Income From Operations. Enter for each year the difference between Lines 21 and 13.

Line 23—Income Taxes. Enter the product of income from operations (Line 22) and the sum of the Federal, state and local marginal tax rates. Attach as part of Exhibit B a schedule detailing the estimated marginal tax rate by taxing entity.

Line 24—Net Income From Operations. Enter for each year the difference between Lines 23 and 22.

Schedule C.2—Constant Controls Sustaining Capital Investment Forecast

General

The applicant should estimate and report, in Schedule C.2, yearly sustaining capital outlays for maintenance of the smelter's existing productive capability. These estimates should be forecast under the assumption that full compliance with SIP emission limitations for SO₂ will be achieved. Major elements of these outlays should be disclosed, as well as the total of such outlays. Estimates shall be restricted to those items that will be capitalized for tax purposes. These outlays shall primarily be for plant replacement, although outlays for improvements and expansion may be included to the extent that improvements and/or expansion, exclusive of required pollution control outlays, can be justified as economically feasible. Estimates of sustaining capital shall exclude any incremental investment for constant control requirements. Sustaining capital investments in facilities shared with other operating segments shall be allocated in accordance with the instructions given below.

Estimates of sustaining capital shall be compatible with productive capacity and pollution control requirements underlying the operating revenue and cost forecasts incorporated in Schedule C.1.

Lines 01 to 06—Sustaining Capital. Report for each year by individual line item property, plant and equipment sustaining capital investments assignable to smelter operations. Include both (1) property, plant and equipment directly associated with the smelter's operations and (2) facilities shared with other operating segments to the extent that a causal and beneficial relationship can be established for the intersegment allocations of such facility investments.

Attach as part of Exhibit B an explanatory schedule disclosing and supporting by individual line item the major elements of annual capital expenditures for sustaining capital. Further classify these annual capital expenditures into both (1) investments required to maintain the smelter versus investments in smelter expansion and improvements and (2) direct facility versus joint-use facility investments. Explain the method used for allocating capital expenditures on joint-use facilities to the smelter's operations.

Line 07—Total Smelter Sustaining Capital. Enter for each year the total of Lines 01 through 06. Transfer the reported total for each year to Schedule C.4, Line 06.

Schedule C.3—Historical Capital Investment In Constant Dollars

General

Use Schedule C.3 to report the end-of-period asset investments and current liabilities for the most recent fiscal year: (a) expressed in nominal dollars as of the date of the original transaction, and (b) expressed in the current year's dollars, i.e. 1984 dollars.

The value of net investment in constant dollars (1984 dollars for smelters applying for an NSO in 1984) is used in Schedule C.4 as the benchmark of the Rate of Return Test.

Applicants should complete Schedule C.3 according to the following instructions. Transfer into the first column of Schedule C.3 the historical cost figures that are reported in the last (1983) column of Table A.4. In the second column of Schedule C.3, report the figures from the first column of Schedule C.3, expressed in constant (1984) dollars.

Convert each nominal dollar figure of the first column into constant (1984) dollars in accordance with the historical cost/constant dollar accounting method defined in Financial Accounting Standards Board (FASB) Statement No. 33 (Docket Item No. IV-A-6d), with the following exception: the applicant must not report the lower recoverable amount as required by FASB No. 33. Attach explanatory supporting schedules as part of Exhibit B.

Schedule C.4—Rate of Return Test

General

Applicants must complete this Schedule and/or Schedule B.7 and the accompanying schedules if they seek eligibility for an NSO. The line items in Schedule C.4 are explained in the following instructions.

Line 01—Net Income from Operations. Enter for each year the amounts reported in Schedule C.1, Line 24.

Lines 02 and 03—Depreciation and Amortization. Enter for each year the amounts reported in Schedule C.1, Lines 17 and 18, respectively.

Line 04—Operating Cash Flow. Enter for each year the total of amounts reported on Lines 01 through 03.

Line 05—Constant Controls Capital Investment. Enter the estimated capital outlays for constant controls for the years during which outlays would be made. These values shall correspond to the constant control investment estimates shown in the supporting schedules for Line 17 of Schedule C.1. Changes in working capital investment due to investment in constant controls facilities may be added to the capital investment estimates shown in the supporting schedules for Schedule C.1.

Line 06—Sustaining Capital. Enter for each year the amounts reported in Schedule C.2, Line 07.

Line 07—Total. Enter for each year the sum of Lines 05 and 06.

Line 08—Net Cash Flow Projections. Enter for each year the difference between Lines 04 and 07.

Line 09—Discount Factors. Enter the discount factor for each year, computed as described in the instructions under Section 2.6.

Line 10—Present Value of Future Cash Flows. Enter for each year the product of Lines 08 and 09.

Line 11—Horizon Value. Enter under the Total column the estimated horizon value of the smelter reported in Schedule C.3, Line 16.

Line 12—Discount Factor. Enter under the Total column the appropriate discount factor, computed as described in the instructions under Section 2.6.

Line 13—Present Value of Horizon Value. Enter under the Total column the product of Lines 11 and 12.

Line 14—Present Value of Future Cash Flows. Enter under the Total column the sum of amounts previously reported on Line 10 for 1984 through 1990.

Line 15—Total Present Value. Enter the sum of Lines 13 and 14.

Line 16—Net Smelter Capital Investment in Constant Dollars. Enter under the Total column the amount reported in the second (Constant Dollar) column of Schedule C.3, Line 26 if the value is greater than zero. If the value is zero or less, enter zero.

Line 17—Net Present Value. Enter the difference between Lines 15 and 16. Applicants reporting a negative net present value will pass the Rate of Return Test.

Schedule C.5—Horizon Value of Cash Flows for the Rate of Return Test

General

The applicant should use Schedule C.5 to calculate the horizon value of net cash flow projections for the Rate of Return Test. This horizon value is used in Schedule C.4. The computation of the horizon value is different for this test than for the Profit Protection Test because this test requires the reporting of depreciation for tax purposes.

In Schedule C.5, the applicant removes the tax savings of constant controls depreciation from the cash flows for the last two forecast years. A depreciation-free horizon value is then calculated from these depreciation-free cash flows. The tax savings of constant controls depreciation during the horizon years are then calculated separately. The final horizon value is equal to the sum of the depreciation-free horizon value and the tax savings from depreciation of constant controls accruing over the horizon years. The line items in Schedule C.5 are explained in the following instructions.

Line 01—Net Cash Flow Projections. Enter for each of the final two forecast years the values in Schedule C.4, Line 08, for the corresponding years.

Line 02—Depreciation and Amortization. Enter for each of the final two forecast years the value in Schedule C.4, Line 02, for the corresponding years.

Line 03—Marginal Tax Rate. Enter for each of the final two forecast years the marginal income tax rate applicable to the smelter. This rate should incorporate both federal and state tax liability.

Line 04—Tax Savings. Enter for each of the final two forecast years the product of Lines 02 and 03.

Line 05—Nominal Dollar Values. Enter for each of the final two forecast years the difference between Lines 01 and 04.

Line 06—1990 Dollar Values. For each of the final two forecast years the nominal dollar values must be expressed in the last forecast year's dollars (1990 dollars). Transfer the 1990 amount in Line 05 directly to Line 06. Inflate the 1989 amount to 1990 dollars using the forecast GNP price deflator.

Line 07—Average. Enter under the Total column the average of the two values in Line 06.

Line 08—Horizon Factor. Enter under the Total column the horizon factor provided in Section 2.7.

Line 09—Depreciation-free Horizon Value. Enter under the Total column the product of Lines 07 and 08.

Line 10—Depreciation and Amortization. Enter for each year of the horizon period depreciation charges associated with the smelter's investment in equipment and facilities related to pollution controls. These investments should include those actually made and those required to be made by the end of the forecast period. Reported charges should be computed in accordance with depreciation and amortization methods adopted for tax reporting purposes by the firm. Attach as part of Exhibit B supporting schedules consistent with those supporting Line 17 in Schedule C.1.

Line 11—Marginal Tax Rate. Enter for each year of the horizon period the marginal income tax rate applicable to the smelter. This rate should incorporate both federal and state tax liability.

Line 12—Tax Savings. Enter for each year of the horizon period the product of Lines 10 and 11.

Line 13—Discount Factors. Enter the discount factor for each year of the horizon period. This shall be computed according to the instructions under Section 2.6, except that the variable N found in the discount factor formula represents the number of years in the future, counting from the last forecast year. For example, N=1 for the first year of the horizon period.

Line 14—Present Value of Tax Savings. Enter for each year of the horizon period the product of Lines 12 and 13.

Line 15—Total Present Value of Tax Savings. Enter under the Total column the sum of values on Line 14 for the horizon years.

Line 16—Horizon Value. Enter under the Total column the sum of Lines 09 and 15.

Schedule D.1—Interim Controls Revenue Forecast

General

Use Schedule D.1 to report annual forecasts of operating revenues anticipated during the years 1984 through 1990 from operation of the smelter applying for an interim controls waiver. The applicant applying for a permanent waiver should complete Schedule D.1 twice, with revenue and production projections based on two alternative assumptions: (1) Installation of interim constant control equipment, no installation of any additional SO₂ controls that the smelter would otherwise be required to install but for the issuance of an NSO, and closure after January 1, 1988, and (2) installation of interim constant control equipment and any additional SO₂ controls required to comply with the smelter's SIP emission limitation by January 2, 1988, so that the smelter will remain open through the horizon period. The applicant applying for a temporary waiver should use only the first assumption. For a smelter that has no continuous emission controls, the assumed interim control investment program should be based on the installation and operation of a

well-designed sulfuric acid plant to treat all strong gas streams. For a smelter that already has some continuous emission controls, the assumed interim constant control investment should be based on the installation and operation of any additional acid plant capacity that would be necessary for treatment of all strong streams with interim constant controls. The interim controls projections should account for other regulatory requirements on the same basis as provided for in the NSO eligibility tests.

Forecast smelter revenues should be expressed on a tolling service equivalent basis as described in Section 2.3.4. The line items in Schedule D.1 are explained in the following instructions. Attach as part of Exhibit B schedules to (1) explain the methods used to make the required forecasts, (2) explain differences, if any, between historical trends and the forecasts, and (3) provide data and information to support the forecasts.

Lines 01 and 05—Concentrates Processed. Report for each year the forecast quantity of concentrates processed for unaffiliated parties (Line 01) and affiliated parties (Line 05).

Lines 02 and 06—Smelting Charge. Report for each year the forecast smelting charge for unaffiliated parties (Line 02) and affiliated parties (Line 06). See Section 2.4 for forecast copper smelting charges furnished by EPA.

Lines 03 and 07—Total Smelter Revenues. Report for each year the forecast total operating revenues derived from processing concentrates. The total for unaffiliated parties (Line 03) is equal to the product of Lines 01, 02, and 04, and for affiliated parties (Line 07), the product of Lines 05, 06, and 08.

Lines 04 and 08—Average Product Grade. Report for each year the forecast average quality rating assigned to concentrates processed for unaffiliated parties (Line 04) and affiliated parties (Line 08).

Line 09—Total Co-Product Revenues. Report for each year the forecast net revenues from sales of co-products derived from the smelter's operations. Attach as part of Exhibit B a schedule showing by individual type of co-product the forecast quantity produced and sold, forecast market price per unit of sales, and forecast total revenues derived from the co-product sales.

Line 10—Total By-product Revenues From Pollution Control Facilities. Report for each year forecast revenues from the sale of by-products derived from operation of the smelter's pollution control facilities. Attach as part of Exhibit B a schedule showing by type of by-product produced (e.g., sulfuric acid) the forecast quantity of output, forecast market price per unit of output sold, and forecast total revenue derived from the by-product sales.

Line 11—Total By-product Revenues From Other Smelter Processing. Report forecast revenues from the sales of gold, silver, and other by-products derived from the smelter's operations. Attach as part of Exhibit B a schedule providing additional documentation as specified in the instructions for Line 10.

Line 12—Total Co-product and By-product Revenues. Enter for each year the total of Lines 09 through 11.

Schedule D.2—Interim Controls Cost Forecast

General

Use Schedule D.2 to report annual forecasts of operating costs anticipated during the years 1984 through 1990 from operation of the smelter applying for an interim controls waiver. The applicant applying for a permanent waiver should complete Schedule D.2 twice, with cost and production projections based on two alternative assumptions: (1) Installation of interim constant control equipment, no installation of any additional SO₂ controls that the smelter would otherwise be required to install but for the issuance of an NSO, and closure after January 1, 1988, and (2) installation of interim constant control equipment and any additional SO₂ controls required to comply with the smelter's SIP emission limitation by January 2, 1988, so that the smelter will remain open through the horizon period. For a smelter that has no continuous emission controls, the assumed interim control investment program should be based on the installation and operation of a well-designed sulfuric acid plant to treat all strong gas streams. For a smelter that already has some continuous emission controls, the assumed interim constant control investment should be based on the installation and operation of any additional acid plant capacity that would be necessary for treatment of all strong streams with interim constant controls. The interim controls projections should account for other regulatory requirements on the same basis as provided for in the NSO eligibility tests.

The line items in Schedule D.2 are explained in the following instructions. Attach as part of Exhibit B schedules to (1) explain the methods used to make the required forecasts, (2) explain differences, if any, between historical trends and the forecasts, and (3) provide data and information to support the forecasts.

Line 01—Direct Labor Hours. Report for each year the quantity of direct labor hours required to support the processing levels previously reported. Attach as part of Exhibit B an explanation of the labor productivity factors involved.

Line 02—Average Hourly Wage Rate. Report for each year the forecast average wage rate per unit of direct labor input. Attach as part of Exhibit B a description of direct labor cost factors under any existing labor contracts that extend to the forecast period and an explanation of the methodology used to forecast wage rates. EPA-provided forecast wage indices are reported in Section 2.4.

Line 03—Total Wage Payments. Enter for each year the product of Lines 01 and 02.

Line 04—Supplemental Employee Benefits. Report for each year adjustments required to direct labor costs for other employee compensation under supplemental benefit plans. Attach as part of Exhibit B a description of such plans and their costs and an explanation of the methodology used to forecast such costs. EPA-provided forecast wage indices are reported in Section 2.4.

Line 05—Total Production Labor Costs. Enter for each year the total of Lines 03 and 04.

Lines 06, 09, 12, 15, and 18—Energy Quantities. Report for each year the quantity of energy by type required to support the processing levels reported in the smelter's revenue. Attach as part of Exhibit B an explanation of energy characteristics and use factors considered in forecasting the smelter's future energy requirements.

Lines 07, 10, 13, 16, and 19—Unit Prices. Report for each year the forecast price per unit of energy input by type of energy. Attach as part of Exhibit B a description of the energy price factors under any existing energy contracts that extend to the forecast period and an explanation of the methodology used to forecast unit energy prices. EPA-provided forecast energy indices are reported in Section 2.4.

Lines 08, 11, 14, 17, and 20—Total Payments. Enter for each year the products of quantity and prices paid for electricity (Lines 06×07), natural gas (Lines 09×10), coal (Lines 12×13), fuel oil (Lines 15×16), and other (Lines 18×19).

Line 21—Total Energy Costs. Enter for each year the total of Lines 08, 11, 14, 17, and 20.

Schedule D.3—Interim Controls Forecast Profit and Loss Summary

General

Use Schedule D.3 to report forecast revenue and cost information summed in Schedules D.1 and D.2 for the years 1984 through 1990. Applicants applying for a permanent waiver must complete Schedule D.3 twice. Forecast revenues and costs in Schedule D.3 shall be compatible with productive capacity and pollution control assumptions underlying the operating revenue and cost forecasts incorporated into each set of Schedules D.1 and D.2. Applicants applying for a temporary waiver should use only the first assumption: installation of interim constant control equipment and no installation of any additional SO₂ controls that the smelter would otherwise be required to install but for the issuance of an NSO. The transfer of line items from Schedules D.1 and D.2 to this Schedule is explained in the following instructions.

Line 01—Smelter Revenues—Unaffiliated Parties. Enter the totals reported in Schedule D.1, Line 03.

Line 02—Smelter Revenues—Affiliated Parties. Enter the totals reported in Schedule D.1, Line 07.

Line 03—Co-product and By-product Sales Revenues. Enter the totals reported in Schedule D.1, Line 12.

Line 04—Other Operating Revenues. Report operating revenues anticipated from sources not accounted for under Lines 01 through 03. Refer to instructions for Line 04 of Schedule A.3 for items that should not be included in "Other Operating Revenues." Attach as part of Exhibit B a schedule showing annual amounts forecast by individual revenue component for "other" operating revenues associated with the smelter's forecast interim controls operations. Identify in the supporting schedule any differences in the "other" revenue components reported in this Schedule and

Schedule A.3 and explain the reasons for such differences.

Line 05—Total Operating Revenues. Enter for each year the total of Lines 01 through 04.

Line 06—Material Costs. Report total costs forecast for flux, refractories, coke and other materials directly associated with the smelter's processing of concentrates. Attach as part of Exhibit B a schedule showing the annual amounts forecast by major material cost components. For each cost component, identify the forecast quantity and unit price elements of material cost and explain the basis for forecasting these quantity and price elements. Identify in the supporting schedule any differences in the "other" material cost components shown in this Schedule and Schedule A.3 and explain the reasons for such differences.

Line 07—Production Labor Costs. Enter the totals reported in Schedule D.2, Line 05.

Line 08—Energy Costs. Enter the totals reported in Schedule D.2, Line 21.

Line 09—Pollution Control Costs. Report the total costs forecast for operation and maintenance of all pollution control equipment and facilities under the two alternative sets of assumptions made in corresponding Schedules D.1 and D.2. Byproduct credits associated with operation of the pollution control facilities should be eliminated from the cost accounts, reclassified to Schedule D.1, Line 10 and included in Line 03 of this Schedule. Attach a schedule as part of Exhibit B classifying pollution control costs by major cost components. Explain the basis used for estimating each of the cost components.

Line 10—Production Overhead Costs. Report the total costs forecast for indirect labor, indirect materials and other production overhead costs associated with the smelter's constant controls forecasts. Attach as part of Exhibit B a schedule showing annual overhead costs projected by major cost components associated with the smelter's operations. For each cost component, where appropriate, identify the forecast quantity and unit price elements of overhead costs and explain the basis for estimating these quantity and price elements. Also identify in the supporting schedule any differences in production overhead cost classifications used in this Schedule and Schedule A.3 and explain the reasons for such differences.

Line 11—Other Production Costs. Report other forecast production costs not previously reported on lines 06 through 10. Attach as part of Exhibit B supporting schedules showing the basis of the forecasts.

Line 12—Total Cost of Sales. Enter for each year the sum of operating costs reported on Lines 06 through 11.

Lines 13—Gross Operating Profit. Enter for each year the difference between Lines 05 and 12.

Line 14—Selling, General and Administrative Expenses. Report the total costs forecast for administrative, marketing and general corporate overhead functions that directly or indirectly support the smelter's operations. Refer to the NSO Financial Reporting Overview for general discussion of indirect cost allocations from overhead cost pools. Attach as part of Exhibit B a schedule classifying selling, general and

administrative expenses into major cost components. Indicate whether each component represents costs directly assignable to the smelter or indirect costs allocated from other business segments to the smelter. Explain the basis used for estimating the amount of expected costs included in each component and the basis used for allocating indirect cost elements to the smelter. Identify and explain any differences between the selling, general and administrative cost classification used in this Schedule and that used in Line 15 of Schedule A.3.

Line 15—Taxes, Other than Income Taxes. Report the total costs forecast for property taxes and associated levies paid to governmental units by or for the benefit of the smelter operation. Attach as part of Exhibit B a schedule classifying operating taxes by major component. Indicate whether each component represents taxes directly assignable to the smelter or taxes that have been allocated among more than one facility. Explain the basis used for estimating taxes and the basis for any allocation of taxes to the smelter. Identify and explain any differences between the component classifications used in this Schedule and those used in Line 16 of Schedule A.3.

Line 16—Research Costs. Report the estimates of research costs incurred directly by or for the benefit of the smelter operations. Attach as part of Exhibit B a schedule classifying the costs by major direct and indirect cost components. Explain the basis for estimating the costs assigned to each component. Identify and explain any differences between classifications used in this Schedule and those used in Line 17 of Schedule A.3.

Line 17—Pollution Control Facility Depreciation and Amortization. Report the estimates of depreciation and amortization charges associated with the smelter's actual and forecast investment in all pollution control equipment and facilities under the two alternative sets of assumptions made in corresponding Schedules D.1 and D.2. Reported charges should be computed in accordance with depreciation and amortization methods adopted for tax reporting purposes by the firm. Attach explanatory supporting schedules as part of Exhibit B.

Line 18—Other Smelter Facility Depreciation and Amortization. Report the pro forma estimates of depreciation and amortization charges associated with the smelter's investment in equipment and facilities other than those classified as pollution control facilities. Attach explanatory supporting schedules as part of Exhibit B.

Line 19—Interest on Short-Term Debt. Report the estimates of interest and other financing charges on forecast short-term obligations as classified in the smelter's current liabilities on Schedule A.4. Interest and associated financing charges on long-term debt should not be included as an expense identifiable with the smelter's operations. Attach as part of Exhibit B a schedule showing the interest-bearing, short-term debt contracts identifiable with the smelter's operations, the interest rate

projected for these contracts, and the estimated annual interest charges. Identify and explain any differences between the classifications used in this Schedule and those used in Line 20 of Schedule A.3.

Line 20—Miscellaneous Operating Expenses. Report only the total operating expenses associated with or allocated to the smelter that cannot be appropriately classified in one of the preceding line items. Attach as part of Exhibit B a schedule showing the classification of these residual operating expenses into major cost components. Explain the basis used for forecasting the cost under each component. Identify each cost component in terms of direct or indirect cost and explain the basis used for allocating the indirect costs to smelter operations. Identify and explain any differences between cost classifications included in this Schedule and those used in Line 21 of Schedule A.3.

Line 21—Total Other Operating Expenses. Enter for each year the sum of operating costs reported on Lines 14 through 20.

Line 22—Income From Operations. Enter for each year the difference between Lines 21 and 13.

Line 23—Income Taxes. Enter the product of income from operations (Line 22) and the sum of the Federal, state and local marginal tax rates. Attach as part of Exhibit B a schedule detailing the estimated marginal tax rate by taxing entity.

Line 24—Net Income From Operations. Enter for each year the difference between Lines 23 and 22.

The temporary waiver from interim controls test is on Line 13 of Schedule D.3 that was completed under the assumption of installation of interim constant control equipment and no installation of any additional SO₂ controls that the smelter would otherwise be required to install but for the issuance of an NSO. Applicants will be eligible for a temporary waiver from the interim development of constant control technology for sulfur dioxide emissions if the reported gross operating profit on Line 13 is a negative value for one or more years during which the NSO is in effect.

Schedule D.4—Interim Controls Sustaining Capital Investment Forecast

General

Use Schedule D.4 to report yearly sustaining capital outlays for maintenance of the smelter's existing productive capability. The applicant should complete Schedule D.4 twice, under two alternative assumptions: (1) installation of interim constant control equipment, no installation of any additional SO₂ controls that the smelter would otherwise be required to install but for the issuance of an NSO, and closure after January 1, 1988, and (2) installation of interim constant equipment and any additional SO₂ controls required to comply with the smelter's SIP emission limitation by January 2, 1988, so that the smelter will remain open through the horizon period.

Major elements of these outlays should be disclosed, as well as the total of such outlays. Estimates shall be restricted to those items that will be capitalized for tax purposes.

These outlays shall primarily be for plant replacement, although outlays for improvements and expansion may be included to the extent that improvements and/or expansion, exclusive of required pollution control outlays, can be justified as economically feasible. Estimates of sustaining capital investments shall exclude any incremental investment for sulfur dioxide emission controls reported in Line 06 of Schedule D.6. Sustaining capital investments in facilities shared with other operating segments shall be allocated in accordance with the instructions given below.

Estimates of sustaining capital shall be compatible with productive capacity and pollution control requirements underlying the operating revenue and cost forecasts incorporated in Schedule D.3.

Line 01 to 06—Sustaining Capital. Report for each year by individual line item property, plant and equipment sustaining capital investments assignable to smelter operations. Include both (1) property, plant and equipment directly associated with the smelter's operations and (2) facilities shared with other operating segments to the extent that a causal and beneficial relationship can be established for the intersegment allocations of such facility investments.

Attach as part of Exhibit B an explanatory schedule disclosing and supporting by individual line item the major elements of annual capital expenditures for sustaining capital. Further classify these annual capital expenditures into both (1) investments required to maintain the smelter versus investments in smelter expansion and improvements and (2) direct facility versus joint-use facility investments. Explain the method used for allocating capital expenditures on joint-use facilities to the smelter's operations.

Line 07—Total Smelter Sustaining Capital. Enter for each year the total of Lines 01 through 06. Transfer the reported total for each year to Schedule D.6, Line 06.

Schedule D.5—Cash Proceeds From Liquidation

General

Use Schedule D.5 to calculate cash proceeds from liquidation. Applicants should determine the current salvage value of their existing investment in the smelter as the net proceeds that could be derived through an orderly liquidation of the smelter's assets. The net cash proceeds should be reported after an appropriate allowance for disposal costs, contractual claims against the smelter (e.g., labor termination penalties), and income tax effects on the corporation of such liquidation costs.

The applicant must stipulate the most advantageous alternative market (use) for the smelter's facilities. Generally, this market will be:

- Secondary market for used plant and equipment.
- Sale for scrap.
- Abandonment where the disposal cost exceeds scrap value.

The current net salvage value should be disaggregated into the same property, plant and equipment asset groups reported under the historical capital investment summary,

Schedule A.4. The line items in Schedule D.5 are explained in the following instructions.

Line 01—Current Assets. Enter in Columns 1 and 2, the value of total current assets shown in Line 08 of Schedule A.4 (Historical Capital Investment Summary) for 1983. No gain or loss should be reported in Columns 3 through 5 for the liquidation of current asset investments.

Lines 02–07—Property Plant and Equipment. Enter in Column 1 the appraised liquidation value (in terms of pretax cash proceeds) of the smelter by asset group. This estimate should be certified by a qualified third party professional appraiser and shall represent the best use and highest alternative value of these assets. The liquidation value of any assets which are jointly used by the smelter and other operating segments shall be excluded if, upon closure of the smelter, such assets would continue in service for the non-smelter activity.

In Column 2, report the net book value of these assets for which liquidation values have been reported in Column 1. The reported values should correspond with amounts reported for 1982 in lines 09 through 15 in Schedule A.4 as adjusted for appropriate eliminations of joint-use facilities and reconciliation to a net book value as reported for income taxes. Attach as part of Exhibit B supporting schedules showing all adjustments and conversion of the net book value as reported on the financial statements, to net book value that would be used for income tax purposes.

Compute Column 3 as Column 1 less Column 2. The gain (or loss) shown in Column 3 shall be segregated into ordinary income and capital gains components subject to taxation pursuant to applicable income tax rules. Enter ordinary income in Column 4 and capital gains in Column 5.

Line 08—Total Smelter Investment. Enter the sum of Lines 02 through 07 for each of the columns.

Line 09—Other Non-current Assets. In Column 1, report the appraised value of other non-current assets in accordance with the instructions for Line 18, Schedule A.4, except that any joint asset(s) that would continue in the event of smelter liquidation shall be excluded. This estimate shall be certified by a qualified third-party professional appraiser.

In Column 2, report the net book value of the non-current assets directly corresponding to those assets included in the liquidation value estimated under Column 1.

The remaining columns shall be completed in accordance with the instructions given above for Lines 02 and 06.

Line 10—Total Smelter Value. Enter the sum of Lines 01, 08 and 09.

Line 11—Total Current Liabilities. Report in both Columns 1 and 2, the value of total current liabilities shown in Line 25 of Schedule A.4 for 1983.

Line 12—Gross Liquidation Value. Enter the difference between Lines 10 and 11.

Line 13—Liquidation Costs. In Columns 1, 3 and 4, report the value of any liquidation costs such as labor contract termination penalties, severance pay and related costs, associated with closure of the smelter.

Line 14—Taxable Gain (or Loss). Enter in Columns 4 and 5, the differences between Lines 12 and 13.

Line 15—Income Tax Rate. Enter the sum of the Federal, state and local marginal tax rates of the firm for ordinary income and capital gains in Columns 4 and 5, respectively. Attach as part of Exhibit B a schedule detailing the estimated marginal tax rate by taxing entity.

Line 16—Income Tax on Gain (or Loss). In Columns 4 and 5, enter the product of Line 14 and the marginal income tax rates reported in Line 15. In Column 1, enter the sum of Columns 4 and 5.

Line 17—After Tax Cash Proceeds. Enter in Column 1 the difference between Line 12 and the sum of Lines 13 and 16.

Schedule D.6—Permanent Waiver from Interim Controls Test

General

Applicants must complete this Schedule and its supporting schedules if they seek a permanent waiver from interim control requirements. The applicant should complete Schedule D.6 twice, with revenue and production projections based on two alternative assumptions: (1) Installation of interim constant control equipment, no installation of any additional SO₂ controls that the smelter would otherwise be required to install but for the issuance of an NSO, and closure after January 1, 1988, and (2) installation of interim constant control equipment and any additional SO₂ controls required to comply with the smelter's SIP emission limitation by January 2, 1988, so that the smelter will remain open through the horizon period. Forecasts in Schedule D.6 shall be compatible with assumptions and forecasts in each set of Schedules D.1 through D.4. The line items in Schedule D.6 are explained in the following instructions.

Line 01—Net Income from Operations. Enter for each year the amounts reported in Schedule D.3, Line 24.

Line 02—Net Income Adjustments. Enter any adjustments to net income not included in Schedule D.3. When assuming closure after January 1, 1988, the applicant must include the proceeds from liquidation in 1988. The applicant must estimate liquidation value as of 1988 using one of two methods: (1) the applicant may complete Schedule D.5 assuming liquidation in 1988 and report the value of after-tax cash proceeds in Line 17; or (2) the applicant may use the value of after-tax cash proceeds in Line 17 of Schedule D.5, as already completed, assuming liquidation in the current (application) year, and expressing values in 1988 dollars. The current liquidation value must be inflated to 1988 dollars by applying the appropriate forecast percentage rate changes in the GNP price deflator. Attach explanatory supporting schedules in Exhibit B.

Lines 03 and 04—Depreciation and Amortization. Enter for each year the amounts reported in Schedule D.3, Lines 17 and 18, respectively.

Line 05—Operating Cash Flow. Enter for each year the total of amounts reported on Lines 01 through 04.

Line 06—Pollution Controls Capital Investment. Enter the estimated pollution control capital outlays projected to be made under the two alternative sets of assumptions

described in the *General* section of this schedule. These controls shall include only interim control equipment for the first set of assumptions and both interim control equipment and any additional SO₂ controls required to comply with the smelter's SIP emission limitation by January 2, 1988, for the second set of assumptions. The values assumed in this schedule shall correspond to the investment estimates shown in each set of supporting schedules for Line 17 of Schedule D.3. For purposes of allocating costs of the additional SO₂ controls under the second set of assumptions, applicants must provide information establishing the period over which capital outlays for such controls would be made if installation of the controls begins the latest date that would still allow compliance to be achieved by January 2, 1988. Changes in working capital investment due to investment in control facilities may be added to the capital investment estimates shown in the corresponding supporting schedules for Schedule D.3.

Line 07—Sustaining Capital. Enter for each year the amounts reported in Schedule D.4, Line 07.

Line 08—Total. Enter for each year the sum of Lines 05 and 06.

Line 09—Net Cash Flow Projections. Enter for each year the difference between Lines 04 and 07.

Line 10—Discount Factors. Enter the discount factor for each year, computed as described in the instructions under Section 2.6.

Line 11—Present Value of Future Cash Flows. Enter for each year the product of Lines 08 and 09.

Line 12—Horizon Value. Enter under the Total column the estimated horizon value of the smelter reported in Schedule D.7, Line 18.

Line 13—Discount Factor. Enter under the Total column the appropriate discount factor, computed as described in the instructions under Section 2.6.

Line 14—Present Value of Horizon Value. Enter under the Total column the product of Lines 11 and 12.

Line 15—Present Value of Future Cash Flows. Enter under the Total column the sum of amounts previously reported on Line 10 for 1984 through 1990.

Line 16—Total Present Value. Enter the sum of Lines 13 and 14.

Line 17—Current Salvage Value. Enter the amount reported in Schedule D.5, Line 17, if the value is greater than zero. If the value is zero or less, enter zero.

Line 18—Net Present Value. Enter the difference between Lines 16 and 17. In determining eligibility for a permanent waiver from interim control requirements, an applicant must use the higher of the two net present value figures computed under the two alternative assumptions. Applicants reporting a negative value for the higher net present value figure will be eligible for a permanent waiver from interim use of a constant control system for sulfur dioxide emissions.

Schedule D.7—Horizon Value of Cash Flows for the Interim Controls Test

General

Use Schedule D.7 to calculate the horizon value of net cash flow projections for the Interim Controls Test. This horizon value is used in Schedule D.6. The computation of the horizon value is different for this test than for the Profit Protection Test because this test requires the reporting of depreciation for tax purposes.

In Schedule D.7, the applicant removes the tax savings of control equipment depreciation from the cash flows for the last two forecast years. A depreciation-free horizon value is then calculated from these depreciation-free cash flows. The tax savings of constant controls depreciation during the horizon years are then calculated separately. The final horizon value is equal to the sum of the depreciation-free horizon value and the tax savings from depreciation of constant controls accruing over the horizon years. The line items in Schedule D.7 are explained in the following instruction.

Line 01—Net Cash Flow Projections. Enter for each of the final two forecast years the values in Schedule D.6, Line 09, for the corresponding years.

Line 02—Depreciation and Amortization. Enter for each of the final two forecast years the value in Schedule D.6, Line 03, for the corresponding years.

Line 03—Marginal Tax Rate. Enter for each of the final two forecast years the marginal income tax rate applicable to the smelter. This rate should incorporate both federal and state tax liability.

Line 04—Tax Savings. Enter for each of the final two forecast years the product of Lines 02 and 03.

Line 05—Nominal Dollar Values. Enter for each of the final two forecast years the difference between Lines 01 and 04.

Line 06—1990 Dollar Values. For each of the final two forecast years the nominal dollar values must be expressed in the last forecast year's dollars (1990 dollars). Transfer the 1990 amount in Line 05 directly to Line 06. Inflate the 1989 amount to 1990 dollars using the forecast GNP price deflator.

Line 07—Average. Enter under the Total column the average of the two values in Line 06.

Line 08—Horizon Factor. Enter under the Total column the horizon factor provided in Section 2.7.

Line 09—Depreciation-free Horizon Value. Enter under the Total column the product of Lines 07 and 08.

Line 10—Depreciation and Amortization. Enter for each year of the horizon period, depreciation charges associated with the smelter's investment in equipment and facilities related to pollution controls. These investments should include those actually made and those forecast to be made by the end of the forecast period. Reported charges

should be computed in accordance with depreciation and amortization methods adopted for tax reporting purposes by the firm. Attach as part of exhibit B supporting schedules consistent with those supporting Line 17 in Schedule D.3.

Line 11—Marginal Tax Rate. Enter for each year of the horizon period the marginal income tax rate applicable to the smelter. This rate should incorporate both federal and state tax liability.

Line 12—Tax Savings. Enter for each year of the horizon period the product of Lines 10 and 11.

Line 13—Discount Factors. Enter the discount factor for each year of the horizon period. This shall be computed according to the instructions under Section 2.6, except that the variable N found in the discount factor formula represents the number of years in the future, counting from the last forecast year. For example, N=1 for the first year of the horizon period.

Line 14—Present Value of Tax Savings. Enter for each year of the horizon period the product of Lines 12 and 13.

Line 15—Total Present Value of Tax Savings. Enter under the Total column the sum of values on Line 14 for the horizon years.

Line 16—Horizon Value. Enter under the Total column the sum of Lines 09 and 15.

Environmental Protection Agency

Primary Nonferrous Smelter Order Application

Part I—Identification Information

1. Firm name _____
2. Street/Box/RFD _____
3. City _____
4. State _____
5. Zip Code _____
6. IRS Employer Identification No. _____
7. SEC 1934 Act Registration No. _____
8. Smelter Name _____
9. Street/Box/RFD _____
10. City _____
11. State _____
12. Zip Code _____
13. Contact Person _____
14. Title _____
15. Street/Box/RFD _____
16. City _____
17. State _____
18. Zip Code _____
19. Telephone _____

Part II—Certification

I certify that the information provided herein and appended hereto is true and accurate to the best of my knowledge. I understand that this information is being required, in part, under the authority of Section 114 of the Clean Air Act, 42 U.S.C. 7414.

Name _____
 Title _____
 Signature _____
 Date _____

SCHEDULE A.1—HISTORICAL REVENUE DATA

[Smelter identification]

	Line	1979	1980	1981	1982	1983
A. Copper product sales:						
1. Total quantity sold	01					
2. Unaffiliated customer sales:						
a. Quantity sold	2					
b. Operating revenue	03					
c. Average unit price	04					
d. Average product grade	05					
3. Affiliated customer sales:						
a. Quantity sold	06					
b. Operating revenue	07					
c. Average unit price	08					
d. Average product grade	09					
4. Adjusted copper revenues:						
a. Total copper revenues	10					
b. Transfer price adjustment	11					
c. Other revenue adjustments	12					
d. Adjusted copper revenues	13					
B. Lead product sales:						
1. Total quantity sold	14					
2. Unaffiliated customer sales:						
a. Quantity sold	15					
b. Operating revenue	16					
c. Average unit price	17					
d. Average product grade	18					
3. Affiliated customer sales:						
a. Quantity sold	19					
b. Operating revenue	20					
c. Average unit price	21					
d. Average product grade	22					
4. Adjusted lead revenues:						
a. Total lead revenues	23					
b. Transfer price adjustment	24					
c. Other revenue adjustments	25					
d. Adjusted lead revenues	26					
C. Zinc product sales:						
1. Total quantity sold	27					
2. Unaffiliated customer sales:						
a. Quantity sold	28					
b. Operating revenue	29					
c. Average unit price	30					
d. Average product grade	31					
3. Affiliated customer sales:						
a. Quantity sold	32					
b. Operating revenue	33					
c. Average unit price	34					
d. Average product grade	35					
4. Adjusted zinc revenues:						
a. Total zinc revenues	36					
b. Transfer price adjustment	37					
c. Other revenue adjustments	38					
d. Adjusted zinc revenues	39					
D. Molybdenum or other nonferrous metal sales:						
1. Total quantity sold	40					
2. Unaffiliated customer sales:						
a. Quantity sold	41					
b. Operating revenue	42					
c. Average unit price	43					
d. Average product grade	44					
3. Affiliated customer sales:						
a. Quantity sold	45					
b. Operating revenue	46					
c. Average unit price	47					
d. Average product grade	48					
4. Adjusted molybdenum or other nonferrous metal revenues:						
a. Total molybdenum or other nonferrous metal revenues	49					
b. Transfer price adjustment	50					
c. Other revenue adjustments	51					
d. Adjusted molybdenum or other nonferrous metal revenues	52					
E. Primary metal revenues	53					
F. Tolling service revenues:						
1. Total toll concentrates processed	54					
2. Unaffiliated customer revenues:						
a. Concentrates processed	55					
b. Operating revenue	56					
c. Average unit price	57					
d. Average product grade	58					
3. Affiliated customer revenues:						
a. Concentrates processed	59					
b. Operating revenue	60					
c. Average unit price	61					
d. Average product grade	62					
4. Adjusted tolling service revenues:						
a. Total tolling service revenue	63					
b. Transfer price adjustment	64					
c. Other revenue adjustments	65					
d. Adjusted tolling service revenues	66					
G. Coproduct and byproduct sales:						
1. Total coproduct revenues	67					
2. Total byproduct revenues:						
a. Pollution control facilities	68					

SCHEDULE A.1—HISTORICAL REVENUE DATA—Continued

[Smelter identification]

	Line	1979	1980	1981	1982	1983
b. Other smelter processing	69					
3. Total coproduct and byproduct revenues	70					

SCHEDULE A.2—HISTORICAL COST DATA

[Smelter identification]

	Line	1979	1980	1981	1982	1983
A. Concentrate costs:						
1. Total quantity purchased						
2. Unaffiliated purchases:	01					
a. Quantity purchased						
b. Concentrate cost	02					
c. Average unit price	03					
d. Average concentrate grade	04					
3. Affiliated purchases:	05					
a. Quantity purchased						
b. Concentrate cost	06					
c. Average unit price	07					
d. Average concentrate grade	08					
4. Adjusted concentrate costs:	09					
a. Total concentrate costs						
b. Transfer price adjustment	10					
c. Other cost adjustments	11					
d. Adjusted concentrate cost	12					
B. Production labor cost:	13					
1. Direct labor hours						
2. Average hourly wage rate	14					
3. Total wage payments	15					
4. Supplemental employee benefits	16					
5. Total production labor cost	17					
C. Energy costs:	18					
1. Electricity:						
a. Quantity in kilowatt hours						
b. Price per kwh	19					
c. Total electricity payments	20					
2. Natural gas:	21					
a. Quantity in mcf						
b. Price per mcf	22					
c. Total natural gas payments	23					
3. Coal:	24					
a. Quantity in tons						
b. Price per ton	25					
c. Total coal payments	26					
4. Fuel oil:	27					
a. Quantity in gallons						
b. Price per gallon	28					
c. Total fuel oil payments	29					
5. Other (specify):	30					
a. Quantity (specific units)						
b. Price per unit	31					
c. Total payments	32					
6. Total energy costs	33					
	34					

SCHEDULE A.3—HISTORICAL PROFIT AND LOSS SUMMARY

[Smelter identification]

	Line	1979	1980	1981	1982	1983
A. Operating revenues:						
1. Primary metal sales						
2. Coproduct and byproduct sales	01					
3. Tolling service revenues	02					
4. Other operating revenues	03					
5. Total operating revenues	04					
B. Cost of sales:	05					
1. Concentrates processed						
2. Other materials	06					
3. Production labor	07					
4. Energy costs	08					
5. Pollution control cost	09					
6. Production overhead	10					
7. Other production costs	11					
8. Total cost of sales	12					
C. Gross operating profit	13					
D. Other operating expenses:	14					
1. Selling general and administrative						
2. Taxes, other than income tax	15					
3. Research costs	16					
4. Depreciation and amortization:	17					
a. Pollution control facilities						
b. Other smelter facilities	18					
5. Interest on short term debt	19					
6. Miscellaneous operating expenses	20					
7. Total other operating expenses	21					
	22					

SCHEDULE A.3—HISTORICAL PROFIT AND LOSS SUMMARY—Continued

[Smelter identification]

	Line	1979	1980	1981	1982	1983
E. Income from operations	23					
F. Other income and (expense):						
1. Gain/(loss) on disposition of property	24					
2. Miscellaneous other income and (expense)	25					
3. Total other income and (expense)	26					
G. Net taxable income	27					

SCHEDULE A. 4—HISTORICAL CAPITAL INVESTMENT SUMMARY

[Smelter identification]

	Line	1979	1980	1981	1982	1983
A. Current assets:						
1. Cash on hand and deposit	01					
2. Temporary cash investments	02					
3. Trade receivables, net:						
a. Unaffiliated customers	03					
b. Affiliated customers	04					
4. Inventories:						
a. Raw materials and products	05					
b. Other materials and supplies	06					
5. Other current assets	07					
6. Total current assets	08					
B. Property, plant and equipment:						
1. Land	09					
2. Buildings and improvements	10					
3. Machinery and equipment	11					
4. Transportation equipment	12					
5. Pollution control facilities	13					
6. Other fixed assets	14					
7. Total smelter investment	15					
8. Less: Accumulated depreciation and amortization	16					
9. Net smelter investment	17					
C. Other noncurrent assets	18					
D. Total smelter capital investment	19					
E. Current liabilities:						
1. Trade accounts and notes payable:						
a. Unaffiliated suppliers	20					
b. Affiliated suppliers	21					
2. Other expense accruals	22					
3. Notes payable, current	23					
4. Other current liabilities	24					
5. Total current liabilities	25					
F. Net smelter capital investment	26					

SCHEDULE B.1—PRE-CONTROL REVENUE FORECAST

[Smelter identification]

	Line	1984	1985	1986	1987	1988	1989	1990
A. Forecast smelter revenues—unaffiliated parties:								
1. Concentrates processed	01							
2. Smelting charge	02							
3. Total smelter revenues	03							
4. Average product grade	04							
B. Forecast smelter revenues—affiliated parties:								
1. Concentrates processed	05							
2. Smelting charge	06							
3. Total smelter revenues	07							
4. Average product grade	08							
C. Forecast co-product and by-product sales:								
1. Total co-product revenues	09							
2. Total by-product revenues from:								
a. Pollution control facilities	10							
b. Other smelter processing	11							
3. Total co-product and by-product revenues	12							

SCHEDULE B.2—PRE-CONTROL COST FORECAST

[Smelter identification]

	Line	1984	1985	1986	1987	1988	1989	1990
A. Forecast production labor cost:								
1. Direct labor hours	01							
2. Average hourly wage rate	02							
3. Total wage payments	03							
4. Supplemental employee benefits	04							
5. Total production labor cost	05							
B. Forecast energy costs:								
1. Electricity:								
a. Quantity in kilowatt hours	06							
b. Price per kwh	07							
c. Total electricity payments	08							

SCHEDULE B.2—PRE-CONTROL COST FORECAST—Continued

[Smelter identification]

	Line	1984	1985	1986	1987	1988	1989	1990
2. Natural gas:								
a. Quantity in mcf	09							
b. Price per mcf	10							
c. Total natural gas payments	11							
3. Coal:								
a. Quantity in tons	12							
b. Price per ton	13							
c. Total coal payments	14							
4. Fuel oil:								
a. Quantity in gallons	15							
b. Price per gallon	16							
c. Total fuel oil payments	17							
5. Other (specify):								
a. Quantity (specific units)	18							
b. Price per unit	19							
c. Total payments	20							
6. Total energy costs	21							

SCHEDULE B.3—PRE-CONTROL FORECAST PROFIT AND LOSS SUMMARY

[Smelter identification]

	Line	1984	1985	1986	1987	1988	1989	1990
A. Forecast operating revenues:								
1. Smelter revenues—unaffiliated parties	01							
2. Smelter revenues—affiliated parties	02							
3. Co-product and by-product sales	03							
4. Other operating revenues	04							
5. Total operating revenues	05							
B. Forecast cost of sales:								
1. Material costs	06							
2. Production labor costs	07							
3. Energy costs	08							
4. Pollution control costs	09							
5. Production overhead	10							
6. Other production costs	11							
7. Total cost of sales	12							
C. Forecast gross operating profit	13							
D. Forecast other operating expenses:								
1. Selling, general and administrative expenses	14							
2. Taxes, other than income tax	15							
3. Research costs	16							
4. Depreciation and amortization:								
a. Pollution control facilities	17							
b. Other smelter facilities	18							
5. Interest	19							
6. Miscellaneous operating expenses	20							
7. Total other operating expenses	21							
E. Forecast income from operations	22							

SCHEDULE B. 4—CONSTANT CONTROLS REVENUE FORECAST

[Smelter identification]

	Line	1984	1985	1986	1987	1988	1989	1990
A. Forecast smelter revenues—unaffiliated parties:								
1. Concentrates processed	01							
2. Smelting charge	02							
3. Total smelter revenues	03							
4. Average product grade	04							
B. Forecast smelter revenues—affiliated parties:								
1. Concentrates processed	05							
2. Smelting charge	06							
3. Total smelter revenues	07							
4. Average product grade	08							
C. Forecast co-product and by-product sales:								
1. Total co-product revenues	09							
2. Total by-product revenues from:								
a. Pollution control facilities	10							
b. Other smelter processing	11							
3. Total co-product and by-product revenues	12							

SCHEDULE B.5—CONSTANT CONTROLS COST FORECAST

[Smelter identification]

	Line	1984	1985	1986	1987	1988	1989	1990
A. Forecast production labor cost:								
1. Direct labor hours	01							
2. Average hourly wage rate	02							
3. Total wage payments	03							
4. Supplemental employee benefits	04							
5. Total production labor cost	05							

SCHEDULE B.5—CONSTANT CONTROLS COST FORECAST—Continued

[Smelter identification]

	Line	1984	1985	1986	1987	1988	1989	1990
B. Forecast energy costs:								
1. Electricity:								
a. Quantity in kilowatt hours	06							
b. Price per kwh.	07							
c. Total electricity payments	08							
2. Natural gas:								
a. Quantity in mcf	09							
b. Price per mcf	10							
c. Total natural gas payments	11							
3. Coal:								
a. Quantity in tons	12							
b. Price per ton	13							
c. Total coal payments	14							
4. Fuel oil:								
a. Quantity in gallons	15							
b. Price per gallon	16							
c. Total fuel oil payments	17							
5. Other (specify):								
a. Quantity (specific units)	18							
b. Price per unit	19							
c. Total payments	20							
6. Total energy costs	21							

SCHEDULE B.6—CONSTANT CONTROLS PROFIT AND LOSS SUMMARY FOR THE PROFIT PROTECTION TEST

(Smelter identification)

	Line	1984	1985	1986	1987	1988	1989	1990
A. Forecast operating revenues:								
1. Smelter revenues—unaffiliated parties	01							
2. Smelter revenues—affiliated parties	02							
3. Co-product and by-product sales	03							
4. Other operating revenues	04							
5. Total operating revenues	05							
B. Forecast cost of sales:								
1. Material costs	06							
2. Production labor costs	07							
3. Energy costs	08							
4. Pollution control costs	09							
5. Production overhead	10							
6. Other production costs	11							
7. Total cost of sales	12							
C. Forecast gross operating profit	13							
D. Forecast other operating expenses:								
1. Selling, general and administrative expenses	14							
2. Taxes, other than income tax	15							
3. Research costs	16							
4. Depreciation and amortization:								
a. Pollution control facilities	17							
b. Other smelter facilities	18							
5. Interest	19							
6. Miscellaneous operating expenses	20							
7. Total other operating expenses	21							
E. Forecast income from operations	22							

SCHEDULE B.7—PROFIT PROTECTION TEST

[Smelter identification]

[illegible]

SCHEDULE C.1—CONSTANT CONTROLS PROFIT AND LOSS SUMMARY FOR THE RATE OF RETURN TEST

(Smelter identification)

	Line	1984	1985	1986	1987	1988	1989	1990
A. Forecast operating revenues:								
1. Smelter revenues—unaffiliated parties	01							
2. Smelter revenues—affiliated parties	02							
3. Co-product and by-product sales	03							
4. Other operating revenues	04							
5. Total operating revenues	05							
B. Forecast cost of sales:								
1. Material costs	06							
2. Production labor costs	07							
3. Energy costs	08							
4. Pollution control costs	09							
5. Production overhead	10							
6. Other production costs	11							
7. Total cost of sales	12							
C. Forecast gross operating profit	13							
D. Forecast other operating expenses:								
1. Selling, general and administrative expenses	14							
2. Taxes, other than income tax	15							
3. Research costs	16							
4. Depreciation and amortization								
a. Pollution control facilities	17							
b. Other smelter facilities	18							
5. Interest on short-term debt	19							
6. Miscellaneous operating expenses	20							
7. Total other operating expenses	21							
E. Forecast income from operations	22							
F. Forecast income taxes	23							
G. Forecast net income from operations	24							

SCHEDULE C.2—CONSTANT CONTROLS SUSTAINING CAPITAL INVESTMENT FORECAST

(Smelter identification)

Sustaining capital	Line	1984	1985	1986	1987	1988	1989	1990
1. Land	01							
2. Buildings and improvements	02							
3. Machinery and equipment	03							
4. Transportation equipment	04							
5. Pollution control facilities	05							
6. Other fixed assets	06							
7. Total smelter sustaining capital	07							

SCHEDULE C.3—HISTORICAL CAPITAL INVESTMENT IN CONSTANT DOLLARS

(Smelter identification)

Items from 1983 balance sheet	Line	Nominal dollars	Constant dollars
A. Current assets:			
1. Cash on hand and deposit	01		
2. Temporary cash investments	02		
3. Trade receivables, net:			
a. Unaffiliated customers	03		
b. Affiliated customers	04		
4. Inventories:			
a. Raw materials and products	05		
b. Other materials and supplies	06		
5. Other current assets	07		
6. Total current assets	08		
B. Property, plant and equipment:			
1. Land	09		
2. Buildings and improvements	10		
3. Machinery and equipment	11		
4. Transportation equipment	12		
5. Pollution control facilities	13		
6. Other fixed assets	14		
7. Total smelter investments	15		
8. Less: Accumulated depreciation and amortization	16		
9. Net smelter investment	17		
C. Other noncurrent assets	18		
D. Total smelter capital investment	19		
E. Current liabilities:			
1. Trade accounts and notes payable:			
a. Unaffiliated suppliers	20		
b. Affiliated suppliers	21		
2. Other expense accruals	22		
3. Notes payable, current	23		
4. Other current liabilities	24		
5. Total current liabilities	25		
F. Net smelter capital investment	26		

SCHEDULE C.4—RATE OF RETURN TEST

[Smelter identification]

	Line	1984	1985	1986	1987	1988	1989	1990	Total
A. Operating cash flow projections:									
1. Net income from operations	01								XXXX
2. Depreciation and amortization:									
a. Pollution control facilities	02								XXXX
b. Other smelter facilities	03								XXXX
3. Operating cash flow	04								XXXX
4. Capital expenditure projections:									
a. Constant controls	05								XXXX
b. Sustaining capital	06								XXXX
c. Total	07								XXXX
5. Net cash flow projections	08								XXXX
6. Discount factors	09								XXXX
7. Present value of future cash flows	10								XXXX
B. Net present value:									
1. Horizon value	11	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	
2. Discount factor	12	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	
3. Present value of horizon value	13	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	
4. Present value of future cash flows	14	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	
5. Total present value	15	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	
6. Net smelter capital investment in constant dollars	16	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	
7. Net present value	17	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	

