

Act of 1950, as amended, and 44 CFR Part 332.

D. Freight Rates under the Agreement.

1. Charters of vessels at the request of the Administrator shall be made at rates of charter hire determined by the Administrator in consultation with the designee of the Secretary of Defense in accordance with paragraph 2 below and upon a type of charter determined by the Administrator in consultation with the designee of the Secretary of Defense. The type of charter may be single voyage, consecutive voyage or time charter.

2. The rate of charter hire applicable to each charter shall be the "prevailing market rate" effective at the time of the proposed loading of the vessel. The "prevailing market rate" shall be determined by the Administrator on the basis of a tanker charter market report furnished to the Administrator by a panel of three active and experienced tanker charter brokers selected by the Administrator from a list of brokers mutually agreed upon by the Administrator and the Participants and shall be equal to the lower of either (a) the average rate of the fixtures during the forty-five (45) days immediately preceding the execution of the charter party for a similar type of charter, ship DWT, equivalent loading period and trading ranges, or (b) the last three such fixtures. If within the forty-five day period prior to the execution of the charter party, there were fewer than three fixtures of the type, the brokers are to use their best judgement in recommending the rate. Voyage freight rates will be expressed in terms of American Tanker Rate Schedule (ATRS), Worldwide Tanker Nominal Freight Scale (WORLDSCALE) or other recognized voyage freight rate bases. Time hire rates will be expressed in terms of dollars per DWT per month.

3. The rate of charter hire fixed with respect to each charter shall apply for the entire period of the charter, except that:

a. For a consecutive voyage charter, the rate of charter shall be increased or decreased to reflect increases or decreases in the price of bunker fuel applicable in the area of the vessel's trade;

b. Reimbursement for war risk insurance premiums will be made in accordance with Section V.E.;

c. The Participant will be reimbursed for crew war bonuses that are applicable to the actual voyage but are announced after the charter rate is established;

d. Each participant may apply to the Administrator for adjustments of charter hire rates to reflect other increases in the vessel's operating costs incurred directly as a consequence of operation for or under the direction of the DoD. The Administrator may effect adjustments, after consultation with the Participant, to reflect other decreases in the vessel's operating costs. In no case will the Administrator approve adjustments to reflect changes in the market other than direct operating costs.

E. War Risk Insurance.

1. War risk insurance premiums for time chartered vessels will be paid by the DoD.

2. For voyage and consecutive voyage charters, the Participant will be reimbursed

for increases in war risk insurance premiums that are applicable to the actual voyage but are announced after the charter rate is established by the broker panel.

3. For any ship chartered under this Agreement, the Secretary of Defense may procure from the Secretary of Transportation war risk insurance on hull and machinery, war risk protection and indemnity insurance, and Second Seamen's War Risk Insurance, subject to the provisions of Section 1205(a) of the Merchant Marine Act of 1936 (46 U.S.C. 1285).

VI. Activation of the Agreement

A. *Determination of Necessity.* This Agreement shall be activated at the request of the Secretary of Defense, upon a finding by the Administrator, concurred in by the Director of the Federal Emergency Management Agency, that a tanker capacity emergency affecting the national defense exists and that the defense requirement can be met more efficiently by activation of this Agreement than by requisition of ships under Section 902, Merchant Marine Act, 1936, as amended. A tanker capacity emergency will be deemed to exist when tanker capacity required to support operations of U.S. forces outside the continental United States cannot be supplied through the commercial market or other voluntary arrangements. The Administrator shall notify the Attorney General and the Chairman of the Federal Trade Commission when such a finding is made.

B. Tanker Requirements Committee.

1. A Tanker Requirements committee (the "Committee") shall be appointed by the Administrator for the purpose of recommending the proportional contributions of tanker capacity by the Participants necessary to satisfy the requirements of the DoD.

2. The Committee shall be composed of a representative of each Participant and a full-time employee of MarAd. The MarAd representative shall chair the Committee and shall be assisted by experts from DoD. As the designated representative of the Administrator, the Committee Chair is authorized to administer this Agreement and apportion the contribution of tanker capacity by the Participants to the DoD.