SCHEDULE C.5—HORIZON VALUE OF CASH FLOWS

[Smelter identification]

	Line	Final forecast years		Horizon years					Total
		1989	1990	1991	1992	1993	1994	1995	
A. Depreciation-free horizon value:									
1. Net cash flow projections	01			XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
2. Depreciation tax savings:									
a. Depreciation and amortization	02			XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
b. Marginal tax rate	03			XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
c. Tax savings	04			XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
3. Depreciation-free net cash flows:									
a. Nominal dollar values	05			XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
b. 1990 dollar values	06			XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
c. Average	07	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	
4. Horizon factor	08	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	
5. Depreciation-free horizon value	09	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	
B. Depreciation tax savings over the horizon period:									
1. Depreciation and amortization	10	XXXX	XXXX						XXXX
2. Marginal tax rate	11	XXXX	XXXX						XXXX
3. Tax savings	12	XXXX	XXXX						XXXX
4. Discount factors	13	XXXX	XXXX						XXXX
5. Present value of tax savings	14	XXXX	XXXX						XXXX
6. Total present value of tax savings	15	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	
C. Horizon Value	16	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	

SCHEDULE D.1—INTERIM CONTROLS REVENUE FORECAST

[Smelter identification]

	Line	1984	1985	1986	1987	1988	1989	1990
A. Forecast smelter revenues—unaffiliated parties:								
1. Concentrates processed	01							
2. Smelting charge	02							
3. Total smelter revenues	03							
4. Average product grade	04							
B. Forecast smelter revenues—affiliated parties:								
1. Concentrates processed	05							
2. Smelting charge	06							
3. Total smelter revenues	07							
4. Average product grade	08							
C. Forecast co-product and by-product sales:								
1. Total co-product revenues	09							
2. Total by-product revenues from:								
a. Pollution control facilities	10							
b. Other smelter processing	11							
3. Total co-product and by-product revenues	12							

SCHEDULE D.2—INTERIM CONTROLS COST FORECAST

[Smelter identification]

	Line	1984	1985	1986	1987	1988	1989	1990
A. Forecast production labor cost:								
1. Direct labor hours	01							
2. Average hourly wage rate	02							
3. Total wage payments	03							
4. Supplemental employee benefits	04							
5. Total production labor cost	05							

SCHEDULE D.2—INTERIM CONTROLS COST FORECAST—Continued

[Smelter identification]

	Line	1984	1985	1986	1987	1988	1989	1990
B. Forecast energy costs:								
1. Electricity:								
a. Quantity in kilowatt hours	06							
b. Price per kwh	07							
c. Total electricity payments	08							
2. Natural gas:								
a. Quantity in mcf	09							
b. Price per mcf	10							
c. Total natural gas payments	11							
3. Coal:								
a. Quantity in tons	12							
b. Price per ton	13							
c. Total coal payments	14							
4. Fuel oil:								
a. Quantity in gallons	15							
b. Price per gallon	16							
c. Total fuel oil payments	17							
5. Other (specify):								
a. Quantity (specific units)	18							
b. Price per unit	19							
c. Total payments	20							
6. Total energy costs	21							

SCHEDULE D.3—INTERIM CONTROLS FORECAST PROFIT AND LOSS SUMMARY

[Smelter identification]

	Line	1984	1985	1986	1987	1988	1989	1990
A. Forecast operating revenues:								
1. Smelter revenues—unaffiliated parties	01							
2. Smelter revenues—affiliated parties	02							
3. Co-product and by-product sales	03							
4. Other operating revenues	04							
5. Total operating revenues	05							
B. Forecast cost of sales:								
1. Material costs	06							
2. Production labor costs	07							
3. Energy costs	08							
4. Pollution control costs	09							
5. Production overhead	10							
6. Other production costs	11							
7. Total cost of sales	12							
C. Forecast gross operating profit	13							
D. Forecast other operating expenses:								
1. Selling, general and administrative expenses	14							
2. Taxes, other than income tax	15							
3. Research costs	16							
4. Depreciation and amortization:								
a. Pollution control facilities	17							
b. Other smelter facilities	18							
5. Interest on short-term debt	19							
6. Miscellaneous operating expenses	20							
7. Total other operating expenses	21							
E. Forecast income from operations	22							
F. Forecast income taxes	23							
G. Forecast net income from operations	24							

SCHEDULE D.4—INTERIM CONTROL SUSTAINING CAPITAL INVESTMENT FORECAST

[Smelter identification]

Sustaining capital	Line	1984	1985	1986	1987	1988	1989	1990
1. Land	01							
2. Buildings and improvements	02							
3. Machinery and equipment	03							
4. Transportation equipment	04							
5. Pollution control facilities	05							
6. Other fixed assets	06							
7. Total smelter sustaining capital	07							

SCHEDULE D.5—CASH PROCEEDS FROM LIQUIDATION

[Smelter identification]

	Line	(1) Estimated Liquidation value	(2) Reported net book value	(3) Total gain (loss)	Gain (loss) subject to taxation as—	
					(4) Ordinary income	(5) Capital gain
A. Total current assets	01				XXXXX	XXXXX
B. Property, plant and equipment:						
1. Land	02					

SCHEDULE D.5—CASH PROCEEDS FROM LIQUIDATION—Continued

(Smelter identification)

	Line	(1) Estimated Liquidation value	(2) Reported net book value	(3) Total gain (loss)	Gain (loss) subject to taxation as—	
					(4) Ordinary income	(5) Capital gain
2. Buildings and improvements	03					
3. Machinery and equipment	04					
4. Transportation equipment	05					
5. Pollution control facilities	06					
6. Other fixed assets	07					
7. Total	08					
C. Other Noncurrent assets	09					
D. Total smelter value	10					
E. Total current liabilities	11			XXXX	XXXX	XXXX
F. Gross liquidation value	12					
G. Liquidation costs	13		XXXX			XXXX
H. Net Taxable Gain (or loss)	14	XXXX	XXXX	XXXX		
I. Income tax rate	15	XXXX	XXXX	XXXX		
J. Income tax on gain (loss)	16	XXXX	XXXX	XXXX		
K. After tax cash proceeds from liquidation	17		XXXX	XXXX	XXXX	XXXX

SCHEDULE D.6—PERMANENT WAIVER FROM INTERIM CONTROLS TEST

(Smelter identification)

	Line	1984	1985	1986	1987	1988	1989	1990	Total
A. Operating Cash flow projection:									
1. Net income from operations	01								XXXX
2. Net income adjustments	02								XXXX
3. Depreciation and amortization:									
a. Pollution control facilities	03								XXXX
b. Other smelter facilities	04								XXXX
4. Operating cash flow	05								XXXX
5. Capital expenditure projections:									
a. Interim controls	06								XXXX
b. Sustaining capital	07								XXXX
c. Total	08								XXXX
6. Net cash flow projections	09								XXXX
7. Discount factors	10								XXXX
8. Present value of future cash flows	11								XXXX
B. Net present value:									
1. Horizon value	12	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	
2. Discount factor	13	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	
3. Present value of horizon value	14	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	
4. Present value of future cash flows	15	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	
5. Total present value	16	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	
6. Current salvage value	17	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	
7. Net present value	18	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	

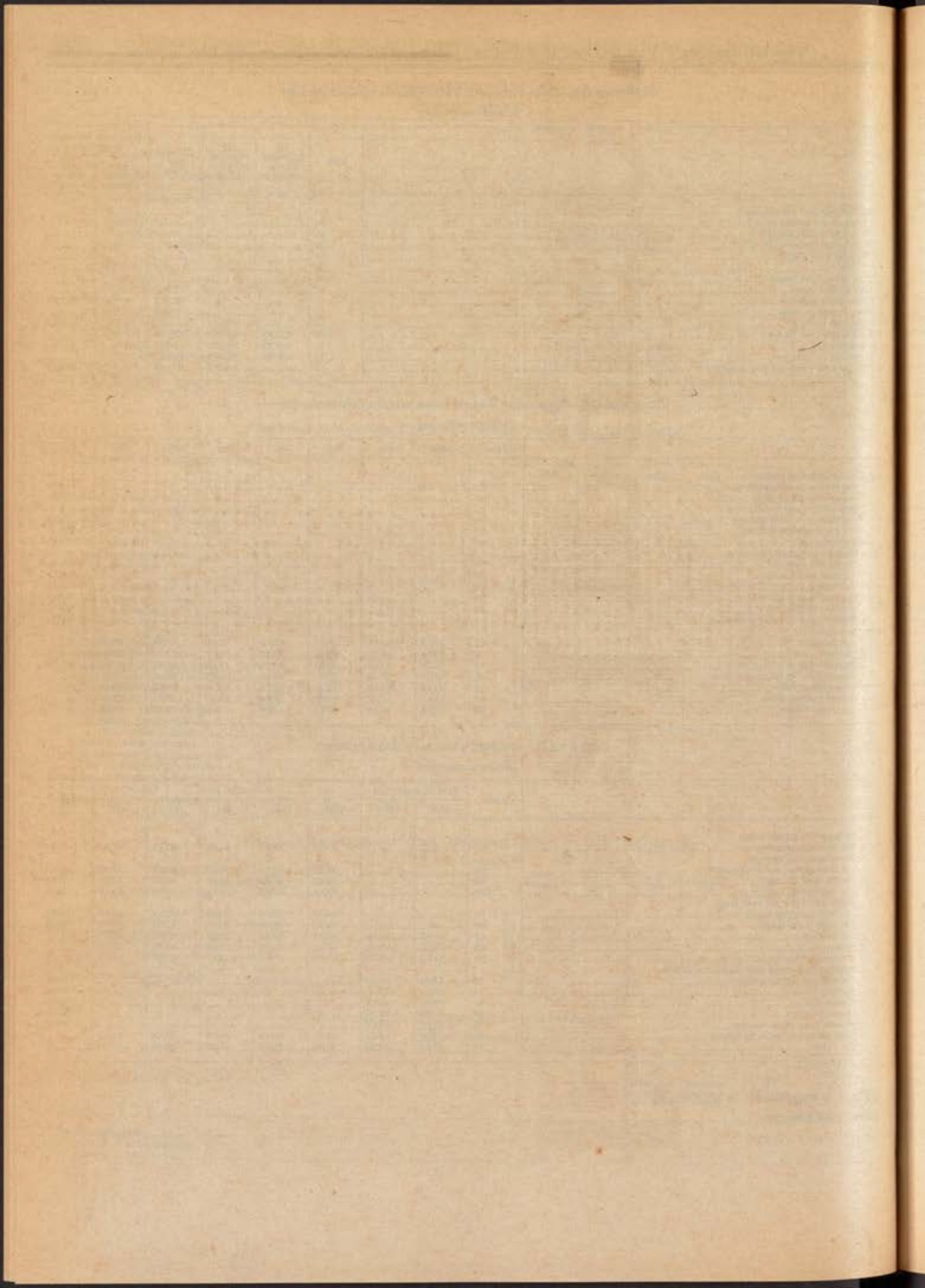
SCHEDULE D.7—HORIZON VALUE OF CASH FLOWS

(Smelter identification)

	Line	Final forecast years		Horizon years					Total
		1989	1990	1991	1992	1993	1994	1995	
A. Depreciation-free horizon value:									
1. Net cash flow projections	01			XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
2. Depreciation tax savings:									
a. Depreciation and amortization	02			XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
b. Marginal tax rate	03			XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
c. Tax savings	04			XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
3. Depreciation-free net cash flows:									
a. Nominal dollar values	05			XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
b. 1990 dollar values	06			XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
c. Average	07	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	
4. Horizon factor	08	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	
5. Depreciation-free horizon value	09	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	
B. Depreciation tax savings over the horizon period:									
1. Depreciation and amortization	10	XXXX	XXXX						XXXX
2. Marginal tax rate	11	XXXX	XXXX						XXXX
3. Tax savings	12	XXXX	XXXX						XXXX
4. Discount factors	13	XXXX	XXXX						XXXX
5. Present value of tax savings	14	XXXX	XXXX						XXXX
6. Total present value of tax savings	15	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	
C. Horizon Value	16	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	

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Registered Federal

Friday
February 15, 1985

Part III

Department of Labor

Employment Standards Administration,
Wage and Hour Division

Minimum Wages for Federal and
Federally Assisted Construction; General
Wage Determination Decisions, Notice

DEPARTMENT OF LABOR

Employment Standards
Administration, Wage and Hour
DivisionMinimum Wages for Federal and
Federally Assisted Construction;
General Wage Determination
Decisions

General wage determination decisions of the Secretary of Labor specify, in accordance with applicable law and on the basis of information available to the Department of Labor from its study of local wage conditions and from other sources, the basic hourly wage rates and fringe benefit payments which are determined to be prevailing for the described classes of laborers and mechanics employed on construction projects of the character and in the localities specified therein.

The determinations in these decisions of such prevailing rates and fringe benefits have been made by authority of the Secretary of Labor pursuant to the provisions of the Davis-Bacon Act of March 3, 1931, as amended (46 Stat. 1494, as amended, 40 U.S.C. 276a) and of other Federal statutes referred to in 29 CFR 5.1 (including the statutes listed at 36 FR 306 (1970) following Secretary of Labor's Order No. 24-70) containing provisions for the payment of wages which are dependent upon determination by the Secretary of Labor under the Davis-Bacon Act; and pursuant to the provisions of part 1 of subtitle A of title 29 of Code of Federal Regulations Procedure for Predetermination of Wage Rates, 48 FR 19533 (1983) and of Secretary of Labor's Orders 9-83, 48 FR 35736 (1983), and 6-84, 49 FR 32473 (1984). The prevailing rates and fringe benefits determined in these decisions shall, in accordance with the provisions of the foregoing statutes, constitute the minimum wages payable on Federal and federally assisted construction projects to laborers and mechanics of the specified classes engaged on contract work of the character and in the localities described therein.

Good cause is hereby found for not utilizing notice and public procedure thereon prior to the issuance of these determinations as prescribed in 5 U.S.C. 553 and not providing for delay in effective date as prescribed in that section, because the necessity to issue construction industry wage determination frequently and in large volume causes procedures to be impractical and contrary to the public interest.

General wage determination decisions are effective from their date of publication in the **Federal Register** without limitation as to time and are to be used in accordance with the provisions of 29 CFR Parts 1 and 5. Accordingly, the applicable decision together with any modifications issued subsequent to its publication date shall be made a part of every contract for performance of the described work within the geographic area indicated as required by an applicable Federal prevailing wage law and 29 CFR, Part 5. The wage rates contained therein shall be the minimum paid under such contract by contractors and subcontractors on the work.

Modifications and Supersedeas
Decisions to General Wage
Determination Decisions

Modifications and supersedeas decisions to general wage determination decisions are based upon information obtained concerning changes in prevailing hourly wage rates and fringe benefit payments since the decisions were issued.

The determinations of prevailing rates and fringe benefits made in the modifications and supersedeas decisions have been made by authority of the Secretary of Labor pursuant to the provisions of the Davis-Bacon Act of March 3, 1931, as amended (46 Stat. 1494, as amended, 40 U.S.C. 276a) and of other Federal statutes referred to in 29 CFR 5.1 (including the statutes listed at 36 FR 306 (1970) following Secretary of Labor's Order No. 24-70) containing provisions for the payment of wages which are dependent upon determination by the Secretary of Labor under the Davis-Bacon Act; and pursuant to the provisions of Part 1 of Subtitle A of Title 29 of Code of Federal Regulations Procedure for Predetermination of Wage Rates, 48 FR 19533 (1983) and of Secretary of Labor's Orders 6-84, 49 FR 32473 (1984). The prevailing rates and fringe benefits determined in foregoing general wage determination decisions, as hereby modified, and/or superseded shall, in accordance with the provisions of the foregoing statutes, constitute the minimum wages payable on Federal and federally assisted construction projects to laborers and mechanics of the specified classes engaged in contract work of the character and in the localities described therein.

Modifications and supersedeas decisions are effective from their date of publication in the **Federal Register** without limitation as to time and are to be used in accordance with the provisions of 29 CFR Parts 1 and 5.

Any person, organization, or governmental agency having an interest in the wages determined as prevailing is encouraged to submit wage rate information for consideration by the Department. Further information and self-explanatory forms for the purpose of submitting this data may be obtained by writing to the U.S. Department of Labor, Employment Standards Administration, Wage and Hour Division, Office of Program Operations, Division of Wage Determinations, Washington, D.C. 20210. The cause for not utilizing the rulemaking procedures prescribed in 5 U.S.C. 553 has been set forth in the original General Determination Decision.

Modifications to General Wage
Determination Decisions

The numbers of the decisions being modified and their dates of publication in the **Federal Register** are listed with each State.

California:		
CA84-5007	May 16, 1984	
CA84-5022	Oct. 5, 1984	
Kentucky:		
KY84-1008	Mar. 16, 1984	
KY84-1029	Sept. 7, 1984	
Michigan: M84-5025	Dec. 21, 1984	
Minnesota: MN85-5006	Feb. 1, 1985	
Nevada:		
NV84-5014	June 8, 1984	
NV84-5017	June 29, 1984	
North Dakota: ND81-5131	July 6, 1981	
Ohio:		
OH83-5122	Nov. 25, 1984	
OH83-5127	Dec. 23, 1983	
Oregon: OR84-5020	June 22, 1984	
Pennsylvania:		
PA83-3001	Aug. 19, 1983	
PA84-3003	Feb. 10, 1984	
PA84-3015	June 1, 1984	
PA84-3000	Jan. 13, 1984	
Texas:		
TX84-4036	May 25, 1984	
TX84-4028	May 4, 1984	
TX84-4061	Aug. 26, 1984	
TX84-4004	Feb. 3, 1984	
TX84-4015	Mar. 16, 1984	
TX84-4037	May 25, 1984	
TX84-4001	Jan. 25, 1984	
TX84-4047	Aug. 10, 1984	
TX84-4045	Do.	
TX84-4112	Dec. 28, 1984	
TX84-4057	Oct. 5, 1984	

Supersedeas Decisions to General Wage
Determination Decisions

The numbers of the decisions being superseded and their dates of publication in the **Federal Register** are listed with each State. Supersedeas decision numbers are in parentheses following the number of the decisions being superseded.

Idaho	ID82-5128 (ID85-5010)	Nov. 26, 1982
Oklahoma	OK79-4089 (OK85-4002)	Oct. 5, 1979

Signed at Washington, D.C. this 8th day of February 1985.

James L. Valin,
Assistant Administrator.

BILLING CODE 4510-27-M

MOLECULAR CRYSTALS. P. 11

[illegible]

MODIFICATIONS P. 1

[illegible]

MODIFICATIONS P. 6

DECISION NO. 8084-5022 MOD. #2	DECISION NO. 8084-1008 MOD. #2	DECISION NO. 8084-1022 MOD. #1	DECISION UNDER 8084-5004 - MOD. #1 (30 FR 4317 - February 1, 1985)
Area 1: (Cont'd): Noble Settlers (Cont'd): Area 1: Alameda, Contra Costa, Del Norte, El Dorado, Lake, Marin, Mendocino, Marys, San Francisco, San Mateo, Siskiyou, Solano, Sonoma and Trinity Counties Area 2: Adair, Alpine, Calaveras, San Joaquin, Stanislaus and Tuolumne Counties PLUMBERS: STAINLESS: Area 3: Residential Plumber (on single family homes and apartments up to and including 2 stories in height TERRAZZO WORKERS: Area 2: Area 2: Adair, Alpine, Calaveras, San Joaquin, Stanislaus and Tuolumne Counties Tile FINISHERS: Area 2: Area 2: Area 2: Alpine, Adair, Calaveras, Fresno, Kings, Madera, Mariposa, Merced, San Joaquin, Stanislaus, Tuolumne and Tuolumne Counties Area 3: Butte, Colusa, El Dorado, Glenn, Lassen, Modoc, Nevada, Placer, Sutter, Tehama, Yolo and Yuba Counties FOOTNOTE: a. Vacation Pay: .80 1st year 1.11 2nd year 1.48 3rd year 1.83 4th or more years	Mod #2 (49 FR 10000 - March 16, 1984) Boone, Campbell, Kenton & Pendleton Cos., KY CHANGE: ELECTRICIANS & LINE CONSTRUCTORS: Electricians: Zone 1 - 25 mile & under radius of Hamilton Co. Courthouse, Cincinnati, Ohio Zone 2 - Over 25 mile radius of Hamilton Co. Courthouse, Cincinnati, Ohio Line Construction: Zone 1 - 25 mile & under radius of Hamilton Co. Courthouse, Cincinnati, Ohio: Linemen & Equipment Operators Groundmen Zone 2 - Over 25 mile radius of Hamilton Co. Courthouse, Cincinnati, Ohio: Linemen, Linemen, & Equipment Operators Groundmen	Mod #1 (49 FR 35471 - September 7, 1984) Boone, Campbell, Kenton & Pendleton Cos., KY CHANGE: ELECTRICIANS: Zone 1 - 25 mile & under radius of Hamilton Co. Courthouse, Cincinnati, Ohio: Wiremen, Linemen, & Equipment Operators Groundmen Zone 2 - Over 25 mile radius of Hamilton Co. Courthouse, Cincinnati, Ohio: Wiremen, Linemen, & Equipment Operators Groundmen	Change: All Power Equipment Operators, change Fringe Benefits only to read: Change: All Power Equipment Operators, change Fringe Benefits only to read: Change: All Power Equipment Operators, change Fringe Benefits only to read:
Basic Hourly Rate	Basic Hourly Rate	Basic Hourly Rate	Basic Hourly Rate
Fringe Benefits	Fringe Benefits	Fringe Benefits	Fringe Benefits
\$10.00 \$9.405 17.57 4.04 10.68 1.65 13.00 1.65	\$16.00 3.30 + 3% 12.00 3.30 + 3% 16.55 3.30 + 3% \$16.00 3.30 + 3% 12.00 3.30 + 3% 16.55 3.30 + 3% 12.41 3.30 + 3%	\$16.00 3.30 + 3% 12.00 3.30 + 3% \$16.55 3.30 + 3% 12.41 3.30 + 3%	\$16.44 11.79 \$16.00 3.30 + 3% 12.00 3.30 + 3% \$16.55 3.30 + 3% 12.41 3.30 + 3% \$16.25 55.71
\$9.12			\$9.12

MODIFICATIONS P. 9

[illegible]

RECOLLECTIONS. P. 10

Basic Monthly Rate	Fringe Benefits
\$14.30	1.00+
	3.5%
\$18.68	1.00 +
	3.5%
10.73	1.00 +
	3.5%
10.52	1.00 +
	3.5%
DECISION #TX84-4017-MOD#5 (49 FR 10701-March 15, 1984) Michita County, Texas	
CHANGE:	
Line Construction: Lineman; Operator	
Cable Splicer	
Groundman	
DECISION #TX84-4017-MOD#4 (49 FR 23191-May 25, 1984) Armstrong-Carson, Castro, Childress, Collinsworth, Dallas, Deaf Smith, Don- ley, Gray, Hansford, Bart- ley, Hemphill, Hutchinson, Lipscomb, Moore, Ochil- tree, Oldham, Potter, San- dall, Roberts, Sherman, Swisher & Wheeler Cos., Texas	
CHANGE:	
Line Construction: Zone 1 Linemen; Operators	
Cable Splicers	
Groundman	
Electricians: Zone 1 Electricians	
Cable Splicers	
Line Construction - Zone 2 Lineman	
Cable Splicers	
Groundman	
Operator-Hole Digger, Line Truck	
Flat bed Truck Driver	
DECISION #TX84-4017-MOD#1 (49 FR 32157-Jun. 10, 1984) Laverton and Harris Counties, Texas	
CHANGE:	
Line Construction: Zone 1 Lineman & Cable Splicer	
Groundman	
Line Construction: Zone 2 Lineman & Cable Splicer	
Groundman	
DECISION #TX84-4047-MOD.#2 (49 FR 32157-Jun. 10, 1984) Lubbock County, Texas	
CHANGE:	
Line Construction: Lineman	
Operators	
Groundman	
Truck Drivers	
DECISION #TX84-4047-MOD.#3 (49 FR 32158-Aug. 10, 1984) Travis County, Texas	
CHANGE:	
Clairiers	
Line Construction: Lineman	
Groundman	
Lathers	

MODIFICATIONS P. 11

DECISION #2184-4111-MOD#2

(49 FR 50557-December 29,

1984)

Collins, Dallas, Denton,

Ellis, Grayson, Hood,

Scott, Johnson, Kaufman,

Palo Pinto, Rockwall,

Tarrant & Wise Cos.,

Texas

CHANGE:

Power Equipment Operators:

Zone 1

Zone 2

Heavy Equipment

Group 1

Group 2

Intermediate

Equipment

Group 3

Group 4

Oiler

PLASTERERS & FIREFIGHTERS:

Zone 1

Zone 2

PLASTERERS:

Zone 2

Basic Hourly Rate	fringe Benefits
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MODIFICATIONS P. 12

DECISION #2184-4057-MOD#1

(49 FR 39440-October 5,

1984)

Sovile County, Texas

CHANGE:

Elevator Constructors:

Mechanics

Helpers

Helpers (Prob.)

Power Equipment Operators:

Group 1

Group 2

Group 3

Group 4

Basic Hourly Rate	fringe Benefits
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GROUP DEFINITIONS: POWER EQUIPMENT OPERATORS

GROUP 1: Heavy Equipment - Hoist, two drum or more Cableway Cranes, power operated; Particles, power operated (all types); Pile Drivers; Hydraulic Cranes over 50 tons; Tower Cranes

All other equipment of similar nature coming under the Light, Intermediate or Heavy Equipment Classification, when power operated.

On cranes over 100 feet, excluding 1 lb. the operator shall be paid

5.00 per foot above the applicable rate.

GROUP 2: Intermediate Equipment - Mason Drill; Crushing Plants; Concrete Pumps (all types); Ford Tractor or like with any attachment (except blade and mower on rear); Drilling Machines (all types); Forklifts (40 feet and over); Six Wheel Trucks, when used continuously for 5 days; Microtunneling; Locomotives; Wipers, 14 cu. ft. or over; Side Graders, self-propelled; Grapple Hy-Ho Hooper; Backhoes; All types; Mobile Concrete Mixers over 14 cu. ft.; Bulldozers, Loaders, Tractors; Scrapers and Pilers; Tractors, Mechanical; Heavy Duty Mechanical Hydraulic Cranes 50 tons and over; 2 Air Tugs

GROUP 3: Light Equipment - Air Compressors, Pumps, Welding Machines, Throttle Valves, Light Plants, Conveyors, Elevators Building, Form Cranes, Boss (single drum), Ford Tractor including blade and mower on rear, Mixers less than 14 cubic feet, Stacking plants, Forklifts (short wheel), under 40 feet, Bobcat, Backhoes, Pilers, Automatic Building Elevator (Set of Heavy Equipment Rate), Scoopmobile, Winch Truck, Roller, two tons or over, Air Compressor

2 Air Tugger, Rollers, two or more fired by one man.

GROUP 4: Oiler

GROUP 5: Oiler

GROUP 6: Oiler

GROUP 7: Oiler

GROUP 8: Oiler

GROUP 9: Oiler

GROUP 10: Oiler

GROUP 11: Oiler

GROUP 12: Oiler

GROUP 13: Oiler

GROUP 14: Oiler

GROUP 15: Oiler

GROUP 16: Oiler

GROUP 17: Oiler

GROUP 18: Oiler

GROUP 19: Oiler

GROUP 20: Oiler

GROUP 21: Oiler

GROUP 22: Oiler

GROUP 23: Oiler

GROUP 24: Oiler

GROUP 25: Oiler

GROUP 26: Oiler

GROUP 27: Oiler

GROUP 28: Oiler

GROUP 29: Oiler

GROUP 30: Oiler

GROUP 31: Oiler

GROUP 32: Oiler

GROUP 33: Oiler

GROUP 34: Oiler

GROUP 35: Oiler

GROUP 36: Oiler

GROUP 37: Oiler

GROUP 38: Oiler

GROUP 39: Oiler

GROUP 40: Oiler

GROUP 41: Oiler

GROUP 42: Oiler

GROUP 43: Oiler

GROUP 44: Oiler

GROUP 45: Oiler

SUPERSEDES DECISION

STATE: OREGON
 DECISION NO.: CR85-4002
 SUPERSEDES DECISION NO. CR79-4083, dated October 3, 1979 in FR 57623.
 DESCRIPTION OF WORK: Residential projects consisting of single family homes and apartments up to and including 4 stories.

CITY: Fuskocree

STATE: Idaho
 DECISION NUMBER: ID85-5010
 SUPERSEDES DECISION NUMBER ID81-5115 dated November 16, 1981, in FR 53612
 DESCRIPTION OF WORK: Heavy and Highway Projects

COUNTY: Statewide

DATE: Date of Publication

CARPENTERS:

Basic Hourly Rate	Fringe Benefits
5.00	51.47
5.30	54.7
5.25	54.7
7.40	54.7
5.85	54.7
5.31	54.7
3.75	54.7
5.29	54.7
6.92	54.7
6.05	54.7
6.45	54.7
4.75	54.7
5.50	54.7
5.50	54.7

WELDERS: Receive rate prescribed for craft performing operation to which welder is incidental.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)).

IRONWORKERS:

Basic Hourly Rate	Fringe Benefits
12.80	3.47
12.84	3.47
13.00	3.47
13.05	3.47
16.13	3.47
16.28	3.47
16.38	3.47
16.53	3.47
16.63	3.47

IRONWORKERS:

Area 1:

Projects under \$5,000,000 exclusive of mechanical and electrical subcontracts

Carpenters

Electricians

Boiler Makers

Crews

Millwrights

All Other Work:

Carpenters

Electricians

Boiler Makers

Crews

Millwrights

Area 2:

(See Footnote "a")

Zone 1:

Group 1

Group 2

Group 3

Group 4

Group 5

Group 6

Group 7

Group 8

Group 9

Group 10

Zone Differential (Add to Zone 1 rate):

Zone 2 - \$1.50

Zone 3 - 1.75

POWER EQUIPMENT OPERATORS:

Area 1:

(See Footnote "a")

Group 1

Group 2

Group 3

Group 4

Group 5

Group 6

Group 7

Group 8

Group 9

Group 10

Zone Differential (Add to Zone 1 rate):

Zone 2 - \$1.50

Zone 3 - 1.75

POWER EQUIPMENT OPERATORS:

Area 1:

(See Footnote "a")

Group 1

Group 2

Group 3

Group 4

Group 5

Group 6

Group 7

Group 8

Group 9

Group 10

Zone Differential (Add to Zone 1 rate):

Zone 2 - \$1.50

Zone 3 - 1.75

POWER EQUIPMENT OPERATORS:

Area 1:

(See Footnote "a")

Group 1

Group 2

Group 3

Group 4

Group 5

Group 6

Group 7

Group 8

Group 9

Group 10

Zone Differential (Add to Zone 1 rate):

Zone 2 - \$1.50

Zone 3 - 1.75

POWER EQUIPMENT OPERATORS:

Area 1:

(See Footnote "a")

Group 1

Group 2

Group 3

Group 4

Group 5

Group 6

Group 7

Group 8

Group 9

Group 10

Zone Differential (Add to Zone 1 rate):

Zone 2 - \$1.50

Zone 3 - 1.75

POWER EQUIPMENT OPERATORS:

Area 1:

(See Footnote "a")

Group 1

Group 2

Group 3

Group 4

Group 5

Group 6

Group 7

Group 8

Group 9

Group 10

Zone Differential (Add to Zone 1 rate):

Zone 2 - \$1.50

Zone 3 - 1.75

POWER EQUIPMENT OPERATORS:

Area 1:

(See Footnote "a")

Group 1

Group 2

Group 3

Group 4

Group 5

Group 6

Group 7

Group 8

Group 9

Group 10

Zone Differential (Add to Zone 1 rate):

Zone 2 - \$1.50

Zone 3 - 1.75

POWER EQUIPMENT OPERATORS:

Area 1:

(See Footnote "a")

Group 1

Group 2

Group 3

Group 4

Group 5

Group 6

Group 7

Group 8

Group 9

Group 10

Zone Differential (Add to Zone 1 rate):

Zone 2 - \$1.50

Zone 3 - 1.75

POWER EQUIPMENT OPERATORS:

Area 1:

(See Footnote "a")

Group 1

Group 2

Group 3

Group 4

Group 5

Group 6

Group 7

Group 8

Group 9

Group 10

Zone Differential (Add to Zone 1 rate):

Zone 2 - \$1.50

Zone 3 - 1.75

POWER EQUIPMENT OPERATORS:

Area 1:

(See Footnote "a")

Group 1

Group 2

Group 3

Group 4

Group 5

Group 6

Group 7

Group 8

Group 9

Group 10

Zone Differential (Add to Zone 1 rate):

Zone 2 - \$1.50

Zone 3 - 1.75

POWER EQUIPMENT OPERATORS:

Area 1:

(See Footnote "a")

Group 1

Group 2

Group 3

Group 4

Group 5

Group 6

Group 7

Group 8

Group 9

Group 10

Zone Differential (Add to Zone 1 rate):

Zone 2 - \$1.50

Zone 3 - 1.75

POWER EQUIPMENT OPERATORS:

Area 1:

(See Footnote "a")

Group 1

Group 2

Group 3

Group 4

Group 5

Group 6

Group 7

Group 8

Group 9

Group 10

Zone Differential (Add to Zone 1 rate):

Zone 2 - \$1.50

Zone 3 - 1.75

POWER EQUIPMENT OPERATORS:

Area 1:

(See Footnote "a")

Group 1

Group 2

Group 3

Group 4

Group 5

Group 6

Group 7

Group 8

Group 9

Group 10

Zone Differential (Add to Zone 1 rate):

Zone 2 - \$1.50

Zone 3 - 1.75

POWER EQUIPMENT OPERATORS:

Area 1:

(See Footnote "a")

Group 1

Group 2

Group 3

Group 4

Group 5

Group 6

Group 7

Group 8

Group 9

Group 10

Zone Differential (Add to Zone 1 rate):

Zone 2 - \$1.50

Zone 3 - 1.75

POWER EQUIPMENT OPERATORS:

Area 1:

(See Footnote "a")

Group 1

Group 2

Group 3

Group 4

Group 5

Group 6

Group 7

Group 8

Group 9

Group 10

Zone Differential (Add to Zone 1 rate):

Zone 2 - \$1.50

Zone 3 - 1.75

POWER EQUIPMENT OPERATORS:

GROUP DESCRIPTIONS (Cont'd)

CEMENT MASONS:

Area 1:

Group 1: Rodding, Tamping, Floating, Troweling, Patching, Stoning, Rubbing, Sack Rubbing; All exposed aggregate finishing; Setting of Screeds, Scribed Forms, Curb and gutter and sidewalk forms; Preparation of all concrete for caulking of the joints and caulking of expansion joints; Preparation of concrete for the application of hardeners, sealers and curing compounds and their application; Grouting and dry packing of machine bases; Removal of snap ties and she-bolts prior to patching of concrete

Group 2: Power troweling machine operator; Troweling of magnesite, torgonal or material with epoxy bases or oxichloride base; All power grinders, bushing hammer, chipping gun; Gunite nozzleman; All sandblasting for architectural finishes and exposing of aggregate for finish; Concrete sawing and cutting for expansion joints and scoring for decorative patterns; Operating of Clary-type floats, longitudinal floats, rodding machines, and belting machines; Scarifiers

Group 3: Grinding, Brushing or Chipping of toxic materials or high-density concrete; Operating of power tools on a scaffold

Area 2:

Group 1: Cement Masons (including but not limited to hand chipping and patching; All types grouting and painting of all concrete construction; Scribed setting including scribed pins; Dry packing of all concrete including Embeco; Plugging and filling all voids, etc., Concrete construction; Waterproofing of concrete with thorosol or similar materials)

Group 2: Cement Mason (Wagnersite, terrazzo and mastic composition, two component epoxies; Clary & similar type screed operator; Jackson vibrator and similar type screed operator; Sandblasting of concrete for architectural finishes only; Power chipping and bush-hammer; All color concrete work power trowel operator; Power grinder operator; Gunite and composition floor layer

LABORERS:

Area 1:

Group 1: Brush Hog Feeder; Carpenter Tender; Cement Handler; Concrete Crewman (includes stripping of forms, hand operating jacks on slip form construction, application of concrete curing compounds, Pumpcrete Machine, Signaling, handling the Nozzle of Squeezecrete or similar machine - 6 inches and smaller); Concrete Signalman; Crusher Feeder; Demolition (includes clean-up, burning, loading, wrecking and salvage of all material); Dumpmen; Fence Erector (includes guard rails, guide and reference posts, sign posts and right-of-way markers); Form Cleaning Machine Feeder, Stacker; General Laborer; Grout Machine Header Tender; Bullgang; Concrete Crewman, Dumpman and Pumpcrete Crewman, including distributing pipe, assembly and dismantle, and Nipper; Rippap Man; Sandblast Tailhooseman; Scaffold Erector, wood or steel; Scaleman; Stake Jumper; Structural mover (includes separating foundation, preparation, cribbing, shoring, jacking and unloading of structures); Tailhooseman (water nozzle); Timber Bucker and Faller (by hand); Truck Loader; Well-point Man; Window Cleaner

LABORERS:

Area 1 (Cont'd):

Group 2: Asphalt Raker; Asphalt Roller, walking; Cement Finisher Tender; Concrete Saw, walking; Demolition Torch; Dope Pot Fireman, non-mechanical; Driller Tender (when required to move and position machine); Form Setter, paving; Grade Checker using level; Jackhammer Operator; Brakeman, Finisher, Vibrator and Form Setter; Nozzleman (includes squeeze and flow-crete nozzle); Nozzleman, water, air or steam; Pavement Breaker, under 90 lbs.; Pipelayer, corrugated metal culvert; Pipelayer, multi-section; Pot Tender; Powderman Tender; Power Suggy Operator; Power Tool Operator, gas, electric, pneumatic; Rodder and Spreader; Tapper (includes operation of Barco, Esser and similar tappers); Treacher, Shawnee; Tugger Operator; Wagon Drills; Water Pipe Lifter; Wheelbarrow, Power-driven

Group 3: Air Track Drill; Brush Machine (includes horizontal construction joint clean-up brush machine, power-propelled); Caisson Worker, free air; Chain Saw Operator and Faller; Concrete Stack (includes laborers when working on free-standing concrete stacks for smoke or fume control above 40 ft. high); Gunite (includes operation of machine and nozzle); High Scaler; Rod Carrier; Laser Beam Operator (includes Grade Checkers and Elevation control); Miner, Nozzleman for concrete, and Laser Beam Operator on tunnels; Monitor Operator, air track or similar mounting; Mortar Mixer; Nozzleman (includes Jet Blasting Nozzleman, over 1200 lbs., Jet Blast Machine, power-propelled, Sandblast Nozzle); Pavement Breaker, 90 lbs. and over; Pipelayer (includes working Topman, Caulker, Collarman, Joiner, Mortarman, Rigger, Jucker, Shorer, Valve or Meter Installer, Tapper); Pipewrappers; Vibrators, all

Group 4: Drills with dual masts; Raise and Shaft Miner, Laser Beam Operator on raises and shafts; Powderman (receives, \$0.25 additional per hour); Welder, electric, manual or automatic

Area 2:

Group 1: General laborer; Sloper, clearing & grading; Form Stripper; Concrete crew; Concrete curing crew; Carpenter tender; Asphalt laborer; Hopper tender; Water Tender; Stake Jumper; Choker setter; Spreader and weighman; Power wheelbarrow; Scoring concrete; Rip Rap Man (hand placed); Grout tender; Cribbing and shoring (in open ditches); Machinery and parts cleaner; Leverman, manual or mechanical; Demolition, salvage; Landslaper; Tool room man

Group 2: Chuck tender; Driller tender; Air tappers; Gunite nozzleman tender; Pipewrappers; Tar pot tender; Concrete Sawyer; Signalman, handling cement; Dumpman; Steam nozzleman; Air and water nozzleman (Green Cutter, concrete); Vibrator (less than 4"); Pumpcrete and grout pump crew; Hydraulic Monitor

GROUP DESCRIPTIONS (Cont'd)

LABORERS:

Area 2 (Cont'd):

Group 3: Pipelayer, including sewer, drainage, sprinkler systems and water lines; Free Air Caisson; Jackhammer; Paving Breaker; Powderman Tender; Asphalt Baker; Gasoline Powered Taper; Electric Ballast Taper; Sand Blasting; Form Setter, airport paving; Gunman (Gunite); Manhole Setter; Hand guided machines, such as Roto Tillers, Trenchers, Post Hole Diggers, Walking Garden Tractors, etc.; Form Setter (highway, curb and gutter); Vibrator (4" and over); Timber Piler and Bucker; Metal Pan Installer

Group 4: Rod Carrier; Mason Tender; Plaster Tender; Mason Tender (concrete); Terrazzo-Tile Tender

Group 5: Highscaler; Wagon Drill; Grade Checker; Gunite Nozzlesman

Group 6: Diamond Drills; Drillers on Drills with Manufacturers' rating 3" or over

Group 7: Powderman

Group 8: Reboundman; Chucktender; Nipper; Dumpman; Vibrator (less than 4"); Brakeman; Mucker; Bullgang

Group 9: Form Setter and Mover

Group 10: Miners; Machinemen; Timbersmen; Steelmen; Drill Doctors; Spaders and Tuggers; Spilling and/or Caisson Workers; Vibrator (over 4")

POWER EQUIPMENT OPERATORS:

Area 1:

Group 1: Bit Grinders; Bolt Threading Machine; Compressors (under 2,000 CFM, gas, diesel or electric power); Crusher Feeder (mechanical); Deckhand; Driller's Tender; Fireman and Heater Tender; Grade Checker; Tender; Mechanic or Welder, H.D.; Hydro-seeder, Mulcher, Nozzlesman; Oilier and Cable Tender; Mucking Machine; Pumpman; Rollers, all types on subgrade (farm type, Case, John Deere and similar or compacting vibrator) except when pulled by Dorer with operable blade; Steam Cleaner; Welding Machine

Group 2: A-Frame Truck (single-drum); Assistant Refrigeration Plant (under 1,000 tons); Assistant Plant Operator, Fireman or Pugmiller (asphalt); Bagley or Stationary Scraper; Belt Finishing Machine; Blower Operator (cement); Cement Hog; Compressor (2,000 CFM or over, 2 or more, gas, diesel or electric power); Concrete Saw (multiple cut); Distributor Leverman; Elevator Hoisting Materials; Dope Pots (power agitated); Fork Lift or Lumber Stacker, Hydra-lift and similar; Gin Trucks (pipeline); Hoist, single drum; Loader (Bucket Elevators and Conveyors); Longitudinal Float; Mixer (portable, concrete); Pavement Breaker (Hydra-hammer and similar); Power Broom; Spray Curing Machine (concrete); Spreader Box (self-propelled); Straddle Buggy (Roads and similar on construction job only); Tractor (farm type & T with attachments, except Backhoe); Tugger Operator

GROUP DESCRIPTIONS (Cont'd)

POWER EQUIPMENT OPERATORS:

Area 1 (Cont'd):

Group 3: A-Frame Truck (2 or more drums); Assistant Refrigeration Plant and Chiller Operator (over 1,000 tons); Backfillers (Cleveland and similar); Batch Plant and Wet Mix Operator, single unit (concrete); Belt-crete Conveyors with power pack or similar; Belt Loader (local or similar); Bending Machine; Boring Machine (earth); Boring Machine (rock under 8" bit) (Quarry Master, Joy or similar); Bump Cutter (Wayne, Saginaw or similar); Canal Lining Machine (concrete); Chipper (without crane); Cleaning and Doping Machine (pipeline); Deck Engineer; Elevating Belt-type Loader (Euclid, Barber Greene or similar); Elevating Grader type loader (Dumont, Adams or similar); Generator Plant Engineers (diesel, electric); Gunite Combination Mixer and Compressor; Mixermobile; Mucking Machine; Post Hole Auger or Punch; Pump (Grout or Jet); Soil Stabilizer (P & H or similar); Spreader Machine; Tractor (to D-6 or equivalent and Traxcavator); Traverse Finishing Machine; Turnhead Operator

Group 4: Blade Operator (Motor Patrol and attachments); Concrete Pumps (Squeeze-crete, Flow-crete, Pump-crete, Whitman and similar); Drills (Churn, Core, Calyx or Diamond); Equipment Serviceman, Greaser and oiler; Hoist (2 or more drums or Tower Hoist); Loaders (Overhead and Front End, under 4 yds. R/T); Pave or Curb Extruders (asphalt or concrete); Refrigeration Plant Engineers (under 1,000 tons); Rubber-tired Skidders (A/T with or without attachments); Screed Operator; Surface Heater and Planer Machine; Trenching Machines (under 7 ft. depth capacity); Turnhead (with re-screening); Vacuum Drill (Reverse Circulation Drill, under 8 in. bit)

Group 5: Backhoe (under 1 yd.); Cranes (25 tons and under); Derricks and Stifflegs (under 65 tons); Drilling equipment (8 inch bit and over) (Robbins, Reverse Circulation and similar); Hoe Ram; Pile-driving Engineers; Saving (Dual drum); Railroad Track Limer Operator (self-propelled); Refrigeration Plant Engineer (1,000 tons and over); Signelman (Whirlleys, Highline, Hammerheads or similar)

Group 6: Asphalt Plant Operator; Automatic Sub-grader (Ditches and Trimmers) (Autograde, ABC, E.A. Hansen and similar on grade wire); Backhoes (1 yd. to 3 yds.); Batch Plant (over 4 units); Batch and Wet Mix Operator (multiple units, 2 and including 4); Blade (finish and bluestop) (Automatic, CMI, ABC and similar when used as automatic); Boat Operator; Boom Cats (side); Cableway Controller (dispatcher); Clanshell Operator (under 3 yds.); Concrete Slip Form Paver; Cranes (over 25 tons, including 45 tons); Crusher, Grizzle and Screening Plant Operator; Draglines (under 3 yds.); Drill Doctor; H.D. Mechanic; S.D. Welder; Loader Operator (Front-end and Overhead, 4 yds. including 8 yds.); Multiple Dror units with single blade; Quad-track or similar equipment; Roller (finishing pavement); Rubber-tired Scrapers (one motor with one scraper, under 40 yds.); Rubber-tired Scrapers multi-engine power with one scraper (Euclid, TS 24 and similar); Rubber-tired Scraper, one motor with one scraper (40 yds. and over); Rubber-tired Scraper, multiple-engine power with one scraper (Euclid TS 24 and similar); Push Pull or Help Mate in use; Rubber-tired Scraper, multiple engines with two scrapers; Shovels (under 3 yds.); Tractors (D-6 and equivalent and over); Trenching Machines (7 ft. depth and over)

GROUP DESCRIPTIONS (Cont'd)

POWER EQUIPMENT OPERATORS:

Area 1 (Cont'd):

Group 7: Backhoe (3 yds. and over); Cableway Operators; Clamshell Operator (3 yds. and over); Cranes (over 45 tons, to 85 tons); Derricks and Stifflegs (65 tons and over); Draglines (3 yds. and over); Elevating Belt (Holland type); Loader (360 degrees revolving Koehring Scooper or similar); Loaders (Overhead and Front-end, over 8 yds. to 10 yds.); Rubber-tired Scrapers (multiple engine with three or more scrapers); Shovels (3 yards and over); Whirlleys and Hammerheads, all

Group 8: Cranes (85 tons and over, and all climbing, rail and tower); Loaders (Overhead and Front-end, 10 yds. and over); Helicopter Pilot

Area 2:

Group 1: Brakemen; Crusher Plant Feeder (mechanical); Deckhand; Drill Tenders; Grade Checkers; Heater Tender; Land Plane; Pumpman

Group 2: Air Compressor; Asphalt Refrigeration Plant Operator; Bell Boy; Bit Grinder; Blower Operator (Cement); Bolt Threader Machine Operator; Broom; Cement Box; Concrete Mixer; Concrete Saw, multiple cut; Discing - harrowing or mulching (regardless of motive power); Distributor Leverman; Drill Steel Threader machine Operator; Fireman - all; Heavy Duty Mechanic Tender or Welder Tender; Hoist - single drum; Hydraulic Monitor Operator, Skid-mounted; Oiler (single piece of equipment); Pugmixer, Box or Spread Operator; Spray Curing Machine; Tractor, rubber-tired farm-type using attachments

Group 3: A-Frame Truck (Hydra Lift, Swedish Cranes, Ross Carrier, Hyster on construction jobs); Battery Tunnel Locomotive; Belt Finishing Machine; Cable Tenders (underground); Chip Spreader Machine (self-propelled); Hoist, 2 or more drums or Tower Hoist; Hydraulic - Fork Lift and similar (when hoisting); Oiler (underground); Power Loader (Bucket Elevator, Conveyors); Road Roller (regardless of motive power)

Group 4: Boring Machine (earth or rock) (Quarry Master, Joy) (tractor mounted); Drills: Churn, Core, Calyx or Diamond; Front End and Overhead Loaders and similar Machines (up to and including 4 yds.) (rubber-tired); Grout Pump; Hydra-hammer; Locomotive Engine; Longitudinal Float Machine; Mixer-Mobile; Spreader Machine; Tractor, rubber-tired, using Backhoe; Transverse Finishing Machine, Trenching Machine, Wagoner Compactor and similar; Asphalt Spreaders

Group 5: Concrete Plant Operator; Concrete Road Paver (dual); Elevating Grader Operator; Euclid Elevating Loader; Generator Plant Operator, mechanic (diesel, electric); Post Hole Auger or Punch Operator; Power Shovels and Draglines, under 1 yard; Pump-crete; Refrigeration Plant Operator; Road Roller (finishing high-type pavement); Service Oiler; Skidder, rubber-tired; Subgrader; Multiple station Beltline Operator (Teton Dam Project only)

GROUP DESCRIPTIONS (Cont'd)

POWER EQUIPMENT OPERATORS:

Area 2 (Cont'd):

Group 6: Asphalt Pavers, self-propelled; Asphalt Plant Operator; Blade Operator (motor patrol); Concrete Slip Form Paver; Cranes, up to and including 50 tons; Crusher Plant Operator; Derrick Operator; Drilling Equipment (Bit under 8 inches) (Robbins Reverse Circulation and similar); Front End and Overhead Loaders and similar Machines (over 4 yds. to and including 7 yds.); Koehring Scooper; Heavy Duty Mechanic or Welder; Mucking Machine (underground); Multi-batch Concrete Plant Operator; Piledriver Engineer; Power Shovels and Draglines (1 yd. to and including 3 yds.); Tractor, Crawler type, including all attachments; Refrigeration Plant Operator (over 1,000 tons); Trimmer Machine Operator; Tournapulls, Euclid and similar, to and including 40 yards

Group 7: Cableway Operator; Continuous Excavator (Barber Greene WL-50); Cranes, over 50 tons; Dredges; Drilling Equipment (Bit 8 inches and over) (Robbins Reverse Circulation and similar); Fine Grader, CTR or equivalent; Front End and Overhead Loaders and similar Machines (over 7 yds.); Power Shovels and Draglines (over 3 yds.); Quad type tractors with all attachments; Tournapulls, Euclid and similar, over 40 yds. to and including 50 yds.; Multiple Scraper Units; Tower Crane Operator

Group 8: Tournapulls, Euclid and similar, over 50 yards to and including 75 yards

Group 9: Tournapulls, Euclid and similar, over 75 yards to and including 100 yards

Group 10: Tournapulls, Euclid and similar, over 100 yards

TRUCK DRIVERS:

Area 1:

Group 1: Escort driver or pilot car, pickup hauling employees or material

Group 2: Flat bed truck, single rear axle; Fork lift, 3000 lbs and under; Tender and warehouse; Leverperson loading trucks at bunkers; Seeder and mulcher; Stationary fuel operator; Team driver; Tractor (small rubber tired pulling trailer or similar equipment); Water tank truck, 1800 gallons

Group 3: Bus driver or employee haul driver; Flat bed truck, dual rear axle; Power boat hauling employees or material; Tire person No. 1

Group 4: Buggy mobile and similar; Bulk cement tanker; Oil tank driver; Power operated sweeper; Straddle carrier (Ross Hyster and similar); Transit mixers and trucks hauling concrete (3 yards and under); Trucks, side, end, and bottom dump (under 6 yards); Water tank truck 1800 - 4000 gallons.

GROUP DESCRIPTIONS (Cont'd)

TRUCK DRIVERS:
AREA 1 (Cont'd):

Group 5: Auto Crane, 2,000 lbs. capacity; Bulk Cement Spreader; Dumptor (6 yds. and under); Flat Bed Truck (with hydraulic system); Fork Lift (3,001 - 16,000 lbs.); Rubber-tired Tunnel Jumbo; Scissor Truck; Slurry Truck Driver; Transit Mixers and Trucks, 4,001 to 6,000 gallons; Wrecker and Tow Trucks; Fuel Truck Driver; Steam Cleaner and Washer; Flaherty Spreader

Group 6: Service Greaser; Tireperson No. 2; Truck, side, end, and bottom dump (over 6 yds. to 12 yds.); Oil Distributor Driver (Road, Boot Person, Lever Person, Tender)

Group 7: A-Frame; Water Tank Truck, 6,001 to 8,000 gallons

Group 8: Dumptor (over 6 yds.); Transit Mixers and Trucks hauling concrete (6 yds. to 10 yds.); Trucks, side, end, and bottom dump (over 12 yds. including 20 yds.); Semi Truck and Trailer 50 tons and under; Lowboy

Group 9: Low Boy (over 50 tons); Water Tank Trucks, 8,001 to 10,000 gallons; Tractor with Steer Trailer; Truck mounted Crane with load bearing surface, either mounted or pulled

Group 10: Transit Mixer and Trucks hauling concrete (10 yds. to 15 yds.); Trucks, side, end, and bottom dump (over 20 yds. including 30 yds.); Water Tank Truck (10,001 to 12,000 gallons); Fork Lift, over 16,000 lbs.; Flaherty Spreader Box Driver; Flow Boys; Semi-end Dumps

Group 11: Mechanic, Field

Group 12: Tournarocker, D. W.'s and similar, with 2 to 4 wheel power tractor with trailer, gallonage or yardage scale, whichever is greater; Transit Mixers and Trucks hauling concrete (15 yds. to 20 yds.); Trucks, side, end, and bottom dump (over 30 yds. to 40 yds.); Water Tank Truck, 12,001 to 14,000 gallons

Group 13: Transit Mixers and Trucks hauling concrete (over 20 yds.); Trucks, side, end, and bottom dump (over 40 yds. to 50 yds.)