3. Upon a finding by the Administrator in accordance with VI.A. the Committee Chair shall convene a meeting of the Tanker Requirements Committee for the purpose of:

- Setting out the DoD requirements;
- Establishing the approximate contribution required by each Participant to meet the requirement; and
- Establishing the schedule for making capacity available to the DoD.

4. The Committee Chair shall:

a. Notify the Attorney General, the Chairman of the Federal Trade Commission, the Secretary of Defense, the Director of the Federal Emergency Management Agency, and all Participants of the time, place and nature of each meeting and of the proposed agenda of each meeting to be held to carry out this Agreement;

b. Provide for publication in the Federal Register of a notice of the time, place and nature of each meeting. If a meeting is open, a

Federal Register notice will be published reasonably in advance of the meeting. If a meeting is closed, a Federal Register notice will be published within ten (10) days of the meeting and will include the reasons why the meeting is closed;

c. Establish the agenda for each meeting and be responsible for adherence to the agenda;

d. Provide for a full and complete transcript or other record of each meeting and provide copies of transcripts or other records to the Attorney General, the Chairman of the Federal Trade Commission, the Director of the Federal Emergency Management Agency, DoD officials, and all Participants; and

e. Take necessary actions to protect confidentiality of data discussed with or obtained from Participants.

C. *Designation of the Representative of the Secretary of Defense.* The Committee Chair will announce the DoD agency designated by the Secretary of Defense to represent the DoD in the chartering of ships made available by Participants for defense service under this Agreement.

D. *Tanker Charters.* Participants will execute charter agreements with the DoD and, when requested by the Administrator in accordance with V.A.2., with other Participants, at the charter rate and on the type of charter determined in accordance with V.D. The designee of the Secretary of Defense will deal directly with tanker operators in the making of charter parties and other arrangements to meet the defense requirement, keeping the Administrator informed. If vessels are chartered between Participants, Participants will keep the Administrator informed. The Administrator will keep the Attorney General and the Chairman of the Federal Trade Commission informed of the actions taken under this Agreement.

E. *Termination of Charters under the Agreement.* The designee of the Secretary of Defense will notify the Administrator as far as possible in advance of the prospective termination of the need for tanker capacity under this Agreement and, in coordination with the Tanker Requirements Committee and as approved by the Administrator, will arrange the release of tankers from charter so as to equalize the burden on Participants.

VII. Application and Agreement

The Administrator has adopted and makes available a form on which tanker operators may apply for and become Participants in this Agreement ("Application and Agreement to Participate in the Revised Voluntary Tanker Agreement"). The form will incorporate by reference the terms of this Agreement.

By order of the Maritime Administrator, Department of Transportation.

Dated: July 16, 1983.

Georgia P. Stamas,
Secretary, Maritime Administration.

[FR Doc. 83-22997 Filed 8-24-83; 8:45 am]

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Estimate Federal Paper

Thursday
August 25, 1983

Part III

Environmental Protection Agency

State Hazardous Waste Programs;
Procedures for Revision of State RCRA
Programs; Proposed Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 271

[SW-FRL-2368-2]

State Hazardous Waste Programs; Procedures for Revision of State RCRA Programs

AGENCY: Environmental Protection Agency.

ACTION: Proposed rule.

SUMMARY: EPA is today proposing to amend its requirements under 40 CFR 271.21(e) (formerly § 123.13(e)) for the approval and revision of authorized state hazardous waste programs. One purpose is to ensure that states applying for final authorization under the Resource Conservation and Recovery Act of 1976, as amended, (RCRA) do not have to revise their programs and applications to respond to federal regulatory changes occurring while the states' applications are being prepared or processed. The second purpose is to provide all authorized states with one full year (or two years, if there is a need for state legislative action) from the effective date of amended federal regulations to make the revisions in their programs required by such federal amendments. This action would provide the state with an additional six months since the existing regulation requires that program revisions be made within one year (or two years) after the promulgation of amended federal regulations.

This amendment, if promulgated, will not have a major economic or environmental impact on the states or the regulated community. It will provide greater certainty to states which are applying for final authorization, since they will not have to change their applications continually when the federal regulations change.