Group 14: Trucks, side, end, and bottom dumps (over 50 yds. to 100 yds.)

Group 15: Helicopter Pilot hauling employees or material; Trucks, side, end, and bottom dump (over 100 yards)

GROUP DESCRIPTIONS (Cont'd)

TRUCK DRIVERS:
AREA 2:

Group 1: Leverman loading at bunkers; Pilot Car or Escort Driver

Group 2: Flat Bed, 2 axle and Pickup hauling materials; Water Tank Truck (1,800 gallons and under); Fork Lift (3,000 and under)

Group 3: Flat Bed, 3 axle; Fuel Truck (1,000 gallons and under); Greaser; Tireman; Serviceman; Buggy; Mobile; Man Haul (Shuttle truck or bus)

Group 4: Transit Mix Truck, 3 yards and under; Truck Tenders; Slurry or concrete pumping truck

Group 5: Flat Bed using power takeoff; Water Tank Truck (over 1,800 to 4,000 gallons); Semi-trailer; Low Boy, up to 96,000 lbs. GVW; Bulk Cement Tanker, up to 96,000 lbs. GVW; Fork Lift, over 3,000 lbs. (Ball Lift, Hydro Lift); Ross Hyster and similar straddle equipment; "A" Frame Truck (Swedish Crane, Iowa 3,000, Hydro-lift)

Group 6: Transit Mix Truck, over 3 yards to 6 yards

Group 7: Water Tank Truck, over 4,000 gallons; Fuel Truck, over 1,000 gallons

Group 8: Transit Mix Truck, over 6 yards to 8 yards; Dumptors

Group 9: Distributor or Spreader Truck; Fuel Tireman, Serviceman; Snow Flow (truck mounted); Transit Mix Truck, over 8 yards to 10 yards

Group 10: Low Boy, 96,000 lbs. GVW and over; Bulk Cement Tanker, 96,000 lbs. GVW and over

Group 11: Transit Mix Truck, over 10 yards

Group 12: Turnarocker and similar equipment

Group 13: Truck, side, end and bottom dump:

- Class A: 6 yards and under
- Class B: Over 6 yards - including 14 yards
- Class C: Over 14 yards - including 20 yards
- Class D: Over 20 yards - including 30 yards
- Class E: Over 30 yards - including 40 yards
- Class F: Over 40 yards - including 50 yards
- Class G: Over 50 yards - including 75 yards
- Class H: Over 75 yards - including 100 yards
- Class I: Over 100 yards

Group 14: Truck Mechanics

ZONE DEFINITIONSLINE CONSTRUCTION (AREA 1):

- Zone 1 - 0 to 3 miles radius from the geographical center of Seattle, Tacoma, Portland, and Medford
- Zone 2 - 3 to 20 miles radius from the Cities listed below
0 to 20 miles radius from the Cities listed below
- Zone 3 - 20 to 35 miles radius from the Cities listed below
- Zone 4 - 35 to 50 miles radius from the Cities listed below
- Zone 5 - More than 50 miles radius from the Cities listed below

BASE POINTS: Coeur D'Alene, Hallock, Lewiston, Oro Fino, Sandpoint, Spokane.

NOTE: Tree trimmer & Head Groundman (chipper) receive base rate only.

ZONE DEFINITIONS

CARPENTERS, CEMENT MASONS, LABORERS, POWER EQUIPMENT OPERATORS & TRUCK DRIVER-

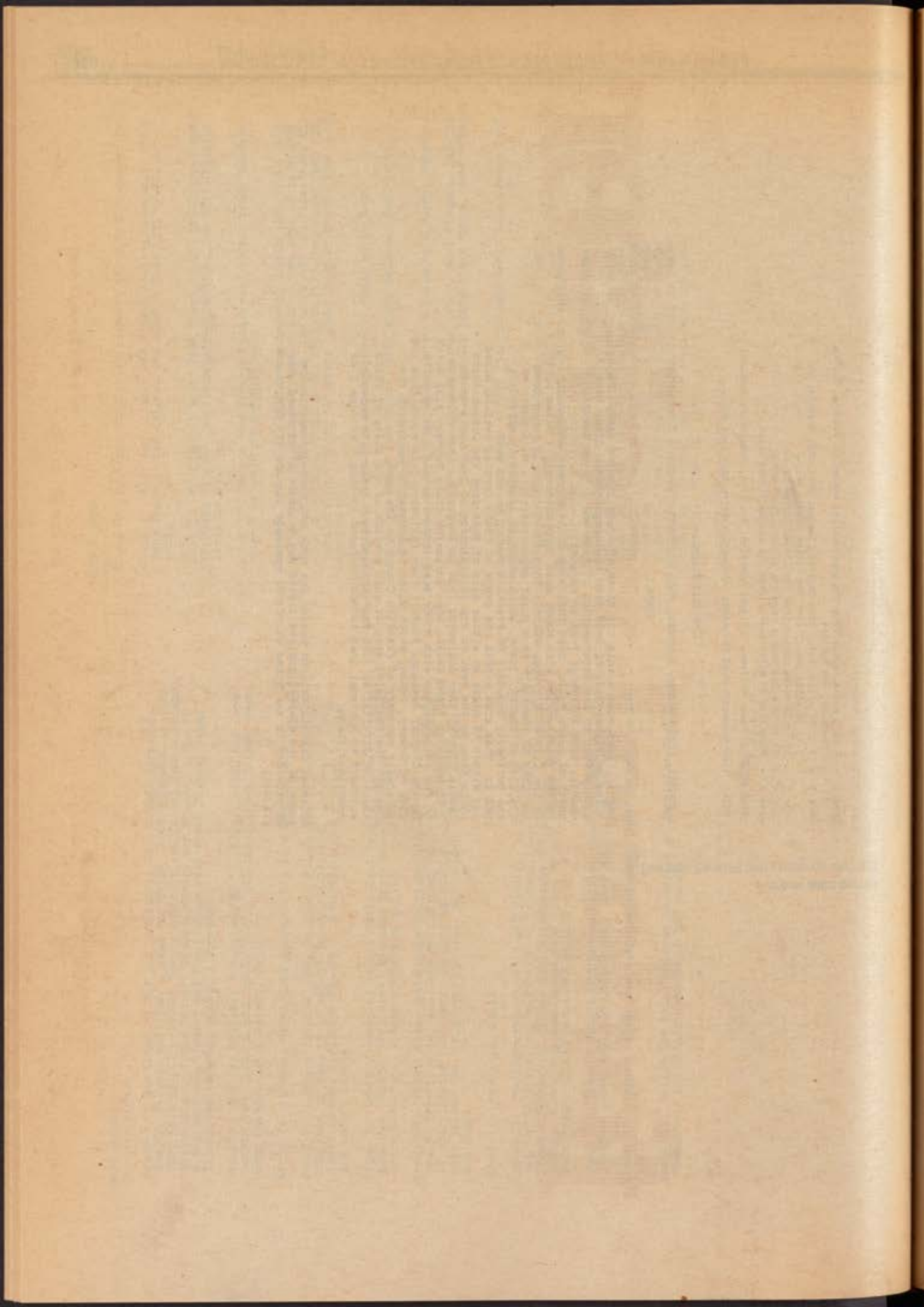
(AREA 2)

ZONE 1: That area within the State of Idaho located within 20 miles on either side of I-84 from the Oregon-Idaho State Line on the west to the intersection of I-84 and I-86 in Cassia County, then following I-86 to Pocatello, then following I-15 north of Idaho Falls, then following State Highway #191 north to the intersection with Woody Road (approximately 2 miles north of the City of Rexburg, Idaho); then following I-15 south from the City of Pocatello to a point approximately 1 mile south of the City of Downey, Idaho, which point is located by extending the northerly boundary of Franklin County to the west

ZONE 2: That area within the State of Idaho located over 20 miles and within 50 miles on either side of I-84 from the Oregon-Idaho State Line on the west to the intersection of I-84 and I-86 in Cassia County, then following I-86 to Pocatello, then following I-15 north to Idaho Falls, then following State Highway #191 north to the intersection with Woody Road (approximately 2 miles north of the City of Rexburg, Idaho); then following I-15 south from the City of Downey, Idaho, which point is located by extending the northerly boundary of Franklin County to the west

ZONE 3: The remaining area of that portion of the State of Idaho south of Parallel 46 (the Washington-Oregon State Line extended eastward to Montana) that is not included in Zone 1 or Zone 2 as described above.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR, 5.5(a) (1) (ii))



Federal Register

Friday
February 15, 1985

Part IV

Department of Health and Human Services

**Health Resources and Services
Administration**

**List of Primary Care Health Manpower
Shortage Areas Designated Under
Section 332 of the Public Health Service
Act; Notice**

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Health Resources and Services Administration

List of Primary Care Health Manpower Shortage Areas Designated Under Section 332 of the Public Health Service Act

SUMMARY: This notice provides a list, updated as of September 30, 1984, of primary care health manpower shortage areas designated by the Secretary of Health and Human Services under the authority of section 332 of the Public Health Service Act.

FOR FURTHER INFORMATION CONTACT: Richard C. Lee, Chief, Distribution and Shortage Analysis Branch, Office of Data Analysis and Management, Bureau of Health Professions, Health Resources and Services Administration, Parklawn Building, Room 8-47, 5600 Fishers Lane, Rockville, Maryland 20857 (301-443-6932).

SUPPLEMENTARY INFORMATION:

1. Background

Section 332 of the Public Health Service Act provides that the Secretary of Health and Human Services shall designate health manpower shortage areas based on criteria established by regulation. Health manpower shortage areas (HMSAs) are defined in section 332 to include: (1) urban and rural geographic areas, (2) population groups, and (3) facilities with shortages of health manpower. Section 332 further requires that the Secretary publish a list of the designated geographic areas, population groups and facilities. The list of areas is to be reviewed at least annually and revised as necessary. The Health Resources and Services Administration's Bureau of Health Professions has been assigned the responsibility for designating these areas.

Public or nonprofit entities in (or with a demonstrated interest in) these areas are eligible to apply for assignment of National Health Service Corps (NHSC) personnel to provide health services in, or to, the areas. These areas are also eligible obligated service areas for certain Public Health Service scholarship, loan repayment and nurse practitioner traineeship programs, and entities located in the areas are eligible to apply for (or receive preference for) certain Public Health Service grant programs.

2. Development of List

Criteria for designating HMSAs were first published by the Department of

Health, Education, and Welfare as Interim-Final regulations (42 CFR Part 5) in the Federal Register of January 10, 1978. Final regulations, revised as warranted by public comments received, were published in the Federal Register on November 17, 1980. Criteria are defined for each of seven health manpower types (primary medical care, dental, psychiatric, vision care, podiatric, pharmacy, and veterinary manpower).

The first list of HMSAs developed under these criteria by the Bureau of Health Professions, with the review and recommendations of the appropriate Health Systems Agencies (HSAs), State Health Planning and Development Agencies (SHPDAs) and Governors, was published in 1978. Since then, updated lists have been published approximately annually to reflect changes which occur as a result of the continuous shortage area designation process. Individual requests received for designation or withdrawal of particular areas, population groups or facilities are routinely submitted to the appropriate HSAs, where active, and to SHPDAs, Governors and other interested organizations or individuals for their review and recommendations. Requests regarding primary medical care manpower are also provided to the appropriate State medical society for comment.

The Bureau of Health Professions reviews each designation or withdrawal request, together with any recommendations received on individual requests or on the data listings, and determines whether or not each area involved meets the shortage criteria. The results of these reviews are provided by letter to the agency or individual requesting action or providing data; copies are sent to other involved agencies as well as to interested organizations and individuals. These letters constitute the official notice of designation as a health manpower shortage area or disapproval of recommendations for such designation. Designations are effective as of the date of such notification; withdrawals are effective when published in the Federal Register or when a later list of HMSAs is published which does not include the area withdrawn.

The list below includes all those areas, population groups and facilities which had been designated by the Bureau of Health Professions as of September 30, 1984, as primary care health manpower shortage areas. This list does not include those areas, population groups or facilities which had previously been designated but whose designations had been

withdrawn by this same date. This list supersedes the primary care HMSA portion of the list of all primary care, dental and psychiatric HMSAs which appeared in the Federal Register on August 19, 1983.

An update of the lists of dental and psychiatric health manpower shortage areas will be published at a later date.

3. Format of List

The list of primary care health manpower shortage areas is arranged by State. Within each State, the list is first presented by county. If only a portion (or portions) of a county has been designated, or if the county is part of a larger designated service area, or if a population group residing in the county or a facility located in the county has been designated, the name of the service area, population group, or facility involved is listed under the county name. Following the county listing, a list of any designated service areas is presented identifying their component parts in terms of counties, towns, townships, census tracts (CTs), minor civil division (MCDs), census county divisions (CCDs), enumeration districts (EDs), magisterial districts, or other definable geographic divisions recognized by the Bureau of the Census. Following the service area listing, a list of any designated population groups is presented identifying each such group and the geographical area wherein it resides. Following the population group listing, a list by name and location of any separately designated facilities (including prisons, correctional institutions, health centers, or hospitals) is presented.

Beside each designated area, population group or facility the appropriate "degree-of-shortage" group is indicated, corresponding to the criteria for these groupings contained in the regulations. (Group 1 represents areas with the highest degree of shortage, Group 2 with next highest degree of shortage etc.) These groups have been defined for use in determining relative priorities for placement of NHSC personnel; however, these groupings represent only part of the process for making placement decisions, which includes other considerations relating to need, demand, and attractiveness of the various designated areas.

In addition to the specific listings included in this notice, all Indian tribes which meet the definition in section 4(d) of Pub. L. 94-437, the Indian Health Care Improvement Act of 1976, are automatically designated as population groups with primary medical care and

dental manpower shortages. Such automatic designations of Indian tribes are assigned to degree-of-shortage group 4 unless otherwise indicated in this listing (based on specific data provided for this purpose).

4. Future Updates of List of Designated Areas

The list below consists of all those primary care health manpower shortage areas which were designated as of September 30, 1984. It should be noted that additional areas have been designated by letter since September 30, 1984, and the appropriate agencies and individuals notified of the action. Although official, these actions are not included in the list below, because they had not yet been added to the computerized data base at the time this list was generated. Areas not listed below should be understood as not currently designated, unless designated by letter after September 30, 1984.

Any designated area listed below is subject to possible future withdrawal from designation if new information is received by the Bureau of Health Professions indicating that the situation in the area has changed or that erroneous or incomplete data were used in making the original designation. Interested parties will be notified by mail of any such withdrawal, which becomes effective only upon publication in a future *Federal Register* listing of withdrawals or upon publication of a future *Federal Register* listing of primary care HMSAs which does not include the area.

For further information on these designations, to request additional designations, or to request withdrawal of any designation, please contact Richard C. Lee, Chief, Distribution and Shortage Analysis Branch, Office of Data Analysis and Management, at the address listed above. All requests for designations or withdrawals should be based on the criteria in the regulations as published on November 17, 1980.

Dated: December 21, 1984.

Robert Graham,

Administrator, Assistant Surgeon General.

PRIMARY CARE: Alabama

County Listing	
County name	Degree of shortage group
Autauga	01
Baldwin	01
Service area: Bay Minette	04

PRIMARY CARE: Alabama—Continued

County Listing	
County name	Degree of shortage group
Barbour:	
Service area: Clayton	01
Blount	01
Bullock	04
Butler	04
Calhoun:	
Service area: Oxford/S. Anniston	01
Service area: Weaver/N. Anniston	01
Service area: Webster Chapel/Alexandria	01
Chambers:	
Service area: La Fayette	01
Cherokee	02
Chilton	03
Choctaw	04
Clarke:	
Service area: Coffee/Jackson	02
Cleburne	03
Colbert:	
Service area: Cherokee	01
Conecuh	01
Coosa	01
Crenshaw	02
Dale	02
Elmore	03
Etowah:	
Population group: Poverty population	01
Fayette	04
Geneva	03
Greene	02
Hale	02
Henry	01
Houston:	
Service area: Gordon	01
Jackson:	
Service area: Paint Rock Valley	01
Service area: Sand Mountain	01
Jefferson:	
Service area: Pratt City	01
Service area: Roosevelt City	01
Service area: Warrior-Morris	02
Lamar	03
Lauderdale:	
Service area: Waterloo	01
Service area: West Limestone	03
Lawrence	04
Limestone:	
Service area: West Limestone	03
Lowndes	02
Macon	01
Marion	03
Marion	04
Marshall:	
Service area: Grant	04
Mobile:	
Service area: Bayou La Batre	02
Service area: City of Pritchard	01
Service area: Univ. S. Ala. Childrens Med. Ctr.	01
Montgomery:	
Service area: South Montgomery	01
Perry	03
Pickens	02
Russell:	
Service area: Cottonston/Huntsboro	01
St. Clair	02
Shelby:	
Service area: Westover	01
Sumter:	
Service area: Black Belt Community	01
Talladega:	
Service area: Childersburg CCD	01
Service area: Lincoln-Estaboga CCD	02
Tallapoosa:	
Service area: Camp Hill	01
Tuscaloosa:	
Service area: West Tuscaloosa	01
Washington	01
Wilcox	02
Winston	01

PRIMARY CARE: Alabama

Service Area Listing	
Service area name	Degree of shortage group
Bay Minette	04
County—Baldwin:	
Parts:	
Bay Minette Div.	
Bayou La Batre	02
County—Mobile:	
Parts:	
C.T. 66 (parts)	
C.T. 67 (parts)	
C.T. 72 (parts)	
C.T. 73 (parts)	
Black Belt Community	01
County—Sumter:	
Parts:	
Gainsville Div.	
Livingston Div. (EPPS TWN)	
Panola/Geiger Div.	
Camp Hill	01
County—Tallapoosa:	
Parts:	
Camp Hill	
Dadeville	
Tallassee	
Cherokee	01
County—Colbert:	
Parts:	
Cherokee CCD	
Childersburg CCD	01
County—Talladega	
Parts: Childersburg Div.	
City of Portchard	
County—Mobile:	
Parts:	
C.T. 12.01	
C.T. 39.01	
C.T. 39.02	
C.T. 40-50	
C.T. 61	
Clayton	01
County—Barbour:	
Parts:	
Clayton	
Clio	
Louisville	
Coffee/Jackson	02
County—Clarke:	
Parts:	
Coffeeville	
Jackson N.W.	
Jackson S.E.	
Cottonston/Huntsboro	01
County—Russell:	
Parts:	
Cottonston-Seale	
Huntsboro	
Gordon	01
County—Houston:	
Parts:	
Gordon	
Grant	04
County—Marshall:	
Parts:	
Arab	
Grant	
Guntersville	
Town Creek	
Union Grove	
La Fayette	01
County—Chambers:	
Parts:	
Five Points	
Lafayette Div.	
Milltown	
Lincoln-Estaboga CCD	02
County—Talladega:	
Parts:	
Lincoln-Estaboga Div.	
Oxford/S. Anniston	01
County—Calhoun:	
Parts:	
City of Oxford	
E.D. 66	
E.D. 84	
E.D. 86-90	
E.D. 92-98	

PRIMARY CARE: Alabama—Continued

Service Area Listing

Service area name	Degree of shortage group
Paint Rock Valley County—Jackson: Parts: Paint Rock Princeton	01
Pratt City County—Jefferson: Parts: C.T. 10 C.T. 11 C.T. 12 C.T. 14	01
Roosevelt City County—Jefferson: Parts: C.T. 105 C.T. 131 C.T. 133 C.T. 136 C.T. 137	01
Sand Mountain County—Jackson: Parts: Long Island Pisgah Section	01
South Montgomery County—Montgomery: Parts: Hope Hill Div Pine Level Div Ramer Div	01
Warrior-Morris County—Jefferson: Parts: C.T. 113 C.T. 114	02
Waterloo County—Lauderdale: Parts: Waterloo CCD	01
Weaver/N. Anniston County—Calhoun: Parts: City of Weaver E.D. 58-65 E.D. 69-77 E.D. 80-81	01
Webster Chapel/Alexandria County—Calhoun: Parts: Webster Chapel/Alexandria	01
West Limestone County—Lauderdale: Parts: C.T. 117 C.T. 118	03
County—Limestone: Parts: C.T. 202 C.T. 203	
West Tuscaloosa County—Tuscaloosa: Parts: C.T. 116-119	0*
Westover County—Shelby: Parts: C.T. 301-303	01

PRIMARY CARE: Alabama

Population Group Listing

Population Group	Degree of shortage group
Poverty Population County—Etowah: Parts: C.T. 1-17	01

PRIMARY CARE: Alabama

Facility Listing

Facility	Degree of shortage group
Univ. S. Ala. Childrens Med Ctr County—Mobile: Parts: Univ. S. Ala. Childrens Med Ctr	01

PRIMARY CARE: Alaska

Census Area Listing

Census Area name	Degree of shortage group
Aleutian Islands: Service area: Peninsula	01
Anchorage Boro.: Population group: Medicaid eligibles/Anch. City	03
Bethel area: Bristol Bay Borough: Service area: Bristol Bay	01
Dillingham area: Service area: Bristol Bay	01
Service area: Peninsula	01
Nome area	01
North Slope Borough	01
Southeast-Fairbanks area	01
Yukon-Koyukuk area	01

PRIMARY CARE: Alaska

Service Area Listing

Service area name	Degree of shortage group
Bristol Bay Census Area—Bristol Bay Borough Census Area—Dillingham area Peninsula	01
Census Area—Aleutian Island area Census Area—Dillingham area Parts: Peninsula	01

PRIMARY CARE: Alaska

Population Group Listing

Population group	Degree of shortage group
Medicaid eligibles/Anch. City County—Anchorage Boro. Parts: Anchorage City	03

PRIMARY CARE: Arizona

County Listing

County name	Degree of shortage group
Apache: Service area: Kayenta	01
Service area: Puerto Valley	01
Service area: St. Johns	01
Population group: Indian pop. of Ganado	01
Population group: Indian pop. of Jsaile	01

PRIMARY CARE: Arizona—Continued

County Listing

County name	Degree of shortage group
Population group: Indian pop. of Rough River Population group: White Mountain Indian Reservation	01
Cochise: Service area: Benson	04
Service area: Bisbee	04
Service area: Bowie	01
Service area: Tombstone City area	01
Cocconino: Population group: Hopi Indian Reservation	01
Gila: Service area: Payson	04
Maricopa: Service area: El Mirage	01
Service area: South Phoenix	02
Service area: Town of Guadalupe	02
Population group: Gila River Indian Community	01
Facility: Maricopa Co. Jail(s)	02
Mohave: Service area: Bullhead City	02
Navajo: Service area: Heber/Overgaard	01
Service area: Kayenta	01
Population group: Hopi Indian Reservation	01
Population group: Indian pop. of Ganado	01
Population group: Indian pop. of Rough River	01
Population group: White Mountain Indian Reservation	01
Pima: Service area: Arisaca	01
Service area: Continental	01
Service area: Marana	01
Population group: Med. Ind. Pop./South Tucson	02
Pinal: Service area: San Pedro Valley	02
Service area: Superior	01
Population group: Gila River Indian Community	01
Population group: Mig/Seas. Fmctr. (Cent/W. Pinal)	01
Santa Cruz	04
Yavapai: Service area: Seligman	02
Yuma: Service area: Northern Yuma County	02

PRIMARY CARE: Arizona

Service Area Listing

Service area name	Degree of shortage group
Arizaca County—Pima: Parts: C.T. 43.05 (E.D. 257) C.T. 43.05 (E.D. 258) C.T. 43.05 (E.D. 259) C.T. 43.05 (E.D. 260) C.T. 43.05 (E.D. 261) C.T. 43.05 (E.D. 262)	01
Benson County—Cochise: Parts: Benson CCD	04
Bisbee County—Cochise: Parts: Bisbee CCD	04
Bowie County—Cochise: Parts: Bowie CCD	01
Bullhead City County—Mohave: Parts: Kingman North (PT) Kingman South (PT)	01
Continental County—Pima: Parts: C.T. 41.02 (E.D. 238) C.T. 41.02 (E.D. 239) C.T. 41.02 (E.D. 240) C.T. 41.02 (E.D. 241) C.T. 41.02 (E.D. 242) C.T. 41.02 (E.D. 243)	01

PRIMARY CARE: Arizona—Continued

Service Area Listing

Service area name	Degree of shortage group
B Mirage	01
County—Maricopa:	
Parts:	
C.T. 405 (Southern 1/2)	
C.T. 608	
C.T. 609	
Heber/Overgaard	01
County—Navajo:	
Parts:	
Snowflake CCD (E.D. 418)	
Snowflake CCD (E.D. 419)	
Snowflake CCD (E.D. 420)	
Snowflake CCD (E.D. 421)	
Snowflake CCD (E.D. 422)	
Snowflake CCD (E.D. 423)	
Kayenta	01
County—Apache:	
Parts: Dennehotso CCD	
County—Navajo:	
Parts: Western CCD	
Marana	01
County—Pima:	
Parts: C.T. 44.05 (N. part)	
Northern Yuma County	02
County—Yuma:	
Parts: Parker Division	
Payson	04
County—Gila:	
Parts:	
Christopher Creek	
Gasela	
Jakes Corner	
Kahals Ranch	
Payson	
Pine	
Rye	
Strawberry	
Tonto Div.	
Tonto Village	
Puerco Valley	01
County—Apache:	
Parts: Puerco Div.	
San Pedro Valley	02
County—Pinal:	
Parts:	
E.D. 76 (San Manuel Div.)	
E.D. 77 (San Manuel Div.)	
E.D. 78 (San Manuel Div.)	
E.D. 79 (San Manuel Div.)	
E.D. 80 (San Manuel Div.)	
E.D. 81 (San Manuel Div.)	
E.D. 82 (San Manuel Div.)	
E.D. 86 (San Manuel Div.)	
E.D. 87 (San Manuel Div.)	
E.D. 89 (San Manuel Div.)	
E.D. 90 (San Manuel Div.)	
Seligman	02
County—Yavapai:	
Parts: Ashfork Div.	
South Phoenix	02
County—Maricopa:	
Parts:	
C.T. 1152-1161	
C.T. 1162.01	
C.T. 1162.02	
C.T. 1163-1167	
St. Johns	01
County—Apache:	
Parts: St. Johns Div.	
Superior	01
County—Pinal:	
Parts: E.D. 6-9	
Tombstone City area	01
County—Cochise:	
Parts: Tombstone Pl. (Pt. Tombstone Div.)	
Town of Guadalupe	02
County—Maricopa:	
Parts: Town of Guadalupe	

PRIMARY CARE: Arizona

Population Group Listing

Population group	Degree of shortage group
Gila River Indian Community	01
County—Maricopa	
County—Pinal	
Hopi Indian Reservation	01
County—Cochise:	
Parts: Hopi	
County—Navajo:	
Parts: Hopi Division	
Indian pop. of Ganado	01
County—Apache	
County—Navajo	
Indian pop. of Jsaile	01
County—Apache	
Indian pop. of Rough River	01
County—Apache	
County—Navajo	
Med. Ind. pop./South Tucson	02
County—Pima:	
Parts:	
C.T. 1-5	
C.T. 8-12	
C.T. 13.01	
C.T. 13.02	
C.T. 14	
C.T. 20-24	
C.T. 25.01	
C.T. 25.02	
C.T. 37.01	
C.T. 37.02	
C.T. 37.03	
C.T. 38-39	
C.T. 41.03	
C.T. 41.04	
C.T. 43.01	
Mig/Seas Fmwr (Cent/W. Pinal)	01
County—Pinal:	
Parts:	
Casa Grande Div.	
Coolidge Div.	
Eloy Div.	
Manopca/Stanford Div.	
Secaton Div.	
White Mountain Indian Reservation	01
County—Apache	
County—Navajo	

PRIMARY CARE: Arizona

Facility Listing

Facility	Degree of Shortage group
Maricopa Co. Jail(s)	02
County—Maricopa	

PRIMARY CARE: Arkansas

County Listing

County name	Degree of shortage group
Arkansas:	
Service area: Arkansas County	01
Ashley	04
Calhoun	02
Clay	02
Cleveland	04
Conway	04
Crawford	02
Crittenden	
Service area: Parkin	01

PRIMARY CARE: Arkansas—Continued

County Listing

County name	Degree of shortage group
Cross:	
Service area: Parkin	01
Dallas:	
Service area: Sparkman	01
Desha:	
Service area: Dumas	03
Faulker:	
Service area: Vilonia	01
Franklin	03
Fulton:	
Service area: Horseshoe Bend	03
Grant	03
Howard	02
Izard:	
Service area: Horseshoe Bend	03
Jefferson:	
Service area: Altheimer	01
Service area: North Pine Bluff	02
Service area: Redfield	01
Lafayette	04
Lawrence	04
Lee	04
Lincoln:	
Service area: Dumas	03
Service area: Starr	02
Mississippi:	
Service area: Osceola/Wilson	03
Monroe:	
Service area: Clarendon	02
Montgomery	03
Newton	01
Quachita:	
Service area: Horseshoe Bend	01
Service area: Stephens	01
Perry	02
Phillips:	
Service area: Elaine	01
Poinsett	04
Polk:	
Service area: Wickes	02
Pope:	
Service area: Atkins & Hector	02
Praine	01
Pulaski:	
Service area: College Station	01
Service area: McAlmont	01
Searcy	02
Sebastian:	
Service area: Diamond	03
Sevier:	
Service area: Wickes	02
Sharp:	
Service area: Cave	03
Union:	
Service area: Strong	02
Van Buren	04
Washington:	
Service area: West Washington	02
Woodruff:	
Service area: Cotton Plant	01
Yell:	
Service area: Southern Yell	03

PRIMARY CARE: Arkansas

Service Area Listing

Service area name	Degree of shortage group
Altheimer	
County—Jefferson:	
Parts:	
C.T. 1	01
C.T. 7	

PRIMARY CARE: Arkansas—Continued

Service Area Listing

Service area name	Degree of shortage group
Arkansas County County—Arkansas: Parts: Arkansas Township Barton Township Bayou Moto Township Brewer Township Chester Township Crockett Township Garland Township Keaton Township La Grue Township Point De Luce Township Prairie Township Stanley Township	01
Atkins & Hector County—Pope: Parts: Burnett Center Convenience Griffin Gum Logg Jackson Liberty Moreland Phoenix Smyrna Valley Wilson	02
Cave County—Sharp: Parts: Big Creek Cave East Sullivan Johnson Scott South Big Rock Washington West Sullivan	03
Clarendon County—Monroe: Parts: Cache Cypress Ridge Hindman Pine Ridge Roc Roe	02
College Station County—Pulaski: Parts: C.T. 2 C.T. 4-5 C.T. 40.01 C.T. 40.03 C.T. 40.04 C.T. 40.05	01
Cotton Plant County—Woodruff: Parts: Cache Caney Cotton Plant Franks Freeman Garden Point	01
Diamond County—Sebastian: Parts: Diamond Twp. Hartford Twp. Jim Fork Twp. Mississippi Twp. Sugarloaf Twp.	03

PRIMARY CARE: Arkansas—Continued

Service Area Listing

Service area name	Degree of shortage group
Dumas County—Desha: Parts: Franklin Twp. Jefferson (Northern 1/2) Randolph Twp. Red Fork Twp. Richland (Northern 1/2) Silver Lake Twp. Walnut Lake Twp. County—Lincoln: Parts: Auburn Twp. Gould Twp. Wells Bayou Twp.	03
Elaine County—Phillips: Parts: Jamesbush Lake Mooney Searcy Tappan	01
Horseshoe Bend County—Fulton: Parts: Union	03
County—Izard: Parts: Baker Franklin Jefferson New Hope Violet Hill	
County—Quachita: Parts: Liberty	
McAlmont County—Pulaski: Parts: C.T. 38 C.T. 39	01
North Pine Bluff County—Jefferson: Parts: C.T. 5.01 C.T. 5.02 C.T. 6.00 C.T. 6.99 C.T. 9.00 C.T. 10.00 C.T. 11.00 C.T. 12.00	02
Osceola/Wilson County—Mississippi: Parts: Carson Lake Dyess Fletcher Golden Lake Little River McGarock Monroe Pecan Scott Swayne Troy Whitton	03
Parkin County—Crittenden: Parts: Tyroneza Twp.	01
County—Cross: Parts: Tyroneza Twp.	
Redfield County—Jefferson: Parts: C.T. 2 C.T. 3.01 C.T. 3.02 C.T. 3.03 C.T. 4	01

PRIMARY CARE: Arkansas—Continued

Service Area Listing

Service area name	Degree of shortage group
Southern Yell County—Yell: Parts: Bluffton Twp. Briggsville Twp. Compton Twp. Crawford Twp. Danville Twp. Dutch Creek Twp. Ferguson Twp. Gilekey Twp. Gravelly Hill Twp. Herring Twp. Ions Creek Twp. Lamar Twp. Mason Twp. Prairie Twp. Reed Keathly Twp. Richland Twp. Riley Twp. Rover Twp. Ward Twp. Waveland Twp.	03
Sparkman County—Dallas: Parts: Bunn Township Chester Township Holly Springs Township Manchester Township Nix Twp. Owen Township Princeton Township Smith Township Willow Township	01
Starr County—Lincoln: Parts: Bartholomew Twp. Cane Creek Twp. Choctaw Twp. Kimbrough Lone Pine Twp. Mill Creek Twp. Owen Twp. Smith Twp. Spring Twp.	02
Stephens County—Quachita: Parts: Bragg Bridge Creek Jefferson Lafayette Marion Smackover	01
Strong County—Union: Parts: Harrison Twp. Lapile Twp.	03
Vilonia County—Faulker: Parts: Bristol Twp. Cypress Twp. Eagle Twp. Harve Twp. Newton Twp. Palarm Twp.	01
West Washington County—Washington: Parts: Boston Twp. Cane Hill Twp. Cove Creek Twp. Dutch Mills Twp. Illinois Twp. Mans Hill Twp. Morrow Twp. Prairie Grove Twp. Price Twp. Rheas Hill Twp. Starr Hill Twp. Valley Twp. Vineyard Twp. Weddington Twp.	02

PRIMARY CARE: Arkansas—Continued

Service Area Listing

Service area name	Degree of shortage group
Wicks	02
County—Polk:	
Parts:	
Ozark	
White	
County—Sevier	
Parts:	
Jefferson Township	

PRIMARY CARE: California

County Listing

County Name	Degree of Shortage Group
Alameda:	
Service area: Central Oakland	03
Service area: South Oakland	02
Service area: West Berkeley	01
Alpine:	
Service area: Markleeville	01
Population group: Washoe Indian Reservation	01
Butte:	
Service area: Feather Falls	02
Calaveras:	
Service area: West Point/Wisseyville	02
Contra Costa:	
Service area: Pittsburg	03
Del Norte:	
Population Group: Indian pop. (Trinidad)	01
Fresno:	
Service area: Firebaugh/Mendota	01
Service area: Huron	01
Service area: Riverdale/Caruthers	02
Service area: San Joaquin—Tranquility	01
Service area: Sierra	02
Glenn:	
Service area: Orland	03
Humboldt:	
Population Group: Indian pop. (Trinidad)	01
Imperial:	
Service area: Calexico	01
Service area: Calipatria/Westmorland	02
Inyo:	
Service area: Southern Inyo	02
Kern:	
Service area: Arvin/Lamont	01
Service area: Buttonwillow	01
Service area: Frazier Park	02
Service area: Lake Isabella	02
Service area: Southeast Kern	02
Service area: Wasco/Shafter	02
Lassen:	
Service area: Honey Lake	01
Service area: North Lassen	02
Los Angeles:	
Service area: Avalon/Goodyear/Main	01
Service area: East Compton, Compton City	01
Service area: East La/City Terrace/Maravilla	02
Service area: El Monte	03
Service area: Figueira/Firestone/Green Meadows/Watts	03
Service area: Florence/Huntington Park	01
Service area: Highland Pk/Linc. Hts/Mt Wash/el Sereno	02
Service area: Maple/Santa Barbara	01
Service area: Maywood Bell	01
Service area: Venice	02
Service area: West Compton, Compton City	01
Mendocino:	
Service area: Covelo	04
Service area: Northwest Mendocino	02
Service area: Point Arena	01
Merced:	
Service area: North Central Merced	02
Population Group: Indochinese Population	02
Modoc:	
Service area: Adin-Lookout	01
Service area: Surprise Valley	01
Service area: Tule Lake-Butte Valley	03
Monterey:	
Service area: N. Central/E. Salinas	02

PRIMARY CARE: California—Continued

County Listing

County Name	Degree of Shortage Group
Service area: Soledad	03
Orange:	
Facility: Juvenile Detention Facilities	02
Riverside:	
Service area: Lower Coachella Valley	01
Population Group: Morongo Indian pop	01
Population Group: Soboba Indian pop	01
Sacramento:	
Population Group: Indochinese pop. Sacramento area	02
San Bernardino:	
Service area: Arrowhead	04
Service area: Lucerne Valley	01
Service area: Tri-Community	01
Population Group: Morongo Indian pop	01
Population Group: San Manuel Indian pop	01
San Diego:	
Service area: Anza	02
Service area: Mission/Ocean/Pacific Beach	02
Service area: Mountain Empire	01
Service area: Palomar—Laguna	02
Service area: Ramona	02
Service area: San Ysidro	02
Service area: Southwest San Diego	02
Service area: Valley Center/Pauma	02
Population Group: Indochinese pov. pop. (Linda Vista)	01
Population Group: Pov. pop. (San Marcos)	02
San Francisco:	
Service area: Tenderloin	01
San Mateo:	
Service area: East Palo Alto	02
Santa Barbara:	
Service area: Cuyama Valley	01
Shasta:	
Service area: Burney Basin	* 04
Service area: Shingletown	01
Sierra:	
Siskiyou:	
Service area: Happy Camp	03
Service area: Siskiyou	02
Service area: Tule Lake-Butte Valley	03
Solano:	
Service area: Dixon	01
Service area: Vacaville	04
Sonoma:	
Service area: Cloverdale/Geyserville	02
Service area: Russian River	02
Service area: Stewarts Point	01
Trinity:	
Service area: Hayfork	04
Service area: Mad River	01
Tulare:	
Service area: Springville	01
Service area: Tipton	01
Population group: Spanish Speaking pop. (Porterville)	01
Tuolumne:	
Service area: Groveland	01
Service area: Stanislaus/Yosemite	01
Yolo:	
Service area: Esparto/Kinghts Landing	01
Population group: Indochinese pop. (Sacramento area)	02

PRIMARY CARE: California

Service Area Listing

Service area name	Degree of shortage group
Adin-Lookout	01
County—Modoc:	
Parts: Adin-Lookout	
Anza	02
County—San Diego:	
Parts: C.T. 210 (Anza Div.)	
Arrowhead	04
County—San Bernardino:	
Parts: C.T. 101	
Arvin/Lamont	01
County—Kern:	
Parts: C.T. 62-64	

PRIMARY CARE: California—Continued

Service Area Listing

Service area name	Degree of shortage group
Avalon/Goodyear/Main	01
County—Los Angeles:	
Parts:	
C.T. 2281-2289	
C.T. 2291-2294	
C.T. 2311	
C.T. 2318-2319	
C.T. 2328	
C.T. 2391-2396	
Burney Basin	04
County—Shasta:	
Parts:	
E.D. 326-327	
E.D. 329	
E.D. 332-333	
E.D. 335-337	
E.D. 340-341	
Buttonwillow	01
County—Kern:	
Parts: Button Willow	
Calexico	01
County—Imperial:	
Parts: Calexico CCD	
Calipatria/Westmorland	02
County—Imperial:	
Parts: Calipatria/Westmorland CCD	
Central Oakland	03
County—Alameda:	
Parts:	
C.T. 4053-4063	
C.T. 4065	
C.T. 4070-4072	
Cloverdale/Geyserville	02
County—Sonoma:	
Parts:	
C.T. 1541-1542	
Covelo	04
County—Mendocino:	
Parts: Covelo	
Cuyama Valley	01
County—Santa Barbara:	
Parts: Cuyama Division	
Dixon	01
County—Solano:	
Parts:	
C.T. 2533-2534	
East Compton, Compton City	01
County—Los Angeles	
Parts:	
C.T. 5416.01	
C.T. 5416.02	
C.T. 5420	
C.T. 5421.01	
C.T. 5421.02	
C.T. 5422	
C.T. 5424.01	
C.T. 5424.02	
East La/City Terrace/Maravilla	02
County—Los Angeles:	
Parts:	
C.T. 5303-5306	
C.T. 5308-5319	
East Palo Alto	02
County—San Mateo:	
Parts:	
C.T. 6117-6120	
El Monte	03
County—Los Angeles:	
Parts:	
C.T. 4324	
C.T. 4327-4328	
C.T. 4331-4335	
C.T. 4337-4340	
Esparto/Kinghts Landing	01
County—Yolo:	
Parts:	
C.T. 114-115	
Feathers Falls	02
County—Butte:	
Parts: Feather Falls Div.	

PRIMARY CARE: California—Continued

Service Area Listing

Service area name	Degree of shortage group
Figuerola/Firestone/Green Meadows/Watts County—Los Angeles: Parts: C.T. 2397-2399 C.T. 2401-2409 C.T. 2411-2418 C.T. 2421-2429 C.T. 2431 C.T. 5349-5350 C.T. 5351.01 C.T. 5351.02 C.T. 5352-5354 C.T. 5404	02
Firebaugh/Mendota County—Fresno: Parts: Firebaugh Div. Mendota Div.	01
Florence/Huntington Park County—Los Angeles: Parts: C.T. 5325-5332 C.T. 5335 C.T. 5345 C.T. 5347-5348	01
Frazier Park County—Kern: Parts: C.T. 33.02 County—Los Angeles: Parts: C.T. 60 (W. 1/3)	02
Groveland County—Tuolumne: Parts: Groveland	01
Happy Camp County—Siskiyou: Parts: Happy Camp CCD	03
Hayfork County—Trinity: Parts: Hayfork Div.	04
Highland Pk/Linc. Hts./Mt Wash./El Sereno County—Los Angeles: Parts: C.T. 1831-1833 C.T. 1835-1838 C.T. 1851-1853 C.T. 1991-1999 C.T. 2011-2017 C.T. 5307	02
Honey Lake County—Lassen: Parts: Honey Lake Div.	01
Huron County—Fresno: Parts: Huron CCD	01
Lake Isabella County—Kern: Parts: C.T. 51.01 C.T. 52	02
Lower Coachella Valley County—Riverside: Parts: C.T. 456.02	01
Lucerne Valley County—San Bernardino: Parts: E.D. 1181-1186 E.D. 1246 (W. 1/2)	01
Mad River County—Trinity: Parts: Mad River Div.	01
Maple/Santa Barbara County—Los Angeles: Parts: C.T. 2214.01 C.T. 2214.02 C.T. 2215.01 C.T. 2215.02 C.T. 2216.01 C.T. 2216.02 C.T. 2217.01 C.T. 2217.02 C.T. 2218-2219 C.T. 2221-2227 C.T. 2244-2247 C.T. 2264-2267	01

PRIMARY CARE: California—Continued

Service Area Listing

Service area name	Degree of shortage group
Markleeville County—Alpine: Parts: Markleeville	01
Maywood Bell County—Los Angeles: Parts: C.T. 5333-5337 C.T. 5338.01 C.T. 5338.02 C.T. 5339-5343 C.T. 5344.01 C.T. 5344.02	01
Mission/Ocean/Pacific Beach County—San Diego: Parts: C.T. 72-78 C.T. 79.01 C.T. 79.02 C.T. 80.01 C.T. 80.02	02
Mountain Empire County—San Diego: Parts: Mountain Empire Div.	01
N. Central/E. Salinas County—Monterey: Parts: C.T. 5-9 C.T. 13 C.T. 17-18	02
North Central Merced County—Merced: Parts: Hilmar-Irwin Division Livingston-Delhi	02
North Lassen County—Lassen: Parts: Big Valley Madeline Plains	02
Northwest Mendocino County—Mendocino: Parts: Laytonville-Leggett	02
Orland County—Glenn: Parts: Orland CCD	03
Palomar-Laguna County—San Diego: Parts: Laguna/Pine Valley CCD Palomar/Julian CCD	02
Pittsburg County—Contra Costa: Parts: C.T. 3090 C.T. 3100 C.T. 3110 C.T. 3120 C.T. 3131 C.T. 3132 C.T. 3141-3552	03
Point Arena County—Mendocino: Parts: Point Arena	01
Ramona County—San Diego: Parts: C.T. 208 (Ramona Div.)	02
Riverdale-Caruthers County—Fresno: Parts: C.T. 75-77	02
Russian River County—Sonoma: Parts: C.T. 1537 C.T. 1543 (South Portion)	02
San Joaquin-Tranquility County—Fresno: Parts: San Joaquin-Tranquility CCD	01

PRIMARY CARE: California—Continued

Service Area Listing

Service area name	Degree of shortage group
San Ysidro County—San Diego: Parts: C.T. 100.01 C.T. 100.02 C.T. 100.03 C.T. 100.04 C.T. 100.05 C.T. 100.06 C.T. 100.07 C.T. 101.03 C.T. 101.04 C.T. 101.05 C.T. 101.06 C.T. 101.07 C.T. 102-105	02
Sierra County—Fresno Div.: Parts: Sierra	02
Shingletown County—Shasta: Parts: E.D. 343 (Central) E.D. 344 (Central) E.D. 345 (Central) E.D. 346 (Central) E.D. 347 (Central)	01
Siskiyou County—Siskiyou: Parts: Etna Fl. Jones	02
Soledad County—Monterey: Parts: Soledad CCD	03
South Oakland County—Alameda: Parts: C.T. 4073-4075 C.T. 4084-4097 C.T. 4102-4104	02
Southeast Kern County—Kern: Parts: C.T. 55.02 C.T. 56-59	02
Southern Inyo County—Inyo: Parts: Death Valley Div. Independence Div. (Pt.) Lone Pine Div.	02
Southwest San Diego County—San Diego: Parts: C.T. 38 C.T. 45-54	03
Springville County—Tulare: Parts: C.T. 27 (Springville)	01
Stantislau/Yosemite County—Tuolumne: Parts: Stanislaus-Yosemite	01
Stowarts Point County—Sonoma: Parts: C.T. 1543 (N. Portion)	01
Surprise Valley County—Modoc: Parts: Surprise Valley CCD	01
Tenderloin County—San Francisco: Parts: C.T. 122-125	01
Tipton County—Tulare: Parts: C.T. 32 C.T. 42-44	01
Tri-Community County—San Bernardino: Parts: E.D. 1246 (E. 1/2) E.D. 1247-1257	01

PRIMARY CARE: California—Continued

Service Area Listing

Service area name	Degree of shortage group
Tule Lake-Butte Valley County—Modoc: Parts: Tule Lake County—Siskiyou: Parts: Butte Valley CCD Tule Lake CCD	03
Vacaville County—Solano: Parts: Vacaville CCD	04
Valley Center/Pauma County—San Diego: Parts: C.T. 191.01 (Valley Center/Pauma) C.T. 191.02 (Valley Center/Pauma)	02
Venice County—Los Angeles: Parts: C.T. 2731-2739	02
Wasco/Shafter County—Kern: Parts: Shafter CCD Wasco CCD	02
West Berkeley County—Alameda: Parts: C.T. 4218-4223 C.T. 4230-4234 C.T. 4240	01
West Compton, Compton City County—Los Angeles: Parts: C.T. 54511-54119 C.T. 5425-5432	01
West Point/Wilseyville County—Calaveras: Parts: West Point-Wilseyville	02

PRIMARY CARE: California

Population Group Listing

Population group	Degree of shortage group
Indian pop. (Trinidad) County—Del Norte County—Humboldt	01
Indochinese pop. Sacramento area County—Sacramento: Parts: Elk Grove CCD Folsom CCD Mather CCD N. Highlands CCD Natomas CCD Rio Linda CCD Sacramento CCD San Juan CCD Sloughhouse CCD	02
County—Yolo: Part: East Yolo CCD	01
Indochinese population County—Merced: Parts: Atwater CCD Merced CCD	02
Indochinese pov. pop. (Linda Vista) County—San Diego: Parts: C.T. 86 C.T. 87.01 C.T. 88 C.T. 89.01 C.T. 90 C.T. 91.05	01
Monrovia Indian pop. County—Riverside County—San Bernardino	01

PRIMARY CARE: California—Continued

Population Group Listing

Population group	Degree of shortage group
Pov. pop. (San Marcos) County—San Diego: Parts: C.T. 199 C.T. 200.04 C.T. 200.05 C.T. 200.06 C.T. 200.07 C.T. 200.08	02
San Manuel Indian pop. County—San Bernardino	01
Soboba Indian pop. County—Riverside	01
Spanish Speaking pop. Porterville County—Tulare: Parts: C.T. 33-41	01
Washoe Indian Reservation County—Alpine	01

PRIMARY CARE: California

Facility Listing

Facility	Degree of shortage group
Juvenile Detention Facilities County—Orange	02

PRIMARY CARE: Colorado

County Listing

County name	Degree of shortage group
Adams: Service area: Eastern Plains	02
Arapahoe: Service area: Eastern Plains	02
Baca	03
Bent: Service area: Lamar	04
Service area: Las Animas	02
Boulder: Service area: Lafayette	02
Cheyenne: Service area: Flagler	01
Conejos: Service area: San Luis Valley	01
Costilla: Service area: San Luis Valley	01
Crowley: Service area: Rocky Ford/Ordway	03
Custer	01
Dolores	01
Elbert	01
El Paso: Population group: Colorado Springs (Med. Indigent)	04
Glenn	01
Hinsdale	01
Kiowa	01
Kit Carson: Service area: Flagler	01
Las Animas	04
Lincoln	03
Otero: Service area: Rocky Ford/Ordway	03
Ouray	03
Prowers: Service area: Lamar	04
Pueblo: Service area: Avondale/Boone	01
Rio Blanco: Service area: Rangely	01
Routt: Service area: Oak Creek/Yampa	01
Saguache	01
Sedgwick: Service area: Julesburg	02

PRIMARY CARE: Colorado—Continued

County Listing

County name	Degree of shortage group
Weld: Population group: Mig./seas. farmworkers	02
Yuma	01

PRIMARY CARE: Colorado

Service Area Listing

Service area name	Degree of shortage group
Avondale/Boone County—Pueblo: Parts: C.T. 32 (Avondale) C.T. 33 (Avondale) C.T. 34 (Avondale)	01
Eastern plains County—Adams: Parts: East Adams Div. County—Arapahoe: Parts: East Arapahoe Div.	02
Flagler County—Cheyenne: Parts: Kit Carson Div. (N. 1/4) County—Kit Carson: Parts: Flagler Div. Vona Tum	01
Julesburg County—Sedgwick	02
Lafayette	02
County—Boulder: Parts: C.T. 129	04
Lamar County—Bent: Parts: McClave Div. County—Prowers	02
Las Animas County—Bent: Parts: Las Animas Div. Purgatoire Valley Div.	01
Oak Creek/Yampa County—Routt: Parts: Oak Creek Div. Yampa Div.	01
Rangely County—Rio Blanco Parts: Rangely Div.	03
Rocky Ford/Ordway County—Crowley County—Otero: Parts: Flower Div. Manzanola Div. Rocky Ford Div.	01
San Luis Valley County—Conejos County—Costilla	01

PRIMARY CARE: Colorado

Population Group Listing

Population group	Degree of Shortage Group
Colorado Springs (Med Indigent) County—El Paso: Parts: C.T. 13.01 (Med Indigent) C.T. 14-17 (Med Indigent) C.T. 22-23 (Med Indigent) C.T. 26-29 (Med Indigent)	04

PRIMARY CARE: Colorado—Continued*Population Group Listing*

Population group	Degree of Shortage Group
Mig./seas. farmworkers County—Weld	02

PRIMARY CARE: Connecticut*County Listing*

County name	Degree of Shortage Group
Fairfield:	
Service area: Southwest Bridgeport	04
Population group: Poverty pop./Central-East Bridgeport	01
Population group: Poverty pop./S.W. Stamford	01
Hartford:	
Service area: Charter Oak/Rice Hts.	01
Service area: N.N. Central Hartford	01
Middlesex:	
Population group: Poverty pop./Middletown	04
New Haven:	
Service area: Fair Haven	01
Population group: Poverty pop./Central Waterbury	02
New London:	
Population group: Poverty pop./New London	01
Windham:	
Population group: Poverty pop./N.E. Windham	01

PRIMARY CARE: Connecticut*Service Area Listing*

Service area name	Degree of shortage group
Charter Oak/Rice Hts. County—Hartford:	01
Parts:	
C.T. 5046	
C.T. 5049	
Fair Haven County—New Haven:	01
Parts: C.T. 1421-1426	
N.—N. Central Hartford County—Hartford:	01
Parts:	
C.T. 5008-5015	
C.T. 5017	
C.T. 5018	
C.T. 5035	
C.T. 5037	
South West Bridgeport County—Fairfield:	04
Parts: C.T. 702-710	

PRIMARY CARE: Connecticut*Population Group Listing*

Population group	Degree of shortage group
Poverty pop./Central-East Bridgeport County—Fairfield:	01
Parts:	
C.T. 713-717	
C.T. 735-742	

PRIMARY CARE: Connecticut—Continued*Population Group Listing*

Population group	Degree of shortage group
Poverty pop./Central Waterbury County—New Haven:	02
Parts:	
C.T. 3501-3505	
C.T. 3508	
C.T. 3512	
C.T. 3514	
Poverty pop./Middletown County—Middlesex:	04
Parts:	
C.T. 5411-5422	
Poverty pop./N.E. Windham County—Windham:	01
Parts:	
Brooklyn Twn.	
Canterbury Twn.	
Eastford Twn.	
Killingly Twn.	
Plainfield Twn.	
Pomfret Twn.	
Putnam Twn.	
Sterling Twn.	
Thompson Twn.	
Woodstock Twn.	
Poverty pop./New London County—New London:	01
Parts:	
C.T. 6901	
C.T. 6903-6907	
Poverty pop./S.W. Stamford County—Fairfield:	01
Parts:	
C.T. 201	
C.T. 214	
C.T. 215	
C.T. 217	
C.T. 222	
C.T. 223	

PRIMARY CARE: Delaware*County Listing*

County name	Degree of shortage group
New Castle:	
Service area: Middletown-Odessa	03
Service area: Wilmington-Southbridge	01
Sussex:	
Service area: Mid-Sussex (Indian River)	04

PRIMARY CARE: Delaware*Service Area Listing*

Service area name	Degree of shortage group
Mid-Sussex (Indian River) County—Sussex:	04
Parts:	
Georgetown Div.	
Millsboro CCD	
Selbyville-Frankford CCD	
Middletown-Odessa County—New Castle:	03
Parts: Middletown/Odessa Div.	