DATE: The Agency will accept comments on these proposed amendments until September 26, 1983.

ADDRESSES: Comments on these proposed amendments should be addressed to the Docket Clerk (Docket 3006—Revision of State Programs), Office of Solid Waste (WH-562), U.S. Environmental Protection Agency, Washington, D.C. 20460.

The public docket for this rulemaking is located in Room S-269, Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460, and is available

for viewing from 9:00 a.m. to 4:00 p.m., Monday through Friday, excluding holidays.

FOR FURTHER INFORMATION CONTACT: Denise Hawkins, Office of Solid Waste (WH-563-B), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460, (202) (382-2210), or the RCRA hotline, toll-free at (800) (424-9348) or in Washington at (202) (382-3000).

SUPPLEMENTARY INFORMATION:

I. Background

Section 3006(b) of the Resource Conservation and Recovery Act of 1976 (RCRA) requires EPA to grant final authorization to state hazardous waste programs that: (1) Are equivalent to the federal hazardous waste program (40 CFR Parts 124, 260-266 and 270); (2) are consistent with the federal program and other state programs which have received final authorization; and (3) provide adequate enforcement. In addition, Section 3009 of RCRA provides that state programs may not impose any requirements "less stringent" than the federal requirements. The effect of final authorization is that a state operates its state hazardous waste management program within its jurisdiction in lieu of EPA's operating the federal hazardous waste management program in the state. Regulations which govern the granting of final authorization are set forth in 40 CFR Part 271, Subpart A.¹

Section 271.21(e) requires that all new state programs comply with the federal regulations immediately upon approval (authorization). This section also requires states which have received final authorization to make any necessary changes to their programs when the federal regulations change. The latter requirement assures that state programs remain equivalent to and no less stringent than the federal program. Program revisions after authorization must be made within one year of the date of promulgation of the modified federal regulations (or two years if a state must revise its statutes).

This provision presents problems both for states applying for final authorization and for states which are already authorized. These problems, and EPA's proposed solutions, are discussed below.

II. States Applying for Final Authorization

Section 271.21(e) presents a problem concerning the effect of federal

regulatory changes on the timing of final authorizations. RCRA regulations generally do not take effect for six months after promulgation. Because RCRA gives EPA six months after a state submits its application to determine whether the state qualifies for final authorization, federal requirements promulgated during the six months before a state submits its application ordinarily would become effective during the six month application review period. As § 271.21(e) currently provides that state programs must be judged against the federal requirements in effect at the time of approval, a state must be concerned with new regulations promulgated while it is preparing its application that will become effective by the time the state program is scheduled to be approved. For example, if a new EPA requirement is promulgated a month before a state planned to submit its application and the state program did not contain an analogous requirement, the state would have to delay submission of its application until it modified its regulations and application. This delay could be even greater if a state needed to change its statute as well.

Further, before a state can apply for final authorization, it must provide an opportunity for public comment on the state program and must schedule a public hearing if sufficient public interest is shown (§ 271.20(a) (4) and (5)). If the adoption of a new regulation is considered a substantial revision of the state program, the state must provide an opportunity for further public comment and additional hearing (§ 271.20(b)). EPA is also required to allow for public comment and a hearing (§ 271.20(d) (1) and (2)). If the application has already been submitted and passed through the comment and hearing stage, EPA may have to provide a second opportunity for public participation as well. Thus, in addition to taking the time to amend its regulations, the state and EPA may need to allocate additional time to the state authorization hearing process.

In summary, changes in the federal program in the coming months may well delay final authorization of state programs if the federal program becomes a "moving target". This is a very serious problem because state interim authorizations expire January 26, 1985. States with interim authorization have until that date to receive final authorization or responsibility for administering the RCRA subtitle C program will automatically revert to EPA. To reduce the likelihood of such reversions and to resolve the

¹ Prior to April 1, 1983, these regulations were codified at 40 CFR Part 123, Subparts A and B. On that date, EPA recodified them at 40 CFR Part 271. (See 48 FR 14248-14264, April 1, 1983.)

uncertainty about what federal requirements the state must meet to receive final authorization, EPA is proposing to establish that the federal program in effect at a specified date will be the federal program against which a state program will be measured for the purpose of receiving final authorization. This would eliminate the need for the state to revise its application continually or to delay submitting its authorization application to EPA because of federal changes occurring while the application is being prepared or being processed by EPA.

Specifically, EPA is proposing to amend § 271.21(e) to provide that each state will be reviewed for final authorization on the basis of the federal regulations in effect one year prior to submission of the state's complete application (as determined by EPA under § 271.5(b)) or the federal regulations in effect on January 26, 1983, whichever is later. The period of one year was chosen in order to be consistent with other changes (which will be explained later) being proposed today in this amendment.

The date of January 26, 1983, was chosen for this proposal since it is the date when the regulations governing treatment, storage or disposal of hazardous waste on the land became effective (47 FR 32378-32382, July 26, 1983). EPA believes all state programs must contain these critical technical requirements to receive final authorization. However, EPA would also consider using the effective date of this amendment (rather than January 26) to define the minimum program to which the states must demonstrate equivalence in their final authorization applications. This would assure that any federal regulations which become effective between January 26, 1983, and the effective date of this amendment will also be included in every state's program when it initially receives final authorization. The Agency invites comments from the public on which date would be more appropriate.

While the amendment allows a state to be reviewed based on the federal program in effect one year prior to submission of its application, it does not preclude authorization of a state based on federal regulatory amendments which become effective after that date.

III. States With Final Authorization

Several problems arise after a state receives authorization. Section 271.21(e) provides that any revisions in an authorized state program that are required because of modification of the federal regulations must be made within one year of the promulgation of the

modified federal regulation. If the state must amend its statute to make the required revisions, it has two years in which to do so.

In meetings with the Agency, the National Governor's Association (NGA) and the Association of State and Territorial Solid Waste Management Officials (ASTSWO) have expressed concern about these time periods. They have asserted that the amount of time provided by § 271.21(e) does not allow adequate leeway for their regulatory schedules, especially where there is controversy or a high level of public interest in the regulatory amendment. If a state must coordinate its regulations with other agencies, work with advisory groups or special commissions, or is developing regulations in which there is a great deal of public interest, they believe the promulgation of a state's regulations could easily be delayed beyond one year. In addition, where the state's regulations must be reviewed by the state legislature prior to becoming effective, NGA and ASTSWO maintain that up to an additional year could be added to the process, particularly in those states where the legislature meets biennially.

Two examples illustrate this problem. Kentucky's Administrative Procedure Act prescribes rulemaking procedures which take a minimum of 218 days between the time a regulation is proposed and the time it becomes effective. These procedures include public notice and hearing and review by the Kentucky Legislative Research Commission (a standing joint committee of the Kentucky legislature) before a regulation is adopted. Preparing the regulations for proposal takes additional time. The entire process can easily take over one year.

Iowa's Administrative Procedure Act prescribes rulemaking procedures which take a minimum of 60 days between the time a regulation is proposed and the time it becomes effective. However, prior to publishing a proposed rule and holding a public hearing, the regulation must be reviewed and approved by the Environmental Quality Commission. The Commission reviews it again after the hearing. These two reviews take a minimum of 90 days. Again, preparing the regulations takes additional time. Thus, in Iowa as well, the one year time frame may be inadequate.

It appears that Iowa's and Kentucky's experience may be typical of other states. Preparation of the regulations and often-required supporting documentation (e.g., analyses of economic impact in the state, budget implications, effect on small businesses in the state) require time. These

activities, combined with required coordination with other interested groups and the inevitable difficulties encountered in the governmental review and approval process, serve to create an unworkable deadline for many states. EPA needs more specific information from the states to confirm the extent of the problem and to determine what time frame would be adequate for the states to complete regulatory changes. However, because of the practical bind the states may already be in, the urgency of the "moving target" problem and the connection between these two problems (see section IV), EPA is proposing a solution now, rather than deferring a proposal until we receive a complete set of data.