PRIMARY CARE: Delaware—Continued*Service Area Listing*

Service area name	Degree of shortage group
Wilmington-Southbridge County—New Castle:	01
Parts:	
C.T. 1	
C.T. 6.01	
C.T. 6.02	
C.T. 9	
C.T. 17	
C.T. 19	
C.T. 20	
C.T. 154-156	

PRIMARY CARE: District of Columbia*County Listing*

County name	Degree of shortage group
District of Columbia:	
Service area: Anacostia	01
Service area: North Capitol	01
Population group: Adams-Morgan	01
Facility: D.C. Detention Facility	03

PRIMARY CARE: District of Columbia*Service Area Listing*

Service area name	Degree of shortage group
Anacostia:	01
Parts:	
C.T. 77.03	
C.T. 77.07	
C.T. 77.08	
C.T. 77.09	
C.T. 78.03	
C.T. 78.04	
C.T. 78.05	
C.T. 78.07	
C.T. 78.08	
C.T. 96.01	
C.T. 96.02	
C.T. 96.03	
C.T. 96.04	
C.T. 99.01	
C.T. 99.02	
C.T. 99.03	
C.T. 99.04	
C.T. 99.05	
C.T. 99.06	
C.T. 99.07	
North Capital:	01
Parts:	
C.T. 33.20	
C.T. 46	
C.T. 47 (1%)	
C.T. 86(1%)	
C.T. 87(1%)	

PRIMARY CARE: District of Columbia*Population Group Listing*

Population group	Degree of shortage group
Adams-Morgan	01
Parts:	
C.T. 27.2	
C.T. 28.0	
C.T. 37.0	
C.T. 38.0	

PRIMARY CARE: District of Columbia—Continued*Population Group Listing*

Population group	Degree of shortage group
C.T. 39.0	
C.T. 40.0	
C.T. 42.1	
C.T. 43.0	

PRIMARY CARE: District of Columbia*Facility Listing*

Facility	Degree of shortage group
D.C. detention facility	03

PRIMARY CARE: Florida*County Listing*

County name	Degree of shortage group
Bay:	
Population group: Med. Ind. Pop. of Bay	01
Bradford	04
Broward:	
Population group: Poverty and migrant population	01
Facility: Sunshine Family Health Center	01
Clay:	
Service area: Keystone Heights	01
Collier:	
Service area: Everglades	01
Service area: Immokalee	01
Columbia:	04
Dade:	
Service area: Model City	01
Service area: Southern Dade	01
Service area: Wynwood	01
Population group: Medically indigent	02
Facility: Jackson Memorial Hospital	01
Dee	01
Duval:	
Population group: Low income pop. of Duval	02
Escambia:	
Service area: Northern Escambia	02
Gadsden	01
Gilchrist	02
Glades:	
Service area: Glades Hendry	02
Hardee	03
Hendry:	
Service area: Glades Hendry	02
Hernando	03
Hillsborough:	
Population group: Poverty/migrant pop. (Hillsborough)	01
Holmes	01
Jackson:	
Service area: Sneads	01
Jefferson	02
Lafayette	01
Lake:	
Population group: Poverty/migrant pop. (Lake)	03
Lee:	
Population group: Lee Co. migrant population	01
Madison	01
Manatee:	
Population group: Poverty/migrant pop. (Manatee)	04
Nassau	
Service area: Callahan/Hilliard	02
Okeechobee:	
Population group: Poverty/migrant	01
Orange:	
Population group: Pov./migrant pop.	04

PRIMARY CARE: Florida—Continued*County Listing*

County name	Degree of shortage group
Osceola	03
Palm Beach:	
Service area: Glades	02
Pasco:	
Population group: Pov./migrant pop. (Pasco)	02
Putnam	02
St. Lucie:	
Population group: Poverty/migrant pop. (St. Lucie)	01
Santa Rosa:	
Service area: Northern Santa Rosa	02
Seminole:	
Population group: Pov. Pop./Seminole	02
Sumter	02
Suwannee	04
Taylor	02
Union	02
Wakulla	02
Walton	01
Washington	02

PRIMARY CARE: Florida*Service Area Listing*

Service area name	Degree of shortage group
Callahan/Hilliard	02
County—Nassau:	
Parts:	
C.T. 504	
C.T. 505	
Everglades	01
County—Collier:	
Parts: C.T. 111	
Glades	02
County—Palm Beach:	
Parts: C.T. 80-83	
Glades/Hendry	02
County—Glades	
County—Hendry	
Immokalee	01
County—Collier:	
Parts: C.T. 112-114	
Keystone Heights	01
County—Clay:	
Parts: Keystone Heights	
Model City	01
County—Dade:	
Parts:	
C.T. 9.03	
C.T. 10.04	
C.T. 14	
C.T. 15.01	
C.T. 15.02	
C.T. 17.01	
C.T. 17.02	
C.T. 18.01	
C.T. 18.02	
C.T. 18.03	
C.T. 19.01	
C.T. 19.02	
C.T. 20.01	
C.T. 20.02	
C.T. 22.01	
C.T. 22.02	
C.T. 23	
Northern Escambia	02
County—Escambia:	
Parts:	
Northwest Escambia	
South Flomaton	
Northern Santa Rosa	02
County—Santa Rosa:	
Parts:	
Jay-Berrydale	
Munson-McLellan	
Sneads	01
County—Jackson:	
Parts:	
Sneads CCD	

PRIMARY CARE: Florida—Continued*Service Area Listing*

Service area name	Degree of shortage group
Southern Dade:	
County—Dade:	01
Parts:	
C.T. 103-105	
C.T. 106.02	
C.T. 107.01	
C.T. 108-114	
Wynwood	01
County—Dade:	
Parts:	
C.T. 26	
C.T. 27.01	
C.T. 27.02	
C.T. 28	

PRIMARY CARE: Florida*Population Group Listing*

Population group	Degree of shortage group
Lee Co. Migrant Population	01
County—Lee	
Low Income Pop. of Duval	02
County—Duval:	
Parts:	
C.T. 1-5	
C.T. 9-19	
C.T. 26-29	
C.T. 107-109	
C.T. 112-116	
C.T. 118	
C.T. 121	
Med. Ind. Pop. of Bay	01
County—Bay	
Medically indigent	02
County—Dade:	
Parts: C.T. 42-45	
Pov. Pop./Seminole	02
County—Seminole	
Pov./Migrant Pop. (Pasco)	02
County—Pasco:	
Parts: C.T. 319-331	
Pov./Migrant Pop.	04
County—Orange	
Poverty and Migrant Population	01
County—Broward	
Parts:	
C.T. 103.01	
C.T. 103.02	
C.T. 104	
C.T. 107	
C.T. 302-306	
C.T. 307.01	
C.T. 307.02	
C.T. 308.01	
C.T. 308.02	
Poverty/Migrant Pop.	01
County—Okeechobee:	
Poverty/Migrant Pop. (Hillsborough)	01
County—Hillsborough:	
Parts: C.T. 121-141	
Poverty/Migrant Pop. (Lake)	03
County—Lake	
Poverty/Migrant Pop. (Manatee)	04
County—Manatee	
Poverty/Migrant Pop. (St. Lucie)	01
County—St. Lucie	

PRIMARY CARE: Florida*Facility Listing*

Facility	Degree of shortage group
Jackson Memorial Hospital	01
County—Dade	

PRIMARY CARE: Florida—Continued

Facility Listing

Facility	Degree of shortage group
Sunshine Family Health Center County—Broward	01

PRIMARY CARE: Georgia

County Listing

County name	Degree of shortage group
Atkinson	01
Baker	01
Banks	01
Brantley	01
Brooks	04
Bryan	01
Burke	03
Butts	04
Camden	
Service area: Woodbine	01
Charlton	03
Chatham	
Population group: Medically Indigent	02
Chattahoochee	
Service area: Marion Extended	02
Chattooga	02
Cherokee	02
Clarke	
Service area: Athens NHC Target Area	01
Colquitt	02
Crawford	02
Crisp	
Population group: Med. Ind. Pop. of Crisp	01
Dade	01
Dawson	01
DeKalb	
Service area: De Kalb-Grady Clinic	01
Dodge	04
Dooly	03
Dougherty	
Service area: East Albany	01
Service area: South Albany	01
Early	02
Effingham	03
Elbert	03
Fayette	
Service area: Palmetto	02
Forsyth	03
Franklin	
Service area: Franklin/Hart	04
Fulton	
Service area: Atlanta (Southside)	01
Service area: Midwest Atlanta	01
Service area: Northwest Atlanta	02
Service area: Palmetto	02
Service area: West End	02
Population Group: Poverty Population	02
Glascock	01
Grady	02
Hall	
Population group: Med. Ind. Pop. of Hall	02
Hancock	01
Hart	
Service area: Franklin/Hart	04
Heard	01
Henry	03
Irwin	02
Jackson	
Population group: Med. Ind. Pop. of Jackson	02
Jasper	02
Jefferson	04
Jones	02
Lee	01
Lincoln	01
Long	01
McDuffie	04
McIntosh	02
Macon	02
Madison	02
Marion	
Service area: Marion Extended	02
Meriwether	02
Mitchell	03
Montgomery	
Service area: Montgomery/Wheeler	01
Murray	03

PRIMARY CARE: Georgia—Continued

County Listing

County name	Degree of shortage group
Newton	04
Olgethorpe	01
Paulding	03
Peach	02
Pike	03
Putnam	03
Quitman	
Service area: Randolph/Quitman	02
Randolph	
Service area: Randolph/Quitman	02
Schley	
Service area: Marion Extended	02
Scriven	03
Stewart	
Service area: Stewart-Webster	02
Sumter	
Population group: Medical Ind. Pop.	01
Talbot	
Service area: Marion Extended	02
Taliaferro	01
Tattnall	02
Taylor	
Service area: Marion Extended	02
Terrell	04
Towns	03
Troup	04
Union	
Service area: Suches	01
Walker	
Service area: South Walker	02
Walton	02
Warren	02
Webster	
Service area: Stewart-Webster	02
Wheeler	
Service area: Montgomery/Wheeler	01
White	02
Wilkinson	02
Worth	04

PRIMARY CARE: Georgia

Service Area Listing

Service area name	Degree of shortage group
Athens NHC Target Area	01
County—Clarke	
Parts:	
C.T. 2	
C.T. 3	
C.T. 6	
C.T. 9	
Atlanta (Southside)	01
County—Fulton	
Parts:	
C.T. 44	
C.T. 46.95	
C.T. 48	
C.T. 49.95	
C.T. 50	
C.T. 52-53	
C.T. 55.01	
C.T. 55.02	
C.T. 56-58	
C.T. 63-64	
C.T. 67	
C.T. 68.01	
C.T. 68.02	
C.T. 69-73	
De Kalb-Grady Clinic	01
County—De Kalb	
Parts:	
C.T. 205-209	
C.T. 227	
C.T. 231.01	
C.T. 235.01	
C.T. 235.02	
C.T. 236-237	
C.T. 238.01	
C.T. 238.02	
C.T. 238.03	

PRIMARY CARE: Georgia—Continued

Service Area Listing

Service area name	Degree of shortage group
East Albany	01
County—Dougherty	
Parts:	
C.T. 1	
C.T. 2	
C.T. 101	
C.T. 102	
C.T. 103.01	
C.T. 103.02	
C.T. 107-110	
Franklin/Hart	04
County—Franklin	
County—Hart	
Marion Extended	02
County—Chattahoochee	
County—Marion	
County—Schley	
County—Talbot	
County—Taylor	
Midwest Atlanta	01
County—Fulton	
Parts:	
C.T. 66.02	
C.T. 78.03	
C.T. 78.04	
C.T. 79-80	
C.T. 81.01	
C.T. 81.02	
C.T. 83.02	
Montgomery/Wheeler	01
County—Montgomery	
County—Wheeler	
Northwest Atlanta	02
County—Fulton	
Parts:	
C.T. 7-8	
C.T. 82.01	
C.T. 82.02	
C.T. 83.01	
C.T. 83.02	
C.T. 84-85	
C.T. 86.01	
C.T. 86.02	
C.T. 87.01	
C.T. 87.02	
C.T. 88	
Palmetto	02
County—Fayette	
Parts: C.T. 1402	
County—Fulton	
Parts:	
C.T. 104	
C.T. 105.04	
C.T. 105.05	
C.T. 105.06	
Randolph/Quitman	02
County—Quitman	
County—Randolph	
South Albany	01
County—Dougherty	
Parts:	
C.T. 12	
C.T. 14.01	
C.T. 14.02	
C.T. 15	
C.T. 106.01	
C.T. 106.02	
South Walker	02
County—Walker	
Parts:	
Kensington	
Lafayette	
Rock Springs	
Villanow	
Stewart-Webster	02
County—Stewart	
County—Webster	
Suches	01
County—Union	
Parts: Suches	
West End	02
County—Fulton	
Parts:	
C.T. 22-26	
C.T. 36-41	
C.T. 42.95	
C.T. 43	
C.T. 60-62	

PRIMARY CARE: Georgia—Continued

Service Area Listing

Service area name	Degree of shortage group
Woodbine County—Camden Parts: Woodbine	01

PRIMARY CARE: Georgia

Population Group Listing

Population group	Degree of shortage group
Med. Ind. Pop. of Crisp Co.	01
Med. Ind. Pop. of Hall Co.	02
Med. Ind. Pop. of Jackson Co.	02
Medical Ind. Pop. of Sumter Co.	01
Medically Indigent	02
County—Chatham:	
Parts:	
C.T. 1	
C.T. 3	
C.T. 6.01	
C.T. 6.02	
C.T. 8-9	
C.T. 11-13	
C.T. 15	
C.T. 17-28	
C.T. 32	
C.T. 33.01	
C.T. 33.02	
C.T. 36.01	
C.T. 37	
C.T. 45	
C.T. 101.01	
C.T. 105	
C.T. 106.01	
C.T. 106.03	
C.T. 106.04	
C.T. 106.05	
C.T. 107	
C.T. 108.01	
C.T. 108.02	
Poverty Population	02
County—Fulton:	
Parts:	
C.T. 65	
C.T. 66.01	
C.T. 74-75	
C.T. 76.01	
C.T. 76.02	
C.T. 77.01	
C.T. 77.02	
C.T. 78.02	
C.T. 106.01	
C.T. 106.02	
C.T. 107-111	
C.T. 112.01	
C.T. 112.02	
C.T. 113.01	
C.T. 113.02	

PRIMARY CARE: Hawaii

County Listing

County name	Degree of shortage group
Honolulu:	
Service area: Kalihi Valley	01
Facility: Oahu Comm. Cor. Ctr.	02

PRIMARY CARE: Hawaii

Service Area Listing

Service area name	Degree of shortage group
Kalihi Valley County—Honolulu: Parts: C.T. 63-66	01

PRIMARY CARE: Hawaii

Facility Listing

Facility	Degree of shortage group
Oahu Comm. Cor. Ctr. County—Honolulu	02

PRIMARY CARE: Idaho

County Listing

County name	Degree of shortage group
Bannock:	
Service area: Downey/Lava Hot Springs	04
Benewah:	
Service area: St. Maries	02
Bingham:	
Service area: American Falls	03
Population group: MSFW E. Snake River Valley	01
Boise:	
Butte:	
Service area: Arco/Mackay	02
Camas:	01
Canyon:	
Service area: Nysa	01
Population group: MSFW Treasure Valley	01
Cassia:	
Service area: Albion/Malta	01
Service area: Oakley	01
Population group: MSFW E. Magic Valley	01
Custer:	
Service area: Arco/Mackay	02
Service area: Challis	01
Service area: Stanley	01
Elmore:	
Service area: Glenns Ferry	01
Gem:	
Population group: MSFW N. Treasure Valley	01
Gooding:	
Population group: MSFW W. Magic Valley	01
Jefferson:	
Population group: MSFW E. Snake River Valley	01
Jerome:	
Population group: MSFW W. Magic Valley	01
Kootenai:	
Service area: St. Maries	02
Lincoln:	01
Minidoka:	
Population group: MSFW E. Magic Valley	01
Oneida:	01
Owyhee:	
Service area: N.W. Owyhee	01
Population group: MSFW S. Treasure Valley	01
Payette:	
Service area: New Plymouth	02
Population group: MSFW N. Treasure Valley	01
Power:	
Service area: American Falls	03
Population group: MSFW E. Magic Valley	01
Twin Falls:	
Service area: Buhl	02
Population group: MSFW W. Magic Valley	01
Washington:	
Population group: MSFW N. Treasure Valley	01

PRIMARY CARE: Idaho

Service Area Listing

Service area name	Degree of shortage group
Albion/Malta County—Cassia: Parts: Albion Division	01
American Falls County—Bingham: Parts: Aberdeen Div.	03
County—Power: Parts: American Falls Div. Rockland Div.	
Arco/Mackay County—Butte County—Custer: Parts: Mackay Div.	02
Buhl County—Twin Falls: Parts: Buhl Div. W. Salmon Falls Div.	02
Challis County—Custer: Parts: Challis Div.	01
Downey/Lava Hot Springs County—Bannock: Parts: S. Bannock Div. (S. 1/4)	04
Glenns Ferry County—Elmore: Parts: Glenns Ferry Div.	01
N.W. Owyhee County—Owyhee: Parts: Homedale Div. Marsing Div. Murphy Div.	01
New Plymouth County—Payette: Parts: New Plymouth Div.	02
Nysa County—Canyon: Parts: Parma Div. Wilder Div.	01
Oakley County—Cassia: Parts: Oakley Division	01
St. Maries County—Benewah County—Kootenai: Parts: Harrison Div. (E.D. 44, 46-48) Worley Div. (S. 1/4)	02
Stanley County—Custer: Parts: Stanley Div.	01

PRIMARY CARE: Idaho

Population Group Listing

Population group	Degree of shortage group
MSFW E. Magic Valley	01
County—Cassia	
County—Minidoka	
County—Power	
MSFW Snake River Valley	01
County—Bingham	
County—Jefferson	
MSFW N. Treasure Valley	01
County—Gem	
County—Payette	
County—Washington	
MSFW S. Treasure Valley	01
County—Canyon	
County—Owyhee	

PRIMARY CARE: Idaho—Continued

Population Group Listing

Population group	Degree of shortage group
MSFW W. Magic Valley	01
County—Gooding	
County—Jerome	
County—Twin Falls	

PRIMARY CARE: Illinois

County Listing

County name	Degree of shortage group
Alexander:	
Service area: Cairo	02
Brown	02
Calhoun:	
Service area: Hardin	03
Carroll	04
Champaign:	
Service area: Northend-Champaign-Urbana	01
Clay	03
Cook:	
Service area: Austin/Garfield	01
Service area: Cabini-Green/Near North Side	02
Service area: Chatham (Near Southeast)	02
Service area: Douglas	02
Service area: E. Chicago Heights	01
Service area: Humboldt/West Town	02
Service area: New City/W. Englewood/Englewood	01
Service area: Riverdale	01
Service area: Robbins Village	02
Service area: Roseland	01
Service area: S. Lawndale/Lower W. Side	01
Service area: South Chicago	02
Service area: South Deering	01
Service area: South Shore	04
Service area: Southeast Chicago	01
Service area: Uptown	01
Facility: Cook Co. Dept. of Correction Complex	02
Facility: Cook County Hospital	01
Cumberland	04
Edwards	02
Fayette	03
Franklin	03
Fulton:	
Service area: London Mills	02
Gallatin	04
Greene:	
Service area: Hardin	03
Hamilton	02
Henderson	02
Jackson:	
Service area: Western Jackson	03
Jasper	02
Jersey:	
Service area: Hardin	03
Jo Daviess	03
Johnson	01
Kankakee:	
Service area: Pembroke	01
Knox:	
Service area: London Mills	02
McDonough:	
Service area: London Mills	02
Macon:	
Service area: Decatur Inner City	01
Marion:	
Service area: Salem	03
Marshall:	
Service area: Princeville	03
Mason	01
Massac	02
Mercer	02
Peoria:	
Service area: Princeville	03
Service area: S.E. Peoria	03
Pike	04
Pope	01
Pulaski:	
Service area: Cairo	02
St. Clair:	
Service area: E. St. Louis Hlth. Dist.	02
Scott	03
Stark:	
Service area: Princeville	03

PRIMARY CARE: Illinois—Continued

County Listing

County name	Degree of shortage group
Union	02
Warren:	
Service area: London Mills	02
Wayne	02
White	04
Will:	
Service area: Eastside Joliet	04
Facility: Joliet Correctional Inst.	02
Facility: Statesville Correctional Inst.	03
Winnebago:	
Service area: Rockford Inner City	01

PRIMARY CARE: Illinois

Service Area Listing

Service area name	Degree of shortage group
Austin/Garfield	01
County—Cook:	
Parts:	
C.T. 2508-2510	
C.T. 2514-2523	
C.T. 2601-2610	
C.T. 2701-2719	
C.T. 2801-2828	
C.T. 2838-2843	
C.T. 2901-2927	
Cabini—Green/Near North Side	02
County—Cook:	
Parts:	
C.T. 803-810	
C.T. 817-819	
Cairo	02
County Alexander	
County Pulaski	
Chatham (Near Southeast)	02
County Cook:	
Parts:	
C.T. 4401-4409	
C.T. 4501-4503	
C.T. 4701	
C.T. 6901-6915	
C.T. 7101-7115	
Decatur Inner City	01
County—Macomb:	
Parts:	
C.T. 1	
C.T. 7-9	
Douglas	02
County—Cook:	
Parts:	
C.T. 3301-3305	
C.T. 3401-3406	
C.T. 3501-3515	
E. Chicago Heights	01
County—Cook:	
Parts: C.T. 8297 (E. Chicago Heights)	
E. St. Louis Hlth. Dist.	02
County—St. Clair:	
Parts:	
C.T. 5001-5014	
C.T. 5015-01	
C.T. 5020-5023	
C.T. 5024-01	
C.T. 5024-02	
C.T. 5025	
C.T. 5026-01	
C.T. 5026-02	
C.T. 5026-03	
C.T. 5026-04	
C.T. 5027-5030	
Eastside Joliet	04
County—Will:	
Parts:	
C.T. 8807	
C.T. 8812-8813	
C.T. 8820-8825	
C.T. 8830-8831	

PRIMARY CARE: Illinois—Continued

Service Area Listing

Service area name	Degree of shortage group
Hardin	03
County—Calhoun	
County—Greene:	
Parts: Woodville Twp. (West 1/2)	
County—Jersey:	
Parts:	
Quarry Twp.	
Richwood Twp.	
Rosedale Twp.	
Humboldt/West Town	02
County—Cook:	
Parts:	
C.T. 2301-2318	
C.T. 2401-2436	
London Mills	02
County—Fulton:	
Parts:	
Ellettsville Twp.	
Fairview Twp.	
Lee Twp.	
Union Twp.	
Young Hickory Twp.	
County—Knox:	
Parts:	
Chestnut Twp.	
Haw Creek Twp.	
Indian Point Twp.	
Mawoon Twp.	
Orange Twp.	
County—McDonough:	
Parts: Prairie City Twp.	
County—Warren:	
Parts:	
Berwick Twp.	
Greensbush Twp.	
New City/W. Englewood/Englewood	01
County—Cook:	
Parts:	
C.T. 6101-6122 (New City)	
C.T. 6701-6720 (West Englewood)	
C.T. 6801-6814 (Englewood)	
Northend-Champaign-Urbana	01
County—Champaign:	
Parts:	
C.T. 2	
* C.T. 7 (Blkgps 1 & 2)	
C.T. 53 (Blkgps 2 & 3)	
Pembroke	01
County—Kankakee:	
Parts:	
Pembroke Twp.	
St. Anne Twp. (E 1/3)	
Princeville	03
County—Marshall:	
Parts: La Prairie Twp.	
County—Peoria:	
Parts:	
Akron Twp.	
Brimfield Twp.	
Hallock Twp.	
Jubilee Twp.	
Millbrook Twp.	
Princeville Twp.	
County—Stark:	
Parts:	
Essex Twp.	
Valley Twp.	
West Jersey Twp.	
Riverdale	01
County—Cook:	
Parts: C.T. 5401	
Robbins Village	02
County—Cook:	
Parts: Robbins Village	
Rockford Inner City	01
County—Winnebago:	
Parts:	
C.T. 10	
C.T. 21	
C.T. 24-29	
Roseland	01
County—Cook:	
Parts:	
C.T. 4901-4914	

PRIMARY CARE: Illinois—Continued

Service Area Listing

Service area name	Degree of shortage group
S. Lawndale/Lower W. Side County—Cook: Parts: C.T. 3001-3020 C.T. 3101-3115	01
SE. Peoria County—Peoria: Parts: C.T. 1-15	03
Salem County—Marion: Parts: Alma Twp. Foster Twp. Haines Twp. Juka Twp. Kimmund Twp. Mescham Twp. Olin Twp. Omega Twp. Romine Twp. Salem Twp. Stevenson Twp. Tont Twp.	03
South Chicago County—Cook: Parts: C.T. 4601-4610	02
South Deering County—Cook: Parts: C.T. 5101-5104 C.T. 5104.99 C.T. 5105	01
South Shore County—Cook: Parts: C.T. 4301-4314	04
Southeast Chicago County—Cook: Parts: C.T. 3601-3615 C.T. 3701-3704 C.T. 3801-3820 C.T. 3901-3903 C.T. 4001-4008	01
Upland County—Cook: Parts: C.T. 310-312 C.T. 315-321	01
Western Jackson County—Jackson: Parts: Bradley Twp. Degonia Twp. Fountain Bluff Twp. Grand Tower Twp. Kinkaid Twp. Levan Twp. Murphysboro Twp. Ora Twp. Pomona Twp. Sand Ridge Twp. Somerset Twp. Vergennes Twp.	03

PRIMARY CARE: Illinois

Facility Listing

Facility	Degree of shortage group
Cook Co. Dept. of Correction Complex	02
Cook County Hospital	01
Joliet Correctional Inst.	02
County—Will	
Statesville Correctional Inst.	03
County—Will	

PRIMARY CARE: Indiana

County Listing

County name	Degree of shortage group
Adams	03
Brown	02
Clay	02
Crawford	
Service area: English	01
Service area: Fredricksburg	02
Decatur	04
Fayette	03
Franklin	01
Fullon	03
Greene	
Service area: Linton-Jasonville	04
Harrison	
Service area: Elizabeth	01
Service area: Fredricksburg	02
Howard	
Population group: Med. indigent pop. (Kokomo)	02
Jennings	04
Knox	
Service area: Bicknell	02
Lake	
Service area: Gary	02
Marion	
Service area: Highland-Brookside (Indianapolis)	01
Service area: Near North Side (Indianapolis)	01
Service area: South Central Indianapolis	01
Martin	02
Ohio	02
Owen	02
Parke	02
Ripley	03
Scott	02
Spencer	02
Starke	03
Steuben	04
Switzerland	03
Vermillion	
Service area: Northern Vermillion	01
Warren	03
Washington	
Service area: Fredricksburg	02

PRIMARY CARE: Indiana

Service Area Listing

Service area name	Degree of shortage group
Bicknell	
County—Knox:	02
Parts: Vigo Twp. Washington Twp. (E. 1/4) Widner Twp.	
Elizabeth	
County—Harrison:	01
Parts: Boone Twp. Posey Twp. Taylor Twp.	
English	
County—Crawford:	01
Parts: Boone Twp. Jennings Twp. Johnson Twp. Ohio Twp. Patoka Twp. Sterling Twp. Union Twp.	

PRIMARY CARE: Indiana—Continued

Service Area Listing

Service area name	Degree of shortage group
Fredericksburg	02
County—Crawford:	
Parts: Liberty Twp. Whiskey Run Twp.	
County—Harrison:	
Parts: Blue River Twp. Morgan Twp.	
County—Washington:	
Parts: Posey Twp.	
Gary	02
County—Lake:	
Parts: C.T. 101-129	
Highland-Brookside (Indianapolis)	01
County—Marion:	
Parts: C.T. 3526-3527 C.T. 3544-3545 C.T. 3547-3551	
Linton-Jasonville	04
County—Greene:	
Parts: Stockton Twp. Wright Twp.	
Near North Side (Indianapolis)	01
County—Marion:	
Parts: C.T. 3517-3522 C.T. 3528-3532	
Northern Vermillion	01
County—Vermillion:	
Parts: Eugene Twp. Highland Twp. Hitt Twp. Vermillion Twp.	
South Central Indianapolis	01
County—Marion:	
Parts: C.T. 3556-3557 C.T. 3559 C.T. 3562 C.T. 3569 C.T. 3570-3572 C.T. 3578-3580	

PRIMARY CARE: Indiana

Population Group Listing

Population group	Degree of shortage group
Med. indigent pop. (Kokomo)	02
County—Howard	

Primary Care: Iowa

County Listing

County name	Degree of shortage group
Appanoose	
Service area: Seymour	01
Audubon	01
Benton	
Service area: North Benton	02
Black Hawk	
Service area: Tama	02
Population group: Low inc. pop. of Waterloo	01
Facility: Peoples Comm. Health Center	01
Boone	
Service area: Dayton-Gownie	02
Buchanan	03
Butler	03
Calhoun	
Service area: Dayton-Gownie	02
Cedar	
Service area: Lowden/Lost Nation	02

Primary Care: Iowa—Continued

County Listing

County name	Degree of Shortage group
Cerro Gordo:	
Service area: Sheffield	02
Cherokee:	
Service area: Kingsley/Anthon/Mapleton	02
Service area: Marcus-Ramsen	03
Clark:	
Service area: Mormon Trail	01
Clinton:	
Service area: Lowden/Lost Nation	02
Decatur:	
Service area: Mormon Trail	01
Delaware:	
Service area: Center Pt./Central City	03
Franklin:	
Service area: Sheffield	02
Greene:	
Service area: Dayton-Gowrie	02
Grundy:	
Service area: Tama	02
Hamilton:	
Service area: Dayton-Gowrie	02
Service area: Hubbard/Eldora	02
Hardin:	
Service area: Hubbard/Eldora	02
Harrison:	
Service area: Onawa (Iowa/Neb.)	02
Service area: Woodbine	04
Howard:	
Service area: Cresco	02
Humboldt:	
Jackson:	
Service area: Lowden/Lost Nation	02
Jasper:	
Service area: Monroe	01
Jones:	
Service area: Lowden/Lost Nation	02
Keokuk:	
Service area: Keokuk	02
Kossuth:	
Service area: North Kossuth	02
Linn:	
Service area: Center Pt./Central City	03
Louis:	
Service area: Columbus/Wapello	01
Lucas:	
Service area: Chanton	04
Service area: Mormon Trail	01
Lyon:	
Service area: Canton	02
Service area: Rock Rapids	04
Marion:	
Service area: Monroe	01
Mills:	
Service area: Oakland	02
Monona:	
Service area: Kingsley/Anthon/Mapleton	02
Service area: Onawa (Iowa/Neb.)	02
Monroe:	
Service area: Onawa (Iowa/Neb.)	04
Muscatine:	
Service area: Columbus/Wapello	01
Plymouth:	
Service area: Akron (Iowa/S. Dakota)	04
Service area: Kingsley/Anthon/Mapleton	02
Service area: Marcus-Ramsen	03
Pottawattamie:	
Service area: Oakland	02
Scott:	
Service area: Lowden/Lost Nation	02
Population group: Med. ind. pop. of Scott Co.	04
Sioux:	
Service area: Akron (Iowa/S. Dakota)	04
Service area: Canton	02
Story:	
Service area: Hubbard/Eldora	02
Tama:	
Service area: Tama	02
Taylor:	
Service area: South Taylor Co.	02
Warren:	
Service area: Chariton	04
Wayne:	
Service area: Chariton	04
Service area: Mormon Trail	01
Service area: Seymour	01
Wester:	
Service area: Dayton-Gowrie	02

Primary Care: Iowa—Continued

County Listing

County name	Degree of Shortage group
Winneshiek:	
Service area: Gresco	02
Woodbury:	
Service area: Kingsley/Anthon/Mapleton	02
Service area: Morningside/Sgt. Bluff (Iowa/NEB.)	02
Service area: Onawa (Iowa/Neb.)	02
Worth	03
PRIMARY CARE: Iowa	
Service Area Listing	
Service area name	Degree of shortage group
Akron (Iowa/S. Dakota)	04
County—Plymouth:	
Parts:	
Grant (1/4)	
Hancock	
Johnson	
Liberty	
Perry	
Plymouth (1/4)	
Portland	
Preston	
Sioux	
Washington (1/4)	
Westfield	
County—Sioux:	
Parts:	
Logan (1/4)	
Washington (1/4)	
Canton	
County—Lyon:	02
Parts:	
Centennial Twp.	
Inwood Twp.	
Logan Twp.	
Lyon Twp.	
Richland Twp.	
County—Sioux:	
Parts: Settlers Twp.	
Center Pt./Central City	03
County—Delaware:	
Parts: Ryan	
County—Linn:	
Parts:	
Alburnett	
Center Pt.	
Central City	
Coggon	
Marion	
Prarieburg	
Robins	
Walker	
Chariton	
County—Lucas:	04
Parts:	
Benton	
Cedar	
Chariton City	
English	
Jackson (N.E. Part)	
Liberty	
Lincoln	
Otter Creek	
Pleasant	
Warren (N.E. Part)	
Washington	
Whitebreast	
County—Warren:	
Parts:	
Liberty (Part)	
Whitebreast (Part)	
County—Wayne:	
Parts:	
Union (N. Part)	
Washington (S.E. Part)	
Wright (N.W. Part)	

PRIMARY CARE: Iowa—Continued

Service Area Listing

Service area name	Degree of shortage group
Columbus/Wapello:	01
County—Lousa:	
Parts:	
Columbus City Twp.	
Concord Twp.	
Etn Grove Twp.	
Grandview Twp.	
Jefferson Twp.	
Marshall	
Oakland Twp.	
Port Lousa Twp.	
Union Twp.	
Wapello Twp.	
County—Muscatine:	
Parts:	
Cedar Twp.	
Orono Twp.	
Gresco	02
County—Howard:	
Parts:	
Albion Twp. (Cresco)	
Chester Twp.	
Forest City Twp.	
Howard Center Twp.	
Jamestown Twp.	
New Oregon Twp.	
Oakdale Twp.	
Paris Twp.	
Saratoga Twp.	
Vernon Springs Twp.	
County—Winneshiek:	
Parts:	
Fremont Twp.	
Orleans Twp.	
Dayton-Gowrie	02
County—Boone:	
Parts:	
Dodge Twp.	
Grant Twp.	
Pilot Mound Twp.	
County—Calhoun:	
Parts: Reading Twp.	
County—Greene:	
Parts:	
Dawson Twp.	
Paton Twp.	
County—Hamilton:	
Parts:	
Marion Twp.	
Webster Twp.	
County—Webster:	
Parts:	
Burnside Twp.	
Clay Twp.	
Dayton Twp.	
Gowrie Twp.	
Hardin Twp.	
Lost Grove Twp.	
Roland Twp.	
Sumner Twp.	
Webster Twp.	
You Twp.	
Hubbard/Eldora:	02
County—Hamilton:	
Parts:	
Ellsworth	
Lincoln Twp.	
Lyon Twp.	
Scott Twp.	
County—Hardin:	
Parts:	
Concord Twp.	
Eldora Twp.	
Grant Twp.	
Pleasant	
Providence Twp.	
Sherman Twp.	
Tipton Twp.	
Union Twp. (W. 1/4)	
County—Story:	
Parts:	
Lincoln Twp.	
Warren Twp. (E. 1/4)	

PRIMARY CARE: Iowa—Continued

Service Area Listing

Service area name	Degree of shortage group
Kookuk County—Kookuk: Parts: Adams Twp. Benlon Twp. (PL) Clear Creek Twp. East Lancaster Twp. English River Twp. Jackson Twp. Lafayette Twp. Liberty Twp. (PL) Plank Twp. Prairie Twp. (PL) Richland Twp. (PL) Sigourney Twp. Steady Run Twp. Van Buren Twp. Warren Twp. Washington Twp. West Lancaster Twp. Kingsley/Anthon/Mapleton County—Cherokee: Parts: Grand Meadow Twp. County—Monona: Parts: Cooper Twp. Grant Twp. Maple Twp. County—Plymouth: Parts: Elkhorn Twp. Garfield Twp. County—Woodbury: Parts: Arlington Twp. Banner Twp. Floyd Twp. Grange Twp. Grant Twp. Kedron Twp. Liston Twp. Little Sioux Twp. Miller Twp. Morgan Twp. Mottville Twp. Otto Twp. Rock Twp. Rutland Twp. Union Twp. West Fork Twp. Willow Twp. (PL) Wolf Creek Twp. Louden/Essex Nation County—Cedar: Parts: Inland Twp. Massillon Twp. Springfield Twp. County—Clinton: Parts: Liberty Twp. Sharon Twp. Spring Rock Twp. County—Jackson: Parts: Monmouth Twp. County—Jones: Parts: Oxford Twp. Wyoming Twp. County—Scott: Parts: Liberty Twp. Marcus-Ramsen County—Cherokee: Parts: Ankerst Twp. Marcus Twp. Tilden Twp. County—Plymouth: Parts: Henry Twp. Meadow Twp. Ramsen Twp.	02

PRIMARY CARE: Iowa—Continued

Service Area Listing

Service area name	Degree of shortage group
Monroe County—Jasper: Parts: Fairview Twp. Palo Alto Twp. County—Marion: Parts: Red Rock Summit Twp. Mormon Trail County—Clarke: Parts: Franklin Twp. (PL) County—Decatur: Parts: Center Twp. (PL) Franklin Twp. (PL) Garden Grove Twp. High Point Twp. (PL) Woodland Twp. (PL) County—Lucas: Parts: Jackson Twp. (PL) Union Twp. Warren Twp. (PL) County—Wayne: Parts: Clay Twp. (PL) Richman Twp. Washington Twp. (PL) Morningside/Sgt. Bluff (IA/NB) County—Woodbury: Parts: C.T. 1 (PL) C.T. 18 C.T. 19 C.T. 20 C.T. 21 Concord Twp. Liberty Twp. (PL) Woodbury Twp. (PL) North Benton County—Benton: Parts: Benton Twp. Big Grove Twp. Bruce Twp. Canton Twp. Cedar Twp. Eden Twp. Eldorado Twp. Freemont (Part) Harrison Twp. Homer Twp. Jackson Twp. Monroe Twp. Rock Twp. Shellsburg Twp. Taylor Twp. Union Twp. Vinton Twp. North Kossuth County—Kossuth: Parts: Buffalo Twp. Burt Twp. Eagle Twp. Fenton Twp. German Twp. Grant Twp. Greenwood Twp. Harrison Twp. Hobron Twp. Ladgard Twp. Lincoln Twp. Portland Twp. Ramsey Twp. Seneca Twp. Springfield Twp. Suea Twp.	01

PRIMARY CARE: Iowa—Continued

Service Area Listing

Service area name	Degree of shortage group
Oakland County—Mills: Parts: Anderson Twp. Henderson Twp. County—Pottawattamie: Parts: Aveca Twp. Belknap Twp. Carson Twp. Cannon Twp. Center Twp. Grave Twp. Hancock Twp. James Twp. Knox Twp. Layton Twp. Lincoln Twp. Macedonia Twp. Macedonia Twp. Oakland Twp. Pleasant Twp. Silver Creek Twp. Valley Twp. Walnut Twp. Washington Twp. Waveland Twp. Wright Twp. Onawa (Iowa/Neb) County—Harrison: Parts: Jackson Twp. Little Sioux Twp. County—Monona: Parts: Ashton Twp. Belvidere Twp. Center Twp. Fairview Twp. Franklin Twp. Jordan Twp. Kenneboc Twp. Lake Twp. Lincoln Twp. Onawa Twp. Sherman Twp. Sioux Twp. Soldier Twp. Spring Valley Twp. St. Clair Twp. West Fork Twp. Willow Twp. County—Woodbury: Parts: Lakeport Twp. Liberty Twp. (PL) Sloan Twp. Willow Twp. (PL) Rock Rapids County—Lyon: Parts: Allison Twp. Cleveland Twp. Dale Twp. Doon Twp. Elgin Twp. Garfield Twp. Grant Twp. Larchwood Twp. Liberal Twp. Millard Twp. Riverside Twp. Rock Twp. Sioux Twp. Whitaker Twp.	02

PRIMARY CARE: Iowa—Continued

Service Area Listing

Service area name	Degree of shortage group
Seymour	01
County—Appanoose	
Parts:	
Franklin Twp.	
Independence Twp. (Pt.)	
Johns Twp. (Pt.)	
Lincoln Twp. (Pt.)	
Pleasant Twp. (Pt.)	
County—Wayne	
Parts:	
Howard Twp.	
Jackson Twp. (Pt.)	
Monroe Twp.	
South Fork Twp.	
Walnut Twp.	
Wright Twp. (Pt.)	
Sheffield	02
County—Cerro Gordo	
Parts:	
Dougherty Twp.	
Dougherty Twp.	
Genesee Twp.	
Pleasant Valley Twp.	
Swaile Twp.	
Thornston Twp.	
County—Franklin	
Parts:	
Richland Twp.	
Ross Twp.	
Sheffield Twp.	
West Fork Twp.	
Wisner Twp.	
South Taylor Co.	02
County—Taylor	
Parts:	
Bedford Twp.	
Benton Twp.	
Clayton Twp.	
Dallas Twp.	
Gay Twp.	
Jackson Twp.	
Jefferson Twp.	
Mason Twp.	
Polk Twp.	
Ross Twp.	
Tama	02
County—Black Hawk	
Parts:	
Eagle Twp.	
Lincoln Twp.	
County—Grundy	
Parts: Black Hawk Twp.	
County—Tama	
Woodbine	04
County—Harrison	
Parts:	
Allen Twp.	
Bayer Twp.	
Calhoun Twp.	
Cass Twp.	
Cincinnati Twp.	
Clay Twp.	
Douglas Twp.	
Dulap City	
Harrison Twp.	
Jefferson Twp.	
La Grange Twp.	
Lincoln Twp.	
Logan City	
Magnolia City	
Magnolia Twp.	
Missouri Valley City	
Model City	
Mondamin City	
Morgan Twp.	
Raglan Twp.	
St. Johns Twp.	
Taylor Twp.	
Union Twp.	
Woodbine City	

PRIMARY CARE: Iowa

Population Group Listing

Population group	Degree of shortage group
Low Inc. Pop. of Waterloo	01
County—Black Hawk	
Parts:	
C.T. 1-3	
C.T. 5-9	
C.T. 17-20	
Med. Inc. Pop. of Scott Co.	04
County—Scott	
Parts:	
C.T. 103-115	
C.T. 123-124	

PRIMARY CARE: Iowa

Facility Listing

Facility	Degree of shortage group
Peoples Comm. Health Center	01
County—Black Hawk	

PRIMARY CARE: Kansas

County Listing

County name	Degree of shortage group
Coffey:	
Service area: Gridley	01
Dickinson:	
Service area: Herrington	02
Ellsworth	04
Geary	04
Greenwood:	
Service area: Gridley	01
Jackson	04
Jefferson	02
Kingman:	
Service area: Garden Plain	02
Lincoln	02
Lynn	03
Lyon:	
Service area: Gridley	01
McPherson:	
Service area: Smokey Hills	04
Marion:	
Service area: Herrington	02
Service area: Southern Marion	01
Miami	04
Morris:	
Service area: Herrington	02
Nemaha:	
Service area: Southwest Nemaha	01
Osage	04
Rawlins	03
Saline:	
Service area: Smokey Hills	04
Scott	04
Sedgwick:	
Service area: Garden Plain	02
Shawnee:	
Service area: Northeast Topeka	02
Service area: Northwest Shawnee	01

PRIMARY CARE: Kansas—Continued

County Listing

County name	Degree of shortage group
Smith	04
Summer:	
Service area: Garden Plain	02
Wabaunsee	02
Washington	04
Wichita	01
Woodson:	
Service area: Gridley	01
Service area: Yates Center	01
Wyandotte:	
Service area: Clinch	02

PRIMARY CARE: Kansas

Service Area Listing

Service area name	Degree of shortage group
Clinch	02
County—Wyandotte	
Parts:	
C.T. 400.02	
C.T. 425.01	
C.T. 425.02	
C.T. 426	
C.T. 427	
C.T. 428	
C.T. 429.01	
C.T. 429.02	
C.T. 430	
C.T. 431.02	
C.T. 433.02	
Garden Plain	02
County—Kingman:	
Parts:	
Allen Twp.	
Bennett Twp.	
Dale Twp.	
Eagle Twp. (Pt.)	
Evan Twp.	
Galesburg Twp.	
Vinita Twp.	
White Twp. (Pt.)	
County—Sedgwick:	
Parts:	
Afton Twp.	
Attica Twp.	
Delano Twp.	
Eagle Twp.	
Erie Twp.	
Garden Plain Twp.	
Grand River Twp.	
Illinois Twp.	
Morton Twp.	
Minnescah Twp.	
Ohio Twp. (Pt.)	
Park Twp.	
Sherman Twp.	
Union	
Valley Center (Pt.)	
Viola Twp.	
Waco Twp.	
County—Sumner:	
Parts:	
Conway Twp.	
Eden Twp. (Pt.)	
Illinois Twp. (Pt.)	
London Twp. (Pt.)	
Springdale Twp. (Pt.)	

PRIMARY CARE: Kansas—Continued

Service Area Listing

Service area name	Degree of shortage group
Ordery	0
County—Colfax:	
Parts:	
Leiby	
Liberty Twp.	
Noosho Twp.	
Pleasant Twp.	
Spring Creek Twp.	
County—Greenwood:	
Parts:	
Lane Twp.	
Shell Rock Twp.	
County—Lyon:	
Parts: Elmerado Twp.	
County—Woodson:	
Parts:	
Everett Twp.	
Liberty Twp.	
Noosho Falls Twp.	
North Twp.	
Herrington	02
County—Dickinson:	
Parts:	
Herrington City	
Hoppe	
Liberty	
Lyon	
Ridge	
Union	
County—Marion:	
Parts:	
Bolton	
Clear Creek	
Collins	
Lost Spring	
County—Morris:	
Parts:	
Highland	
Overland	
Township 4	
Township 5	
Township 6	
Township 7	
Township 8	
Township 9	
Northeast Topeka	02
County—Shawnee:	
Parts:	
C.T. 2	
C.T. 3	
C.T. 7	
C.T. 8	
C.T. 11	
C.T. 12	
C.T. 14	
C.T. 31	
Northwest Shawnee	01
County—Shawnee:	
Parts:	
Dover Twp.	
Grove Twp.	
Rossville Twp.	
Silver Lake Twp.	
Smoky Hills	04
County—McPherson:	
Parts:	
Bonville Twp.	
Gypsum Twp.	
Lindsborg City	
Marguette Twp.	
Smoky Hill Twp.	
Union Twp.	
County—Saline:	
Parts:	
Eureka	
Gypsum Twp.	
Liberty Twp.	
Smoky View Twp.	
Stotom Twp.	
Walnut Twp.	
Southern Marion	01

PRIMARY CARE: Kansas—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Marion:	
Parts:	
Cadlin Twp.	
Doyle Twp.	
Fairplay Twp.	
Florence City	
Milton Twp.	
Peabody City	
Summit Twp.	
Southwest Nemaha	01
County—Nemaha:	
Parts:	
Adams Twp.	
Center Twp.	
Harrison Twp.	
Home Twp.	
Illinois Twp.	
Mitchell Twp.	
Neuchatel Twp.	
Red Vermillion Twp.	
Relly Twp.	
Yates Center	01
County—Woodson:	
Parts:	
Belmont Center Twp.	
Center Twp.	
Emerizze Twp.	
Owl Creek Twp.	
Perry Twp.	
Toronto Twp.	
Yates Center City	

PRIMARY CARE: Kentucky

County Listing

County name	Degree of shortage group
Adair	04
Bath	04
Bell	
Service area: Western Harlan	01
Bracken	04
Breathitt	02
Bullitt	03
Carlisle	03
Cassidy	02
Day	02
Fayette:	
Population group: Poverty population of Lexington	04
Fleming:	
Service area: Flemingsburg	03
Floyd:	
Service area: Mud Creek	01
Franklin	04
Harlan:	
Service area: Western Harlan	01
Jackson	01
Jefferson:	
Service area: West end	01
Knott	03
Knox	02
Laurel	02
Lee	03
Leslie	02
Letcher:	
Service area: Western Letcher	01
Lewis:	
Service area: Flemingsburg	03
Service area: Vanceburg	01
Lincoln:	
Service area: Crab Orchard	01
Lyon	03
Facility: Ky. State penitentiary	02
Magoffin	01
Manon	02
Menifee	01
Monroe	04
Oldham:	
Facility: Ky. State reformatory	02
Owen	01
Owsley	01
Pendleton	02

PRIMARY CARE: Kentucky—Continued

County Listing

County name	Degree of shortage group
Perry:	
Service area: Buckhorn	04
Service area: Western Letcher	01
Pike:	
Service area: Mud Creek	01
Service area: Phelps	01
Powell	01
Robertson	01
Rockcastle	04
Scott:	
Population group: Poverty pop. of Scott	01
Spencer	02
Todd	02
Whitley:	
Service area: Southeast Whitley	01
Wolfe	04

PRIMARY CARE: Kentucky

Service Area Listing

Service area name	Degree of shortage group
Buckhorn	01
County—Perry:	
Parts:	
Buckhorn CCD	
Krypton CCD E.D. 302	
Crab Orchard	01
County—Lincoln:	
Parts: Crab Orchard	
Flemingsburg	03
County—Fleming:	
County—Lewis:	
Parts: Tolleboro div	
Mud Creek	01
County—Floyd:	
Parts:	
McDowell CCD	
Mud Creek CCD	
Weeksbury CCD	
Wheelwright CCD	
County—Pike:	
Parts: Long Fork CCD	
Phelps	01
County—Pike:	
Parts:	
Feds Creek CCD	
Phelps CCD	
Southeast Whitley	01
County—Whitley:	
Parts:	
Pearl	
Siler	
Vanceburg	01
County—Lewis:	
Parts:	
Garrison div.	
Laurel/Petersville div.	
Vanceburg div.	
West end	01
County—Jefferson:	
Parts:	
C.T. 1-35	
Western Harlan	01
County—Bell:	
Parts: Tejay CCD	
County—Harlan:	
Parts:	
Alva CCD	
Wallins Creek CCD	
Western Letcher	01
County—Letcher:	
Parts: Blackey div.	
County—Perry:	
Parts: Daisy div.	

PRIMARY CARE: Kentucky

Population Group Listing

Population group	Degree of shortage group
Poverty pop. of Scott County—Scott	01
Poverty population of Lexington County—Fayette	04
Parts:	
C.T. 1-5 (low income pop.)	
C.T. 8-14 (low income pop.)	
C.T. 18 (low income pop.)	
C.T. 19 (low income pop.)	
C.T. 38.01 (low income pop.)	