Two changes to § 271.21(e) would be made to address this problem. First, all states would be given an additional six months to make their programs conform to changes in the federal program occurring after they receive final authorization. Second, the additional year already given to states which must seek statutory changes would also be given to states which must submit their regulations for review by the state legislature or legislative committees.

The reason for this latter amendment is that in a number of states, regulations must be sent to the legislature for review prior to promulgation. For example, rules in Michigan must be reviewed by the Joint Legislative Rules Committee. The Agency may not adopt rules if they have not been approved by the Committee. In Wisconsin, an objection by a standing committee of the legislature results in a full or partial ban on promulgation, depending on subsequent actions of the Joint Committee for Review of Administration Rules. The legislative review process, while varying from state to state, often takes as long or almost as long as the process to amend or adopt a statute. Therefore, EPA believes it is appropriate to distinguish between regulations which do and do not require a legislative review and to allow states as long to make changes which require legislative review as the Agency allows states to amend or adopt statutes.

In practical terms, the effect of this proposed rule is that all states would have either 18 or 30 months from the time changes are made in the federal program to make conforming changes in their own programs.

Public comments on this proposal will be critical. They will be used to confirm that there is a real need for these amendments and, if so, whether the time frames EPA has proposed are appropriate. EPA specifically requests

that the states, NGA, and ASTSWMO provide specific documentation of the problems each state is having and justify any alternative time frames they propose.

IV. Relationship Between the Proposed Amendments

The "moving target" amendment may result in the authorization of state programs that are not equivalent to, or are less stringent than, the federal program in effect on the date of authorization. However, such state programs become immediately subject to the § 271.21(e) requirement that authorized states revise their programs to correspond to changes in the federal program. Thus, the moving target amendment does not relieve any state of the obligation to amend its program when the federal program changes. To the contrary, under today's amendments to § 271.21(e) the same schedule for making changes would apply to all states, with no distinction between those that have received authorization and those whose applications are in process.

To illustrate, if a new EPA regulation took effect on November 1983, a state authorized before that date would have until November 1984 to incorporate equivalent requirements into its regulations (unless more time were needed for statutory changes or legislative review). If a state applied for authorization in January 1984, its program would not have to reflect the November 1983 federal amendment prior to being authorized. However, that state, like the one authorized before November 1983, would have to amend its program by November 1984. This means that the applicant state must actively pursue regulatory and/or statutory changes while it is preparing its application if, it is to meet the November 1984 deadline. Unlike the present situation, though, the state would not have to amend its program and delay submission of its application past November 1984, or face denial of its authorization. (Nor would the state or EPA be required to hold new public hearings on the state program before final authorization were received.)

V. Effect of Amendments

There is no practical way to assure that all states immediately incorporate analogs to federal amendments in their programs. EPA believes states must be allowed a reasonable period of time to amend their requirements. The effect of the first proposed amendment is that EPA may be authorizing states based on federal requirements which have been revised. The second proposed

amendment extends the period during which state programs which have received final authorization need not be equivalent to or as stringent as the federal program.

This added time does not in any way alter the substantive requirement that state programs become equivalent to the federal program. Further, because the major elements of the federal program are already in effect, the number of requirements for which there will be a lag time between state and federal implementation should be minimal. Finally, EPA has retained the authority to issue permits in the event federal regulations are promulgated covering additional major classes of facilities (40 CFR 264.1).

VI. Effective Date

5 U.S.C. 553(d) of the Administrative Procedure Act requires that substantive rules not become effective until at least 30 days after promulgation, unless there is good cause for an earlier date. The primary purpose of these requirements is to allow persons affected by the rulemaking sufficient lead time to prepare to comply with major new regulatory requirements. The Agency believes that the effect of a moving target for authorization would be confusing and disruptive for the states, the public and the regulated community. For this amendment to provide the maximum relief, it must become effective as soon as possible. EPA invites comments on its tentative decision to make this rule immediately effective.

VII. Executive Order 12291

Under Executive Order 12291 (46 FR 12193, February 19, 1981), EPA must judge whether a regulation is "major" and, therefore, subject to the requirement of a Regulatory Impact Analysis. A major rule is defined as a regulation which is likely to result in:

- An annual effect on the economy of \$100 million or more;
- A major increase in costs or prices for consumers, individual industries, federal, state or local government agencies or geographic regions; or
- Significant adverse effects on competition, employment, investment, productivity, innovation or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.

The regulation is not major because it will not result in an effect on the economy of \$100 million or more, an increase in costs or prices, or any of the adverse effects mentioned in the Executive Order. Because this proposed amendment is not a major regulation, no

Regulatory Impact Analysis is being prepared.

This proposed amendment was submitted to the Office of Management and Budget for review as required by Executive Order 12291. Any comments from OMB to EPA and any EPA response to those comments are available for public inspection at the Office of Solid Waste Docket, Room S-269, U.S. EPA, 401 M Street, SW., Washington, D.C. 20460

VIII. Regulatory Flexibility Act

Pursuant to the Regulatory Flexibility Act, 5 U.S.C. § 601 *et seq.*, EPA is required to determine whether a regulation will have significant impact on a substantial number of small entities so as to require a regulatory flexibility analysis.

The amendments proposed here merely add flexibility to procedural requirements for the revision of state hazardous waste programs and do not affect the compliance burdens of the regulated community. Therefore, pursuant to 5 U.S.C. § 605(b), I certify that this regulation, if issued in final form, will not have a significant economic impact on a substantial number of small entities.

IX. Paperwork Reduction Act

Under the Paperwork Reduction Act of 1980, 44 U.S.C. 3501 *et seq.*, EPA must estimate the paperwork burden created by any information collection requests contained in a proposed or final rule. Because there are no information collection activities created by this rulemaking, the requirements of the Paperwork Reduction Act do not apply.

Information collection requirements contained elsewhere in 40 CFR Part 271 have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act and have been assigned OMB control number 2000-0387.

List of terms used in Part 271

Hazardous materials, Indian lands, Reporting and recordkeeping requirements, Waste treatment and disposal, Intergovernmental relations, Penalties, Confidential business information.

Dated: August 18, 1983.

William D. Ruckelshaus,
Administrator.

For the reasons stated above, EPA proposes to amend 40 CFR 271.21 as follows:

PART 271—STATE PROGRAM REQUIREMENTS

40 CFR Part 271 Subpart A is proposed to be amended as follows:

1. The authority citation for Part 271 reads as follows:

Authority Secs. 1006, 2002(a), and 3006, Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act, 42 U.S.C. 6901 *et seq.*

2. 40 CFR 271.21 is amended by revising paragraph (e), as follows:

§ 271.21 Procedures for revision of state programs.

(e) (1) States submitting complete applications for final authorization shall be reviewed for authorization on the basis of the regulations in 40 CFR Parts 124, 260-266 and 270 that are in effect on the date one year prior to submission of the complete application or on January 26, 1983, whichever is later. However, a state may receive final authorization for any regulation in its program that is analogous to a federal regulation in

effect on the date of the state's authorization.

(2) Any approved state program which requires revision because of a modification to this Part or to 40 CFR Parts 124, 260-266 or 270 shall be revised within one year of the effective date of the modified federal regulation. If a state must enact or amend a statute in order to make the required changes, or if regulations are subject to review by the state legislature, such revision shall take place within two years of the effective date of the modified federal regulation.

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Federal Register

Thursday
August 25, 1983

Part IV

Environmental Protection Agency

**Standards of Performance for New
Stationary Sources; Beverage Can
Surface Coating Industry**

**ENVIRONMENTAL PROTECTION
AGENCY****40 CFR Part 60**

(AD-FRL-2097-2)

**Standards of Performance for New
Stationary Sources; Beverage Can
Surface Coating Industry****AGENCY:** Environmental Protection
Agency (EPA).**ACTION:** Final rule.

SUMMARY: Standards of performance for the beverage can surface coating industry were proposed in the *Federal Register* on November 26, 1980 (45 FR 78980). This action promulgates standards of performance for the beverage can surface coating industry. These standards implement Section 111 of the Clean Air Act and are based on the Administrator's determination that beverage can surface coating operations cause, or contribute significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare. The intended effect of these standards is to require all new, modified, and reconstructed beverage can surface coating operations to control emissions to levels achievable through the best demonstrated system of continuous emission reduction, considering costs, nonair quality health, and environmental and energy impacts.