PRIMARY CARE: Kentucky

Facility Listing

Facility	Degree of shortage group
Ky. State Penitentiary	02
County—Lyon	
Ky. State Reformatory	02
County—Oldham	

PRIMARY CARE: Louisiana

County Listing

County name	Degree of shortage group
Ascension	03
Assumption	01
Avoyelles	04
Beauregard	
Service area: Dequincy	03
Bienville	02
Bossier	02
Caddo	
Population Group: Shreveport Low Income	01
Calcasieu	
Service area: Dequincy	03
Service area: North Lake Charles	01
Caldwell	01
Catahoula	04
Claiborne	02
De Soto	01
East Baton Rouge	
Service area: Eden Park	03
East Carroll	01
East Feliciana	02
Franklin	02
Grant	01
Iberia	
Service area: Teche	03
Jackson	03
Jefferson	
Service area: Lafitte	01
LaFourche	
Service area: S.E. LaFourche	04
LaSalle	03
Livingston	02
Madison	04
Natchitoches	04
Orleans	
Service area: Desire/Florida	01
Service area: Lower 9th Ward	01

PRIMARY CARE: Louisiana—Continued

County Listing

County name	Degree of shortage group
Ouachita	
Facility: E.A. Conway Mem. Hosp.	03
Plaquemines	02
Pointe Coupee	03
Rapides	
Facility: Huey P. Long Hospital	02
Sabine	
Service area: Zwolle	01
St Bernard	02
St Charles	03
St Helena	02
St John the Baptist	02
St Landry	
Service area: Palmetto	01
St Martin	01
St Mary	
Service area: Teche	03
St Tammany	
Service area: Northeastern St Tammany	02
Tangipahoa	
Facility: Lallie Kemp Hosp.	02
Terrebonne	
Service area: Dulac	02
Union	
Service area: West Union	01
Vermilion	
Service area: Gueydan	02
Vernon	01
Wester	02
West Baton Rouge	02
West Carroll	02
Winn	02

PRIMARY CARE: Louisiana

Service Area Listing

Service area name	Degree of shortage group
Dequincy	03
County—Beauregard	
Parts:	
Ward 1	
Ward 6	
County—Calcasieu	
Parts:	
Ward 1	
Ward 6	
Desire/Florida	01
County—Orleans	
Parts:	
C.T. 11 (N. of Derbigny St.)	
C.T. 14.01	
C.T. 14.02	
C.T. 15 (N. of Derbigny St.)	
C.T. 16	
C.T. 17.03	
C.T. 17.14	
Dulac	02
County—Terrebonne	
Parts:	
Ward 4	
Ward 7	
Eden Park	03
County—East Baton Rouge	
Parts:	
C.T. 8	
C.T. 9	
C.T. 10	
C.T. 12	
C.T. 13	
Gueydan	02
County—Vermilion	
Parts:	
Ward 6	
Lafitte	01
County—Jefferson	
Parts:	
C.T. 277	
C.T. 278	
C.T. 279	
Lower 9th Ward	01

PRIMARY CARE: Louisiana—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Orleans	
Parts:	
C.T. 7.01	
C.T. 7.02	
C.T. 8	
C.T. 9.01	
C.T. 9.02	
C.T. 9.03	
C.T. 9.04	
North Lake Charles	01
County—Calcasieu	
Parts:	
C.T. 2	
C.T. 3	
C.T. 4	
C.T. 14	
C.T. 15	
Northeastern St Tammany	02
County—St Tammany	
Parts:	
C.T. 401	
C.T. 407	
Palmetto	01
County—St Landry	
Parts:	
E.D. 725	
E.D. 726	
E.D. 727	
E.D. 730	
E.D. 731	
E.D. 732	
E.D. 733	
E.D. 734	
E.D. 735	
E.D. 736	
E.D. 737	
E.D. 738	
S.E. Lafourche	04
County—Lafourche	
Parts:	
S.E. Wards 4	
S.E. Wards 8	
S.E. Wards 9	
S.E. Wards 10	
Teche	03
County—Iberia	
Parts:	
Ward 1	
Ward 8	
County—St Mary	
Parts:	
Ward 1	
Ward 2	
Ward 3	
Ward 4	
Ward 5	
Ward 7	
Ward 8	
Ward 10	
West Union	01
County—Union	
Parts:	
Ward 3	
Ward 4	
Ward 9	
Zwolle	01
County—Sabine	
Parts:	
Ward 5	
Ward 6	
Ward 8	
PRIMARY CARE: Louisiana	
Population Group Listing	
Population group	Degree of shortage group
Shreveport low income pop.	01
County—Caddo	

PRIMARY CARE: Louisiana

Facility Listing

Facility	Degree of shortage group
E.A. Conway Mem. Hosp.	03
County—Ouachita	02
Huey P. Long Hospital	
County—Rapides	
Lafayette Hosp.	02
County—Tangipahoa	

PRIMARY CARE: Maine

County Listing

County name	Degree of shortage group
Androscoggin:	
Service area: Leeds	01
Aroostook:	
Service area: Ashland	02
Service area: Danforth	01
Service area: Eagle Lake	01
Service area: St. Francis	01
Cumberland:	
Service area: Casco Bay Islands	02
Hancock:	
Service area: Bucksport	02
Kennebec:	
Service area: Leeds	01
Service area: Richmond	02
Knox:	
Service area: Penobscot Bay	01
Lincoln:	
Service area: Richmond	02
Oxford:	
Service area: Bethel	01
Penobscot:	
Service area: Corinth	01
Service area: Danforth	01
Service area: Dexter	02
Service area: Howland	02
Piscataquis:	
Service area: Bingham	02
Service area: Dexter	02
Service area: Milo	03
Sagadahoc:	
Service area: Richmond	02
Somerset:	
Service area: Bingham	02
Service area: Dexter area	02
Service area: Jackman	01
Waldo:	
Service area: Bucksport	02
Washington:	
Service area: Danforth	01
Service area: Eastport	02
Service area: Jonesport	01
Service area: Lubec	01
Service area: Milbridge	02
Service area: Vanceboro	01
Ashland:	02
County—Aroostook:	
Parts:	
Ashland Twn.	
Garfield Plantation	
Masardis Twn.	
Nashville Plantation	
Oxbow Plantation	
Portage Lake Twn.	

PRIMARY CARE: Maine

Service Area Listing

Service area name	Degree of shortage group
Bethel:	01
County—Oxford:	
Parts:	
Bethel Twn.	
Gilead Twn.	
Greenwood	
Newry Twn.	
Unorg. Terr. (Oxford)	
Upton Twn.	
Woodstock Twn.	
Bingham:	02
County—Piscataquis:	
Parts: Kingsbury Ptl.	
County—Somerset:	
Parts:	
Bingham	
Brighton Ptl.	
Caratunk Ptl.	
Moscow	
Pleasant Ridge Ptl.	
Solon	
The Forks Ptl.	
Unorg. Terr. (Somerset)	
West Forks Ptl.	
Bucksport:	02
County—Hancock:	
Parts:	
Bucksport Town	
Orland Town	
Verona Town	
County—Waldo:	
Parts:	
Frankfort	
Prospect	
Casco Bay Islands:	02
County—Cumberland:	
Parts:	
Cliff Island	
Cushing Island	
Great Chebeague Island	
Great Diamond Island	
Little Chebeague Island	
Little Diamond Island	
Long Island	
Peak's Island	
Corinth:	01
County—Penobscot:	
Parts:	
Bradford	
Charleston	
Corinth	
Exeter	
Hudson	
Danforth:	01
County—Aroostook:	
Parts:	
Bancroft	
Orient	
Weston	
County—Penobscot:	
Parts:	
Drew	
Kingman unorg.	
Prentiss	
County—Washington:	
Parts:	
Danforth	
Whitney unorg.	
Dexter:	02
County—Penobscot:	
Parts:	
Corinna	
Dexter	
Garland	

PRIMARY CARE: Maine—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Piscataquis:	
Parts: Wellington	
County—Somerset:	
Parts:	
Athens	
Harmony	
Ripley	
St. Albans	
Eagle Lake:	01
County—Aroostook:	
Parts:	
Eagle Lake Twn.	
Wallagrass Plantation	
Winterville Plantation	
Eastport:	02
County—Washington:	
Parts:	
Eastport	
Pembroke	
Perry	
Pleasant Point	
Howland:	02
County—Penobscot:	
Parts:	
Burlington	
Edinburg	
Enfield	
Grand Falls Ptl.	
Howland	
Lagrange	
Lowell	
Maxfield	
Passadunkoag	
Seboeis Ptl.	
Jackman:	01
County—Somerset:	
Parts:	
Dennistown Plant.	
Jackman Town	
Moose River Town	
Jonesport:	01
County—Washington:	
Parts:	
Addison Twn.	
Beals Twn.	
Centerville Twn.	
Columbia Falls Twn.	
Jonesboro Twn.	
Jonesport Twn.	
Leeds:	01
County—Androscoggin:	
Parts:	
Greene Town	
Leeds Town	
Turner Town	
County—Kennebec:	
Parts:	
Monmouth Town	
Wayne Town	
Lubec:	01
County—Washington:	
Parts:	
Dennysville Twn.	
Edmunds (unorg.)	
Lubec Twn.	
Plantation # 14	
Trescott (unorg.)	
Whiting Twn.	
Milbridge:	02
County—Washington:	
Parts:	
Beddington	
Cherryfield Twp.	
Columbia Twp.	
Deblois Twp.	
Harrington Twp.	
Stouben Twn.	
Milo:	01

PRIMARY CARE: Maine—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Piscataquis:	
Parts:	
Atkinson	
Barnard Pk.	
Brownville	
Lakeview Pk.	
Medford	
Milo	
Sebec	
Unorganized terr. of S.E. Piscataquis	
Penobscot Bay	01
County—Knox:	
Parts:	
Matinicus Island	
Vinalhaven Island	
Richmond	02
County—Kennebec:	
Parts: Litchfield Twp.	
County—Lincoln:	
Parts: Dresden Twp.	
County—Sagadahoc:	
Parts:	
Bowdoinham Twp.	
Richmond Twp.	
St. Francis	01
County—Aroostook:	
Parts:	
Allagash Twp.	
St. Francis Plantation	
St. John Plantation	
Vanceboro	01
County—Washington:	
Parts:	
Codyville	
Dyer Twp.	
Fowler Twp.	
Grand Lake Stream	
Indian Twp.	
Kossuth Twp.	
Lambert Lake Twp.	
Talmadge	
Topsfield	
Vanceboro	
Waite	

PRIMARY CARE: Maryland

County Listing

County name	Degree of shortage group
Allegany:	
Service area: Hancock	02
Anne Arundel:	
Service area: Owensville	02
Caroline	01
Cecil:	
Service area: Cecil/Kent	02
Charles	04
Dorchester:	
Service area: Northeast Dorchester County	02
Kent:	
Service area: Cecil/Kent	02
Queen Annes	02
Somerset	02
Washington:	
Service area: Hancock	02
Service area: Keedysville	02
Baltimore City:	
Service area: Cherry Hill	01
Service area: Hampden/Woodberry/Remington	04
Service area: North Central Baltimore	01
Service area: Northwest Baltimore	01
Service area: O'Donnell Heights	01
Service area: Orleans Square	02
Service area: West Baltimore	01

PRIMARY CARE: Maryland

Service Area Listing

Service area name	Degree of shortage group
Cecil/Kent	2
County—Cecil:	
Parts: Dist. 1 (Cecilton)	
County—Kent:	
Parts: Dist. 1 (Massey)	
Cherry Hill	01
County—Baltimore City:	
Parts:	
C.T. 2502.01	
C.T. 2502.02	
C.T. 2502.03	
C.T. 2502.04	
C.T. 2502.05	
C.T. 2503.01	
C.T. 2503.02	
C.T. 2503.03	
Hampden/Woodberry/Remington	04
County—Baltimore City:	
Parts:	
C.T. 1203	
C.T. 1206	
C.T. 1207	
C.T. 1305	
C.T. 1306	
C.T. 1308.03	
C.T. 1308.04	
Hancock	02
County—Allegany:	
Parts:	
Dist. 1 (Orleans)	
County—Washington:	
Parts:	
Dist. 4 (Clear Spring)	
Dist. 5 (Hancock)	
Dist. 15 (Indian Springs)	
Keedysville	02
County—Washington:	
Parts:	
Election District 1	
Election District 6	
Election District 8	
Election District 11	
Election District 19	
North Central Baltimore	01
County—Baltimore City:	
Parts:	
C.T. 802	
C.T. 803.01	
C.T. 803.02	
C.T. 804	
C.T. 805	
C.T. 901	
C.T. 902	
C.T. 903	
C.T. 904	
C.T. 905	
C.T. 906	
C.T. 907	
C.T. 908	
C.T. 1204	
Northeast Dorchester County	02
County—Dorchester:	
Parts:	
Dist. 1-3	
Dist. 12	
Dist. 15	
Northwest Baltimore	01
County—Baltimore City:	
Parts:	
C.T. 1512-1513	
C.T. 2716-2717	
C.T. 2718.01	
C.T. 2718.02	
O'Donnell Heights	01
County—Baltimore City:	
Parts:	
C.T. 2606.01	
C.T. 2606.02	
Orleans Square	02

PRIMARY CARE: Maryland—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Baltimore City:	
Parts:	
C.T. 103	
C.T. 105	
C.T. 201	
C.T. 601	
C.T. 602	
C.T. 701	
C.T. 702	
C.T. 703	
Owensville	02
County—Anne Arundel:	
Parts:	
C.T. 7012-7014	
C.T. 7070	
C.T. 7080	
West Baltimore	01
County—Baltimore City:	
Parts:	
C.T. 1801-1803	
C.T. 1901-1903	
C.T. 2001-2005	

PRIMARY CARE: Massachusetts

County Listing

County name	Degree of shortage group
Barnstable:	
Service area: Provincetown	03
Bristol:	
Service area: Fall River	01
Service area: New Bedford	01
Service area: Taunton	02
Dukes:	
Service area: New Bedford	01
Essex:	
Service area: Lynn	02
Service area: North Lawrence	03
Service area: Peabody	02
Middlesex:	
Service area: East Cambridge	01
Service area: Lowell	04
Population group: Portuguese Pop. (Hudson)	01
Population group: Portuguese Pop. (Somerville)	01
Norfolk:	
Service area: N. Waymouth	01
Service area: Quincy	02
Service area: So. Blackstone Valley	03
Facility: Norfolk-Walpole Correct. Inst.	03
Plymouth:	
Service area: Hull	02
Suffolk:	
Service area: Jamaica Plain	03
Service area: Mattapan	01
Service area: Neponset	02
Service area: North Dorchester	01
Service area: North End Boston	03
Service area: Roxbury	03
Service area: South Boston	02
Population group: Chinese Pop. (Brighton/Allston)	01
Population group: Chinese Pop. (South End Boston)	02
Worcester:	
Service area: So. Blackstone Valley	03

PRIMARY CARE: Massachusetts

Service Area Listing

Service area name	Degree of shortage group
East Cambridge	01
County—Middlesex:	
Parts:	
C.T. 3521-3522	
C.T. 3524	
C.T. 3527	
C.T. 3530-3531	
C.T. 3535	
C.T. 3539	
Fall River	01
County—Bristol:	
Parts:	
C.T. 6406-6411	
C.T. 6413	
C.T. 6420	
Hull	02
County—Plymouth:	
Parts: Hull Town	
Jamaica Plain	03
County—Suffolk:	
Parts: C.T. 1202-1207	
Lowell	04
County—Middlesex:	
Parts:	
C.T. 3101	
C.T. 3104	
C.T. 3107-3112	
C.T. 3118-3122	
C.T. 3124	
Lynn	02
County—Essex:	
Parts:	
C.T. 2061-2063	
C.T. 2068-2070	
C.T. 2072	
Mattapan	01
County—Suffolk:	
Parts:	
C.T. 1010	
C.T. 1011	
N. Weymouth	01
County—Norfolk:	
Parts: C.T. 4226-4228	
Neponset	02
County—Suffolk:	
Parts:	
C.T. 1006	
C.T. 1007	
New Bedford	01
County—Bristol:	
Parts:	
C.T. 6507-6509	
C.T. 6511-6513	
C.T. 6517-6519	
C.T. 6526-6527	
County—Dukes:	
Parts: Gosnold Town	
North Dorchester	01
County—Suffolk:	
Parts: C.T. 901-924	
North end Boston	03
County—Suffolk:	
Parts:	
C.T. 301-302	
C.T. 304-305	
North Lawrence	03
County—Essex:	
Parts:	
C.T. 2501	
C.T. 2503-2507	
C.T. 2509-2514	
Peabody	02
County—Essex:	
Parts:	
C.T. 2106-2109	
Provincetown	03
County—Barnstable:	
Parts: Provincetown	
Quincy	02
County—Norfolk:	
Parts: C.T. 4178	
Rosbury	03
County—Suffolk:	
Parts:	
C.T. 801-809	
C.T. 811-821	
So. Blackstone Valley	03

PRIMARY CARE: Massachusetts—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Norfolk:	
Parts: Bellingham Town	
County—Worcester:	
Parts:	
Blackstone Town	
Douglas Town	
Mendon Town	
Milville Town	
Northbridge Town	
Sutton Town	
Uxbridge Town	
South Boston	02
County—Suffolk:	
Parts:	
C.T. 605	
C.T. 606	
C.T. 607	
C.T. 608	
C.T. 609	
C.T. 610	
C.T. 611	
C.T. 613	
Taunton	02
County—Bristol:	
Parts:	
Berkley Town	
Dighton Town	
Raynham Town	
Rhoboth Town	
Taunton City	

PRIMARY CARE: Massachusetts

Population Group Listing

Population group	Degree of shortage group
Chinese pop. (Brighton/Allston)	01
County—Suffolk:	
Parts: C.T. 1-6	
Chinese pop. (South End Boston)	02
County—Suffolk:	
Parts: C.T. 701-712	
Portuguese pop. (Hudson)	01
County—Middlesex:	
Parts: Hudson	
Portuguese pop./Somerville	01
County—Middlesex:	
Parts: Somerville	

PRIMARY CARE: Massachusetts

Facility Listing

Facility	Degree of shortage group
Norfolk-Walpole Correct. Inst.	03
County—Norfolk:	
Parts:	
Norfolk Twn. (Norfolk Corr. Inst.)	
Walpole Twn. (Walpole Corr. Inst.)	

PRIMARY CARE: Michigan

County Listing

County name	Degree of shortage group
Alcona	02
Algon	04
Service area: Allegan	03
Antrim	02
Service area: East Jordan	02
Service area: Mancelona	02
Arenac	03
Service area: Sterling	03
Banga	01
Service area: L'Anse	01

PRIMARY CARE: Michigan—Continued

County Listing

County name	Degree of shortage group
Bay:	
Service area: Sterling	03
Cass:	
Service area: Dowagiac	03
Service area: Three Rivers	04
Charlevoix:	
Service area: East Jordan	02
Chippewa:	
Service area: De Tour	02
Service area: Kinross/Rudyard	01
Clare:	
Service area: Harrison	01
Service area: Manon	01
Clinton:	
Service area: Laingsburg	02
Dickinson:	
Service area: Iron River/Crystal Falls	04
Genesee:	
Service area: North Central Flint	01
Service area: Otter Lake	03
Gladwin:	
Service area: Sterling	03
Gogebic:	
Service area: Ewen	01
Service area: Ironwood/Hurley	03
Hillsdale:	
Houghton:	
Service area: L'Anse	01
Huron:	
Service area: Port Austin	02
Iron:	
Service area: Iron River/Crystal Falls	04
Jackson:	
Facility: State Prison of South Michigan	02
Kalamazoo:	
Service area: Mancelona	02
Kent:	
Service area: Northern Kent	02
Population group: Grand Rapids (Mod. Ind.)	01
Keweenaw	01
Lake:	
Service area: Lake/Newsygo	02
Lapeer:	
Service area: Brown City	03
Service area: Otter Lake	03
Leelanau:	
Service area: Northport/Suttons Bay	03
Mackinac:	02
Marquette:	
Service area: Gwin	01
Service area: Iron River/Crystal Falls	04
Facility: Marquette Branch Prison	02
Menominee:	
Service area: Northern Menominee	03
Missaukee:	
Service area: Houghton Lake	01
Service area: Marion	01
Monroe:	
Service area: Sumpter	02
Montmorency:	04
Muskegon:	
Service area: Northern Kent	02
Newsygo:	
Service area: Lake/Newsygo	02
Ontonagon:	
Service area: Ewen	01
Osceola:	
Service area: Marion	01
Ottawa:	
Service area: Northern Kent	02
Roscommon:	
Service area: Houghton Lake	01
Saginaw:	
Service area: Saginaw City (east side)	01
St. Clair:	
Service area: Algonac	03
St. Joseph:	
Service area: Three Rivers	04
Sanilac:	
Service area: Brown City	03
Service area: Lexington-Crosswell	04
Service area: Mariette-Kingston	03
Shiawassee:	
Service area: Laingsburg	02
Service area: Perry/Morrice	02
Tuscola:	
Service area: Mariette-Kingston	03
Service area: Otter Lake	03

PRIMARY CARE: Michigan—Continued

County Listing

County name	Degree of shortage group
Van Buren:	
Service area: Dowagiac	03
Washtenaw:	
Service area: Sumpter	02
Wayne:	
Service area: Airport	01
Service area: Brooks (W. Detroit)	01
Service area: Eastside Detroit	03
Service area: Nolan/State Fair (N. Detroit)	04
Service area: Sumpter	02
Service area: Tireman/Chadsey (S.W. Detroit)	02
Service area: Wyoming Ave./Mackenzie (W. Detroit)	01

PRIMARY CARE: Michigan

Service Area Listing

Service area name	Degree of shortage group
Airport	01
County—Wayne:	
Parts:	
C.T. 5045	
C.T. 5046	
C.T. 5047	
C.T. 5048	
C.T. 5101	
C.T. 5107	
C.T. 5108	
C.T. 5109	
C.T. 5110	
Algonac	03
County—St. Clair:	
Parts:	
Algonac City	
Casco Township	
China Township	
Clay Township	
Columbus Township	
Cottleville Township	
East China Township	
Ida Township	
Marine City	
St. Clair City	
St. Clair Township	
Allegan	03
County—Allegan:	
Parts:	
Allegan City	
Allegan Twp.	
Cheshire Twp.	
Clyde Twp.	
Hopkins Twp.	
Lee Twp.	
Martin Twp.	
Monterey Twp.	
Trowbridge Twp.	
Valley Twp.	
Watson Twp.	
Wayland City	
Wayland Twp.	
Brooks (W. Detroit)	01
County—Wayne:	
Parts:	
C.T. 5353	
C.T. 5354	
C.T. 5451-5454	
Brown City	03
County—Lapeer:	
Parts: Burnside Twp.	
County—Sanilac:	
Parts:	
Brown City	
Elk Twp.	
Flynn Twp.	
Maple Valley Twp.	
Speaker Twp.	
De Tour	02

PRIMARY CARE: Michigan—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Chippewa:	
Parts:	
De Tour Twp.	
De Tour Village	
Drummond Twp.	
Raber Twp.	
Dowagiac	03
County—Cass:	
Parts:	
Dowagiac City	
LaGrange Twp.	
Marcellus Twp.	
Newberg Twp.	
Penn Twp.	
Pokhagen Twp.	
Silver Creek Twp.	
Volinia Twp.	
Wayne Twp.	
County—Van Buren:	
Parts:	
Dodatur Twp.	
Hamilton Twp.	
Keeler Twp.	
Porter Twp.	
East Jordan	02
County—Antrim:	
Parts:	
Echo Twp.	
Jordan Twp.	
County—Charlevoix:	
Parts:	
East Jordan City	
South Arm Twp.	
Wilson Twp.	
Eastside Detroit	03
County—Wayne:	
Parts:	
C.T. 5121-5156	
Ewen	01
County—Gogebic:	
Parts:	
Marenisco Twp.	
Watersmeet Twp.	
County—Ontonogan:	
Parts:	
Bergland Twp.	
Haight Twp.	
Interior Twp.	
Malchwood Twp.	
McMillan Twp.	
Rockland Twp.	
Sternard Twp.	
Gwin	01
County—Marquette:	
Parts:	
Ewing Twp.	
Forsyth Twp.	
Tutin Twp.	
Wells Twp.	
Harrison	01
County—Clare:	
Parts:	
Arthur Township	
City of Harrison	
Franklin Township	
Freeman Township	
Frost Township	
Greenwood Township	
Hamilton Township	
Hatton Township	
Hayes Township	
Lincoln Township	
Summerfield Township	
Houghton Lake	0
County—Missaukee:	
Parts:	
Butterfield Township	
Enterprise Township	
Holland Township	
County—Roscommon:	
Parts:	
Denton Township	
Lake Township	
Markey Township	
Roscommon Township	
Iron River/Crystal Falls	04

PRIMARY CARE: Michigan—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Dickinson:	
Parts:	
Sagola Twp.	
County—Iron	
County—Marquette:	
Parts:	
Republic Twp.	
Ironwood/Hurley	03
County—Gogebic:	
Parts:	
Bessemer City	
Bessemer Twp.	
Erwin Twp.	
Ironwood City	
Ironwood Twp.	
Wakefield City	
Wakefield Twp.	
Kinross/Rudyard	01
County—Chippewa:	
Parts:	
Bay Mills Twp.	
Chippewa Twp.	
Hulbert Twp.	
Kinross Twp.	
Rudyard Twp.	
Superior Twp.	
Trout Lake Twp.	
Whitefish Twp.	
L'Anse	01
County—Baraga	
County—Houghton:	
Parts: Laird Twp.	
Laingsburg	02
County—Clinton:	
Parts: Victor Twp.	
County—Shiawassee:	
Parts: Sciota Twp.	
Lake/Newaygo	02
County—Lake:	
Parts:	
Chase Twp.	
Cherry Valley Twp.	
Dover Twp.	
Eden Twp.	
Elk Twp.	
Ellsworth Twp.	
Lake Twp.	
Newkirk Twp.	
Peacock	
Pinora Twp.	
Pleasant Plains Twp.	
Sauble Twp.	
Sweetwater Twp.	
Webber Twp.	
Yates Twp.	
County—Newaygo:	
Parts:	
Beaver Twp.	
Home Twp.	
Lilly Twp.	
Merrill Twp.	
Monroe Twp.	
Troy Twp.	
Lexington-Croswell	04
County—Sanilac:	
Parts:	
Buel	
Croswell City	
Fremont Twp.	
Lexington	
Worth Twp.	
Mancelona	02
County—Antrim:	
Parts:	
Chestonia Twp.	
Custer Twp.	
Helena Twp.	
Jordan Twp. (Part)	
Kearney Twp.	
Mancelona Twp.	
Star Twp.	
County—Kalamazoo:	
Parts:	
Blue Lake Twp.	
Cold Spring Twp.	
Rapid River Twp.	
Marion	01

PRIMARY CARE: Michigan—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Clare:	
Parts:	
Redding Twp.	
Winterfield Twp.	
County—Missaukee:	
Parts:	
Clam Union Twp.	
Riverside Twp.	
County—Oscoda:	
Parts:	
Hardwick Twp.	
Highland Twp.	
Marion Twp.	
Middle Branch Twp.	
Marlette-Kingston	03
County—Sanilac:	
Parts:	
La Motte Twp.	
Marlette Twp.	
County—Tuscola:	
Parts:	
Dayton	
Dayton Twp.	
Kingston Twp.	
Koylton Twp.	
Nolan/State Fair (N Detroit)	04
County—Wayne:	
Parts:	
C.T. 5071	
C.T. 5072	
C.T. 5073	
C.T. 5074	
C.T. 5075	
C.T. 5076	
C.T. 5077	
C.T. 5078	
C.T. 5079	
C.T. 5080	
North Central Flint	01
County—Genesee:	
Parts:	
C.T. 4	
C.T. 5	
C.T. 6	
C.T. 7	
C.T. 19	
C.T. 20	
C.T. 21	
C.T. 22	
C.T. 23	
C.T. 24	
C.T. 25	
C.T. 26	
North Kent	02
County—Kent:	
Parts:	
Algoma Twp.	
Cedar Springs City	
Nelson Twp.	
Solon Twp.	
Sparta Twp.	
Tyrone Twp.	
County—Muskegon:	
Parts: Casnovia Twp.	
County—Ottawa:	
Parts: Chester Twp.	
North Menominee	03
County—Menominee:	
Parts:	
Cedarville Twp.	
Dagget City	
Dagget Twp.	
Faithorn Twp.	
Gowley Twp.	
Harris Twp.	
Holmes Twp.	
Lake Twp.	
Meyer Twp.	
Nadeau Twp.	
Spalding Twp.	
Stephenson City	
Stephenson Twp.	

PRIMARY CARE: Michigan—Continued

Service Area Listing

Service area name	Degree of shortage group
Northport/Suttons Bay	03
County—Leelanau:	
Parts:	
Centerville Twp.	
Cleveland Twp.	
Leelanau Twp.	
Leeland Twp.	
Suttons Bay Twp.	
Otter Lake	03
County—Genesee:	
Parts: Forest Township	
County—Lapeer:	
Parts:	
Deerfield Township	
Marathon Township	
Rich Township	
County—Tuscola:	
Parts:	
Arbela Township	
Millington Township	
Watertown Township	
Perry/Morrice	02
County—Shiawassee:	
Parts:	
Antrim Township	
Burns Township	
Perry City	
Perry Township	
Port Austin	02
County—Huron:	
Parts:	
Dwight Twp.	
Gore Twp.	
Hume Twp.	
Huron Twp.	
Lake Twp.	
Port Austin Twp.	
Ple. Au Barques Twp.	
Saginaw City (East Side)	01
County—Saginaw:	
Parts:	
C.T. 1	
C.T. 2	
C.T. 3	
C.T. 4	
C.T. 5	
C.T. 6	
C.T. 7	
C.T. 8	
Sterling	03
County—Arenac:	
County—Bay:	
Parts: Gibson Township	
County—Gladwin:	
Parts:	
Bourne Township	
Grim Township	
Sumpter	02
County—Monroe:	
Parts:	
C.T. 303 (Ash Twp.)	
C.T. 305 (Exeter Twp.)	
C.T. 306 (London Twp.)	
County—Washtenaw:	
Parts:	
C.T. 34 (Augusta Twp.)	
County—Wayne:	
Parts:	
C.T. 940 (Sumpter Twp.)	
C.T. 941 (Huron Twp.)	
Three Rivers	04
County—Cass:	
Parts: Porter Twp.	
County—St. Joseph:	
Parts:	
Constantine Twp.	
Fabius Twp.	
Florence Twp.	
Flowerfield Twp.	
Leonidas Twp.	
Lockport Twp.	
Mendon Twp.	
Nottawa Twp.	
Park Twp.	
Three Rivers City	
Tireman/Chadsey (SW Detroit)	02

PRIMARY CARE: Michigan—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Wayne:	
Parts:	
C.T. 5251-5280	
C.T. 5262-5264	
C.T. 5335-5337	
C.T. 5345-5346	
C.T. 5665-5666	
Wyoming Ave/Mackenzie (W Detroit)	01
County—Wayne:	
Parts:	
C.T. 5342-5343	
C.T. 5352	
C.T. 5364	
C.T. 5366-5367	
C.T. 5370-5374	

PRIMARY CARE: Michigan

Population Group Listing

Population group	Degree of shortage group
Grand Rapids (Med. Ind.)	01
County—Kent:	
Parts: Grand Rapids City (Med. Ind.)	

PRIMARY CARE: Michigan

Facility Listing

Facility	Degree of shortage group
Marquette Branch Prison	02
County—Marquette	
State Prison of South Michigan	02
County—Jackson	

PRIMARY CARE: Minnesota

County Listing

County name	Degree of shortage group
Aitkin:	
Service area: Floodwood	02
Service area: Moose Lake	03
Service area: Sandstone/Hinckley	04
Blue Earth:	
Service area: Wells	01
Carlton:	
Service area: Moose Lake	03
Cass:	04
Clay:	
Service area: Barnesville	02
Clearwater:	02
Cook:	
Service area: Silver Bay	02
Faribault:	
Service area: Wells	01
Grant:	04
Hennepin:	
Service area: Near North—Minneapolis	03
Population group: Am. Ind. pop. (Minneapolis)	01
Itasca:	
Service area: Bigfork	01
Service area: Floodwood	02
Kanabec:	
Service area: Sandstone/Hinckley	04
Lac Qui Parle:	04
Lake:	
Service area: Silver Bay	02
Lake of the Woods:	
Service area: Warroad	01
Mahnomen:	01

PRIMARY CARE: Minnesota—Continued

County Listing

County name	Degree of shortage group
Marshall:	
Service area: Warren	03
Murray	04
Norman	04
Pine:	
Service area: Moose Lake	03
Service area: Sandstone/Hinckley	04
Polk:	
Service area: Fosston	02
Service area: Warren	03
Ramsey:	
Service area: Summit/Dale	01
Red Lake	01
Roseau:	
Service area: Roseau	03
Service area: Warroad	01
St. Louis:	
Service area: Floodwood	02
Sibley	02
Wabasha:	
Service area: Plainview	01
Waseca:	
Service area: Wells	01
Wicken:	
Service area: Barnesville	02
Winona:	
Service area: Plainview	01

PRIMARY CARE: Minnesota

Service Area Listing

Service area name	Degree of shortage group
Barnesville	02
County—Clay:	
Parts:	
Alliance Township	
Barnesville City	
Barnesville Township	
Comstock City	
Elkton Township	
Holy Cross Township	
Humboldt Township	
Parke Township	
Skree Township	
Tansem Township	
County—Wicken:	
Parts:	
Atherton Township	
Deerhorn Township	
Manston Township	
Mitchell Township	
Prairie View Township	
Rothsay City	
Tanberg Township	
Wolverton Township	
Bigfork	01
County—Itasca:	
Parts:	
Balsam Township	
Bearville Township	
Bigfork Township	
Bigfork Village	
Bowstring Township	
Carpenter Township	
Elfie Village	
Good Hope Township	
Grafton Township	
Kinghurst Township	
Lake Jessie Township	
Liberty Township	
Marcell Township	
Max Township	
Pomroy Township	
Sand Lake Township	
Squaw Lake Village	
Stokes Township	
Unorg. Terr. N.E. Itasca	
Wirt Township	

PRIMARY CARE: Minnesota—Continued

Service Area Listing

Service area name	Degree of shortage group
Floodwood	02
County—Aitkin:	
Parts:	
Ball Bluff Township	
Balsam Township	
Cornish Township	
Turner Township	
Unorg. Terr. (NE Aitkin)	
County—Itasca:	
Parts:	
Wawina Township	
County—St. Louis:	
Parts:	
Arrowhead Township	
Cedar Valley Township	
Cotton Township	
Fine Lakes Township	
Floodwood City	
Floodwood Township	
Halden Township	
Kelsey Township	
Meadowlands City	
Meadowlands Township	
Ness Township	
Northland Township	
Payne Township	
Prairie View Township	
Tivola Township	
Unorg. Terr. (Pot Shot Lake)	
Van Buren Township	
Fosston	02
County—Polk:	
Parts:	
Badger Township	
Brandevold Township	
Chester Township	
Columbia Township	
Eden Township	
Fertile Village	
Fosston City	
Garden Township	
Godfrey Township	
Grove Park Township	
Gully Township	
Gully Village	
Hill River Township	
Johnson Township	
King Township	
Knute Township	
Lengby Township	
Lessor Township	
McIntosh Village	
Mentor Village	
Queen Township	
Rosebud Township	
Slaten Township	
Tilden Township	
Trail Village	
Winger Township	
Winger Village	
Woodside Township	
Moose Lake	03
County—Aitkin:	
Parts:	
Beaver Township	
Clark Township	
Salo Township	
Tamarack Village	
County—Carlton:	
Parts:	
Automba Township	
Barnum City	
Barnum Township	
Blackhoof Township (S 1/2)	
Cromwell City	

PRIMARY CARE: Minnesota—Continued

Service Area Listing

Service area name	Degree of shortage group
Holyoke Township	
Kaleva Township	
Kettle River City	
Lakewood Township	
Mahtowa Township	
Moose Lake City	
Moose Lake Township	
Silver Township	
Skotton Township	
Split Rock Township	
Unorg. Terr. Clear Lake	
Unorg. Terr. N.E. Carlton (S 1/2)	
Wright City	
County—Pine:	
Parts:	
Birch Creek Township	
Denham City	
Kerrick Township	
Kerrick City	
Nickerson Township	
Sturgeon Lake Township	
Willow River City	
Near North—Minneapolis	03
County—Hennepin:	
Parts:	
C.T. 13	
C.T. 14	
C.T. 15	
C.T. 16	
C.T. 20	
C.T. 21	
C.T. 22	
C.T. 23	
C.T. 27	
C.T. 28	
C.T. 29	
C.T. 32	
C.T. 33	
C.T. 34	
C.T. 35	
C.T. 41	
C.T. 42	
Plainview	01
County—Wabasha:	
Parts:	
Elgin Township	
Elgin Village	
Highland Township	
Milville Village	
Oakwood Township	
Plainview Township	
Plainview Village	
Watopa Township	
County—Winona:	
Parts:	
Whitewater Township	
Roseau	03
County—Roseau:	
Parts:	
Blooming Valley Township	
Deiter Township	
Grimstad Township	
Jadis Township	
Melung Township	
Mickinock Township	
Moose Township	
Nereson Township	
Pohlitz Township	
Roseau City	
Ross Township	
Soler Township	
Spruce Township	
Stallord Township	
Stokes Township	
Unorg. Terr. of N. Roseau	
Unorg. Terr. of N.W. Roseau	
Unorg. Terr. of S.E. Roseau	

PRIMARY CARE: Minnesota—Continued

Service Area Listing

Service area name	Degree of Shortage group
Sandstone-Hinckley	04
County—Aitkin:	
Parts:	
Wagner Township	
County—Kanabec:	
Parts:	
Kroschel Township	
Pomroy Township	
County—Pine:	
Parts:	
Arline Township	
Anna Township	
Askov City	
Barry Township	
Bremen Township	
Bruno Township	
Danforth Township	
Dell Grove Township	
Finlayson City	
Finlayson Township	
Fleming Township	
Glover Township	
Hinckley City	
Hinckley Township	
Kettle River Township	
New Dorsey Township	
Norman Township	
Ogema Township	
Park Township	
Partridge Township	
Pine Lake Township	
Sandstone City	
Sandstone Township	
Wima City	
Silver Bay	02
County—Cook:	
Parts:	
Schroeder Township	
Tofte Township	
County—Lake:	
Parts:	
Beaver Bay City	
Beaver Bay Township (Part)	
Crystal Bay Township	
Silver Bay City	
Silver Creek Township	
Summit/Dale	01
County—Ramsey:	
Parts:	
C.T. 326-327	
C.T. 335-336	
C.T. 337-340	
C.T. 354-355	
Warren	03
County—Marshall:	
Parts:	
Alma Township	
Alvarado City	
Argyle City	
Big Woods Township	
Bloomer Township	
Boxville	
Comstock Township	
Foldahl Township	
McCrea Township	
Middle River Township	
Oak Park Township	
Oslo City	
Parker Township	
Sinnott Township	
Stephen City	
Tamarac Township	
Vega Township	
Wanger Township	
Warren City	
Warren Township	
County—Polk:	
Parts:	
Angus Twp.	
Bristlet Twp.	
Farley Twp.	
Warroad	01

PRIMARY CARE: Minnesota—Continued

Service Area Listing

Service area name	Degree of Shortage group
County—Lake of the Woods:	
Parts:	
Unorg. Terr. Beltrami Forrest (N. ½)	
Unorg. Terr. N.W. Angle	
Unorg. Terr. Rainy River (N. ½)	
Williams Village	
County—Roseau:	
Parts:	
Beaver Township	
Cedarbend Township	
Enstrom Township	
Falun Township	
Lake Township	
Laona Township	
Moranville Township	
Reine Township	
Roosevelt Village	
Unorg. Terr. S.E. Roseau	
Warroad Village	
Wells	01
County—Blue Earth:	
Parts:	
Danville Township	
County—Faribault:	
Parts:	
Bricelyn City	
Brush Creek Township	
Clark Township	
Dunbar Township	
Easton City	
Foster Township	
Kiester City	
Kiester Township	
Lura Township	
Minnesota Lake City	
Minnesota Lake Township	
Seely Township	
Walnut Lake Township	
Walters City	
Wells City	
County—Waseca:	
Parts:	
Vivian Township	
Waldorf City	

PRIMARY CARE: Minnesota

Population Group Listing

Population group	Degree of Shortage group
Am. Indian pop. (Minneapolis)	01
County—Hennepin	

PRIMARY CARE: Mississippi

County Listing

County name	Degree of Shortage group
Amite	01
Benton	01
Bolivar	02
Calhoun	03
Carroll	01
Clarborne	02
Clarke	04
Clay	02
Coshoma	04
Copiah	04
Covington	02
De Soto	02
Greene	02
Harrison	
Population group: Medically indigent pop.	01
Hinds:	
Service area: Jackson inner-city	01
Service area: South west rural Hinds	01

PRIMARY CARE: Mississippi—Continued

County Listing

County name	Degree of Shortage group
Holmes	02
Humphreys	02
Issaquena	01
Itawamba	01
Jackson:	
Service area: Wade-Hurley	01
Jasper	03
Jefferson Davis	01
Kemper	03
Lafayette	04
Lamar	01
Lawrence	04
Leake	02
Madison	02
Marion	04
Marshall	03
Neshoba	02
Newton	04
Noxubee	04
Perry	04
Pontotoc	04
Prentiss	04
Quitman	01
Scott	03
Sharkey	01
Simpson	04
Smith	04
Sunflower	01
Facility: Mississippi State Penitentiary	02
Tallahatchie	01
Tishomingo:	
Service area: Shiloh Pickwick	02
Tunica	01
Washington	01
Wayne	03
Webster	02
Winston	03
Yazoo	03

PRIMARY CARE: Mississippi

Service Area Listing

Service area name	Degree of shortage group
Jackson Inner-City	01
County—Hinds:	
Parts:	
C.T. 5-12	
C.T. 16-21	
C.T. 24-32	
C.T. 102.01	
C.T. 102.03	
C.T. 103.01	
Shiloh Pickwick	02
County—Tishomingo:	
Parts:	
District 1	
District 2	
South West Rural Hinds	01
County—Hinds:	
Parts:	
C.T. 105-107	
C.T. 112-113	
Wade-Hurley	01
County—Jackson:	
Parts:	
C.T. 401	
C.T. 402	

PRIMARY CARE: Mississippi

Population Group Listing

Population group	Degree of shortage group
Medically indigent pop. County—Harrison	01

PRIMARY CARE: Mississippi

Facility Listing

Facility	Degree of shortage group
Mississippi State Penitentiary County—Sunflower	02

PRIMARY CARE: Missouri

County Listing

County name	Degree of shortage group
Andrew	03
Benton	02
Service area: Lincoln	02
Bollinger	01
Callaway	03
Facility: Renz Correction Center	02
Carter	04
Service area: Big Springs	04
Cass	02
Service area: Garden City	02
Cedar	04
Christian	02
Clark	02
Cola	02
Facility: Alcoa Correctional Center	02
Facility: Central Missouri Cor. Ctr.	02
Facility: Missouri State Penitentiary	02
Crawford	03
Dallas	02
Davies	04
De Kalb	02
Douglas	01
Franklin	02
Facility: Missouri Eastern Cor. Ctr.	02
Gasconade	02
Service area: Southern Gasconade	02
Hickory	01
Holt	04
Iron	03
Service area: Arcadia Valley	03
Jackson	02
Service area: Richard Cabot	02
Population group: Poverty pop. (Central K.C.)	01
Jefferson	02
Service area: Hillsboro	02
Johnson	04
Laclede	03
Lewis	02
McDonald	04
Marion	02
Mercer	04
Miller	03
Monroe	03
New Madrid	01
Nodaway	04
Oregon	04
Ozark	01
Pemiscot	01
Service area: Steele	01
Pulaski	02
Putnam	01
Rails	01
Randolph	02
Facility: Missouri Training Ctr. for Men	02

PRIMARY CARE: Missouri—Continued

County Listing

County name	Degree of shortage group
Reynolds	03
Service area: Arcadia Valley	04
Service area: Big Springs	02
Ripley	04
St. Clair	01
St. Louis	01
Population group: Kinlock/Berkeley pov. pop.	01
Population group: Poverty pop. of West St. Louis	01
Schuyler	04
Shannon	04
Service area: Big Springs	02
Shelby	02
Stone	02
Texas	03
Warren	03
Washington	03
Service area: Arcadia Valley	03
Service area: Potosi	03
Webster	03
Worth	04
St. Louis City	02
Service area: East Central St. Louis	01
Service area: Grace Hill/Cochran	02
Service area: Southeast St. Louis	02
Population group: Poverty pop. of North St. Louis	02
Population group: Poverty pop. of West St. Louis	01
Population group: Poverty pop. of Yeastman/Union-Sarah	01

PRIMARY CARE: Missouri

Service Area Listing

Service area name	Degree of shortage group
Arcadia Valley	03
County—Iron	02
County—Reynolds	02
Parts:	
Black River	
Carroll Twp.	
Lesterville Twp.	
County—Washington	04
Parts:	
Belgrade Twp.	
Bellevue Twp.	
Concorde Twp.	
Harmony Twp.	
Big Springs	02
County—Carter	02
County—Reynolds	02
Parts:	
Jackson Twp.	
Logan Twp.	
Webb Twp.	
County—Shannon	02
East Central St. Louis	02
County—St. Louis City	02
Parts:	
C.T. 1161-1165	
C.T. 1171-1174	
C.T. 1181	
C.T. 1221-1222	
C.T. 1224	
C.T. 1231-1235	
C.T. 1241-1246	
C.T. 1255-1256	
Garden City	02
County—Cass	01
Parts: C.T. 607-612	
Grace Hill/Cochran	01
County—St. Louis City	01
Parts:	
C.T. 1097	
C.T. 1202-1203	
C.T. 1213-1214	
C.T. 1257	
C.T. 1266-1267	

PRIMARY CARE: Missouri—Continued

Service Area Listing

Service area name	Degree of shortage group
Hillsboro	02
County—Jefferson	02
Parts:	
Big River	
Central	
Plattin	
Valle	
Lincoln	02
County—Benton	03
Parts:	
Cole Twp.	
White Twp.	
Williams Twp.	
Potosi	03
County—Washington	02
Parts:	
Johnson	
Kingston	
Liberty	
Preston	
Richwoods	
Union	
Walton	
Richard Cabot	02
County—Jackson	02
Parts:	
C.T. 1-4	
C.T. 6-20	
C.T. 22-27	
C.T. 26.01	
C.T. 28.02	
C.T. 29-34	
C.T. 35.01	
C.T. 35.02	
C.T. 36.01	
C.T. 36.02	
C.T. 37-45	
C.T. 59.01	
Southeast St. Louis	02
County—St. Louis City	02
Parts:	
C.T. 1011-1015	
C.T. 1018	
C.T. 1153-1157	
Southern Gasconade	02
County—Gasconade	01
Parts:	
Boeuf Twp.	
Boulware Twp.	
Bourbois Twp.	
Brush Creek Twp.	
Canaan Twp.	
Clay Twp.	
Third Creek Twp.	
Steele	01
County—Pemiscot	01
Parts:	
Cooler Twp.	
Holland Twp.	
Pemiscot Twp.	
Virginia Twp.	

PRIMARY CARE: Missouri

Population Group Listing

Population group	Degree of shortage group
Kinlock/Berkeley pov. pop.	01
County—St. Louis	02
Parts: C.T. 2127-2129	
Poverty pop. of North St. Louis	02
County—St. Louis City	02
Parts:	
C.T. 1061-1067	
C.T. 1071-1075	
C.T. 2139-2140	

PRIMARY CARE: Missouri—Continued

Population Group Listing

Population group	Degree of shortage group
Poverty pop. of West St. Louis County—St. Louis Parts: C.T. 2159-2164 County—St. Louis City Parts: C.T. 1051-1055 C.T. 1121	01
Poverty pop. of Yeatman/Union-Sarah County—St. Louis City Parts: C.T. 1101-1105 C.T. 1111-1115 C.T. 1122-1124 C.T. 1184 C.T. 1188 C.T. 1191-1193 C.T. 1201 C.T. 1211-1212	01
Poverty pop. of Central K.G. County—Jackson Parts: C.T. 49-55 C.T. 56.01 C.T. 56.02 C.T. 57 C.T. 58.01 C.T. 58.02 C.T. 58.02 C.T. 60-67 C.T. 74-81 C.T. 83 C.T. 87-97 C.T. 104.01	01

PRIMARY CARE: Missouri

Facility Listing

Facility	Degree of shortage group
Algoa Correctional Center County—Cole	02
Central Missouri Corr. Ctr. County—Cole	02
Missouri Eastern Corr. Ctr. County—Franklin	02
Missouri State Penitentiary County—Cole	02
Missouri Training Ctr. for Men County—Randolph	02
Renz Correction Center County—Caffaway	02

PRIMARY CARE: Montana

County Listing

County name	Degree of shortage group
Big Horn	01
Blaine	03
Chouteau	03
Service area: Fort Benton	03
Davis	03
Gallatin	02
Service area: Ennis/W. Yellowstone	02
Garfield	01
Glacier	01
Golden Valley	02
Service area: Harlowton	02
Jackson	01
Service area: Boulder	01
Judith Basin	01

PRIMARY CARE: Montana—Continued

County Listing

County name	Degree of shortage group
Lewis & Clark Service area: Lincoln	01
Madison Service area: Ennis/W. Yellowstone	02
Meagher	01
Petroleum	01
Phillips	02
Powder River	04
Powell Service area: Lincoln	01
Prairie	01
Roosevelt Service area: Poplar/Wolf Point	01
Rosebud Service area: Forsyth-Colstrip	01
Sheridan	04
Sweet Grass	03
Toole Service area: Shelby	04
Treasure Service area: Forsyth-Colstrip	01
Wheatland Service area: Harlowton	02
Withoux	01

PRIMARY CARE: Montana

Service Area Listing

Service area name	Degree of shortage group
Boulder County—Jefferson Parts: Boulder Div.	01
Ennis/W. Yellowstone County—Gallatin Parts: West Yellowstone	02
County—Madison Parts: Harrison div. Madison Valley Div. Virginia City Div.	01
Forsyth-Colstrip County—Rosebud County—Treasure	01
Fort Benton County—Chouteau Parts: Fort Benton Div. Geraldine Div.	03
Harlowton County—Golden Valley County—Wheatland	02
Lincoln County—Lewis & Clark Parts: Lincoln Div. County—Powell Parts: Helmsville Div.	01
Poplar/Wolf Point County—Roosevelt Parts: Ft. Peck Reservation Div.	01
Shelby County—Toole Parts: S. Toole Div. (West 2/3) Shelby Div. Sunburst Div.	04

PRIMARY CARE: Nebraska

County Listing

County name	Degree of shortage group
Boone	04
Burt Service area: Oakland	03
Service area: Onawa (Iowa/Neb.)	02
Butler	04

PRIMARY CARE: Nebraska—Continued

County Listing

County name	Degree of shortage group
Cedar Service area: Cedar-Dixon	02
Chase	03
Cherry Service area: Mullen	04
Clay	03
Colfax Service area: Colfax/Dodge	02
Custer Service area: Arnold	04
Dakota Service area: Morningside/Sgt. Bluff (Iowa/Neb.)	02
Dawes Service area: Crawford	04
Deuel Service area: Julesburg	02
Dixon Service area: Cedar-Dixon	02
Dodge Service area: Colfax/Dodge	02
Douglas Service area: Northeast Omaha Facility: St. Joseph Hospital	01
Fillmore	02
Franklin	02
Gosper	01
Grant Service area: Mullen	04
Greeley Service area: Albion MSA Service area: Howard	04
Hayes Service area: Hayes-Hitchcock	01
Hitchcock Service area: Hayes-Hitchcock	01
Holt Service area: Western Holt	03
Hooker Service area: Mullen	04
Howard Service area: Howard	04
Johnson	02
Keya Paha Service area: Western Holt	03
Lancaster Facility: State Correctional Facilities	02
Lincoln Service area: Arnold	04
Logan Service area: Arnold	04
Merrick	03
Platte Service area: Albion	04
Rock Service area: Western Holt	03
Saunders	02
Sioux Service area: Crawford	04
Stanton	01
Thayer	02
Thomas Service area: Mullen	04
Thurston Population group: Winnebago Indian Population	01

PRIMARY CARE: Nebraska

Service Area Listing

Service area name	Degree of shortage group
Albion County—Greeley Parts: Spalding Precinct County—Platte Parts: St. Bernard Walker	04

PRIMARY CARE: Nebraska—Continued

Service Area Listing

Service area name	Degree of shortage group
Arnold	04
County—Custer:	
Parts:	
Arnold	
Carr	
Delight	
Elm	
Grant	
Hayes	
Triumph	
Wayne	
County—Lincoln:	
Parts:	
Antelope	
Garfield	
County—Logan:	
Parts:	
Gandy	
Logan	
Cedar-Dixon	02
County—Cedar	
County—Dixon	
Colfax/Dodge	02
County—Colfax:	
Parts:	
Adams Precinct	
Colfax Precinct	
Lincoln Precinct	
Maple Creek Precinct	
Midland Precinct	
Rogers Precinct	
Schuyler City	
Schuyler Precinct	
County—Dodge:	
Parts:	
Cottrell Twp.	
Cuming Twp.	
North Bend City	
Pebble Twp.	
Pleasant Valley Twp.	
Ridgeley Twp.	
Scribner City	
Union Twp.	
Webster Twp.	
Crawford	04
County—Dawes:	
Parts:	
Leonard	
North Crawford	
South Crawford	
Whitney	
County—Sioux:	
Parts:	
Bowen	
Hat Creek	
Warbonnet	
Whistle Creek	
Hayes-Hitchcock	01
County—Hayes	
County—Hitchcock	
Howard	04
County—Greeley:	
Parts:	
Greeley Prec.	
Scotts #1 Prec.	
Wolbach Prec.	
County—Howard	
Julesburg	02
County—Dewar	
Morningside/Sgt. Bluff (IA/NEB)	02
County—Dakota	
Mullen	04
County—Cherry:	
Parts:	
Calf Creek	
Goose Creek	
King	
Lackey	
Loup	
Mother Lake	
Wells	
County—Grant	
County—Hooker	
County—Thomas	

PRIMARY CARE: Nebraska—Continued

Service Area Listing

Service area name	Degree of shortage group
Northeast Omaha	01
County—Douglas:	
Parts:	
C.T. 6	
C.T. 7	
C.T. 9-12	
C.T. 13.01	
C.T. 13.02	
C.T. 14	
C.T. 15	
C.T. 52	
C.T. 60	
Oakland	03
County—Burt:	
Parts:	
Arizona Twp.	
Bell Creek Twp.	
Craig Twp.	
Everett Twp.	
Logan Twp.	
Oakland City	
Oakland Twp.	
Parish Twp.	
Summit Twp.	
Tekamah City	
Onawa (Iowa/Nebr.)	02
County—Burt:	
Parts:	
Decatur Twp.	
Quinnebaugh Twp.	
Riverside Twp.	
Silver Creek Twp.	
Western Holt	03
County—Holt:	
Parts:	
Atkinson Twp.	
Cleveland Twp.	
Dustin Twp.	
Fairview Twp.	
Francis Twp.	
Green Valley Twp.	
Holt Creek Twp.	
Josie Twp.	
Sand Creek Twp.	
Sheridan Twp.	
Stuart Twp.	
Swan Twp.	
Wyoming Twp.	
County—Keya Paha	
County—Rock	

PRIMARY CARE: Nebraska

Population Group Listing

Population group	Degree of shortage group
Winnebago Indians population	01
County—Thurston	

PRIMARY CARE: Nebraska

Facility Listing

Facility	Degree of shortage group
St. Joseph Hospital	01
County—Douglas	
State Correctional Facilities	02

PRIMARY CARE: Nebraska—Continued

Facility Listing

Facility	Degree of shortage group
County—Lancaster:	
Parts:	
Diagnostic & Evaluation Center	
Lincoln Correctional Center	
Nebraska State Penitentiary	

PRIMARY CARE: Nevada

County Listing

County name	Degree of shortage group
Clark:	
Service area: Blue Diamond	01
Service area: Cent./N. Cent. Las Vegas	01
Service area: Indian Springs	01
Service area: Jean-Goodspring	01
Service area: Moapa Valley	01
Service area: Searchlight-Davis Dam	01
Service area: Virgin Valley	01
Douglas:	
Population Group: Washoe Indian Reservation	01
Elko:	
Service area: Wendover (Utah/Nevada)	01
Esmeralda	01
Eureka	01
Humboldt	02
Lander	01
Lyon:	
Service area: Fernley/Silver Spring/Longshot	02
Nye:	
Service area: Beatty	01
Service area: Tonopah	01
Storey	01
Washoe:	
Service area: Gerlach	01
Service area: Wadsworth	01
White Pine:	
Population group: Goshute Indian Res.	01
Carson City:	
Population group: Washoe Indian Reservation	01

PRIMARY CARE: Nevada

Service Area Listing

Service area name	Degree of shortage group
Beatty	01
County—Nye:	
Parts: Beatty Twp.	
Blue Diamond	01
County—Clark:	
Parts: C.T. 58 (Central)	
Cent./N. Cent. Las Vegas	01
County—Clark:	
Parts:	
C.T. 3.01	
C.T. 3.02	
C.T. 7	
C.T. 9	
C.T. 11	
C.T. 35-38	
C.T. 46	
Fernley/Silver Springs/Longshot	02
County—Lyon:	
Parts:	
Canal Div.	
Dayton Div. (N. Pl.)	
Gerlach	01
County—Washoe:	
Parts: Gerlach Twp. (C.T. 34)	
Indian Springs	01
County—Clark:	
Parts:	
C.T. 58 (North)	
C.T. 59 (Southwest)	
Jean-Goodspring	01

PRIMARY CARE: Nevada—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Clark: Parts: Goodsprings Div. Moapa Valley	01
County—Clark: Parts: C.T. 56 (Cent./W. Cent.) Searchlight/Davis Dam	01
County—Clark: Parts: Searchlight Div. Tonopah	01
County—Nye: Parts: Tonopah Twp. Virgin Valley	01
County—Clark: Parts: C.T. 56 (North) Wadsworth	01
County—Washoe: Parts: Wadsworth Twp. (C.T. 31) Wendover (Utah/Nevada)	01
County—Elko: Parts: East Line Twp. Tecompa Twp.	01

PRIMARY CARE: Nevada

Population Group Listing

Population group	Degree of Shortage group
Washoe Indian Reservation County—Douglas County—Carson City Goshute Indian Res. County—White Pine	01

PRIMARY CARE: New Hampshire

County Listing

County name	Degree of shortage group
Cook: Service area: Upper Connecticut Valley	04
Grafton: Service area: Baker River Valley	01
Hillsboro: Service area: Hillsborough	02
Merrimack: Service area: Wilton/Milford	03
Rockingham: Service area: Hillsborough	02
Sullivan: Service area: North West Rockingham County	02
Service area: Hillsborough	02

PRIMARY CARE: New Hampshire

Service Area Listing

Service area name	Degree of shortage group
Baker River Valley County—Grafton: Parts: Rumney Twp. Warren Twp. Wentworth Twp. Hillsborough	01
	02

PRIMARY CARE: New Hampshire—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Hillsboro: Parts: Deering Twp. Hillsborough Twp. Weare Twp. (Western part) Windsor Twp. County—Merrimack: Parts: Henniker Twp. County—Sullivan: Parts: Washington Twp. North West Rockingham County County—Rockingham: Parts: Deerfield Epping Fremont Nottingham Town Raymond Upper Connecticut Valley County—Cooks: Parts: Atkinson-Gilman Academy Grant Clarksville Colebrook Twp. Columbia Twp. Dix Grant Dixville Twp. Empl Twp. Millsfield Odell Twp. Pittsburg Twp. Second College Grant Stewartstown Twp. Stratford Twp. Wentworth location Wilton/Milford County—Hillsboro: Parts: Amherst Twp. (W. 1/2) Lyndeborough Twp. Milford Twp. Mt. Vernon Twp. Wilton Twp.	02 04 03

PRIMARY CARE: New Jersey

County Listing

County name	Degree of shortage group
Atlantic: Service area: Atlantic City	02
Camden: Service area: Camden City	02
Cape May: Service area: Lower Cape May	03
Cumberland: Service area: Bridgeton	04
Facility: Leesburg State Prison	02
Essex: Service area: Central Newark	01
Service area: North Newark	03
Service area: South Newark	01
Mercer: Population group: Low income pop. of Trenton	02
Passaic: Service area: Northside—Peterson	01
Sussex: Service area: South Sussex	04
Union: Service area: Westside of Plainfield	02

PRIMARY CARE: New Jersey

Service Area Listing

Service area name	Degree of shortage group
Atlantic City	02
County—Atlantic: Parts: Atlantic City	04
Bridgeton	02
County—Cumberland: Parts: Bridgeton Township	02
Camden City	01
County—Camden: Parts: C.T. 6001-6020	01
Central Newark	01
County—Essex: Parts: C.T. 13 C.T. 14 C.T. 16 C.T. 25-32 C.T. 34 C.T. 38-40 C.T. 55-60 C.T. 62-68 C.T. 60-83	03
Lower Cape May	03
County—Cape May: Parts: Cape May City Cape May Point Lower Twp. West Cape May	03
North Newark	01
County—Essex: Parts: C.T. 1-11 C.T. 15-17 C.T. 84-97	01
Northside—Peterson	01
County—Passaic: Parts: C.T. 1803 C.T. 1804 C.T. 1805 C.T. 1806 C.T. 1807	01
South Newark	01
County—Essex: Parts: C.T. 41-47 C.T. 48.01 C.T. 48.02 C.T. 49-54	04
South Sussex	04
County—Sussex: Parts: Andover Branchville Byram Frankford Franklin Fredon Green Hamburg Hampton Hardyston Hooitcong Lafayette Newton Ogdensburg Sparta Stanhope Stillwater Sussex Vernon Wantage	02
Westside of Plainfield	02
County—Union: Parts: C.T. 389-390 C.T. 393-395	

PRIMARY CARE: New Jersey*Population Group Listing*

Population Group	Degree of shortage group
Low Income pop. of Trenton County—Mercer Parts: C.T. 1-22	02

PRIMARY CARE: New Jersey*Facility Listing*

Facility Listing	Degree of shortage group
Leesburg State prison County—Cumberland Parts: Leesburg State prison	02

PRIMARY CARE: New Mexico*County Listing*

County Name	Degree of shortage group
Bernalillo: Service area: Southwest Valley	01
Catron: Service area: Quemado/Magdalena	01
Chaves: Service area: Cloudcroft	01
Curry:	03
De Baca:	01
Dona Ana: Service area: Hatch	01
Service area: Southern Dona Ana	01
Guadalupe: Service area: Pecos	01
Harding: Service area: North Harding/Wagon Mound	01
Service area: Quay	04
Hidalgo:	01
Lea: Service area: Southern Lea	04
Lincoln: Service area: Torrance/Claunich/Corona	01
Luna:	02
McKinley: Service area: Cuba	02
Service area: Northern Gallup	01
Population group: Navajo Reservation	01
Mora: Service area: North Harding/Wagon Mound	01
Otero: Service area: Cloudcroft	01
Quay: Service area: Quay	04
Rio Arriba: Service area: South Rio Arriba/Taos	01
Service area: Tierra Amarilla	01
Roosevelt:	02
Sandoval: Service area: Cuba	02
Service area: Southern Sandoval	01
San Juan: Service area: Cuba	02
Population group: Navajo Reservation	01
San Miguel: Service area: Pecos	01
Service area: Quay	04
Santa Fe: Service area: Santa Fe/La Familia	01
Facility: N.M. State Pen. Cerillos	03
Socorro: Service area: Quemado/Magdalena	01
Service area: Torrance/Claunich/Corona	01
Taos: Service area: South Rio Arriba/Taos	01
Service area: Tierra Amarilla	01

PRIMARY CARE: New Mexico—Continued*County Listing*

County Name	Degree of shortage group
Torrance: Service area: Torrance/Claunich/Corona	01
Valencia: Service area: Los Lunas	02

PRIMARY CARE: New Mexico*Service Area Listing*

Service area name	Degree of shortage group
Cloudcroft: County—Chaves: Parts: S.W. Chaves CCD (West Portion)	01
County—Otero: Parts: E.D. 715 E.D. 717-720 E.D. 722-723	02
Cuba: County—McKinley: Parts: E.D. 1179A E.D. 1179B E.D. 1179C E.D. 1179D E.D. 1180A E.D. 1180B E.D. 1180C E.D. 1188 E.D. 1204B	02
County—Sandoval: Parts: Cuba CCD	01
County—San Juan: Parts: E.D. 8818 E.D. 906B E.D. 907A E.D. 908A E.D. 909A E.D. 909B E.D. 909C E.D. 909D E.D. 910A E.D. 910B E.D. 910C	01
Hatch: County—Dona Ana: Parts: Hatch CCD N Dona Ana Hill	02
Los Lunas: County—Valencia: Parts: Los Lunas CCD	01
North Harding/Wagon Mound: County—Harding: Parts: North Harding	01
County—Mora: Parts: Wagon Mound CCD	01
Northern Gallup: County—McKinley: Parts: E.D. 99.03 E.D. 99.04 E.D. 99.05	01
Pecos: County—Guadalupe: Parts: Dila CCD	01
County—San Miguel: Parts: Pecos Villanueva	01

PRIMARY CARE: New Mexico—Continued*Service Area Listing*

Service area name	Degree of shortage group
Quay: County—Harding: Parts: South Harding CCD	04
County—Quay: County—San Miguel: Parts: Conchos CCD	01
Quemado/Magdalena: County—Catron: Parts: Quemado CCD	01
County—Socorro: Parts: Magdalena CCD	01
Santa Fe/La Familia: County—Santa Fe: Parts: C.T. 3 C.T. 7 C.T. 8 C.T. 9 C.T. 12	01
South Rio Arriba/Taos: County—Rio Arriba: Parts: Dixon CCD South Rio Arriba	01
County—Taos: Parts: Penasco CCD	01
Southern Dona Ana: County—Dona Ana: Parts: E.D. 76 (Anthony) E.D. 77 (Anthony) E.D. 79 E.D. 80 (La Mesa) E.D. 81 E.D. 84 (La Union)	01
Southern Lea: County—Lea: Parts: Eunice CCD Jai CCD	04
Southern Sandoval: County—Sandoval: Parts: Bernalillo Div. (Part) Jemez Div. Santo Domingo Div.	01
Southwest Valley: County—Bernalillo: Parts: C.T. 23 C.T. 24.01 C.T. 24.02 C.T. 40 C.T. 43 C.T. 44.01 C.T. 44.02 C.T. 45.01 C.T. 45.02 C.T. 46.01 C.T. 46.02	01
Tierra Amarilla: County—Rio Arriba: Parts: Coyote CCD Jicarilla CCD Rio Chama CCD Tierra Amarilla CCD Vallecitos CCD Western Rio Arriba	01
County—Taos: Parts: Tres Piedras CCD Torrance/Claunich/Corona	01

PRIMARY CARE: New Mexico—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Lincoln: Parts: Corona	
County—Socorro: Parts: Clauch	
County—Torrance:	

PRIMARY CARE: New Mexico

Population Group Listing

Population group	Degree of shortage group
Nazco Reservation County—McKinley County—San Juan	01

PRIMARY CARE: New Mexico

Facility Listing

Facility	Degree of shortage group
N.M. State Pen. Cerillos County—Santa Fe	03

PRIMARY CARE: New York

County Listing

County name	Degree of shortage group
Albany: Service area: Northeast Albany	04
Service area: Southeast Albany City	01
Allegany: Service area: Arcade	02
Service area: Letchworth	02
Bronx: Service area: East Bronx	04
Service area: Morris Heights	02
Service area: Soundview Area	01
Facility: NYC Corr. Fac./Riker's Island	02
Broome: Service area: Deposit area	03
Cattaraugus: Service area: Arcade	02
Service area: Randolph/Ellicottville	03
Cayuga: Service area: Cato	01
Chautauque: Service area: Westfield	02
Chenango: Service area: Cortland-Chenango	01
Service area: Greene	02
Service area: Hamilton/Sherburne	02
Columbia: Service area: Chateaugay	02
Service area: Dannemora	02
Columbia: Service area: Blue Stores	02
Cortland: Service area: Cortland/Chenango	01
Delaware: Service area: Deposit area	03
Service area: Southern Delaware	01
Essex: Service area: Black Rock/Riverside	02
Population group: Poverty Pop. (Lower West Side)	03
Population group: Poverty Pop. (P.S. 84 area)	01
Population group: Poverty Pop. (Ellicott Neighborhood)	03
Population group: Tonawanda Indian Pop.	01

PRIMARY CARE: New York—Continued

County Listing

County name	Degree of shortage group
Essex: Service area: Central Adirondack	02
Service area: E. Cent. Essex	03
Service area: Essex-Warren	01
Franklin: Service area: Chateaugay	02
Service area: Tupper Lake	02
Fulton: Service area: Bakersville	02
Genesee: Population group: Tonawanda Indian Pop.	01
Greene: Service area: Cairo	02
Service area: Western Greene Co.	03
Hamilton: Service area: Central Adirondack	02
Service area: South Hamilton	01
Herkimer: Service area: Central Adirondack	02
Service area: Remsen	03
Jefferson: Service area: Alexandria Bay	01
Service area: Gouverneur	02
Kings: Service area: Bedford/Stuyvesant	04
Service area: Brownsville	04
Service area: Coney Isl./Brighton Beach/W. Brighton	02
Service area: Sunset Park	01
Lewis: Service area: Boonville	03
Service area: Camden	02
Livingston: Service area: Letchworth	02
Madison: Service area: Cortland/Chenango	01
Service area: Hamilton/Sherburne	02
Montgomery: Service area: Western Montgomery Co.	02
New York: Service area: East Harlem	02
Service area: Inwood	02
Service area: Lower East Side	03
Service area: Upper West Side	02
Service area: West Central Harlem	04
Population group: Chelsea Outreach Trgt. Pop.	01
Facility: Bellevue Hosp. Center	02
Facility: Gouverneur Diag. & Treatment Ctr.	03
Niagara: Population group: Tonawanda Indian Pop.	01
Population group: Tuscarora Indian Pop.	01
Onondaga: Service area: Boonville	03
Service area: Camden	02
Service area: Cornhill (Utica)	02
Service area: Hamilton/Sherburne	02
Service area: Remsen	03
Onondaga: Population group: Poverty Pop. (Central Syracuse)	04
Ontario: Service area: Naples/South Bristol	04
Oriens: Service area: Oak Orchard	02
Otsego: Service area: Cherry Valley	03
Service area: Southeast Otsego	03
Service area: Southwest Otsego Co.	02
Service area: Western Otsego	01
Queens: Service area: Rockaway Section of Queens	02
Rensselaer: Service area: Eastern Rensselaer	02
St. Lawrence: Service area: Alexandria Bay	01
Service area: Gouverneur	02
Service area: Starbuck	04
Service area: Tupper Lake	02
Saratoga: Service area: Bakersville	02
Service area: Luzerne	01
Schenectady: Service area: Hamilton Hill/Mt. Pleasant	01
Schoharie: Service area: Cherry Valley	03
Service area: Southern Schoharie	03
Schuyler	02

PRIMARY CARE: New York—Continued

County Listing

County name	Degree of shortage group
Seneca: Service area: South Seneca	02
Steuben: Service area: Elkland (NY/PA)	02
Sullivan: Service area: Cohecton	02
Ulster: Service area: Modena	02
Warren: Service area: Essex-Warren	01
Service area: Luzerne	01
Wayne: Service area: Sodus	04
Westchester: Service area: Peekskill	02
Population group: Med. Ind. (Mt. Vernon)	02
Wyoming: Service area: Arcade	02
Service area: Letchworth	02
Facility: Altica Correctional Facility	02
Yates	04

PRIMARY CARE: New York

Service Area Listing

Service area name	Degree of shortage group
Alexandria Bay County—Jefferson Parts: Alexandria Twp Cape Vincent Twp Clayton Twp Lyme Twp Orleans Twp Philadelphia Twp Teresa Twp County—St. Lawrence Parts: Hammond Twp	01
Arcade	02
County—Allegany Parts: Centerville Rushford	
County—Cattaraugus Parts: Farmersville Franklinville Freedom Machias Yorkshire	
County—Wyoming Parts: Arcade Eagle Java Orangeville Sheldon Wethersfield	
Bakersville	02
County—Fulton Parts: Broadalbin Twp	
County—Saratoga Parts: Galway Twp Providence Twp	
Bedford/Stuyvesant County—Kings	04

PRIMARY CARE: New York—Continued

Service Area Listing

PRIMARY CARE: New York—Continued

Service Area Listing

PRIMARY CARE: New York—Continued

Service Area Listing

Service area name	Degree of shortage group	Service area name	Degree of shortage group	Service area name	Degree of shortage group
Parts:		County—Kings		County—Kings	
C.T. 201		Parts:		Parts:	
C.T. 227		C.T. 347		C.T. 326	
C.T. 229		C.T. 349		C.T. 328	
C.T. 231		C.T. 357		C.T. 330	
C.T. 233		C.T. 359		C.T. 336	
C.T. 235		C.T. 361		C.T. 340	
C.T. 237		C.T. 363		C.T. 342	
C.T. 239		C.T. 862		C.T. 348.01	
C.T. 241		C.T. 884		C.T. 348.02	
C.T. 243		C.T. 886		C.T. 350	
C.T. 245		C.T. 888		C.T. 352	
C.T. 247		C.T. 890		C.T. 360.01	
C.T. 249		C.T. 892		C.T. 360.02	
C.T. 251		C.T. 894		C.T. 362	
C.T. 253		C.T. 896		C.T. 364	
C.T. 255		C.T. 898		Cornhill (Ulrica)	02
C.T. 257		C.T. 900		County—Oneida	
C.T. 259.01		C.T. 902		Parts:	
C.T. 259.02		C.T. 904		C.T. 204	
C.T. 261		C.T. 906		C.T. 207.01	
C.T. 263		C.T. 908		C.T. 208.03	
C.T. 265		C.T. 910		C.T. 210	
C.T. 267		C.T. 912		C.T. 212.01	
C.T. 269		C.T. 914		C.T. 215	
C.T. 271.01		C.T. 916		Cortland/Chenango	
C.T. 271.02		C.T. 918		County—Chenango	
C.T. 273		C.T. 920		Parts:	
C.T. 275		C.T. 1134		Lincolnton	
C.T. 277		C.T. 1136		Pitchee	
C.T. 279		C.T. 1138		County—Cortland	
C.T. 281		Cairo	02	Parts:	
C.T. 283		County—Greene		Cincinnati Town	
C.T. 285.01		Parts:		Cuyler Town	
C.T. 285.02		Cairo		Freehold Town	
C.T. 287		Durham		Lapeer Town	
C.T. 289		Greenville		Marathon Town	
C.T. 291		Camden	02	Taylor Town	
C.T. 293		County—Lewis		Wilket Town	
C.T. 295		Parts: Osceola		County—Madison	
C.T. 297		County—Oneida		Parts: De Ruyter	
C.T. 299		Parts:		Dannemora	02
C.T. 301		Annsville		County—Clinton	
C.T. 303		Camden		Parts:	
C.T. 307		Florence		Dannemora	
C.T. 309		Vienna		Saranac	
C.T. 311		Cato	01	County—Broome	03
C.T. 365.01		County—Cayuga		Parts:	
C.T. 365.02		Parts:		Colesville	
C.T. 367		Cato		Sanford	
C.T. 369		Conquest		Windsor	
C.T. 371		Ira		County—Delaware	
C.T. 373		Victory		Parts:	
C.T. 375		Central Adirondack	02	Deposit	
C.T. 377		County—Essex		Tompkins	
C.T. 379		Parts: Newcomb Twp		E. Cent. Essex	03
C.T. 381		County—Hamilton		County—Essex	
C.T. 383		Parts:		Parts:	
C.T. 385		Indian Lake Twp		Elizabeth Twp	
C.T. 387		Inlet		Essex	
Black Rock/Riverside	02	Long Lake Twp		Keene	
County—Erie		County—Herkimer		Lewis	
Parts:		Parts: Webb		Moriah	
C.T. 55-59		Chateaugay	02	North Hudson	
Blue Stores		County—Clinton		Westport	
County—Columbia		Parts: Clinton		Willsboro	
Parts:		County—Franklin		East Bronx	64
Clearmont Twp		Parts:		County—Bronx	
Germantown Twp		Belmont		Parts:	
Livingston Twp		Burke		C.T. 44	
Boonville	03	Chateaugay		C.T. 48	
County—Lewis		Cherry Valley	03	C.T. 50	
Parts:		County—Otsego		C.T. 52	
Lewis		Parts:		C.T. 54	
Leyden		Cherry Valley		C.T. 56	
Lyonsdale		Roseboom		C.T. 62	
West Turn		Springfield		C.T. 64	
County—Oneida		County—Schoharie		C.T. 66	
Parts:		Parts: Sharon		C.T. 68	
Ava		Cochecton	02	C.T. 70	
Boonville		County—Sullivan		C.T. 214	
Forestport		Parts:		East Harlem	62
Brownville	04	Cochecton			
		Delaware			
		Freemont			
		Highland			
		Tusten			
		Coney Isl/Brighton Beach/W. Brighton	02		

PRIMARY CARE: New York—Continued

Service Area Listing

Service area name	Degree of shortage group
County—New York	
Parts:	
C.T. 162	
C.T. 164	
C.T. 166	
C.T. 168	
C.T. 170	
C.T. 172.01	
C.T. 172.02	
C.T. 174.01	
C.T. 174.02	
C.T. 178	
C.T. 180	
C.T. 182	
C.T. 184	
C.T. 186	
C.T. 192	
C.T. 194	
C.T. 196	
C.T. 198	
C.T. 202	
C.T. 204	
C.T. 206	
C.T. 210	
Eastern Rensselaer	
County—Rensselaer	
Parts: Berlin Twn	
County—New York	
Parts:	
Hoosick Twn	
Petersburg Twn	
Stephentown Twn	
Dix (NY/PA)	02
County—Steuben	
Parts:	
Tuscarora Twn	
Woodhill Twn	
Essex-Warren	01
County—Essex	
Parts: Minerva	
County—Warren	
Parts:	
Chester	
Honcon	
Johnsburg	
Thurman	
Warrensburg	
Gouverneur	02
County—Jefferson	
Parts: Antwerp Twn	
County—St Lawrence	
Parts:	
Dekalb	
Depeyster	
Edwards	
Fowler	
Gouverneur	
Heron	
Macomb	
Rossie	
Greene	02
County—Chenango	
Parts:	
German Twn	
Greene Twn	
McDonough Twn	
Smithville Twn	
Hamilton Hill/Mt. Pleasant	01
County—Schenectady	
Parts:	
C.T. 209	
C.T. 210.02	
C.T. 211.03	
C.T. 214-217	
Hamilton/Sherburne	02
County—Chenango	
Parts:	
Columbus Twn	
Otselic Twn	
Sherburne Twn	
Smvra Twn	

PRIMARY CARE: New York—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Madison	
Parts:	
Brookfield	
De Ruyter Twn	
Eaton	
Georgetown	
Hamilton	
Lebanon	
Madison	
County—Oneida	
Parts: Sangerfield	
Inwood	02
County—New York	
Parts:	
C.T. 277	
C.T. 279	
C.T. 281	
C.T. 283	
C.T. 285	
C.T. 287	
C.T. 289	
C.T. 291	
C.T. 293	
C.T. 295	
C.T. 303	
C.T. 307	
Litchworth	02
County—Allegany	
Parts:	
Allen	
Caneadea	
Granger	
Hume	
County—Livingston	
Parts: Portage	
County—Wyoming	
Parts:	
Castle	
Gainesville	
Genesee Falls	
Pike	
Lower East Side	03
County—New York	
Parts:	
C.T. 2.01	
C.T. 2.02	
C.T. 6	
C.T. 8	
C.T. 10.01	
C.T. 10.02	
C.T. 12	
C.T. 14.01	
C.T. 14.02	
C.T. 16	
C.T. 18	
C.T. 20	
C.T. 22.01	
C.T. 22.02	
C.T. 24	
C.T. 25	
C.T. 26.01	
C.T. 26.02	
C.T. 27	
C.T. 28	
C.T. 29	
C.T. 30.01	
C.T. 30.02	
C.T. 31	
C.T. 32	
C.T. 34	
C.T. 36.01	
C.T. 36.02	
C.T. 38	
C.T. 40	
C.T. 41	
C.T. 43	
C.T. 45	
Luzerne	01
County—Saratoga	
Parts:	
Corinth	

PRIMARY CARE: New York—Continued

Service Area Listing

Service area name	Degree of shortage group
Day	
Edinburg	
Hadley	
County—Warren	
Parts:	
Lake Luzerne	
Stony Creek	
Modena	02
County—Ulster	
Parts:	
Gardiner	
Lloyd	
Marlborough	
Plattekill	
Shawangunk	
Morris Heights	02
County—Bronx	
Parts:	
C.T. 205	
C.T. 215.01	
C.T. 215.02	
C.T. 239	
C.T. 243	
C.T. 245	
C.T. 247	
C.T. 249	
C.T. 251	
C.T. 253	
C.T. 255	
C.T. 257	
Napies/South Bristol	04
County—Ontario	
Parts:	
Napies	
South Bristol	
Northeast Albany	04
County—Albany	
Parts:	
C.T. 1	
C.T. 2	
C.T. 7	
C.T. 8	
C.T. 11	
Oak Orchard	02
County—Orleans	
Parts:	
Albion	
Barre	
Carlton	
Clarendon	
Kendall	
Murray	
Peekskill	02
County—Westchester	
Parts:	
C.T. 141	
C.T. 142	
C.T. 143	
C.T. 144	
C.T. 145	
Randolph-Ellicottville	03
County—Cattaraugus	
Parts:	
Cold Spring Twn	
Conewango Twn	
Ellicottville Twn	
Little Valley Twn	
Mansfield Twn	
Napoli Twn	
New Albion Twn	
Randolph Twn	
South Valley Twn	
Remsen	03
County—Herkimer	
Parts:	
Ohio	
Russia	
County—Oneida	
Parts:	
Remsen	
Steuben	
Trenton	
Rockaway section of Queens	02

PRIMARY CARE: New York—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Queens	
Parts:	
C.T. 916.01	
C.T. 916.02	
C.T. 916.99	
C.T. 918	
C.T. 922	
C.T. 928	
C.T. 934	
C.T. 938	
C.T. 942.01	
C.T. 942.02	
C.T. 942.03	
C.T. 952	
C.T. 962	
C.T. 964	
C.T. 972	
C.T. 992	
C.T. 998	
C.T. 1006	
C.T. 1010	
C.T. 1032	
Sodus	04
County—Wayne	
Parts:	
C.T. 201 (Ontario)	
C.T. 204 (Williamson)	
C.T. 205 (Marion)	
C.T. 208 (Sodus)	
C.T. 209 (Sodus)	
C.T. 215 (Huron-Wolcott)	
C.T. 216 (Rose-Butler)	
Soundview area	01
County—Bronx	
Parts:	
C.T. 2	
C.T. 4	
C.T. 16	
C.T. 20	
C.T. 24	
C.T. 28	
C.T. 36	
C.T. 38	
C.T. 40.02	
C.T. 46	
C.T. 74	
C.T. 84	
C.T. 86	
C.T. 88	
C.T. 98	
C.T. 102	
South Hamilton	01
County—Hamilton	
Parts:	
Anetia	
Benson	
Hope	
Lake Pleasant	
Morehouse	
Wells	
South Seneca	02
County—Seneca	
Parts:	
Covert	
Lodi	
Ovid	
Southeast Albany City	01
County—Albany	
Parts:	
C.T. 23	
C.T. 24	
C.T. 25	
C.T. 26	
Southeast Otsego	03
County—Otsego	
Parts:	
Decatur	
Maryland	
Westford	
Worcester	
Southern Delaware	01
County—Delaware	
Parts:	
Colchester Twp	
Hancock Twp	
Southern Schoharie	03

PRIMARY CARE: New York—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Schoharie	
Parts:	
Blenheim	
Broome	
Conesville	
Fulton	
Gilboa	
Middleburgh	
Southwest Otsego Co	02
County—Otsego	
Parts:	
Butternuts Twp	
Morris Twp	
Starake	04
County—St Lawrence	
Parts:	
Clare Twp	
Clifton Twp	
Fine Twp	
Pitcairn Twp	
Russell Twp	
South Colton	
Sunset Park	01
County—Kings	
Parts:	
C.T. 2	
C.T. 18	
C.T. 20	
C.T. 22	
C.T. 76	
C.T. 78	
C.T. 80	
C.T. 62	
C.T. 84	
C.T. 86	
C.T. 88	
C.T. 90	
C.T. 92	
C.T. 94	
C.T. 96	
C.T. 98	
C.T. 100	
C.T. 101	
C.T. 145	
Tupper Lake	02
County—Franklin	
Parts:	
Altamont Town	
County—St Lawrence	
Parts:	
Piercefield Town	
Upper West Side	02
County—New York	
Parts:	
C.T. 177	
C.T. 179	
C.T. 181	
C.T. 183	
C.T. 185	
C.T. 187	
C.T. 189	
C.T. 191	
C.T. 193	
C.T. 195	
West Central Harlem	04
County—New York	
Parts:	
C.T. 186	
C.T. 190	
C.T. 197.02	
C.T. 200	
C.T. 201.02	
C.T. 207.02	

PRIMARY CARE: New York—Continued

Service Area Listing

Service area name	Degree of shortage group
C.T. 209.02	
C.T. 211-212	
C.T. 213.01	
C.T. 213.02	
C.T. 214	
C.T. 216	
C.T. 217.01	
C.T. 217.02	
C.T. 218-219	
C.T. 220	
C.T. 221.01	
C.T. 221.02	
C.T. 222-226	
C.T. 227.01	
C.T. 227.02	
C.T. 228-230	
C.T. 231.01	
C.T. 231.02	
C.T. 232-234	
C.T. 235.01	
C.T. 235.02	
C.T. 236-237	
C.T. 239	
C.T. 241	
C.T. 243.02	
Western Greene Co.	02
County—Greene	
Parts:	
Ashland	
Hunter	
Jewett	
Lexington	
Prattville	
Windham	
Western Montgomery Co	02
County—Montgomery	
Parts:	
Canajoharie	
Minden	
Palatine	
Root	
St. Johnsville	
Western Otsego	01
County—Otsego	
Parts:	
Burlington	
Edmeston	
New Lisbon	
Pittsfield	
Plainfield	
Westfield	02
County—Chautauque	
Parts:	
Chautauque Twp	
Ripley Twp	
Sherman Twp	
Westfield Twp	

PRIMARY CARE: New York

Population Group Listing

Population group	Degree of shortage group
Chelsea Outreach Trgt Pop	01
County—New York	
Med. Ind. (Mt. Vernon)	02
County—Westchester	
Parts: C.T. 25-45 (Med. Ind.)	
Poverty Pop (Lower West Side)	08
County—Erie	
Parts:	
C.T. 68	
C.T. 71.01	
C.T. 71.02	
C.T. 72.01	
Poverty Pop (P.S. 84 area)	01

PRIMARY CARE: New York—Continued

Population Group Listing

Population group	Degree of shortage group
County—Erie	
Parts:	
C.T. 27.02	
C.T. 32.01	
C.T. 32.02	
C.T. 33.01	
C.T. 33.02	
C.T. 34	
C.T. 35	
C.T. 36	
C.T. 39	
C.T. 40	
C.T. 41	
C.T. 44.02	
Poverty Pop.—Central Syracuse	04
County—Onondaga	
Parts:	
C.T. 5	
C.T. 13	
C.T. 16	
C.T. 22-24	
C.T. 30-35	
C.T. 39-45	
C.T. 51-55	
C.T. 56.01	
C.T. 56.02	
C.T. 57-59	
C.T. 61.01	
Poverty Pop.—Ellicott Neighborhood	03
County—Erie	
Parts:	
C.T. 12	
C.T. 13.01	
C.T. 13.02	
C.T. 14.01	
C.T. 14.02	
C.T. 15	
C.T. 25.01	
C.T. 25.02	
C.T. 26	
C.T. 27.01	
C.T. 31	
Tonawanda Indian Pop.	01
County—Erie	
Parts: Tonawanda Indian Reservation	
County—Genesee	
Parts: Tonawanda Indian Reservation	
County—Niagara	
Parts: Tonawanda Indian Reservation	
Tuscarora Indian Pop.	01
County—Niagara	
Parts: Tuscarora Indian Reservation	

PRIMARY CARE: New York

Facility Listing

Facility	Degree of shortage group
Alta Correctional Facility	02
County—Wyoming	
Bellevue Hosp. Center	02
County—New York	
Gouverneur Diag. & Treatment Ctr.	03
County—New York	
NYC Corp. Fac./Riker's Island	02
County—Bronx	
Parts:	
Adolescent Rpt/Det Ctr	

PRIMARY CARE: New York—Continued

Facility Listing

Facility	Degree of shortage group
Anna M. Kross Corr. Fac.	
„Corr. Inst.—Men	
Corr. Inst.—Women	
House of Detention Men	
PRIMARY CARE: North Carolina	
County Listing	
County name	Degree of shortage group
Anson	02
Beaufort	
Service area: Richland	03
Bertie	01
Bladen	01
Brunswick	02
Buncombe	
Service area: Bat Cave Service Area	01
Caldwell	
Service area: Western Caldwell	01
Caswell	01
Chatham	03
Clay	01
Columbus	02
Cumberland	
Service area: Cedar Creek	02
Cumtuck	02
Dare	
Service area: Hatteras	02
Service area: Manns Harbor	03
Duplin	02
Durham	
Service area: Lincoln Comm. H. Ctr. Tgt. Area	02
Edgecombe	02
Franklin	02
Gates	02
Graham	04
Granville	04
Greene	01
Halifax	
Service area: Littleton	01
Harnett	
Service area: Western Harnett	01
Henderson	
Service area: Bat Cave Service Area	01
Hoke	01
Hyde	01
Johnston	
Service area: Benson	02
Population group: Migrant & Seasonal Farmworkers	01
Madison	02
Mecklenburg	
Service area: Central Charlotte	01
Mitchell	
Service area: Tipon Hill	01
Montgomery	04
Northampton	02
Onslow	
Service area: Holly Ridge	01
Onslow	
Service area: Onslow	04
Orange	
Service area: Orange (N. portion)	03
Pender	
Service area: Holly Ridge	01
Service area: Western Pender	02
Perquimans	01
Person	03
Richmond	04
Robeson	
Service area: Parkton/St. Paul	02
Service area: Rowland	02
Population group: Maxton (pov. pop.)	01
Population group: Pembroke (med. ind. pop.)	01
Sampson	
Population group: Migrant & seasonal farmworkers	01
Stokes	
Service area: Danbury	03
Transylvania	
Service area: Balsam Grove	01
Tyrrell	01

PRIMARY CARE: North Carolina—Continued

County Listing

County name	Degree of shortage group
Warren	
Service area: Littleton	01
Service area: Warrenton	01
Washington	04
Yadkin	03
Yancey	
Service area: Tipton Hill	01

PRIMARY CARE: North Carolina

Service area listing

Service area name	Degree of shortage group
Balsam Grove	01
County—Transylvania	
Parts:	
Gloucester	
Hog Back	
Bat Cave service area	01
County—Buncombe	
Parts:	
Broad River Twp	
Fairview Twp	
County—Henderson	
Parts:	
Clear Creek Twp	
Edneyville Twp	
Benson	02
County—Johnston	
Parts:	
Banner Twp	
Elevation Twp	
Meadow Twp	
Pleasant Grove Twp	
Cedar Creek	02
County—Cumberland	
Parts:	
Cedar Creek	
Eastover Twp	
Central Charlotte	01
County—Mecklenburg	
Parts:	
C.T. 1	
C.T. 4-8	
C.T. 36-37	
C.T. 38.02	
C.T. 39-42	
C.T. 43.01	
C.T. 43.02	
C.T. 44-52	
Danbury	03
County—Stokes	
Parts:	
Beaver Island	
Big Creek	
Danbury	
Meadows	
Peters Creek	
Sauratown	
Snow Creek	
Yadkin	
Hatteras	02
County—Dare	
Parts:	
Hatteras Twp	
Kennekeet Twp	
Holly Ridge	01
County—Onslow	
Part:	
C.T. 4	
County—Pender	
Parts:	
Holly Twp	
Topsail Twp	
Lincoln Comm. H. Center Target area	02

PRIMARY CARE: North Carolina—Continued

Service area listing	
Service area name	Degree of shortage group
County—Durham:	
Parts:	
C.T. 8.01	
C.T. 8.02	
C.T. 9	
C.T. 10.01	
C.T. 11	
C.T. 12.01	
C.T. 12.02	
C.T. 13.01	
C.T. 13.02	
C.T. 14	
Littleton	01
County—Halifax:	
Parts:	
Brinkleyville Twp	
Butterworth Twp	
Littleton Twp	
County—Warren:	
Parts:	
Fishing Creek Twp	
Judkins Twp	
Manns Harbor	03
County—Dare:	
Parts:	
Croatan Twp	
East Lake Twp	
Nags Head Twp	
Onslow	04
County—Onslow:	
Parts:	
C.T. 1-3	
C.T. 5-25	
Orange (N. Portion)	03
County—Orange:	
Parts:	
Cedar Grove Twp	
Cheeks Twp	
Enit Twp	
Hillsborough Twp	
Little River Twp	
Parkton/St. Paul	02
County—Robeson:	
Parts:	
Parkton Twp	
St. Paul Twp	
Richland	03
County—Beaufort:	
Part:	
Richland Twp	
Rowland	02
County—Robeson:	
Parts:	
Alfordville Twp	
Gaddy Twp	
Rowland Twp	
Thompson Twp	
Union Twp	
Tipton Hill	01
County—Mitchell:	
Parts:	
Bradshaw	
Harrell	
Poplar	
Red Hill	
County—Yancey:	
Parts:	
Brush Creek	
Green Mountain	
Jack's Creek	
Ramsey Town	
Warrenton	01
County—Warren:	
Parts:	
Fork Twp	
Hawtree Twp	
Nutbush Twp	
River Twp	
Roanoke Twp	
Sandy Creek Twp	
Shocco Twp	
Sixpound Twp	
Smith Creek Twp	
Warrenton Twp	
Western Caldwell	01

PRIMARY CARE: North Carolina—Continued

Service area listing	
Service area name	Degree of shortage group
County—Caldwell:	
Parts:	
Globe	
Johns River	
Mulberry	
Patterson	
Wilson Creek	
Western Harnett	01
County—Harnett:	
Parts:	
Anderson Creek	
Barbecue	
Johnsonville	
Lillington	
Stewarts Creek	
Upper Little River	
Western Pender	02
County—Pender:	
Parts:	
Bergan Twp	
Canetuck Twp	
Caswell Twp	
Columbia Twp	
Grady Twp	
Long Creek Twp	
Rocky Point Twp	
Union Twp	

PRIMARY CARE: North Carolina

Population Group Listing	
Population group	Degree of shortage group
Maxton (Pop. Pop.)	01
County—Robeson:	
Parts:	
Maxton	
Migrant and seasonal farmworkers	01
County—Johnston	
County—Sampson	
Pembroke (Med. Ind. Pop.)	01
County—Robeson:	
Parts:	
Burnt Twp (Med. Ind. Pop.)	
Pembroke Twp (Med. Ind. Pop.)	
Philadelphus Twp (Med. Ind. Pop.)	
Smiths Twp (Med. Ind. Pop.)	
Swamp Twp (Med. Ind. Pop.)	

PRIMARY CARE: North Dakota

County Listing	
County name	Degree of shortage group
Adams:	
Service area: Lemmon	03
Benson	01
Billings:	
Service area: Belfield/Medora	01
Burke	01
Cavalier	02
Dickey:	
Service area: Ellendale/Edgely	02
Divide	04
Dunn	01
Edy	03
Foster:	
Service area: Carrington	04
Golden Valley	03
Grand Forks:	
Service area: Northwood	04
Grant	01
Griggs	04
Hettinger	01
La Moure:	
Service area: Ellendale/Edgely	02
Logan	01

PRIMARY CARE: North Dakota—Continued

County Listing	
County name	Degree of shortage group
McHenry	04
McKenzie	04
Mercer:	
Service area: Mercer/Oliver	01
Morton	04
Mountrail	04
Nelson:	
Service area: Northwood	04
Oliver:	
Service area: Mercer/Oliver	01
Richland:	
Service area: Hankinson-Lidgenwood	01
Rolette	04
Sargent	01
Sheridan	01
Sioux	01
Slope	01
Stark:	
Service area: Belfield/Medora	01
Steele:	
Service area: Northwood	04
Stutsman:	
Service area: Carrington	04
Wells:	
Service area: Carrington	04

PRIMARY CARE: North Dakota

Service area listing	
Service area name	Degree of shortage group
Belfield/Medora	01
County—Billings	
County—Stark:	
Parts:	
Belfield City	
West Stark Unorg. (W. 1/4)	
Carrington	04
County—Foster:	
Parts:	
Fretlim Twp	
Kidder Twp	
Lake Williams Twp	
Petersville Twp	
Pettibone City	
Pettibone Twp	
Rexine Twp	
Wallace Twp	
County—Stutsman:	
Parts:	
Conklin Twp	
Conine Twp	
Edmunds Twp	
Gerber Twp	
Glacier Twp	
Kensal City	
Kensal Twp	
Lowery Twp	
Marston Moor Twp	
Nogoresk Twp	
Pingree City	
Pingree Twp	
Pipestream Valley Twp	
Strong Twp	
Wadsworth Twp	
Walters Twp	
Woodworth	
County—Wells:	

PRIMARY CARE: North Dakota—Continued

Service area listing	
Service area name	Degree of shortage group
Parts:	
Berlin Twp	
Bilodeau Twp	
Cathay City	
Cathay Twp	
Haaland Twp	
Hawkeest Twp	
Johnson Twp	
Progress Twp	
South Cottonwood Twp	
Speedwell Twp	
Sykeston City	
Sykeston Twp	
West Ontario Twp	
Woodward Twp	
Ellendale/Edgely	02
County—Dickey:	
Parts:	
Ada Twp	
Albion Twp	
Albion Twp	
Elden Twp	
Ellendale City	
Ellendale Twp	
Elm Twp	
Forbes City	
Fullerton City	
German Twp	
Grand Valley Twp	
Hamburg Twp	
Kent Twp	
Kentner Twp	
Keystone Twp	
Lorraine Twp	
Maple Twp	
Monango City	
Muncourt City	
Northwest Twp	
Porter Twp	
Potsdam Twp	
Spring Valley Twp	
Valley Twp	
Van Meter Twp	
Whitestone Twp	
Wright Twp	
Yorktown Twp	
Young Twp	
County—La Moure:	
Parts:	
Edgely City	
Golden Glen Twp	
Nora Twp	
Pomona View Twp	
Ray Twp	
Wano Twp	
Willowbank Twp	
Hankinson/Lidgenwood	01
County—Richland:	
Parts:	
Belford Twp	
Brightwood Twp	
Dexter Twp	
Duen Twp	
Elma Twp	
Grant Twp	
Greendale Twp	
Hankinson City	
La Mars Twp	
Liberty Grove Twp	
Lidgenwood City	
Mantador City	
Morgan Twp	
Waldo Twp	
Lemmon	03
County—Adams:	
Parts:	
East Adams (Unorg.) S. ½	
Gilstrap Twp	
North Lemmon Twp	
Orange Twp	
South Fork Twp	
Mercer/Oliver	01
County—Mercer:	
County—Oliver:	
Northwood	04

PRIMARY CARE: North Dakota—Continued

Service area listing	
Service area name	Degree of shortage group
County—Grand Forks:	
Parts:	
Arvilla Township	
Avon Township	
Elm Grove Township	
Grace Township	
Jarimore City	
Janmore Township	
Linds Township	
Logan Center Township	
Loretta Township	
Moraine Township	
Niagra City	
Niagra Township	
Northwood City	
Northwood Twp	
Pleasant View Twp	
Washington Twp	
County—Nelson:	
Parts:	
Aneta City	
Ora Township	
Rugh Township	
County—Steele:	
Parts:	
Beaver Creek Twp	
Newburgh Twp	
Sharon City	
Sharon Township	
Westfield Twp	

PRIMARY CARE: Ohio

County listing	
County name	Degree of shortage group
Adams	02
Ashtabula:	
Service area: Geneva-Madison	04
Brown	04
Butler:	
Service area: Hamilton	01
Carroll	04
Clark:	
Population group: Poverty Pop. (Springfield)	01
Clermont:	
Service area: Eastern Clermont Co	02
Columbiana:	
Service area: East Liverpool (Ohio/Penn/W.Va.)	02
Coshocton	02
Cuyahoga:	
Service area: Central/Fairfax/Kinsman	01
Service area: Clark Fulton/Denison/Fremont	01
Service area: Hough/Norwood	01
Service area: Near West/West Side	02
Service area: South Broadway	04
Darke	03
Franklin:	
Service area: Lower Linden	04
Geauga:	
Service area: Geneva-Madison	04
Hamilton:	
Service area: East/Lower Price Hill	01
Service area: Milvale	01
Service area: Winton Hills (Cincinnati)	01
Hancock:	
Service area: Tiffin/Fostoria	03
Hardin	03
Harrison	03
Henry	03
Highland:	
Service area: Greenfield	02
Hocking	02
Holmes	03
Jackson	03
Jefferson:	
Service area: East Liverpool (Ohio/Penn/W.Va.)	02
Lake:	
Service area: Geneva-Madison	04
Lawrence	02
Lucas:	
Service area: Center City/Dorr-Toledo	04

PRIMARY CARE: Ohio—Continued

County listing	
County name	Degree of shortage group
Service area: Near South Side-Toledo	03
Mahoning:	
Service area: Eastside Youngstown	01
Meigs	02
Monroe	02
Montgomery:	
Service area: West Dayton	02
Morgan	02
Morrow	02
Paulding	03
Perry	02
Pike	02
Putnam	03
Ross:	
Service area: Greenfield	02
Population group: Medicaid Eligible Pop.	01
Sandusky	03
Seneca:	
Service area: Tiffin/Fostoria	03
Tuscarawas	03
Vinton	02
Warren	03
Washington:	
Service area: New Matamoras	01
Wood:	
Service area: Tiffin/Fostoria	03

PRIMARY CARE: Ohio

Service area listing	
Service area name	Degree of shortage group
Center City/Dorr-Toledo	04
County—Lucas:	
Parts:	
C.T. 27-28	
C.T. 31-37	
C.T. 39	
Central/Fairfax/Kinsman	01
County—Cuyahoga:	
Parts:	
C.T. 1079	
C.T. 1087-1089	
C.T. 1091-1093	
C.T. 1096-1099	
C.T. 1101-1103	
C.T. 1129	
C.T. 1131-1139	
C.T. 1141-1145	
C.T. 1147-1148	
Clark Fulton/Denison/Fremont	01
County—Cayahoga:	
Parts:	
C.T. 1027-1029	
C.T. 1041-1049	
C.T. 1051-1056	
East Liverpool (Ohio/Penn/W.Va.)	02
County—Columbiana:	
Parts:	
Center Twp	
Elk Run Twp	
Franklin Twp	
Hanover Twp (S. ½)	
Liverpool Twp	
Madison Twp	
Middleton Twp	
St. Clair Twp	
Washington Twp	
Wayne Twp	
Wellsville Twp	
Yellow Creek Twp	
County—Jefferson:	
Parts:	
Brush Creek Twp	
Saline Twp	
East/Lower Price Hill	01

PRIMARY CARE: Ohio—Continued

Service area listing

Service area name	Degree of shortage group
County—Hamilton:	
Parts:	
C.T. 87 (Fairmont—South)	
C.T. 89 (Fairmont—South)	
C.T. 91 (Price Hill—Tower)	
C.T. 92	
C.T. 93 (Price Hill—East)	
C.T. 94	
C.T. 95	
C.T. 96 (Price Hill—East)	
C.T. 103 (Riverside—Salemville)	
Eastern Clermont Co.	02
County—Clermont:	
Parts:	
C.T. 401 (Batale)	
C.T. 402 (Franklin)	
C.T. 408 (Goshen)	
C.T. 409 (Jackson)	
C.T. 410 (Monroe)	
C.T. 411 (Ohio)	
C.T. 415 (Pierce)	
C.T. 416 (Stonelick)	
C.T. 417 (Tate)	
C.T. 418 (Washington)	
C.T. 419 (Wayne)	
C.T. 420 (Williamsburg)	
Eastside Youngstown	01
County—Mahoning:	
Parts:	
C.T. 8001-8008 (Youngstown)	
Geneva—Madison	04
County—Ashtabula:	
Parts:	
Geneva Twp	
Harpersfield Twp	
County—Geauga:	
Parts:	
Thompson Twp	
County—Lake:	
Parts:	
Madison Twp	
Glenville	
County—Cuyahoga:	
Parts:	
C.T. 1114	
C.T. 1161-1168	
C.T. 1181-1185	
Greenfield	02
County—Highland:	
Parts:	
Fairfield Twp	
Madison Twp	
Paint Twp	
County—Ross:	
Parts:	
Buckskin Twp	
Paint Twp	
Hamilton	01
County—Butler:	
Parts:	
C.T. 2-4	
Hough/Nonwood	01
County—Cuyahoga:	
Parts:	
C.T. 1112-1113	
C.T. 1115-1119	
C.T. 1121	
C.T. 1123-1126	
C.T. 1186	
C.T. 1189	
Lower Linden	04
County—Franklin:	
Parts:	
C.T. 7.1	
C.T. 7.2	
C.T. 7.3	
C.T. 9.1	
C.T. 9.2	
C.T. 15	
C.T. 14	
C.T. 75.11	
C.T. 75.20	
Milvale	01

PRIMARY CARE: Ohio—Continued

Service area listing

Service area name	Degree of shortage group
County—Hamilton:	
Parts:	
C.T. 28	
C.T. 77	
C.T. 85.02	
C.T. 86.01	
Near South Side-Toledo	03
County—Lucas:	
Parts:	
C.T. 38	
C.T. 40-42	
C.T. 54	
Near West/West Side	02
County—Cuyahoga:	
Parts:	
C.T. 1012	
C.T. 1014-1019	
C.T. 1021-1026	
C.T. 1031-1039	
New Matamoras	01
County—Washington:	
Parts:	
Grandview Twp	
Independence Twp	
Liberty Twp	
Ludlow Twp	
Newport Twp	
South Broadway	04
County—Cuyahoga:	
Parts:	
C.T. 1109	
C.T. 1151-1155	
C.T. 1157-1159	
Tiffin/Fostoria	03
County—Hancock:	
Parts:	
Washington Twp	
County—Seneca:	
Parts:	
Adams	
Big Spring Twp	
Bloom Twp	
Clinton Twp	
Eden Twp	
Fostoria City	
Green Springs Vll (part)	
Hopewell Twp	
Jackson Twp	
Liberty Twp	
Louden Twp	
Pleasant Twp	
Scipio Twp	
Seneca Twp	
Thompson Twp	
Tiffin City	
County—Wood:	
Parts:	
Perry Twp	
West Dayton	02
County—Montgomery:	
Parts:	
C.T. 5	
C.T. 14.01	
C.T. 14.02	
C.T. 15-17	
C.T. 19-23	
C.T. 25-26	
C.T. 28-33	
Winton Hills (Cincinnati)	01
County—Hamilton:	
Parts:	
C.T. 80 (Winton Hills)	

PRIMARY CARE: Ohio

Population group listing

Population group	Degree of shortage group
Medicaid Eligible Pop	01
County—Ross	
Poverty Pop. Springfield	01

PRIMARY CARE: Ohio—Continued

Population group listing

Population group	Degree of shortage group
County—Clerk:	
Parts:	
C.T. 1	
C.T. 2	
C.T. 3	
C.T. 6	
C.T. 9.01	
C.T. 9.02	
C.T. 10	
C.T. 11.01	
C.T. 11.02	
C.T. 12	