EFFECTIVE DATE: August 25, 1983.

Under Section 307(b)(1) of the Clean Air Act, judicial review of this new source performance standard is available *only* by the filing of a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit within 60 days of today's publication of this rule. Under Section 307(b)(2) of the Clean Air Act, the requirements that are the subject of today's notice may not be challenged later in civil or criminal proceedings brought by EPA to enforce these requirements.

ADDRESSES: *Background Information Document.* The Background Information Document (BID) for the promulgated standards may be obtained from the U.S. EPA Library (MD-35), Research Triangle Park, North Carolina 27711, telephone number (919) 541-2777. Please refer to "Beverage Can Surface Coating Industry—Background Information for Promulgated Standards" EPA-450/3-80-036b. The BID contains (1) a summary of all the public comments made on the proposed standards and the Administrator's response to the comments, (2) a summary of the changes made to the standards since proposal, and (3) the final Environmental Impact

Statement, which summarizes the impacts of the standards.

Docket. A docket, number A-80-4, containing information considered by EPA in development of the promulgated standards is available for public inspection between 8:00 a.m. and 4:00 p.m., Monday through Friday, at EPA's Central Docket Section (A-130), West Tower Lobby, Gallery 1, 401 M Street SW., Washington, D.C. 20460. A reasonable fee may be charged for copying.

FOR FURTHER INFORMATION CONTACT: Mr. Fred Porter, Standards Development Branch, Emission Standards and Engineering Division (MD-13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone number (919) 541-5578.

SUPPLEMENTARY INFORMATION:**The Standards**

Standards of performance for new sources established under Section 111 of the Clean Air Act reflect:

* * * Application of the best technological system of continuous emission reduction which (taking into consideration the cost of achieving such emission reduction, [and] any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated [Section 111(a)(1)].

For convenience, this criterion will be referred to as "best demonstrated technology" or "BDT."

The promulgated standards apply to all new, modified, and reconstructed two-piece beverage can surface coating operations for which construction, modification, or reconstruction commenced after November 26, 1980. The standards define a two-piece beverage can as any two-piece steel or aluminum container in which soft drinks or beer (including malt liquors) are packaged. Containers in which fruit or vegetable juices are packaged are excluded. Existing facilities would not be subject to the standards unless they undergo a modification or reconstruction as defined in 40 CFR 60.14 or 60.15. Emissions of volatile organic compounds (VOC) from affected facilities at two-piece can plants are limited as follows: 0.29 kg VOC/litre of coating solids from each exterior base coating operation except clear base coating, 0.46 kg VOC/litre of coating solids from each overvarnish coating operation and each clear base coating operation, and 0.89 kg VOC/litre of coating solids from each inside spray coating operation. Each affected facility consists of a coating application station, a flashoff area and a cure oven.

BDT for the surface coating operations covered by the promulgated standards is

the use of best available waterborne coatings. However, the standards would permit the use of any system of continuous emission reduction that allows the facility to comply with these emission limits. For example, the standards could also be achieved through the use of solvent-borne coatings in combination with an emission control system. The compliance procedures outlined in the promulgated regulations are designed to show equivalence between the use of waterborne coatings and the use of solvent-borne coatings and an emission control system.

The owner or operator is required to conduct a performance test each calendar month for each affected facility and record the results. The calculation of the volume-weighted average mass of VOC per volume of coating solids during each calendar month constitutes a performance test. The owner or operator is required to identify and report, semiannually, each instance that the calculated volume-averaged mass of VOC per volume of coating exceeds the emission limitations. When Method 24 data are used to determine VOC content of waterborne coatings for compliance determinations, precision factors shall be used as described in Section 4.4 of Method 24.