PRIMARY CARE: Oklahoma

County Listing

County name	Degree of shortage group
Adair	04
Atoka	04
Choctaw	03
Cotton	03
Delaware	04
Greer	
Facility: Ok. State Pen. (Granite)	02
Harman	04
Le Flore:	
Service area: South Le Flore	01
McClain	04
Mays:	
Service area: Chelsea/New Alluwe	01
Nowata:	
Service area: Chelsea/New Alluwe	01
Oklahoma:	
Service area: S.E. Oklahoma City	01
Osage	03
Pushmataha:	
Service area: Clayton	01
Rogers:	
Service area: Chelsea/New Alluwe	01
Seminole	03
Texas:	
Service area: Texhoma	01
Tillman	03
Tulsa:	
Service area: North Central Tulsa	02
Population Group: Indian Pop. of Tulsa	01
Washita	02

PRIMARY CARE: Oklahoma

Service area listing

Service area name	Degree of shortage group
Chelsea/ New Alluwe	01
County—Mayes:	
Parts:	
Adair E.D. 12	
County—Nowata:	
Parts:	
New Alluwe E.D. 14	
County—Rogers:	
Parts:	
E.D. 1-4	
Clayton	01
County—Pushmataha:	
Parts:	
No. Pushmataha Division	
North Central Tulsa	02

PRIMARY CARE: Oklahoma—Continued

Service area listing

Service area name	Degree of shortage group
County—Tulsa	
Parts:	
C.T. 2-10	
C.T. 12-14	
C.T. 57	
C.T. 62	
C.T. 79	
C.T. 80.01	
C.T. 80.02	
C.T. 91.01	
SE Oklahoma City	01
County—Oklahoma:	
Parts:	
C.T. 1037-1040	
C.T. 1047-1049	
C.T. 1053-1054	
C.T. 1072.09	
C.T. 1073.02	
South Le Flore	01
County—Le Flore:	
Parts:	
South Le Flore	
Tahmina	
Tahmina	01
County—Texas:	
Parts:	
West Texas CCD	

PRIMARY CARE: Oklahoma

Population group listing

Population group	Degree of shortage group
Indian Pop. of Tulsa	
County—Tulsa	01

PRIMARY CARE: Oklahoma

Facility listing

Facility	Degree of shortage group
Ok. State Pen (Granite)	02
County: Greer	

PRIMARY CARE: Oregon

County listing

County name	Degree of shortage group
Baker:	
Service area: Halfway	01
Benton:	
Service area: Alesia	01
Service area: Blodgett/Eddyville	01
Service area: Junction City/Harrisburg/Monroe	02
Clackamas:	
Service area: Estacada	02
Service area: Mt. Hood	01
Population group: Migr./Seas. Farmwkr. Pop.	03
Columbia:	
Service area: Vernonia	01
Cook:	
Service area: Powers	01
Curry:	
Service area: Port Orford	02
Gilliam:	
Service area: Arlington	01
Service area: Condon	01
Grant:	
Service area: Long Creek	01
Harney:	
Service area: South Harney	01

PRIMARY CARE: Oregon—Continued

County listing

County name	Degree of shortage group
Jackson:	
Service area: Applegate-Williams	01
Service area: Shady Cove	01
Jefferson:	
Population group: Am. Indian Pop. (Warm Springs Res.)	01
Josephine:	
Service area: Applegate-Williams	01
Klamath:	
Service area: Bly	01
Service area: Chiloquin	01
Lake:	
Service area: Silver Lake	01
Lane:	
Service area: Junction City/Harrisburg/Monroe	02
Service area: Lowell	01
Service area: McKenzie	01
Service area: Oakridge	04
Service area: Triangle Lake/Swisthome	02
Service area: Veneta	03
Lincoln:	
Service area: Blodgett/Eddyville	01
Linn:	
Service area: Brownville	04
Service area: Junction City/Harrisburg/Monroe	02
Malheur:	
Service area: Jordan Valley	01
Service area: Nyssa	01
Service area: Vale	02
Population group: Mshw N. Treasure Valley	01
Marion:	
Service area: Detroit	01
Population group: Migr. Seas. Farmwkr. (Marion-Polk)	01
Facility: St. Penitentiary/Womens Corr. Ctr.	02
Facility: State Correctional Inst.	02
Morrow:	
Service area: Boardman	02
Polk:	
Service area: West Salem	03
Service area: Willamina	01
Population group: Migr. Seas. Farmwkr. (Marion-Polk)	01
Sherman:	
Service area: Moro/Grass Valley	01
Tillamook:	
Service area: Pacific City/Cloverdale	02
Umatilla:	
Population group: Am. Indian Pop. (Umatilla)	01
Population group: Migr./Seas. Farmwkr. Pop. (W. Umatilla)	01
Population group: Walla Walla—Migrant & Seasonal Farmwkr.	01
Union:	
Service area: Cove/Union	01
Wasco:	
Service area: Maupin	01
Population group: Am. Indian Pop. (Warm Springs Res.)	01
Washington:	
Population group: Migr./Seas. Farmwkr. Pop.	01
Wheeler:	
Service area: Fossil	01
Service area: Mitchell	01
Yamhill:	
Service area: Willamina	01
Population group: Migr./Seas. Farmwkr. Pop.	01

PRIMARY CARE: Oregon

Service area listing

Service area name	Degree of shortage group
Alesia:	
County—Benton	01
Parts:	
S.W. Benton div (W 1/2)	
Applegate-Williams	01

PRIMARY CARE: Oregon—Continued

Service area listing

Service area name	Degree of shortage group
County—Jackson	
Parts:	
Southwest Jackson div (SW pt)	
County—Josephine	
Parts:	
Williams	01
Arlington	
County—Gilliam	
Parts:	
Arlington div.	
Blodgett/Eddyville	01
County—Benton	
Parts:	
North Benton div (W 1/2)	
County—Lincoln	
Parts:	
Eddyville div (E 1/2)	01
Bly	
County—Klamath	
Parts:	
Langell CCD	
Boardman	02
County—Morrow	
Parts:	
Boardman div.	
Brownville	04
County—Linn	
Parts:	
Brownville CCD	
Chiloquin	01
County—Klamath	
Parts:	
Chiloquin div	
Crescent Lake div (S. Part)	
Keno div. (N. Part)	
Condon	01
County—Gilliam	
Parts:	
Condon div.	
Cove/Union	01
County—Union	
Parts:	
Cove div.	
Union div.	
Detroit	01
County—Marion	
Parts:	
Mill City (E 1/2)	
Estacada	02
County—Clackamas	
Parts:	
Estacada CCD	
Fossil	01
County—Wheeler	
Parts:	
Fossil div.	
Halfway	01
County—Baker	
Parts:	
Eagle Valley CCD	
Halfway CCD	
Jordan Valley	01
County—Malheur	
Parts:	
Jordan CCD	
Junction City/Harrisburg/Monroe	02
County—Benton	
Parts:	
Se Benton div (S 1/2)	
County—Lane	
Parts: Junction City div.	
County—Linn	
Parts: Harrisburg div (S 1/2)	
Long Creek	01
County—Grant	
Parts: Long Creek div.	
Lowell	01
County—Lane	
Parts: Lowell div.	
Maupin	01
County—Wasco	
Parts: Dulur div. (S 1/2)	
McKenzie	01
County—Lane	
Parts: C.T. 1 (McKenzie)	
Mitchell	01

PRIMARY CARE: Oregon—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Wheeler Parts: Mitchell div.	01
Moro/Grass Valley	
County—Sherman Parts: Moro div.	01
Mt. Hood	
County—Clackamas div. Parts: Mt. Hood div.	01
Nyssa	
County—Malheur Parts: Adrian div. Nyssa div. Owyhee div.	04
Oakridge	
County—Lane Parts: Oakridge div.	02
Pacific City/Cloverdale	
County—Tillamook Parts: Beaver CCD (S 1/2) Neskowin CCD	02
Port Orford	
County—Curry Parts: Port Orford div.	01
Powers	
County—COOS Parts: Powers div.	01
Shady Cove	
County—Jackson Parts: Butte Falls-Prospect div. (N 1/2) Shady Cove div.	01
Silver Lake	
County—Lake Parts: Silver Lake-Ft Rock CCD	01
South Harney	
County—Harney Parts: Diamond div.	02
Triangle Lake/Swisshome	
County—Lane Parts: Mid. Siuslaw/Tri Lake div.	02
Vale	
County—Malheur Parts: Grogan div. Juntura div. Vale div. West Vale div.	03
Veneta	
County—Lane Parts: C.T. 8 (W 1/2) C.T. 9.02 Veneta City	01
Vernonia	
County—Columbia Parts: Vernonia CCD	03
West Salem	
County—Polk Parts: C.T. 51 C.T. 52	01
Willamina	
County—Polk Parts: Willamina div.	
County—Yamhill Parts: Sheridan div. (W 1/2)	

PRIMARY CARE: Oregon

Population Group Listing

Population group	Degree of shortage group
Am. Indian pop. (Umatilla)	01
County—Umatilla Parts: Reservation div.	
Am. Indian pop. (Warm Springs Res.)	01
County—Jefferson Parts: Warm Springs div.	
County—Wasco Parts: Warm Springs div.	01
Migr./Seas. Fmrwk. (Marion-Polk)	

PRIMARY CARE: Oregon—Continued

Population Group Listing

Population group	Degree of shortage group
County—Marion	01
County—Polk	
Migr./Seas. Fmrwk. pop.	01
County—Washington	
Migr./Seas. Fmrwk. pop. (W. Umatilla)	01
County—Umatilla	
Parts: Northwest Umatilla div. Pendleton div. Pilot Rock div.	03
Migr./Seas. Fmrwk. pop.	
County—Clackamas	01
County—Yamhill	
Mt. N. Treasure Valley	01
County—Malheur	
Parts: Migr./Seas. Fmrwk. pop.	01
Walla Walla—Migr./Seas. Fmrwk. pop.	
County—Umatilla	
Parts: Athens div. Northeast Umatilla div. Umapine div. Weston div.	

PRIMARY CARE: Oregon

Facility Listing

Facility	Degree of shortage group
St. Penitentiary/Womens Corr. Ctr.	02
County—Marion	
State Correctional Inst.	02
County—Marion	

PRIMARY CARE: Pennsylvania

County Listing

County Name	Degree of shortage group
Adams: Service area: North Adams	02
Allegheny: Service area: Arlington Heights/St. Clair	
Service area: Beltzhoover/Knoxville	01
Service area: Hill Dist./Terrace Village	
Service area: Homestead	02
Service area: Homewood-Brushton	
Service area: Manchester	01
Service area: McKees Rocks-Stowe	
Service area: North Braddock	03
Service area: Southwest Pittsburgh	
Armstrong: Service area: Armstrong-Clanton	02
Service area: Dayton Rural Valley	
Service area: Kiski Valley	02
Service area: Punxsutawney	
Beaver: Service area: East Liverpool (Ohio/Penn/W.Va.)	02
Bedford: Service area: Broad Top (area 22)	
Service area: Hyndman	02
Butler: Service area: Butler (NE portion)	
Cambria: Service area: Central Cambria (area 2)	02
Service area: Central Cambria (area 9)	
Cameron: Service area: Austin-Emporium	02
Carbon: Service area: Kidder	
Centre: Service area: Lamar	02
Service area: Penns Valley	
Service area: Snow Shoe	02
Clarion: Service area: Armstrong-Clanton	
Service area: Forest-Clanton	02

PRIMARY CARE: Pennsylvania—Continued

County Listing

County Name	Degree of shortage group
Clearfield: Service area: Mahaffey	01
Service area: S. Central Clearfield	
Service area: Snow Shoe	02
Clinton: Service area: Austin-Emporium	
Service area: Lamar	02
Service area: Renovo	
Columbia: Service area: Benton-Milville	02
Service area: Shamokin	
Crawford: Service area: Conneautville	02
Service area: East Crawford	
Population group: Medicaid eligible pop. Meadville	04
Dauphin: Service area: Millersburg	
Delaware: Service area: City of Chester	02
Elk: Service area: Forest-Clanton	
Erie: Service area: Southern Erie	03
Population group: Low inc. pop. (Erie)	
Fayette: Service area: Conneautville	03
Service area: Greensboro	
Service area: Markleysburg	02
Forest: Service area: Forest-Clanton	
Franklin: Service area: Valleys Community	01
Fulton: Service area: Hancock	
Greene: Service area: Clay/Battelle	02
Service area: Greensboro	
Huntingdon: Service area: Big Valley	04
Service area: Broad Top (area 22)	
Service area: Cromwell (area 25)	01
Indiana: Service area: Indiana (N. portion)	
Service area: Mahaffey	01
Service area: Punxsutawney	
Service area: Southern Indiana	02
Jefferson: Service area: Punxsutawney	
Service area: Reynoldsburg	02
Juniata: Service area: Mt. Pleasant Mills-Middleburg	
Lackawanna: Service area: Moscow	02
Lancaster: Service area: Welsh Mountain	
Population group: Spn. spk. pop. of S.E. Lancaster City	02
Lebanon: Service area: Northern Lebanon Co.	
Luzerne: Service area: Benton-Milville	02
Luzerne: Service area: Exeter	
Service area: Freeland	02
Service area: Kidder	
McKean: Service area: Central McKean	03
Service area: Shinglehouse	
Mercer: Population group: Low income pop. of Sharon-Farrell	04
Mifflin: Service area: Big Valley	
Monroe: Service area: Kidder	02
Northumberland: Service area: Herndon-Mandata	
Service area: Millersburg	02
Service area: Shamokin	
Philadelphia: Service area: Lower N. Philadelphia	02
Service area: Mantua/Belmont	
Service area: South Philadelphia	04
Service area: Upper N. Philadelphia	
Service area: West Philadelphia	01
Pottsville: Service area: Austin-Emporium	

PRIMARY CARE: Pennsylvania—Continued

County Listing

County Name	Degree of shortage group
Service area: Galetton	01
Service area: Shinglehouse	03
Service area: Westfield	03
Schuylkill:	
Service area: Herndon-Mandata	02
Snyder:	
Service area: Mt. Pleasant Mills-Middleburg	02
Somerset:	
Service area: Boswell	02
Service area: Confluence (area 7)	02
Service area: Hyndman	02
Sullivan:	
Susquehanna:	
Service area: Montrose (area 14)	02
Toga:	
Service area: Blossburg	02
Service area: Elkland (NY/PA)	02
Service area: Mansfield	03
Service area: Westfield	03
Washington:	
Service area: Burgettstown	03
Wayne:	
Service area: Mt. Pleasant	02
Westmoreland:	
Service area: Connellsville	03
Service area: Kiski Valley	02
Wyoming:	
Service area: Exeter	04
Service area: Monroe/Noven	03
York:	
Service area: Delta	02
Service area: York	01

PRIMARY CARE: Pennsylvania

Service Area Listing

Service area name	Degree of shortage group
Arlington Heights/St. Clair	01
County—Allegheny:	
Parts:	
C.T. 1603	
C.T. 1604	
C.T. 1606	
Armstrong-Clarion	02
County—Armstrong:	
Parts:	
Brady's Bend Township	
Madison Township	
Perry Township	
Pine Township	
Sugarcreek Township	
Washington Township	
County—Clarion:	
Parts:	
Brady Township	
East Brady Township	
Madison Township	
Austin-Emporium	02
County—Cameron:	
County—Clinton:	
Parts:	
West Keating Twp	
County—Potter:	
Parts:	
Austin Twp	
Keating Twp	
Portage Twp	
Sylvania Twp	
Wharton Twp	
Beltzhoover/Knoxville	03
County—Allegheny:	
Parts:	
C.T. 318.04	
C.T. 318.05	
C.T. 330.01	
C.T. 1803-1805	
C.T. 3001	
Benton-Millville	02

PRIMARY CARE: Pennsylvania—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Columbia:	
Parts:	
Benton Borough	
Benton Twp	
Fishing Creek Twp	
Fishing Creek Twp	
Greenwood Twp.	
Jackson Twp.	
Parts:	
Madison Twp (Northern 1/2)	
Millville Borough	
Mt. Pleasant Twp	
Orange Twp (Northern 1/2)	
Pine Twp	
Stillwater Borough	
Sugarloaf Twp	
County—Luzerne:	
Parts:	
Fairmont Twp	
Huntington Twp	
New Columbus Borough	
Big Valley	04
County—Huntington:	
Parts:	
Barre Twp	
Brady Twp (N 1/2)	
Jackson Twp	
Miller Twp	
County—Mifflin:	
Parts:	
Armstrong Twp	
Brown Twp	
Menno Twp	
Union Twp	
Blossburg:	02
County—Tioga:	
Parts:	
Bloss Twp	
Blossburg Boro	
Covington Twp	
Duncan Twp	
Hamilton Twp	
Liberty Boro	
Liberty Twp (Eastern 1/2)	
Pulnam Boro	
Union Twp	
Ward Twp	
Boswell:	02
County—Somerset:	
Parts:	
Boswell Boro.	
Hooversville Boro.	
Jennier Twp	
Jennertown Boro.	
Quemahoning Twp	
Stoytown Boro.	
Broad Top (Area 22)	02
County—Bedford:	
Parts:	
Broad Top Twp	
Coaldale Boro.	
Hopewell Boro.	
Liberty Twp	
Saxton Boro.	
County—Huntington:	
Parts:	
Broad Top City Boro.	
Carbon Twp	
Cass Twp	
Cassville Boro.	
Coalmont Boro.	
Dudley Boro.	
Hopewell Twp	
Todd Twp	
Wood Twp	
Burgettstown	03

PRIMARY CARE: Pennsylvania—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Washington:	
Parts:	
Burgettstown Borough	
Cross Creek Twp	
Hanover Twp	
Hopewell Twp	
Independence Twp	
Jefferson Twp	
McDonald Borough	
Midway Borough	
Mt. Pleasant Twp	
Robinson Twp	
Smith Twp	
West Middletown Borough	
Butler—NE Portion	02
County—Butler:	
Parts:	
Allegheny Twp	
Bruin Borough	
Cherry Valley Borough	
Chicora Borough	
Concord Twp	
Donegal Twp	
Eau Claire Borough	
Fairview Borough	
Fairview Twp	
Karns City Borough	
Oakland Twp	
Parker Twp	
Patrolia Borough	
Venango Twp	
Washington Twp	
Central Cambria (Area 2)	02
County—Cambria:	
Parts:	
Blacklick Twp	
Cambria Twp	
Ebensburg Boro.	
Jackson Twp	
Nanty-Glo Boro.	
Vintondale Boro.	
Central Cambria (Area 9)	02
County—Cambria:	
Parts:	
Cassandra Boro.	
Cresson Boro.	
Cresson Twp	
Lilly Boro.	
Munster Twp	
Portage Boro.	
Portage Twp	
Sankertown Boro.	
Washington Twp	
Central McKean	03
County—McKean:	
Parts:	
Annin Twp	
Eldred Boro.	
Eldred Township	
Hamlin Twp (E. 1/2)	
Keating Twp	
Liberty Twp	
Mt. Jewett Twp (E. 1/2)	
Nonwich Township	
Otto Twp	
Port Allegany Boro.	
Sergeant Township	
Smethport Boro.	
City of Chester	02
County—Delaware	
Parts:	
C.T. 4048	
C.T. 4049.01	
C.T. 4049.02	
C.T. 4050-4057	
C.T. 4058.01	
C.T. 4058.02	
C.T. 4059-4060	
Clay/Bathelle	02
County—Greene:	
Parts:	
Aleppo Twp	
Freeport Township	
Gilmore Township	
Jackson Township	
Springhill	
Confluence (Area 7)	02

PRIMARY CARE: Pennsylvania—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Somerset: Parts: Addison Boro. Addison Twp. Casselman Boro. Confluence Boro. Lower Turkeyfoot Twp. Upper Turkeyfoot Twp.	
Conneautville	02
County—Crawford: Parts: Beaver Twp. Conneaut Twp. Conneautville Boro. Cuisewago Twp. hawfield Twp (W. ½) Spring Twp. Springboro Boro. Summerhill Twp.	
Connellsville	03
County—Fayette: Parts: Buttskin Twp. Connellsville City. Connellsville Twp. Dawson Boro. Dunbar Boro. Dunbar Twp. Everson Boro. Lower Tyrone Twp. S. Connellsville Boro. Saltlick Twp. Springfield Twp. Upper Tyrone Twp. Vanderbuilt Boro.	
County—Westmoreland: Parts: E. Huntingdon Twp. Mt. Pleasant Boro. Mt. Pleasant Twp. New Stanton Boro. S. Huntingdon Twp. Scottsdale Boro. Smithton Boro.	
Cromwell (Piling Area 25)	01
County—Huntingdon: Parts: Clay Twp. Cromwell Twp. Dublin Twp. Orbisonia Boro. Rockhill Boro. Saltlick Boro. Shade Gap Boro. Springfield Twp. Tell Twp. Three Springs Boro.	
Dayton Rural Valley Msa	02
County—Armstrong: Parts: Atwood Borough. Cowanshannock Township. Dayton Borough. Redbank Twp (½ Western Portion). Rural Valley Borough. Wayne Township.	
Delta	02
County—York: Parts: Chancelord Twp. Cross Road Boro. Delta Boro. East Hopewell Twp. Fawn Grove Boro. Fawn Twp. Fulton Boro. Lower Chancelord Twp. Peachbottom Twp.	
East Crawford	02

PRIMARY CARE: Pennsylvania—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Crawford: Parts: Athens Township. Bloomfield Township. Centerville Borough. Richmond Twp. Rockdale Township. Rome Township. Sparta Township. Spartansburg Borough. Steuben Township. Townville Borough.	
East Liverpool (Ohio/Penn/W. Va.)	02
County—Beaver: Parts: Georgetown Boro. Glasgow Boro. Greene Twp (W. ½). Hookstown Boro. Ohioville Boro. (W. ½).	
Elkland (NY/Pa)	02
County—Toda: Parts: Deerfield Twp. Elkland Boro. Elkland Twp. Farmington Twp. Knoxville Boro. Nelson Twp. Osceola Twp.	
Exeter	04
County—Luzerne: Parts: Exeter Borough. Exeter Township. Franklin Township. West Wyoming.	
County—Wyoming: Parts: Exeter Township. Falls Township.	
Forest-Clarion	02
County—Clarion: Parts: Farmington Twp. Knox Twp. Washington Twp.	
County—Elk: Parts: Millstone Twp.	
County—Forest: Parts: Barnett Twp. Green Twp. Howe Twp. Jenks Twp. Kingsley Twp.	
Freeland	02
County—Luzerne: Parts: Butler Twp (E. Portion). Foster Twp (W. Portion). Freeland Boro. Hazel Twp. Jeddo Boro.	
Galeton	01
County—Potter: Parts: Abbott Township. Galeton Borough. Pike Township. Stewardson Township. Ulysses Township. West Branch Township.	
Greensboro	02

PRIMARY CARE: Pennsylvania—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Fayette: Parts: German Township. Masontown Boro. Nicholson Township. Point Marion Borough. Springhill Township.	
County—Greene: Parts: Dunkard Township. Greene Township. Greensboro Borough. Monongahela Township.	02
Hancock	
County—Fulton: Parts: Bethel. Thompson Union.	
Herndon-Mandata	02
County—Northumberland: Parts: Herndon Borough. Jackson Township. Jordan Township. Little Mahanoy Township. Lower Mahanoy Township. Upper Mahanoy Twp. Washington Township. West Cameron Township.	
County—Schuylkill: Parts: Eldred Township. Upper Mahantango Township.	01
Hill Dist./Terrace Village	
County—Allegheny: Parts: C.T. 304-305. C.T. 401. C.T. 501-504. C.T. 508-509.	
Homestead	02
County—Allegheny: Parts: C.T. 4823 W. Homestead. C.T. 4824 W. Homestead. C.T. 4831 Homestead. C.T. 4836 Homestead. C.T. 4837 Homestead. C.T. 4841 Munhall. C.T. 4842 Munhall. C.T. 4845 Munhall. C.T. 4846 Munhall. C.T. 4850 Whitaker. C.T. 4867 Duquesne. C.T. 4868 Duquesne. C.T. 4869 Duquesne. C.T. 4861 W. Mifflin. C.T. 4882 W. Mifflin. C.T. 4883 W. Mifflin. C.T. 4884 W. Mifflin.	
Homewood-Brushton	02
County—Allegheny: Parts: C.T. 1207. C.T. 1301-1306.	
Hyndman	02
County—Bedford: Parts: Harrison Twp. Hyndman Boro. Junata Twp. Londonderry Twp.	
County—Somerset: Parts: Allegheny Twp. Fairhope Twp. New Baltimore Boro.	
Indiana—N. Portion	02

PRIMARY CARE: Pennsylvania—Continued

Service area name	Degree of shortage group
County—Indiana: Parts: Cherry Tree Borough Clymer Boro. East Mahoning Twp Glen Campbell Borough Grant Twp Green Twp Marion Center Borough Montgomery Twp Pine Twp Plumville Borough Rayne Twp South Mahoning Twp Washington Twp	
Kidder	02
County—Carbon: Parts: East Side Boro. Kidder Twp Lausanne Twp Lehigh Twp Penn Forest Twp	
County—Luzerne: Parts: Buck Twp Foster Twp (E. Portion) White Haven Borough	
County—Monroe: Parts: Coolbough Township Tobyhanna Township Tunkhannock Township	
Kiski Valley	02
County—Armstrong: Parts: Apollo Borough Bethel Township Burrell Township Gipin Township Kiskiminetas Township Leechburg Borough North Apollo Borough Parks Township South Bend Township	
County—Westmoreland: Parts: Allegheny Township Avonmore Borough Bell Township East Vandergrift Borough Hyde Park Borough Oklahoma Borough Vandergrift Borough Washington Township West Leechburg Borough	
Lamar	02
County—Centre: Parts: Walker Twp (E. ½)	
County—Clinton: Parts: Green Twp Lamar Twp (W. ½) Logan Twp Loganton Boro. Porter Twp	
Lower N. Philadelphia	02
County—Philadelphia: Parts: C.T. 125-142 C.T. 144-157 C.T. 162-169	
Mahaffey	01

PRIMARY CARE: Pennsylvania—Continued

Service area name	Degree of shortage group
County—Clearfield: Parts: Bell Twp Burnside Boro Burnside Twp Ferguson Twp (W. ½) Greenwood Twp Mahaffey Boro New Washington Boro Newburg Boro	
County—Indiana: Parts: Banks Twp (E. ½) Glen Campbell Boro	
Manchester	01
County—Allegheny: Parts: C.T. 2101-2103 C.T. 2106 C.T. 2201-2202 C.T. 2502	
Mansfield	03
County—Tioga: Parts: Jackson Twp Lawrence Twp Lawrenceville Boro. Mansfield Boro. Richmond Twp Roseville Boro. Rutland Twp Sullivan Twp Tioga Boro. Tioga Twp	
Mantua/Belmont	03
County—Philadelphia: Parts: C.T. 106-110	
Markleysburg	02
County—Fayette: Parts: Henry Clay Twp Markleysburg Boro. Owlopye Boro. Steward Twp Wharton Twp	
Mckees Rocks-Stowe	02
County—Allegheny: Parts: C.T. 4621 (Stowe Twp) C.T. 4626 (Stowe Twp) C.T. 4637 (Mckees Rocks Boro) C.T. 4638 (Mckees Rocks Boro) C.T. 4639 (Mckees Rocks Boro)	
Millersburg	03
County—Dauphin: Parts: Berrysburg Borough Elizabethville Borough Gratz Borough Halifax Borough Halifax Township Jackson Township Jefferson Township Lykens Twp Mifflin Township Millersburg Borough Reed Township Upper Paxton Township Washington Township Wayne Township	
County—Northumberland: Parts: Lower Mahanoy (S. ½)	
Monroe Noxen	03
County—Wyoming: Parts: Monroe Twp Northmoreland Twp Noxen Twp	
Montrose (area 14)	02

PRIMARY CARE: Pennsylvania—Continued

Service area name	Degree of shortage group
County—Susquehanna: Parts: Auburn Twp Bridgewater Twp Brooklyn Twp Dimack Twp Forest Lake Twp Franklin Twp Harford Twp Hop Bottom Boro. Jessup Twp Lathrop Twp Lenox Twp Liberty Twp Montrose Boro. Push Twp Silver Lake Twp Springville Twp	
Moscow	02
County—Lackawanna: Parts: C.T. 118 C.T. 123	
Mt. Pleasant	02
County—Wayne: Parts: Buckingham Twp Damascus Twp Lebanon Twp Manchester Twp Mt. Pleasant Twp Preston Twp Scott Twp Stamucca Boro	
Mt. Pleasant Mills-Middleburg	02
County—Juniata: Parts: Monroe Township Susquehanna Twp	
County—Snyder: Parts: Beaver Township Beavertown Borough Centre Township Chapman Township Franklin Township Freeburg Borough Middleburg Borough Perry Township Union Township Washington Township West Perry Township	
North Braddock	03
County—Allegheny: Parts: C.T. 5110 Chalfant C.T. 5041 N. Versailles C.T. 5042 N. Versailles C.T. 5043 N. Versailles C.T. 5060 Wall C.T. 5070 E. McKeesport C.T. 5080 Netherland C.T. 5091 Turtle Creek C.T. 5092 Turtle Creek C.T. 5093 Turtle Creek C.T. 5100 E. Pittsburgh C.T. 5120 N. Braddock C.T. 5126 N. Braddock C.T. 5129 N. Braddock	
North Adams	02
County—Adams: Parts: Arendtsville Borough Bendersville Borough Biglerville Borough Butler Township Huntington Township Menallen Township Tyronne Township York Springs Borough	
Northern Lebanon Co.	02

PRIMARY CARE: Pennsylvania—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Lebanon: Parts: Bethel Twp Cold Spring Twp East Hanover Twp Jonestown Boro. Swatara Twp Union Twp	
Penns Valley	03
County—Centre: Parts: Center Hall Borough Grog Twp Haines Twp Miles Twp Milheim Borough Penn Twp Potter Twp	
Punxsutawney	04
County—Armstrong: Parts: Redbank Twp (Eastern ½)	
County—Indiana: Parts: Banks Twp (Western ¼) Canoe Twp Northern Mahoning (Northern ¼) Smicksburg Borough West Mahoning (E ¼)	
County—Jefferson: Parts: Beaver Twp (Southern ½) Bell Twp Big Run Borough Gaskill Twp Henderson Twp McCalmont Twp Oliver Twp Perry Twp Porter Twp Punxsutawney Borough Riggold Twp Timblin Borough Worthville Borough Young Twp	
Renovo	03
County—Clinton: Parts: Chapman Township East Keating Twp Grogan Twp Leig Twp Noyes Twp Renovo Borough South Renovo Borough	
Reynoldsville	02
County—Jefferson: Parts: Knox Twp (E ¼) Pine Creek Twp (E ¼) Reynoldsville Washington Twp (S ½) Winston Twp	
S. Central Clearfield	03
County—Clearfield: Parts: Beccaria Twp Bigler Twp Chast Twp Coalport Boro Glen Hope Boro Gulch Twp Irvona Boro Jordan Twp Ramey Boro Westover Boro	
Shamokin	03

PRIMARY CARE: Pennsylvania—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Columbia: Parts: Cleveland Twp (S. ¼)	
County—Northumberland: Parts: Coal Twp Kulpmont Boro. Marion Heights Boro. Mt Carmel Twp Ralpho Twp Shamokin City Zerbe Twp	
Shinglehouse	03
County—Mckean: Parts: Ceres Township Eldred Twp	
County—Potter: Parts: Clara Township Genesee Township Oswayo Borough Oswayo Township Pleasant Valley Township Sharon Township Shinglehouse Borough	
Snow Shoe	02
County—Centre: Parts: Boggs Township (Southern ½) Burnside Township Curtin Twp (Eastern ½) Snow Shoe Borough Snow Shoe Township Union Township (Southern ½) Unionville Borough	
County—Clearfield: Parts: Cooper Township (Northern ½) Covington Township Karthaus Township	
South Philadelphia	04
County—Philadelphia: Parts: C.T. 13 C.T. 14 C.T. 19 C.T. 20 C.T. 21 C.T. 22 C.T. 33	
Southern Erie	03
County—Erie: Parts: Albion Borough Conneaut Township Cranesville Borough Elk Creek Township Franklin Township Plains Borough Springfield Township	
Southern Indiana	03
County—Indiana: Parts: Armagh Boro Black Lick Twp Blairsville Boro Burrell Twp Conemaugh Twp East Wheatfield Twp Jacksonville Boro Saltsburg Boro West Wheatfield Twp Young Twp	
Southwest Pittsburgh	02
County—Allegheny: Parts: C.T. 2001 C.T. 2004-2008 C.T. 2013-2016 C.T. 2805 C.T. 2807-2812	
Upper N. Philadelphia	01
County—Philadelphia: Parts: C.T. 1780-1786 C.T. 194-205	
Valleys Community	01

PRIMARY CARE: Pennsylvania—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Franklin: Parts: Fannett Twp Metal Twp	
Welsh Mountain	02
County—Lancaster: Parts: Casarvon Twp Earl Twp East Earl Twp Selisbury Twp	
West Philadelphia	01
County—Philadelphia: Parts: C.T. 92-96 C.T. 100-105 C.T. 111-113	
Westfield	03
County—Potter: Parts: Harrison Twp (½) Hector Twp (½)	
County—Tioga: Parts: Brookfield Twp Chatham Twp (½) Clymer Twp Westfield Boro Westfield Twp	
York	01
County—York: Parts: C.T. 1-3 C.T. 5 C.T. 7 C.T. 10 C.T. 15-16	

PRIMARY CARE: Pennsylvania

Population Group Listing

Population Group	Degree of shortage group
Low Inc. Pop. of Erie City	03
County—Erie: Parts: Erie City	
Low Income Pop. of Sharon-Farrell	04
County—Mercer: Parts: Farrell Sharon	
Medicaid Eligible Pop. Meadville	04
County—Crawford: Parts: Meadville	
Spn. Spk. Pop. of S.E. Lancaster City	02
County—Lancaster: Parts: C.T. 8 C.T. 9 C.T. 15 C.T. 16	

PRIMARY CARE: Rhode Island

County Listing

County name	Degree of shortage group
Bristol: Population group: Poverty pop. (Bristol/E. Providence)	01
Providence: Service area: Central Falls/Central Pawtucket	03
Service area: Northwest Woonsocket	01

PRIMARY CARE: Rhode Island—Continued

County Listing

County name	Degree of shortage group
Population group: Poverty pop. (Bristol/E. Providence)	01
Population group: Poverty pop. (Central Providence)	04
Facility: Med/Max. Securities Inst. Washington	03
Population group: Poverty pop./East Washington	01
Population group: Poverty pop./West Washington	02

PRIMARY CARE: Rhode Island

Service Area Listing

Service area name	Degree of shortage group
Central Falls/Central Pawtucket County—Providence Parts: C.T. 109-111 C.T. 149 C.T. 151-154 C.T. 161 C.T. 164	03
Northwest Woonsocket County—Providence Parts: C.T. 172 C.T. 174 C.T. 176 C.T. 178-179 C.T. 180-183	01

PRIMARY CARE: Rhode Island

Population Group Listing

Population group	Degree of shortage group
Poverty pop.—Bristol/E. Providence County—Bristol County—Providence Parts: C.T. 101.01 (pov. pop.) C.T. 101.02 (pov. pop.) C.T. 102 (pov. pop.) C.T. 103 (pov. pop.) C.T. 104 (pov. pop.) C.T. 105.01 (pov. pop.) C.T. 105.02 (pov. pop.) C.T. 106 (pov. pop.) C.T. 107.01 (pov. pop.) C.T. 107.02 (pov. pop.)	01
Poverty pop./East Washington County—Washington Parts: Jamestown Narragansett North Kingstown South Kingstown	01
Poverty pop./W. Washington County—Washington Parts: Charlestown Exeter Hopkinton Richmond Westerly	02
Poverty population./Central Providence	04

PRIMARY CARE: Rhode Island—Continued

Population Group Listing

Population group	Degree of shortage group
County—Providence Parts: C.T. 2-14 C.T. 16-20 C.T. 22 C.T. 25-27 C.T. 30 C.T. 31 C.T. 36	

PRIMARY CARE: Rhode Island

Facility Listing

Facility	Degree of shortage group
Med/Max. Securities Inst. County—Providence Parts: Med/Max Security Inst. (Cranston)	03

PRIMARY CARE: South Carolina

County Listing

County name	Degree of Shortage group
Abbeville: Service area: Hodges/Princeton	02
Service area: Iala	02
Allendale	02
Anderson: Service area: Iala	02
Facility Perry Correctional Inst.	03
Beaufort: Service area: Sheldon	02
Service area: St. Helena	02
Berkley	02
Calhoun	02
Charleston: Service area: McClellanville	02
Service area: Poverty population of Charleston	03
Service area: Sea Island	02
Chesterfield: Service area: Sandhills	01
Service area: Society Hill	01
Clarendon	02
Darlington: Service area: Society Hill	01
Dillon	03
Dorchester: Service area: St. George	02
Edgefield: Service area: Johnston/Merwether	03
Fairfield	04
Florence: Service area: Brittons Neck	01
Service area: Lake City	03
Greenwood: Service area: Hodges/Princeton	02
Horry: Service area: Little River	01
Service area: Loris	02
Jasper	02
Kershaw: Service area: Bethune/Mt. Pisgah	01
Service area: Heath Springs	03
Lancaster: Service area: Heath Springs	03
Laurens: Service area: Hodges/Princeton	02
Lee	02
Lexington: Service area: Batesburg	03
Service area: Chapin	03
McCormick	02
Marion: Service area: Brittons Neck	01
Marlboro	03

PRIMARY CARE: South Carolina—Continued

County Listing

County name	Degree of Shortage group
Orangeburg: Service area: Orangeburg	02
Richland: Service area: Richland	02
Facility: Central Correctional Inst.	02
Facility: Kirkland Correctional Inst.	03
Facility: Manning Correctional Inst.	02
Facility: Women's Correctional Inst.	03
Saluda	01
Union	03
Williamsburg	02
York: Service area: Western York Co.	04

PRIMARY CARE: South Carolina

Service Area Listing

Service area name	Degree of shortage group
Batesburg County—Lexington Parts: Batesburg-Leesville CCD Gilbert CCD	03
Bethune/Mt. Pisgah County—Kershaw Parts: Bethune Mt. Pisgah	01
Brittons Neck County—Florence Parts: Johnsonville County—Marion Parts: Brittons Neck Centenary	01
Chapin County—Lexington Parts: Chapin	03
Heath Springs County—Kershaw Parts: Westville County—Lancaster Parts: Heath Springs div. Kershaw div.	03
Hodges/Princeton County—Abbeville Parts: Donalds County—Greenwood Parts: Ware/Shoals/Hodges County—Laurens Parts: Princeton	02
Iala County—Abbeville Parts: Antreville-Lowndesville Calhoun Falls County—Anderson Parts: Iva Starr	02
Johnston/Merwether County—Edgefield Parts: Johnston Stevens Creek Trenton	03
Lake City County—Florence Parts: Coward div. Lake City div. Olanta div. Scranton div.	03
Little River	01

PRIMARY CARE: South Carolina—Continued

Service Area Listing	
Service area name	Degree of shortage group
County—Horry	
Parts:	
E.D. 680 (Little River div.)	
E.D. 681 (Little River div.)	
E.D. 682 (Little River div.)	
E.D. 683 (Little River div.)	
E.D. 684 (Little River div.)	
E.D. 685 (Longs div.)	
E.D. 686 (Longs div.)	
E.D. 775 (Conway East)	
E.D. 790 (Myrtle Beach)	
Loris	02
County—Horry	
Parts:	
E.D. 690 (Longs div.)	
E.D. 691 (Longs div.)	
E.D. 692 (Longs div.)	
E.D. 694 (Longs div.)	
E.D. 695 (Longs div.)	
E.D. 726 (Aynor div.)	
E.D. 727 (Aynor div.)	
E.D. 730 (Aynor div.)	
E.D. 731 (Aynor div.)	
Floyds div. (all)	
Loris div. (all)	
McClintockville	02
County—Charleston	
Parts:	
C.T. 46.01	
C.T. 50	
Orangeburg	02
County—Orangeburg	
Parts:	
Bowman division	
Elmore division	
Eutawville division	
Holly Hill division	
Vance division	
Richland	02
County—Richland	
Parts:	
Eastover CCD	
Hopkins CCD	
Horrell Hill CCD	
Sandhills	01
County—Chesterfield	
Parts:	
Jefferson	
McBee	
Pageland	
Sea Island	02
County—Charleston	
Parts:	
Edisto Island	
James Island	
Johns Island	
Wadswater Island	
Sheldon	02
County—Beaufort	
Parts:	
Sheldon	
Society Hill	01
County—Chesterfield	
Parts:	
E.D. 0463	
E.D. 1233	
County—Darlington	
Parts:	
E.D. 0550	
E.D. 0551	
E.D. 0552	
E.D. 0553	
E.D. 0554	
St. George	02
County—Dorchester	
Parts:	
Harleyville CCD	
Bellevueville CCD	
Ridgeville CCD	
St. George CCD	
St. Helena	02
County—Beaufort	
Parts: St. Helena	
Western York Co.	04

PRIMARY CARE: South Carolina—Continued

Service Area Listing	
Service area name	Degree of shortage group
County—York	
Parts:	
Cloner	
Hickory	
McConnell	
York	
PRIMARY CARE: South Carolina	
Population Group Listing	
Population group	Degree of shortage group
Poverty population of Charleston	03
County—Charleston	
Parts:	
C.T. 1-18	
C.T. 33-37	
C.T. 41-45	
PRIMARY CARE: South Carolina	
Facility Listing	
Facility	Degree of shortage group
Central Correctional Inst.	02
County—Richland	
Kirkland Correctional Inst.	03
County—Richland	
Manning Correctional Inst.	02
County—Richland	
Perry Correctional Inst.	03
County—Anderson	
Women's Correctional Inst.	02
County—Richland	
PRIMARY CARE: South Dakota	
County Listing	
County name	Degree of shortage group
Aurora	01
Bon Homme	02
Brown	
Service area: Britton	04
Service area: Ellendale/Edgely	02
Campbell	01
Charles Mix	
Service area: Wagner/Lake Andes	03
Clark	01
Corson	
Service area: Isabel	01
Service area: Lemmon	03
Service area: McLaughlin	01
Custer	03
Dewey	
Service area: Eagle Butte	01
Service area: Isabel	01
Edmunds	
Service area: Bowdle	03
Fall River	
Service area: Edgemont	01
Faulk	04
Grant	03
Gregory	
Service area: Wagner/Lake Andes	03
Haskell	
Service area: Philip	02
Hamlin	01
Hanson	
Service area: Salem	03
Harding	01
Hyde	01

PRIMARY CARE: South Dakota—Continued

County Listing	
County name	Degree of shortage group
Jackson	
Service area: Philip	02
Jones	02
Lincoln	
Service area: Canton	02
Lyman	03
McCook	
Service area: Salem	03
Marshall	
Service area: Britton	01
Meade	
Service area: Faith	01
Mellette	
Service area: Winner/White River	02
Miner	01
Moody	02
Pennington	
Service area: Philip	02
Perkins	
Service area: Faith	01
Service area: Lemmon	03
Sanborn	01
Shannon	01
Sully	01
Todd	01
Tripp	
Service area: Winner/White River	02
Union	
Service area: Akron (Iowa/S. Dakota)	04
Walworth	
Service area: Bowdle	03
Ziebach	
Service area: Eagle Butte	01
Service area: Faith	01
Service area: Isabel	01
PRIMARY CARE: South Dakota	
Service area listing	
Service area name	Degree of shortage group
Acron (Iowa/S. Dakota)	04
County—Union	
Parts:	
Alcester (pt)	
Biresford (pt)	
Elk Point (pt)	
Jefferson (pt)	
Sioux Valley (pt)	
Spink (pt)	
Bowdle	03
County—Edmunds	
Parts:	
Bowdle City	
Bowdle Twp	
Cloud Valley Twp	
Cottonwood Twp	
Glen Twp	
Glover Twp	
Hosmer City	
Hosmer Twp	
Modena Twp	
Odessa Twp	
Roscoe City	
Sangamon	
County—Walworth	
Parts:	
E. Walworth Unorg. (N. 1/4)	
Java City	
Selby City	
Britton	04
County—Brown	
Parts:	
Hecla City	
Hecla Twp	
Lansing Twp	
N. Detroit Twp	
Portage Twp	
S. Detroit Twp	
County—Marshall	
Canton	02

PRIMARY CARE: South Dakota—Continued

Service area listing	Degree of shortage group
County—Lincoln Parts: Canton Canton Twp Dayton Twp Delaware Twp Eden Twp Fairview Town Fairview Twp Grant Twp Harrisburg Town Highland Twp Hudson Town La Valley Twp Lincoln Twp Lynn Twp Norway Twp Pleasant Twp Worthington Twp	
Eagle Butte County—Dewey Parts: Eagle Butte City North Dewey (Unorg.) S. ½ North Eagle Butte South Dewey (Unorg.) S. ½ County—Ziebach Parts: South Ziebach (Unorg.) E. ½	01
Edgemont County—Fall River Parts: Ardmore Town Argentine Twp Cottonwood Twp Edgemont City Provo Twp Unorganized Terr.	01
Bierdale/Edgely County—Brown Parts: Allison Twp Frederick Town Frederick Twp Greenfield Twp Liberty Twp Osceola Twp Palmyra Twp Richland Twp Savo Twp	02
Fair County—Meade Parts: Eagle Twp Fair City Parts: Howard Twp North Meade (Unorg.) Union Twp Upper Red Owl County—Perkins Parts: Ada Twp Antelope Twp Beck Twp Bushy Twp Chance Twp Chandoin Twp Duell Twp Englewood Twp Foster Twp Hall Twp Highland Twp	01

PRIMARY CARE: South Dakota—Continued

Service area listing	Degree of shortage group
Lane Tree Twp Maltby Twp Martin Twp Moreau Twp S.W. Perkins (Unorg.) South Perkins (Unorg.) Vickers Twp Vrooman Twp Wells Twp West Central Perkins (Unorg.) West Perkins (Unorg.) Wynadotte Twp County—Ziebach Parts: Dupree (Unorg.) Dupree City North Ziebach (Unorg.) W. ½ South Ziebach (Unorg.) W. ½	
Isabel County—Corson Parts: Fairview Twp Pleasant Ridge Twp County—Dewey Parts: Isabel City North Dewey (Unorg.) N. ½ South Dewey (Unorg.) N. ½ Timber Lake City County—Ziebach Parts: North Ziebach (Unorg.) E. ½	01
Lemmon County—Corson Parts: Custer Twp Delaney Twp Grand Valley Twp Lake Twp McIntosh City Morristown Town Pioneer Twp Prairie View Twp Riverside Twp Rolling Green Twp Sherman Twp Thunder Hawk Twp Twin Butte Twp Wautaga Twp West Corson (Unorg.)	03
County—Perkins Parts: Anderson Twp Barrett Twp Bison Town Bison Township Burdick Twp Cash Twp Castle Butte Twp Clark Twp Dewitt Twp Duck Creek (Unorg.) East Perkins (Unorg.) Flat Creek Twp Fredlund Twp Gleno Twp Grand River Twp Horde Creek Twp Hudgins (Unorg.) Independence Twp Lemmon City Liberty Twp Lincoln Twp	01

PRIMARY CARE: South Dakota—Continued

Service area listing	Degree of shortage group
Lodgepole Twp Marshfield Twp Meadow Twp Pleasant Valley Twp Pleasant Twp Rainbow Twp Rockford Twp Scotch Cap Twp Seim Twp Sidney Twp Strool Twp Trail Twp Vail Twp Viking Twp White Butte Twp White Hill Twp Whitney Twp Wilson Twp	
McLaughlin County—Corson Parts: Cadillac Twp Central Corson (Unorg.) Lincoln Twp Mahlo Twp McLaughlin City McLaughlin Twp N.E. Corson (Unorg.) Walker Twp	01
Phillip County—Haakon County—Jackson Parts: Cottonwood Twp Grandview Twp Jewett Twp Unorg. terr. of E. Jackson Unorg. terr. of NW Jackson County—Pennington Parts: Ash Twp Badlands (Unorg.) Castle Butte Twp Cheyenne Twp Conata Twp Crooked Creek Twp Daizell (Unorg.) Fairview Twp Flat Butte Twp Huron Twp Inlay Twp Lake Creek (Unorg.) Lake Flat Twp Lake Hill Twp	02
Parts: N.E. Pennington (Unorg.) Owanka Twp Peno Twp Quinn Town Quinn Twp Rainey Creek Twp Scenic Twp Shine Twp Sunnyside Twp Wall Town Wasta Town Wasta Twp	
Salem County—Hanson Parts: Edgerton Twp Emery Twp Farmer Town Spring Lake Twp Taylor Twp County—McCook Wagner/Lake Andes	03

PRIMARY CARE: South Dakota—Continued

Service area listing	
Service area name	Degree of shortage group
County—Charles Mix	
Parts:	
Bryan Twp	
Choteau Creek Twp	
Dante Twp	
Geddes City	
Goose Lake Twp	
Highland Twp	
Howard Twp	
Jackson Twp	
Kennedy Twp	
Lake Andes City	
Lawrence Twp	
Lone Tree Twp	
Moore Twp	
Plain Center Twp	
Ravina Twp	
Ree Twp	
Rouse Twp	
Wagner City	
Wahpete Twp	
White Swan Twp	
County—Gregory	
Parts:	
S.E. Gregory	
Star Valley Twp	
Winner/White River	02
County—Mellott	
County—Tripp	

PRIMARY CARE: Tennessee

County Listing	
County name	Degree of shortage group
Benton	04
Bledsoe	02
Cambell	02
Carter	
Service area: Roan Mountain	01
Chestnut	02
Claiborne	04
Clay	04
Cooke	02
Crockett	03
Davidson	
Population Group: Poverty Pop.	02
Decatur	01
Fayette	01
Granger	01
Grundy	02
Hamilton	
Population Group: Poverty Pop of Chattanooga	01
Hardeman	02
Hardin	04
Hawkins	03
Haywood	03
Henderson	02
Hickman	02
Jackson	04
Lake	02
Lauderdale	02
Lewis	02
Loudon	04
McNairy	04
Macon	02
Meggs	01
Monroe	
Service area: Madisonville	01
Morgan	01
Overton	02
Pickett	02
Polk	
Service area: West Polk	01
Rhea	03
Roane	03
Robertson	
Service area: Highland Ridge	02
Scott	01
Seyler	04
Stewart	02
Sumner	
Service area: Highland Ridge	02

PRIMARY CARE: Tennessee—Continued

County Listing	
County name	Degree of shortage group
Tipton	04
Union	01
Van Buren	02
Warren	02
Wayne	04

PRIMARY CARE: Tennessee

Service Area Listing	
Service area name	Degree of shortage group
Highland Ridge	02
County—Robertson	
Parts:	
Orinda CCD	
County—Sumner	
Parts:	
N 1/2 White House	
Portland CCD	
Westmoreland CCD	
Madisonville	01
County—Monroe	
Parts:	
Madisonville	
Tellico Plains	
Vonore	
Roan Mountain	01
County—Carter	
Parts:	
Laurel Fork	
Roan Mountain	
Tiger Valley	
West Polk	01
County—Polk	
Parts:	
Benton Div. (E.D. 1-4)	
Parksville Div. (E.D. 5-7)	

PRIMARY CARE: Tennessee

Population Group Listing	
Population group	Degree of shortage group
Poverty Pop.—Davidson County	02
County—Davidson	
Poverty Pop. of Chattanooga	01
County—Hamilton	
Parts:	
C.T. 1-16	
C.T. 18-27	
C.T. 31-32	
C.T. 115	

PRIMARY CARE: Texas

County Listing	
County name	Degree of shortage group
Anderson	
Facility: Beto Prison	03
Facility: Coffield Prison	02
Archer	02
Armstrong	02
Atascosa	03
Bandera	01
Bexar	
Service area: East Side (San Antonio)	01
Service area: South Side (San Antonio)	01
Service area: Southern Rural Bexar (San Antonio)	01
Service area: West Side (San Antonio)	02
Blanco	04

PRIMARY CARE: Texas—Continued

County Listing	
County name	Degree of shortage group
Borden	01
Brazoria	
Facility: Clemons Prison	03
Facility: Darrington Prison	03
Facility: Ramsey I Prison	03
Facility: Ramsey II Prison	02
Facility: Retriever Prison	02
Briscoe	01
Cameron	02
Carson	02
Castro	01
Crosby	04
Dallas	
Service area: Fair Park/White Rock Creek Industrial	01
Service area: Lisbon	01
Service area: Simpson Stuart	01
Service area: South Dallas	04
Service area: Trinity	02
Service area: West Dallas	01
Population group: Indian Pop. of Dallas/Ft. Worth	01
Facility: Parkland Memorial Hospital	01
Deaf Smith	04
Dickens	
Service area: Dickens-King	01
El Paso	
Service area: South El Paso	01
Service area: Southeast El Paso	01
Fort Bend	
Facility: Jester II Prison	02
Gaines	04
Galveston	
Service area: Bolivar Peninsula	01
Service area: Highland Bayou	04
Glasscock	01
Gonzales	
Service area: Nixon	02
Hale	
Population group: Migrant pop.	01
Hardin	03
Hidalgo	02
Hockley	04
Houston	
Facility: Eastham Prison	02
Hudspeth	01
Jackson	04
Jeff Davis	
Service area: Marfa/Fort Davis	02
Jefferson	
Service area: Beaumont Inner City	04
Service area: Port Arthur Inner City	02
Kimble	03
King	
Service area: Dickens-King	01
Lampasas	03
La Salle	01
Liberty	04
Live Oak	02
Loving	03
Lubbock	
Service area: East Lubbock	01
Lynn	02
Madison	
Facility: Ferguson Prison	01
Mason	01
Maverick	02
Medina	03
Mills	
Service area: San Saba-Mills	01
Montgomery	04
Newton	01
Oldham	01
Presidio	
Service area: Marfa/Fort Davis	02
Service area: Presidio	02
Rains	04
Reeves	04
Sabine	02
San Jacinto	01
San Saba	
Service area: San Saba-Mills	01
Sherman	
Service area: Texhoma	01
Starr	02
Swisher	04
Tarrant	
Service area: Poly	01

PRIMARY CARE: Texas—Continued

County Listing

County name	Degree of shortage group
Service area: Stop Six	04
Population group: Indian Pop. of Dallas/FL Worth	01
Terrell	01
Trinity	02
Val Verde	02
Van Zandt	02
Walker	02
Facility: Diagnostic Prison	03
Facility: Ellis Prison	02
Facility: Goree Prison	02
Facility: Wynne Prison	02
Waller	04
Ward	04
Webb	03
Wilacy	01
Wilson	03
Yoakum	01
Zapala	01

PRIMARY CARE: Texas

Service Area Listing

Service area name	Degree of shortage group
Beaumont Inner City	04
County—Jefferson:	
Parts:	
C.T. 7	
C.T. 8	
C.T. 10	
C.T. 15-19	
Bolivar Peninsula	01
County—Galveston:	
Parts:	
C.T. 1-8	
Dickens-King	01
County—Dickens:	
County—King:	
East Lubbock	01
County—Lubbock:	
Parts:	
C.T. 8-11	
C.T. 12.01	
C.T. 12.02	
East Side (San Antonio)	01
County—Bexar:	
Parts:	
C.T. 1301-1313	
Fair Park/White Rock Creek Industrial	01
County—Dallas:	
Parts:	
C.T. 23	
C.T. 25	
C.T. 26	
C.T. 27.01	
C.T. 27.02	
C.T. 28	
C.T. 93.03	
C.T. 93.04	
C.T. 115	
Highland Bayou	01
County—Galveston:	
Parts:	
C.T. 1226	
C.T. 1225	
Luton	01
County—Dallas:	
Parts:	
C.T. 56	
C.T. 57	
C.T. 59.01	
C.T. 59.02	
C.T. 87.01	
C.T. 87.02	
C.T. 87.04	
C.T. 87.05	
C.T. 88.01	
C.T. 88.02	
Marfa/Fort Davis	02

PRIMARY CARE: Texas—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Jeff Davis:	
County—Presidio:	
Parts:	
Marfa Div.	
Nixon	02
County—Gonzales:	
Parts:	
CCD 020	
CCD 025	
Poly	01
County—Tarrant:	
Parts:	
C.T. 1014.02	
C.T. 1015	
C.T. 1035	
C.T. 1037.01	
C.T. 1037.02	
C.T. 1046.04	
Port Arthur Inner City	02
County—Jefferson:	
Parts:	
C.T. 51	
C.T. 52	
C.T. 53	
C.T. 57	
C.T. 58	
C.T. 59	
C.T. 60	
C.T. 61	
C.T. 62	
Presidio	02
County—Presidio:	
Parts:	
Presidio Div.	
San Saba-Mills	01
County—Mills:	
County—San Saba:	
Simpson Stuart	01
County—Dallas:	
Parts:	
C.T. 112	
C.T. 113	
C.T. 114.01	
C.T. 114.02	
C.T. 167.01	
C.T. 167.02	
C.T. 169.01	
C.T. 169.02	
South Dallas	04
County—Dallas:	
Parts:	
C.T. 29	
C.T. 30	
C.T. 31.02	
C.T. 32.02	
C.T. 33-38	
C.T. 39.01	
C.T. 39.02	
C.T. 40	
South El Paso	01
County—El Paso:	
Parts:	
C.T. 17-21	
South Side (San Antonio)	01
County—Bexar:	
Parts:	
C.T. 1501	
C.T. 1503-1507	
C.T. 1510	
C.T. 1601-1605	
Southeast El Paso	01
County—El Paso:	
Parts:	
C.T. 39	
C.T. 40	
C.T. 104	
C.T. 105	
Southern Rural Bexar (San Antonio)	01

PRIMARY CARE: Texas—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Bexar:	
Parts:	
C.T. 1314	
C.T. 1315	
C.T. 1316.01	
C.T. 1316.02	
C.T. 1318	
C.T. 1416-1419	
C.T. 1519-1522	
C.T. 1610-1612	
C.T. 1619-1620	
Stop Six	04
County—Tarrant:	
Parts:	
C.T. 1036.01	
C.T. 1036.02	
C.T. 1046.01	
C.T. 1046.02	
C.T. 1046.03	
C.T. 1061.01	
C.T. 1061.02	
C.T. 1062.01	
C.T. 1062.02	
C.T. 1063	
C.T. 1064	
Texhoma (TX/OK)	01
County—Sherman:	
Parts:	
Stratford East CCD	
Trinity	02
County—Dallas:	
Parts:	
C.T. 41	
C.T. 49	
C.T. 54	
C.T. 55	
C.T. 86.01	
C.T. 86.02	
C.T. 89	
West Dallas	01
County—Dallas:	
Parts:	
C.T. 43	
C.T. 101-106	
West Side (San Antonio)	02
County—Bexar:	
Parts:	
C.T. 1606-1607	
C.T. 1701	
C.T. 1703-1704	
C.T. 1707-1712	
C.T. 1715-1716	

PRIMARY CARE: Texas

Population Group Listing

Population group	Degree of shortage group
Indian pop. of Dallas/FL Worth	01
County—Dallas	
County—Tarrant	
Migrant pop. Hale Co	01

PRIMARY CARE: Texas

Facility Listing

Facility	Degree of shortage group
Beto Prison	03
County—Anderson	
Clemons Prison	03
County—Brazoria	
Coffield Prison	02
County—Anderson	
Darrington Prison	03
County—Brazoria	
Diagnostic Prison	03

PRIMARY CARE: Texas—Continued

Facility Listing	
Facility	Degree of shortage group
County—Walker	
Eastham Prison	02
County—Houston	
Ellis Prison	02
County—Walker	
Ferguson Prison	02
County—Madison	
Goree Prison	02
County—Walker	
Jester II Prison	02
County—Fort Bend	
Parkland Memorial Hospital	01
County—Dallas	
Ramsey I Prison	02
County—Brazoria	
Ramsey II Prison	02
County—Brazoria	
Retrieve Prison	02
County—Brazoria	
Wynne Prison	02
County—Walker	

PRIMARY CARE: Utah

County Listing	
County name	Degree of shortage group
Daggett	01
Duchesne	02
Emery:	
Service area: Castle Dale	01
Service area: Green River	01
Grand:	
Service area: Green River	01
Iron:	
Service area: Enterprise	01
Juab:	
Service area: Wendover (Utah/Nevada)	01
Millard:	
Service area: Delta	04
Service area: Fillmore	03
Piute:	
Service area: Richfield	04
Rich:	01
Salt Lake:	
Service area: N.W./Westside Salt Lake	02
San Juan:	
Service area: Blanding	02
Service area: Montezuma Creek	01
Sevier:	
Service area: Richfield	04
Tooele:	
Service area: Tooele	02
Service area: Wendover (Utah/Nevada)	01
Uintah:	02
Washington:	
Service area: Enterprise	01
Service area: Hurricane	01
Wayne:	01
Weber:	
Service area: Central and West Ogden	01

PRIMARY CARE: Utah

Service Area Listing	
Service area name	Degree of shortage group
Blanding	02
County—San Juan:	
Parts:	
Blanding Div.	
Castle Dale	01
County—Emery:	
Parts:	
Castle Dale-Huntington Div. Emery-Ferron Div. (N. 1/2)	
Central and West Ogden	01

PRIMARY CARE: Utah—Continued

Service Area Listing	
Service area name	Degree of shortage group
County—Weber:	
Parts:	
C.T. 3	
C.T. 4	
C.T. 10-12	
C.T. 18-19	
Delta	04
County—Millard:	
Parts:	
Delta Division	
Oak City (Scipio Div)	
Enterprise	01
County—Tron:	
Parts:	
Beryl-Newcastle Div	
County—Washington	
Parts:	
Enterprise Div	
Fillmore	03
County—Millard	
Parts:	
Fillmore City	
Holden Twn	
Scipio Twn	
Unicorp Area (Scipio Div)	
Green River	01
County—Emery:	
Parts:	
Green River Division	
County—Grand:	
Parts:	
Thompson Div. (N.W. Pt)	
Hurricane	01
County—Washington:	
Parts:	
Hurricane Div.	
Montezuma Creek	01
County—San Juan:	
Parts:	
Ojito Div.	
Red Mesa Div.	
N.W./Westside Salt Lake	02
County—Salt Lake:	
Parts:	
C.T. 1005	
C.T. 1006	
Richfield	04
County—Piute:	
Parts:	
Marysville Div.	
County—Sevier	
Tooele	02
County—Tooele:	
Parts:	
Onaqui Div.	
Tooele-Grantsville Div.	
Wendover (Utah/Nevada)	01
County—Juab:	
Parts:	
West Juab Twp	
County—Tooele:	
Parts:	
Dugway/Wendover Div. (Part)	

PRIMARY CARE: Vermont

County Listing	
County name	Degree of shortage group
Addison:	
Service area: Otter Creek Valley	02
Service area: Route 100	02
Bennington:	
Service area: Londonderry	03
Caledonia:	
Service area: Hardwick	01
Service area: Northeast Kingdom	04
Essex:	
Service area: Island Pond	01
Service area: Upper Connecticut Valley	04
Franklin:	
Service area: Richford-Enosburg	02
Grand Isle	03

PRIMARY CARE: Vermont—Continued

County Listing	
County name	Degree of shortage group
Lamoille:	
Service area: Hardwick	01
Service area: Northeast Kingdom	04
Orleans:	
Service area: Hardwick	01
Service area: Northeast Kingdom	04
Rutland:	
Service area: Black River Valley	03
Service area: Otter Creek Valley	02
Service area: Route 100	02
Washington:	
Service area: Hardwick	01
Service area: Mad River Valley	02
Windham:	
Service area: Londonderry	03
Service area: West River Valley	04
Windsor:	
Service area: Black River Valley	03
Service area: Londonderry	03
Service area: Route 100	02

PRIMARY CARE: Vermont

Service Area Listing	
Service area name	Degree of shortage group
Black River Valley	03
County—Rutland:	
Parts:	
Mt Holly Twn	
County—Windsor:	
Parts:	
Cavendish Twn	
Ludlow Twn	
Reading Twn	
Weathersfield Twn	
Hardwick	01
County—Caledonia:	
Parts:	
Hardwick Twn	
Walden Twn	
County—Lamoille:	
Parts:	
Wolcott Twn	
County—Orleans:	
Parts:	
Craftbury Twn	
Greensboro Twn	
County—Washington:	
Parts:	
Woodbury Twn	
Island Pond	01
County—Essex:	
Parts:	
Averys Gore	
Brighton Twn	
Ferdinand Twp	
Lewis Twp	
Norton Twn	
Warners Grant	
Warrens Gore	
Londonderry	03
County—Bennington:	
Parts:	
Landgrove Twn	
Peru Twn	
Winhall Twn	
County—Windham:	
Parts:	
Londonderry Twn	
Windham Twn	
County—Windsor:	
Parts:	
Weston Twn	
Mad River Valley	02
County—Washington:	
Parts:	
Fayston Twp	
Movetown Twp	
Waitsfield Twp	
Wervon Twp	
Northeast Kingdom	04

PRIMARY CARE: Vermont—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Caledonia:	
Parts:	
Newark Twp	
County—Lamoille:	
Parts:	
Belvidere Twp	
Eden Twp	
County—Orleans:	
Parts:	
Albany Twp	
Barton Twp	
Brownington Twp	
Charlestown Twp	
Coventry Twp	
Derby Twp	
Glover Twp	
Holland Twp	
Irasburg Twp	
Jay Twp	
Lowell Twp	
Morgan Twp	
Newport City	
Newport Twp	
Troy Twp	
Westfield Twp	
Westmore Twp	
Other Creek Valley	02
County—Addison:	
Parts:	
Goshen Twp	
Leicester Twp	
Orwell Twp	
Shoreham Twp	
Whiting Twp	
County—Rutland:	
Parts:	
Brandon Twp	
Hubbardston Twp	
Pittsford Twp	
Sudbury Twp	
Richford—Enosburg	02
County—Franklin:	
Parts:	
Bakersfield Twp	
Berkshire Twp	
Endsboro Twp	
Fairfield Twp	
Franklin Twp	
Montgomery Twp	
Richford Twp	
Sheldon Twp	
Route 100	02
County—Addison:	
Parts:	
Granville	
Hancock Twp	
County—Rutland:	
Parts:	
Pittsfield Twp	
County—Windsor:	
Parts:	
Rochester Twp	
Stockbridge Twp	
Upper Connecticut Valley	04
County—Essex:	
Parts:	
Averill Twp	
Bloomfield Twp	
Brunswick Twp	
Canaan Twp	
Lexington Twp	
West River Valley	04
County—Windham:	

PRIMARY CARE: Vermont—Continued

Service Area Listing

Service area name	Degree of shortage group
Parts:	
Jamaica Twp	
Newfane Twp	
Stratton Twp	
Townshend Twp	
Wardsboro Twp	

PRIMARY CARE: Virginia

County listing

County name	Degree of shortage group
Accomack	02
Albemarle:	
Service area: Southern Albemarle	01
Amelia	01
Augusta:	
Service area: Craigsville	02
Service area: South River	03
Bath	04
Bedford:	
Service area: Big Island	02
Bland	01
Brunswick:	
Service area: South Hill	04
Buckingham:	
Service area: Tri-County (Buck/Fluv/Cumb)	01
Caroline	01
Carroll:	
Service area: Hillsville	03
Charles City	03
Charlotte:	
Service area: Drakes Branch	04
Craig	01
Cumberland:	
Service area: Tri-County (Buck/Fluv/Cumb)	01
Dinwiddie:	
Service area: McKenney	02
Floyd:	
Service area: Hillsville	03
Fluvanna:	
Service area: Tri-County (Buck/Fluv/Cumb)	01
Franklin	04
Grayson:	
Service area: Trout Dale/Independence	03
Greene	04
Halifax:	
Service area: Nathalie	01
Isle of Wight	01
King and Queen:	
Service area: Northern King William	02
Service area: West Point	02
King George	02
King William:	
Service area: Northern King William	02
Service area: West Point	02
Lee	01
Louisa	02
Lunenburg	01
Madison	04
Mechlenburg:	
Service area: South Hill	04
Nelson	02
New Kent:	
Service area: West Point	02
Northampton	03
Page	02
Patrick	02
Pittsylvania	01
Richmond	02
Rockbridge:	
Service area: Craigsville	02
Service area: South River	03
Russell	03
Scott:	
Service area: Dungannon	01
Smyth:	
Service area: Saltville	02
Southampton:	
Service area: Berlin-Ivor	01
Sussex	04
Washington:	
Service area: Saltville Medical	02

PRIMARY CARE: Virginia—Continued

County listing

County name	Degree of shortage group
Westmoreland	01
Chesapeake:	
Service area: Southeast Chesapeake	01
Lynchburg:	
Population group: Low Income Pop. (Lynchburg)	01
Newport News:	
Service area: East End	02
Norfolk:	
Service area: Norfolk Area 1	04
Service area: Norfolk Area 2	01
Service area: Norfolk Area 3	01
Virginia Beach:	
Service area: Pungo	04

PRIMARY CARE: Virginia

Service Area Listing

Service area name	Degree of shortage group
Berlin-Ivor	01
County—Southampton	
Parts:	
Berlin Ivor	
Big Island	02
County—Bedford	
Parts:	
Center dist. (N. 1/2)	
Jefferson dist. (N. 1/2)	
Peaks dist. (N. 1/2)	
Craigsville	02
County—Augusta	
Parts:	
Craigsville Twp	
Pastures dist.	
Riverhead dist. (portion)	
County—Rockbridge	
Parts:	
Goshen Twp	
Kerr Creek dist	
Walkers Creek dist (W. portion)	
Drankse Branch	04
County—Charlotte	
Parts:	
Bacon dist.	
Central dist.	
Roanoke dist.	
Dungannon	01
County—Scott	
Parts:	
Dekath	
Floyd dist.	
Johnson dist.	
East End	02
County—Newport News	
Parts:	
C.T. 302-309	
C.T. 313	
Hillsville	03
County—Carroll	
County—Floyd	
Parts:	
Bucks Fork dist.	
Indian Valley dist.	
McKenney	02
County—Dinwiddie	
Parts:	
Darvills dist.	
Rowanty dist.	
Sapony dist.	
Nathalie	01
County—Halifax	
Parts:	
Meadville dist.	
Staunton dist.	
Norfolk area 1	04
County—Norfolk	
Parts:	
C.T. 32	
C.T. 33	
C.T. 60	
C.T. 61	
Norfolk area 2	01

PRIMARY CARE: Virginia—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Norfolk	
Parts:	
C.T. 34	
C.T. 35.01	
C.T. 35.02	
Norfolk area 3	01
County—Norfolk	
Parts:	
C.T. 50	
C.T. 52	
C.T. 53	
Northern King William	02
County—King and Queen	
Parts:	
Newton dist.	
Stevensville dist. (W. ½)	
County—King William	
Parts:	
Acquinton dist. (W. ½)	
Mongochick dist.	
Pungo	04
County—Virginia Beach	
Parts:	
C.T. 464 (Pungo)	
C.T. 465 (Blackwater)	
Saltville Medical	02
County—Smyth	
Parts:	
North Fork dist.	
Saltville dist.	
County—Washington	
Parts:	
Jefferson dist.	
South Hill	04
County—Brunswick	
County—Mecklenburg	
South River	03
County—Augusta	
Parts:	
Riverhead dist. (E. ½)	
County—Rockbridge	
Parts:	
South River dist.	
Walkers Creek dist. (E. ½)	
Southeast Chesapeake	01
County—Chesapeake	
Parts:	
C.T. 210.02	
C.T. 211	
C.T. 212	
Southern Albemarle	01
County—Albemarle	
Parts:	
Scottsville dist.	
Tri-County (Buck/Fluv/Cumb)	01
County—Buckingham	
County—Cumberland	
County—Fluvanna	
Trout Dale/Independence	03
County—Grayson	
Parts:	
Elk Creek dist.	
Wilson Creek dist.	
West Point	02
County—King and Queen	
Parts:	
Buena Vista dist.	
Stevensville dist. (E. ½)	
County—King William	
Parts:	
Acquinton dist.	
West Point dist.	
County—New Kent	

PRIMARY CARE: Virginia

Population Group Listing

Population group	Degree of shortage group
Low income pop. (Lynchburg)	01
County—Lynchburg	
PRIMARY CARE: Washington	
County Listing	
County name	Degree of shortage group
Adams:	
Service area: Othello	04
Service area: Ritzville	01
Benton:	
Population group: Migrant pop. (Benton/Franklin)	02
Population group: Migrant pop. (Toppenish/Grandview)	01
Chelan:	
Population group: Migr./seas. farmworkers (Chelan/Douglas)	01
Clallam:	
Service area: Forks	02
Columbia:	
Population Group: Walla Walla (Migrant and Seasonal Farmworkers)	01
Douglas:	
Service area: Grand Coulee	04
Population group: Migr./seas. farmworkers (Chelan/Douglas)	01
Ferry:	
Service area: Republic	02
Population group: Am. Indian pop. (Colville Res.)	01
Franklin:	
Service area: Othello	04
Population group: Migrant pop. (Benton/Franklin)	02
Grant:	
Service area: Grand Coulee	04
Service area: Othello	04
Population group: Migrants/Seasonal Farmworkers	02
Grays Harbor:	
Service area: Copalis Beach	02
Service area: McCleary-Elma	02
Jefferson:	
Service area: Forks	02
King:	
Facility: Seattle and King Co. Jails	01
Lewis:	
Service area: Pell	01
Lincoln:	
Service area: Grand Coulee	04
Service area: Odessa	01
Service area: Ritzville	01
Okanogan:	
Service area: Grand Coulee	04
Population group: Am. Indian pop. (Colville Res.)	01
Pacific:	
Service area: Naselle/Grays River	01
Service area: Raymond/South Bend	02
Pierce:	
Service area: Longbranch	01
Population group: Med. Ind. pop. (Pierce)	01
Facility: McNeil Island Corr. Ctr.	02
Facility: Pierce County Jail	02
Skagit:	
Service area: Concrete	01
Snohomish:	
Service area: Darrington	01
Spokane:	
Service area: Deer Park	03
Population group: Am. Indian pop. (Spokane)	01
Stevens:	
Service area: Deer Park	03
Wahkiakum:	
Service area: Naselle/Grays River	01
Walla Walla:	
Population group: Migrant and Seasonal Farmworkers (Walla Walla)	01

PRIMARY CARE: Washington—Continued

County Listing

County name	Degree of shortage group
Yakima:	
Population group: Migrant pop. (Toppenish/Grandview)	01

PRIMARY CARE: Washington

Service area Listing

Service area name	Degree of shortage group
Concrete	01
County—Skagit:	
Parts:	
Div. 1	
Div. 2	
Copalis Beach	02
County—Grays Harbor:	
Parts: North Beach Div.	
Darrington	01
County—Snohomish:	
Parts:	
Cascade Div.	
Deer Park	03
County—Spokane:	
Parts:	
Deer Park Div. (E.D. 103.01)	
Deer Park Div. (E.D. 103.02)	
Deer Park Div. (N. ½ E.D. 102)	
County—Stevens:	
Parts:	
Loon Lake Div. (E.D. 203)	
Loon Lake Div. (E.D. 204)	
Forks	02
County—Clallam:	
Parts:	
Clallam Bay-Nesh Bay Div.	
Forks Div.	
County—Jefferson:	
Parts:	
West End Div.	
Grand Coulee	04
County—Douglas:	
Parts:	
Bridgeport Div.	
Coulee Dam Town	
Mansfield Town (E.D. 256)	
Mansfield Town (E.D. 257)	
Watsville Div. (E.D. 265)	
County—Grant:	
Parts:	
Coulee City Div. (N. ½)	
Grand Coulee Div.	
County—Lincoln:	
Parts:	
Wilbur Div. (W. ½)	
County—Okanogan:	
Parts:	
Colville Res. Div. (PT)	
Coulee Dam Town	
Elmer City Town	
Nespelem Town (E.D. 751)	
Nespelem Town (E.D. 760)	
Nespelem Town (E.D. 761)	
Longbranch	01
County—Pierce:	
Parts:	
Lower Peninsula Div.	
McCleary-Elma	02
County—Grays Harbor:	
Parts:	
ELMA Div.	
Malone Porter Div.	
McCleary Div.	
Naselle/Grays River	01
County—Pacific:	
Parts:	
Naselle Div.	
County—Wahkiakum:	
Parts:	
Grays River	
Odessa	01

PRIMARY CARE: Washington—Continued

Service area Listing

Service area name	Degree of shortage group
County—Lincoln: Parts: Odessa Census Div. (PT)	04
County—Adams: Parts: Hutton Town Othello Div.	
County—Franklin: Parts: Cornell Div. Kahlotus Div. (N. 1/2)	
County—Grant: Parts: Southern Slopes Div. Warden Div.	01
County—Lewis: Parts: E.D. 71 of Bunker C.C.D. E.D. 76 of Boise FT C.C.D.	
Raymond/South Bend County—Pacific: Parts: Division 1-4 Raymond Div.	
County—Ferry: Parts: Div. 1 (Orient-Sherman) Div. 2 (Curlew) Div. 3 (Republic)	02
County—Adams: Parts: Und-Washtucna CCD Ritzville CCD	
County—Lincoln: Parts: E.D. 551 of Odessa CCD	

PRIMARY CARE: Washington

Population Group Listing

Population group	Degree of shortage group
Am. Indian Pop. (Spokane)	01
County—Spokane	
Am. Indian Pop. (Columbia Res.)	
County—Ferry	01
County—Okanogan	
Med. Ind. Pop. (Pierce)	
County—Pierce	01
Migr./Seas. farmworkers (Chelan/Douglas)	
County—Chelan	
County—Douglas	02
Migrant Pop. (Benton/Franklin)	
County—Benton	
County—Franklin	01
Migrant Pop. (Toppenish/Grandview)	
County—Benton: Parts: N.W. Benton Div. (W. 1/2)	
County—Yakima: Parts: Malton Div. S. Yakima Div. Sunnyside Div. Toppenish-Wapato Div.	02
Migrants/Seasonal Farmwork. (Grant)	
County—Grant	
Migr./Seas. Farmwork. (Walla Walla)	01

PRIMARY CARE: Washington—Continued

Population Group Listing

Population group	Degree of shortage group
County—Walla Walla: Parts: Eureka Flat Div. Towchee Div. Watsburg Div. Walla Walla—College Place Div.	
County—Columbia	

PRIMARY CARE: Washington

Facility Listing

Facility	Degree of shortage group
McNeil Island Corr. Ctr.	02
County—Pierce	02
Pierce County Jail	
County—Pierce	
Seattle and King Co. Jails	01
County—King	

PRIMARY CARE: West Virginia

County Listing

County Name	Degree of shortage group
Barbour	04
Braxton	01
Cabell:	01
Service area: Cabell	
Calhoun	
Clay	01
Doddridge:	01
Service area: Doddridge/Salem	
Fayette:	
Service area: New Haven	01
Gilmer	02
Grant:	04
Service area: Moorefield	
Service area: Mt Storm	
Greenbrier:	01
Service area: Greenbrier—Pocahontas	
Hampshire:	
Service area: Capon Bridge	02
Hancock:	02
Service area: East Liverpool (Ohio/Penn/W. Va.)	
Hardy:	
Service area: Baker	03
Service area: Moorefield	04
Harrison:	01
Service area: Doddridge/Salem	
Service area: Shinnston—Fairmont	
Jefferson:	04
Kanawha:	02
Service area: Cabin Creek	
Service area: Cedar Grove	
Service area: Clendenin	02
Service area: Pocatalico	03
Lewis:	03
Lincoln:	01
McDowell:	02
Marion:	03
Service area: Shinnston—Fairmont	
Marshall:	
Service area: Cameron	01
Mason:	01
Service area: Graham/Waggoner	
Mercer:	
Service area: Mercer	01
Mineral:	02
Service area: Cabin Run	
Mingo:	
Service area: Gilbert	01
Service area: Matawan	01
Service area: Mingo	01
Monongalia:	02
Service area: Clay/Battle	
Monroe	

PRIMARY CARE: West Virginia—Continued

County Listing

County Name	Degree of shortage group
Morgan:	02
Service area: Hancock	
Nicholas:	
Service area: Summerville	04
Pendleton	03
Pleasants:	03
Pocahontas:	01
Service area: Greenbrier—Pocahontas	
Preston:	
Service area: Rowlesburg	02
Putnam:	02
Service area: Trays Valley	
Raleigh:	
Service area: Gulf	03
Service area: Northwest Raleigh	02
Service area: Shady Spring	01
Ritchie:	02
Service area: Harrisville	
Roane:	
Summers:	01
Service area: Shady Spring	
Taylor	
Upshur:	01
Service area: Rock Cave	
Wayne:	
Webster:	02
Wetzel:	02
Service area: Clay/Battle	
Wirt:	
Wyoming:	03

PRIMARY CARE: West Virginia

Service Area Listing

Service area name	Degree of shortage group
Baker:	03
County—Hardy:	
Parts: Capon Dist. Lost River Dist.	
Cabell:	01
County—Cabell:	
Parts: Barboursville Grant Gueyandotte McComas Union	
Cabin Creek	02
County—Kanawha:	
Parts: C.T. 121 C.T. 122 C.T. 123	
Cabin Run	02
County—Mineral:	
Parts: Cabin Run Frankfurt	
Cameron:	01
County—Marshall:	
Parts: Cameron	
Capon Bridge	02
County—Hampshire:	
Parts: Blooming Capon	
Cedar Grove	02
County—Kanawha:	
Parts: C.T. 118 C.T. 119 C.T. 120	
Clay/Battle	02

PRIMARY CARE: West Virginia—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Monongalia: Parts: C.T. 114	
County—Wetzel: Parts: Center Church Clay	
Clendenin	02
County—Kanawha: Parts: C.T. 112	
Doddridge/Salem	01
County—Doddridge: County—Harrison: Parts: Salem City	
East Liverpool (Ohio/Penn/W Va)	02
County—Hancock: Parts: Grant District	
Gilbert	01
County—Mingo: Parts: Stafford Dist.	
Graham/Waggoner	01
County—Mason: Parts: Graham Waggoner	
Greenbrier—Pocahontas	01
County—Greenbrier: Parts: Anthony Creek Falling Springs Frankford Williamsburg	
County—Pocahontas: Parts: Little Levels	
Gulf	03
County—Raleigh: Parts: C.T. 111 Dist. 1 (Trap Hill)	
Hancock service area	02
County—Morgan: Parts: Allen Bath Rock Gap Sleepy Creek	
Harrisonville	02
County—Ritchie: Parts: Grant Dist. Murphy Dist. Union Dist.	
Martinsburg	01
County—Mingo: Parts: Magnolia Dist.	
Mercer	01
County—Mercer: Parts: Jumping Branch Plymouth Rock	
Mingo	01
County—Mingo: Parts: Harvey Kermit	
Moorefield	04
County—Grant: Parts: Grant Dist. Milroy Dist. Petersburg Twn	
County—Hardy: Parts: Moorefield Dist. Moorefield Twn South Fork Dist.	
Mt. Storm	01

PRIMARY CARE: West Virginia—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Grant: Parts: Union	
New Haven	01
County—Fayette: Parts: C.T. 210 C.T. 211	
Northwest Raleigh	02
County—Raleigh: Parts: C.T. 112 Dist. 2	
Pocatalico	03
County—Kanawha: Parts: C.T. 108	
Rock Cave	01
County—Upshur: Parts: Banks Meade Washington	
Rowlesburg	02
County—Preston: Parts: Reno Dist. Union Dist.	
Shady Spring	01
County—Raleigh: Parts: Richmond Dist. Shady Spring Dist.	
County—Summers: Parts: Jumping Branch Dist.	
Shinnston—Fairmont	03
County—Harrison: Parts: Northern District	
County—Marion: Summersville	04
County—Nicholas: Parts: Grant Hamilton Jefferson Kentucky (W 1/2) Summersville Wilderness	
Teays Valley	02
County—Putnam: Parts: Curry Dist. Scott District Teays Valley District	

PRIMARY CARE: Wisconsin

County Listing

County name	Degree of shortage group
Adams	02
Ashland: Service area: Park Falls/Phillips	03
Brown: Facility: Wisconsin State Reformatory	02
Buffalo: Service area: Arcadia	02
Service area: Mondovi	02
Burnett	02
Clark	03
Dodge: Facility: Wisconsin Correctional Inst. Facility: Wisconsin State Prison	03
Door: Service area: Sister Bay-Wash Island	02
Douglas: Service area: Minong/Solon Springs	01
Dunn: Service area: Mondovi	02
Eau Claire: Service area: Osseo	03

PRIMARY CARE: Wisconsin—Continued

County Listing

County name	Degree of shortage group
Forest: Service area: Laona	01
Iron: Service area: Ironwood/Hurley	03
Service area: Park Falls/Phillips	03
Jackson: Service area: Osseo	03
Juneau: Service area: Hillsboro	04
Kewaunee: Service area: Kewaunee City	02
Lafayette	03
Laporte: Service area: Elcho	02
Service area: Mountain	02
Lincoln: Facility: Lincoln Hills School	02
Marathon: Service area: Athens/Edgar	01
Service area: Tigerton/Biramwood	02
Marquette: Service area: Pound/Orlitz	01
Marquette: Service area: Wautoma/Montello	02
Menominee	04
Milwaukee: Service area: Capitol Drive	02
Service area: East Silver Spring	02
Service area: Inner City North (Milwaukee)	01
Service area: Inner City South (Milwaukee)	02
Service area: Inner City West	01
Service area: Junesdown	01
Population group: American Indian Pop. (Milwaukee)	01
Monroe: Service area: Hillsboro	04
Oconto: Service area: Mountain	02
Service area: Oconto Falls	03
Oneida: Service area: Elcho	02
Pepin: Service area: Mondovi	02
Pierce: Service area: Baldwin	02
Service area: Mondovi	02
Priest: Service area: Park Falls/Phillips	03
Richland: Service area: Hillsboro	04
St. Croix: Service area: Baldwin	02
Sauk: Service area: Hillsboro	04
Sawyer: Service area: Park Falls/Phillips	03
Shawano: Service area: Tigerton/Biramwood	02
Sheboygan: Facility: Kettle Moraine Correctional Inst.	02
Taylor	04
Trempealeau: Service area: Arcadia	02
Service area: Osseo	03
Vernon: Service area: Genoa	01
Service area: Hillsboro	04
Vilas: Service area: Land O'Lakes/Presque Isle	01
Washburn: Service area: Minong/Solon Springs	01
Waupaca: Service area: Tigerton/Biramwood	02
Waushara: Service area: Wautoma/Montello	02

PRIMARY CARE: Wisconsin

Service Area Listing

Service area name	Degree of shortage group
Arcadia	02
County—Buffalo	
Parts:	
Buffalo Town	
Cross	
Fountain City	
Glencoe	
Milton	
Montana	
Waumandee	
County—Trempealeau	
Parts:	
Arcadia (City)	
Arcadia (Twn)	
Dodge	
Athens/Edgar	01
County—Marathon	
Parts:	
Abbotsford City (Pt)	
Athens City	
Bern Town	
Cassel Town	
Colby City (Pt)	
Edgar City	
Fenwood City	
Frankfort Twn	
Halsey Twn	
Hamburg Twn	
Holton Twn	
Hull Twn	
Johnson	
Reitbrock Twn (Part)	
Rib Falls Town	
Wein Town	
Baldwin	02
County—Pierce	
Parts:	
Elmwood Village	
Gilman Town	
Spring Lake Town	
Spring Valley Village	
County—St. Croix	
Parts:	
Baldwin Town	
Baldwin Village	
Cady Town	
Eau Galle Town	
Emerald Town	
Glenwood City	
Glenwood Town	
Hammond Town	
Hammond Village	
Pleasant Valley Town	
Rush River Town	
Springfield Town	
Wilson Village	
Woodville Village	
Capitol Drive	02
County—Milwaukee	
Parts:	
C.T. 26	
C.T. 39	
C.T. 41-43	
C.T. 45-48	
C.T. 63-65	
East Silver Spring	00
County—Milwaukee	
Parts:	
C.T. 10-12	
C.T. 18-21	
Echo	02
County—Langlade	
Parts:	
Ainsworth Twn	
Echo Twn	
Parrish Twn	
Summit Twn	
Upham Twn	
County—Oneida	
Parts:	
Enterprise Twn	
Monico Twn (Pt)	
Schoepke Twn	
Genoa	01

PRIMARY CARE: Wisconsin—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Vernon	
Parts:	
Bergen Town	
Desoto Town	
Genoa Town	
Genoa Village	
Harmony Town	
Sterling Town	
Wheatland Town	
Hillsboro	04
County—Juneau	
Parts:	
Union Center	
Wonewoc Twn	
Wonewoc VII	
County—Monroe	
Parts:	
Glendale Twn	
Kendall Village	
Sheldon Twn	
Wellington Twn	
County—Richland	
Parts:	
Bloom Twn	
Cazenovia Village	
Henzietta Twn	
Westford Twn	
Yuba Village	
County—Sauk	
Parts:	
Woodland Twn	
County—Vernon	
Parts:	
Forest Twn	
Greenwood Twn	
Hillsboro City	
Hillsboro Twn	
Ontario Village	
Union Twn	
Whitestown Twn	
Inner City North (Milwaukee)	01
County—Milwaukee	
Parts:	
C.T. 44	
C.T. 66-72	
C.T. 79-86	
C.T. 101-107	
C.T. 114-118	
C.T. 139-142	
Inner City South (Milwaukee)	02
County—Milwaukee	
Parts:	
C.T. 155-171	
C.T. 174-180	
Inner City West (Milwaukee)	01
County—Milwaukee	
Parts:	
C.T. 62	
C.T. 87-90	
C.T. 96-100	
C.T. 119-125	
C.T. 133-138	
C.T. 148-149	
Irwood/Hurley	03
County—Iron	
Parts:	
Anderson Town	
Carey Town	
Gurney Town	
Hurley City	
Kimball Town	
Knight Town	
Mercer Town	
Montreal City	
Oma Town	
Pence Town	
Saxon Town	
Juneau Town	01
County—Milwaukee	
Parts:	
C.T. 108	
C.T. 110-113	
Kewaunee City	02

PRIMARY CARE: Wisconsin—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Kewaunee	
Parts:	
Carlton Twn	
Casco Twn (East ½)	
Casco Village (East ½)	
Franklin Twn (East ½)	
Kewaunee City	
Kewaunee Twn	
Montpelier Twn (East ½)	
Pierce Twn (South ½)	
Land O'Lakes/Presque Isle	01
County—Vilas	
Parts:	
Land O'Lake Twn	
Presque Isle Twn	
Winchester Twn	
Laona	01
County—Forest	
Parts:	
Armstrong Creek Town	
Blackwell Town	
Caswell	
Freedom Town	
Laona Town	
Ross Town	
Wabeno Town	
Minong/Solon Springs	01
County—Douglas	
Parts:	
Bennett Town	
Dairyland Twn	
Gordon Twn	
Highland Town	
Oakland Twn (S ½)	
Solon Springs Twn	
Solon Springs Village	
Wascott Twn	
County—Washburn	
Parts:	
Brooklyn Town	
Chicog Town	
Frog Creek Twn	
Gulf Lake Town	
Minong Twn	
Minong Village	
Mondovi	02
County—Buffalo	
Parts:	
Alma City	
Alma Town	
Belvidere Town	
Buffalo City	
Carlton Town	
Cochrane Village	
Dover Town	
Gilmanton Town	
Lincoln Town	
Modena Town	
Mondovi City	
Mondovi Town	
Naples Town	
County—Dunn	
Parts:	
Eau Galle Town	
County—Pepin	
Parts:	
Albany Town	
County—Pierce	
Parts:	
Bay City Village	
Isabelle Town	
Maiden Rock Village	
Maiden Rocktown	
Plum City Village	
Union Town	
Mountain	02

PRIMARY CARE: Wisconsin—Continued

Service Area Listing

Service area name	Degree of shortage group
County—Langlade Parts: Evergreen Twn Langlade Twn White River Twn Wolf River Twn	
County—Oconto Parts: Armstrong Twn Bagley Twn Brazos Twn Breed Twn Doty Twn Lakewood Twn Riverside Twn Townsend Twn	
Oconto Falls	03
County—Oconto Parts: Abrams Twn (Western 1/2) Gillett City Gillett Twn Green Valley Twn How Twn Lena Twn Lena Village Maple Valley Twn Morgan Twn Oconto Falls City Oconto Falls Twn Spruce Twn Stiles Twn (Western 1/2) Suning Village Underhill Twn	
Osseo	03
County—Eau Claire Parts: Augusta Twn Bridge Creek Twn Clear Creek Twn Fairchild Twn Fairchild Village Otter Creek Twn	
County—Jackson Parts: Cleveland Twn Garfield Twn Northfield Twn	
County—Trempealeau Parts: Hale Twn Osseo City Strum Vll Sumner Twn Unity Twn	
Park Falls/Phillips	03
County—Ashland Parts: Agenda Twn Butternut village Chippewa Twn Gordon Twn Jacobs Twn Peeksville Twn Shamagolden Twn	
County—Iron Parts: Sherman Twn	
County—Price Parts: Catawba Twn & Village Eisenstein Twn Elk Twn	

PRIMARY CARE: Wisconsin—Continued

Service Area Listing

Service area name	Degree of shortage group
Emergy Twn Fifield Twn Flambeau Twn Georgetown Twn Hackett Twn Harmony Twn Kannan Twn Kannan Vll Lake Twn Ogema Twn Park Falls City Phillips City Prentice Twn (West 1/2) Prentice Vll Worcester Twn	
County—Sawyer Parts: Draper Twn Winter Twn Winter Village	
Pound/Orvitz	01
County—Marquette Parts: Beaver Twn Coleman Village Orvitz Village Lake Twn Pound Twn Pound Village Stephenson Twn	
Sister Bay-Wash Island	02
County—Door Parts: Baileys Harbor Twn Ephraim Village Gibault Twn Liberty Grove Twn Sister Bay Vll Washington Twn	
Tigerton/Biramwood	02
County—Marathon Parts: Elderon Twn Elderon Village Franzen Twn	
County—Shawano Parts: Almon Twn Biramwood Twn Biramwood Village Bowler Village Eland Village Fairbanks Twn Germania Twn Grant Twn Morris Twn Seneca Twn Tigerton Village Wittenberg Twn Wittenberg Village	
County—Waupaca Parts: Big Falls Village Harrison Twn Wyoming Twn	
Wautoma/Montello	02
County—Marquette Parts: Coloma Twn Coloma Village Dakota Twn Deerfield Twn (S. 1/2) Hancock Twn (S. 1/2)	

PRIMARY CARE: Wisconsin—Continued

Service Area Listing

Service area name	Degree of shortage group
Marion Twn Richford Twn Wautoma City Wautoma Twn (S. 1/2)	
County—Waushara Parts: Crystal Lake Twn Harris Twn Mecan Twn Montello City Montello Twn Neshkoro Twn Neshkoro Village Newton Twn Oxford Twn Oxford Village Packwaukee Twn Shields Twn Springfield Twn Westfield Twn Westfield Village	

PRIMARY CARE: Wisconsin

Population group listing

Population group	Degree of shortage group
American Indian Pop. (Milwaukee)	01
County—Milwaukee	

PRIMARY CARE: Wisconsin

Facility listing

Facility	Degree of shortage group
Kettle Moraine Correctional Inst.	02
County—Sheboygan	
Lincoln Hills School	02
County—Lincoln	
Wisconsin Correctional Inst.	03
County—Dodge	
Wisconsin State Prison	02
County—Dodge	
Wisconsin State Reformatory	02
County—Brown	

PRIMARY CARE: Wyoming

County listing

County name	Degree of shortage group
Albany: Service area: Medicine Bow/Rock River	01
Big Horn: Service area: Grey Bull	04
Campbell: Service area: Wright	01
Carbon: Service area: Medicine Bow/Rock River	01
Service area: Saratoga	03
Crook: Service area: Hulett	01
Service area: Moorcroft	01
Fremont: Service area: Jeffery City	01
Population group: Wind River Indian Reservation	01
Hot Springs: Population group: Wind River Indian Reservation	01
Lincoln: Service area: Afton	04

PRIMARY CARE: Wyoming—Continued

County listing

County name	Degree of shortage group
Service area: Kemmerer.....	02
Watkins.....	
Service area: Midwest/Edgerton.....	01
Platte.....	03
Lincoln.....	04
Weston.....	03

PRIMARY CARE: Wyoming

Service Area Listing

Service area name	Degree of shortage group
Alton.....	04
County—Lincoln:	
Parts:	
Alton Div.	
Grey Bull.....	04
County—Big Horn:	
Parts:	
Big Horn (Central Div.)	
Big Horn (South Div.)	
Hwy 1.....	01
Parts:	
Hullett Div.	
Jellison City.....	01
County—Fremont:	
Parts:	
Sweetwater Div.	
Kemmerer.....	02
County—Lincoln:	
Parts:	
Kemmerer West Div.	
Kemmerer East Div.	
Medicine Bow/Rock River.....	01
County—Albany:	
Parts:	
Rock River Div.	
County—Carbon:	
Parts:	
Hanna CCD	
Midwest/Edgerton.....	01
County—Natrona:	
Parts:	
Casper North Div. (N. 1/2)	
Moorcroft.....	01
County—Crook:	
Parts:	
Moorcroft Div.	
Saratoga.....	03
County—Carbon:	
Parts:	
Saratoga CCD	
Wright.....	01
County—Campbell:	
Parts:	
Gillette South CCD	

PRIMARY CARE: Wyoming

Population Group Listing

Population group	Degree of shortage group
Wind River Indian Reservation.....	01

PRIMARY CARE: Wyoming—Continued

Population Group Listing

Population group	Degree of shortage group
County—Fremont.....	
Parts: Wind River Indian Reservation	
County—Hot Springs.....	
Parts: Wind River Indian Reservation	

PRIMARY CARE: Guam

District Listing

District name	Degree of shortage group
Agat:	
Service Area: Southern Guam.....	01
Inarajan:	
Service Area: Southern Guam.....	01
Merizo:	
Service Area: Southern Guam.....	01
Santa Rita:	
Service Area: Southern Guam.....	01
Talofoto:	
Service Area: Southern Guam.....	01
Umatac:	
Service Area: Southern Guam.....	01
Yona:	
Service Area: Southern Guam.....	01

PRIMARY CARE: GUAM

Service Area Listing

Service area name	Degree of shortage group
Southern Guam.....	01
County—Agat.....	
County—Inarajan.....	
County—Merizo.....	
County—Santa Rita.....	
County—Talofoto.....	
County—Umatac.....	
County—Yona.....	

PRIMARY CARE: Puerto Rico

Municipio Listing

Municipio name	Degree of shortage group
Adjuntas:	
Population group: Poverty pop/Adjuntas.....	01
Agua Buenas:	
Population group: Poverty pop/Agua Buenas.....	01
Anasco:	
Population group: Poverty pop/Anasco.....	01
Arecibo:	
Population group: Poverty pop/Arecibo.....	01
Arroyo:	
Population group: Poverty pop/Arroyo.....	01
Barceloneta:	
Population group: Poverty pop/Barceloneta.....	01
Barranquitas:	
Population group: Poverty pop/Barranquitas.....	01
Cabo Rojo:	
Population group: Poverty pop/Cabo Rojo.....	03
Camuy:	
Population group: Poverty pop/Camuy.....	01
Cataño:	
Population group: Poverty pop/Cataño.....	01
Cayey:	
Population group: Poverty pop/Cayey.....	01
Ceiba:	
Population group: Poverty pop/Ceiba.....	03
Ciales:	
Population group: Poverty pop/Ciales.....	01
Cidra:	
Population group: Poverty pop/Cidra.....	01
Coamo:	
Population group: Poverty pop/Coamo.....	01
Comerio:	
Population group: Poverty pop/Comerio.....	01
Corozal:	
Population group: Poverty pop/Corozal.....	01
Dorado:	
Population group: Poverty pop/Dorado.....	04

PRIMARY CARE: Puerto Rico—Continued

Municipio Listing

Municipio name	Degree of shortage group
Fajardo:	
Population group: Poverty pop/Fajardo.....	01
Florida:	
Population group: Poverty pop/Florida.....	01
Guanica:	
Population group: Poverty pop/Guanica.....	01
Guayama:	
Population group: Poverty pop/Guayama.....	01
Guayanilla:	
Population group: Poverty pop/Guayanilla.....	01
Guaynabo:	
Population group: Poverty pop/Guaynabo.....	04
Gurabo:	
Population group: Poverty pop/Gurabo.....	01
Hatillo:	
Population group: Poverty pop/Hatillo.....	01
Hormigueros:	
Population group: Poverty pop/Hormigueros.....	01
Humacao:	
Population group: Poverty pop/Humacao.....	02
Isabela:	
Population group: Poverty pop/Isabela.....	01
Jayuya:	
Population group: Poverty pop/Jayuya.....	01
Juana Diaz:	
Population group: Poverty pop/Juana Diaz.....	01
Juncos:	
Population group: Poverty pop/Juncos.....	03
Lajas:	
Population group: Poverty pop/Lajas.....	01
Lares:	
Population group: Poverty pop/Lares.....	01
Las Marias:	
Population group: Poverty pop/Las Marias.....	03
Las Piedras:	
Population group: Poverty pop/Las Piedras.....	01
Loiza:	
Population group: Poverty pop/Loiza.....	01
Luquillo:	
Population group: Poverty pop/Luquillo.....	02
Manati:	
Population group: Poverty pop/Manati.....	01
Maricao:	
Population group: Poverty pop/Maricao.....	01
Maunabo:	
Population group: Poverty pop/Maunabo.....	02
Mayaguez:	
Population group: Poverty pop/Mayaguez.....	01
Moca:	
Population group: Poverty pop/Moca.....	01
Morovis:	
Population group: Poverty pop/Morovis.....	01
Naguabo:	
Population group: Poverty pop/Naguabo.....	01
Naranjito:	
Population group: Poverty pop/Naranjito.....	02
Orocovis:	
Population group: Poverty pop/Orocovis.....	01
Pattillas:	
Population group: Poverty pop/Pattillas.....	01
Ponce:	
Population group: Poverty pop/Ponce.....	04
Quebradillas:	
Population group: Poverty pop/Quebradillas.....	02
Rincon:	
Population group: Poverty pop/Rincon.....	01
Rio Grande:	
Population group: Poverty pop/Rio Grande.....	02
Sabana Grande:	
Population group: Poverty pop/Sabana Grande.....	01
Salinas:	
Population group: Poverty pop/Salinas.....	01
San German:	
Population group: Poverty pop/San German.....	02
San Juan:	
Service area: Barrio Obrero.....	03
San Lorenzo:	
Population group: Poverty pop/San Lorenzo.....	01
San Sebastian:	
Population group: Poverty pop/San Sebastian.....	01
Santa Isabel:	
Population group: Poverty pop/Santa Isabel.....	01
Toa Alta:	
Population group: Poverty pop/Toa Alta.....	01
Trujillo Alto:	
Population group: Poverty pop/Trujillo Alto.....	02
Utuado:	
Population group: Poverty pop/Utuado.....	01
Vega Alta:	
Population group: Poverty pop/Vega Alta.....	01
Vega Baja:	
Population group: Poverty pop/Vega Baja.....	01
Yabucoa:	
Population group: Poverty pop/Yabucoa.....	01
Yauco:	
Population group: Poverty pop/Yauco.....	01

PRIMARY CARE: Puerto Rico.*Service Area Listing*

Service area name	Degree of shortage group
Barrio Obrero	03
Municipio—San Juan	
Parts:	
C.T. 29-39	
C.T. 44-45	

PRIMARY CARE: Puerto Rico*Population Group Listing*

Population group	Degree of shortage group
Poverty pop. (Adjuntas)	01
County—Adjuntas	
Poverty pop. (Aguas Buenas)	01
County—Aguas Buenas	
Poverty pop. (Arecibo)	01
County—Arecibo	
Poverty pop. (Arroyo)	01
County—Arroyo	
Poverty pop. (Cabo Rojo)	03
County—Cabo Rojo	
Poverty pop. (Catano)	01
County—Catano	
Poverty pop. (Cayey)	01
County—Cayey	
Poverty pop. (Coamo)	01
County—Coamo	
Poverty pop. (Dorado)	04
County—Dorado	
Poverty pop. (Fajardo)	01
County—Fajardo	
Poverty pop. (Guanica)	01
County—Guanica	
Poverty pop. (Guayama)	01
County—Guayama	
Poverty pop. (Guayanilla)	01
County—Guayanilla	
Poverty pop. (Guaynabo)	04
County—Guaynabo	
Poverty pop. (Gurabo)	01
County—Gurabo	
Poverty pop. (Humacao)	02
County—Humacao	
Poverty pop. (Isabela)	01
County—Isabela	
Poverty pop. (Jayuya)	01
County—Jayuya	
Poverty pop. (Juana Diaz)	01
County—Juana Diaz	
Poverty pop. (Las Marias)	03
County—Las Marias	
Poverty pop. (Loiza)	01
County—Loiza	
Poverty pop. (Manati)	01

PRIMARY CARE: Puerto Rico—Continued*Population Group Listing*

Population group	Degree of shortage group
County—Manati	01
Poverty pop. (Maricao)	
County—Maricao	02
Poverty pop. (Maunabo)	
County—Maunabo	01
Poverty pop. (Mayaguez)	
County—Mayaguez	01
Poverty pop. (Moca)	
County—Moca	01
Poverty pop. (Naguabo)	
County—Naguabo	04
Poverty pop. (Ponce)	
County—Gurguao	02
Poverty pop. (Quebradillas)	
County—Quebradillas	02
Poverty pop. (Rio Grande)	
County—Rio Grande	01
Poverty pop. (Salinas)	
County—Salinas	02
Poverty pop. (San German)	
County—San German	01
Poverty pop. (Lorenzo)	
County—Lorenzo	01
Poverty pop. (San Sebastian)	
County—San Sebastian	01
Poverty pop. (Santa Isabel)	
County—Santa Isabel	01
Poverty pop. (Toa Alta)	
County—Toa Alta	02
Poverty pop. (Trujillo Alto)	
County—Trujillo Alto	01
Poverty pop. (Utuado)	
County—Utuado	01
Poverty pop. (Vega Alta)	
County—Vega Alta	01
Poverty pop. (Yabucoa)	
County—Yabucoa	01
Poverty pop. (Yauco)	
County—Yauco	03
Poverty pop. (Ceiba)	
County—Ceiba	01
Poverty pop. (Vega Baja)	
County—Vega Baja	

PRIMARY CARE: Trust Territory Pacific*District Listing*

District name	Degree of shortage group
Kosrae District	01
Marshall District	01
Ponape District	01
Truk District	01
Yap District	01

PRIMARY CARE: Northern Mariana Islands*District Listing*

District name	Degree of shortage group
Mariana Island Dist.	01

PRIMARY CARE: Virgin Islands*County Listing*

County name	Degree of shortage group
St. Croix	02
Service Area: Fredericksted	
St. Thomas	01
Service area: East End St. Thomas	

PRIMARY CARE: Virgin Islands*Service Area Listing*

Service area name	Degree of shortage group
East End St. Thomas	01
County—St. Thomas	
Parts:	
East End	
Southside	02
Tutu	
Fredericksted	
County—St. Croix	
Parts:	
Fredericksted	
Northwest	
Southwest	

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