Where compliance is achieved through the use of waterborne coatings, compliance with the standards is determined by comparing the calculated volume-weighted average mass of VOC per volume of coating solids with the applicable emission limitation in the promulgated standards. Volume and VOC content of each coating used at the affected facility for the calendar month are required for this determination. If each coating used at an affected facility during a calendar month has a VOC content equal to or less than the emission limitations prescribed in the standards, and no VOC solvents are added during distribution and application of the coatings, the affected facility is in compliance and calculation of the volume-weighted average VOC content is not required.

Where compliance is achieved through the use of solvent-borne coatings and an emission control system, the volume-weighted average VOC content is calculated as for waterborne coatings. The calculated VOC content is reduced by the most recently determined overall reduction efficiency of the capture and emission control system. The promulgated regulations prescribe procedures for determining overall reduction efficiency

for emission control systems using incineration or solvent recovery.

The owner or operator of an affected facility who uses incineration to comply with the standards must maintain records of incinerator performance and identify and report, semiannually, all 3-hour periods during which the average temperature of the device, during processing of cans, is significantly lower than the average temperature observed during the most recent performance test at which destruction efficiency was determined.

Surface coating operations in the manufacture of can ends and three-piece steel cans are excluded from the standards because industry projections show an excess capacity for these operations, indicating that no facilities will become subject to the standards through 1985. Application of ink/lithography is excluded because emissions from this operation are insignificant. Application of end-sealing compound to ends for two-piece beverage cans is excluded because BDT is the same as that in common use today.

Summary of Environmental, Energy, and Economic Impacts

The promulgated standards would reduce VOC emissions by approximately 32 percent from the baseline emission level. The standards of performance would result in a 47-percent reduction in VOC emissions from the exterior base coat operation, a 15-percent emission reduction from the overvarnish coating operation, and a 26-percent emission reduction from the inside spray coating operation. Annual nationwide VOC emissions would be reduced by about 2,900 Mg (3,190 tons) by 1986.

Little or no incremental water pollution impact from new, modified, or reconstructed beverage can surface coating operations would result from implementation of the standards.

The promulgated standards would also have little or no incremental solid waste impact.

Based on industry growth projections, application of the standards would result in a net energy reduction of about 19,000 GJ in 1985, or a reduction of 1 percent from the baseline. The net energy reduction results from the use of less coating per can because of higher solids content of the waterborne coatings upon which the standards are based.

The promulgated standards are expected to have little economic impact on the beverage can industry. At least one control option, the cost of which is equal to or less than the cost of

compliance with the baseline level of control, is available for each affected facility.

The environmental, energy, and economic impacts are discussed in greater detail in the Background Information Document (BID) for the proposed standards, "Beverage Can Surface Coating Industry—Background Information for Proposed Standards," EPA-450/3-80-036a.

Standards of performance have other benefits in addition to achieving reductions in emissions beyond those required by a typical SIP. They establish a degree of national uniformity, which precludes situations in which some States may attract new industries as a result of having relaxed air pollution standards relative to other States. Further, standards of performance provide documentation which reduces uncertainty in case-by-case determinations of best available control technology (BACT) for facilities located in attainment areas, and lowest achievable emission rates (LAER) for facilities located in nonattainment areas. This documentation includes identification and comprehensive analysis of alternative emission control technologies, development of associated costs, an evaluation and verification of applicable emission tests methods, and identification of specific emission limits achievable with alternative technologies. The costs are provided for an economic analysis that reveals the affordability of controls in an unbiased study of the economic impact of controls on an industry.

Public Participation

Prior to proposal of the standards, interested parties were advised by public notice in the Federal Register (45 FR 30686; May 9, 1980) of a meeting of the National Air Pollution Control Techniques Advisory Committee to discuss the beverage can surface coating industry standards recommended for proposal. This meeting, held on June 4, 1980, was open to the public, and each attendee was given an opportunity to comment on the standards recommended for proposal. The standards were proposed and published in the Federal Register on November 28, 1980 (45 FR 78980). The preamble to the proposed standards discussed the availability of the Background Information Document, "Beverage Can Surface Coating Industry—Background Information for Proposed Standards," EPA-450/3-80-036a, which described in detail the regulatory alternatives considered in the development of the standards and the impacts of those alternatives. Public comments were

solicited at the time of proposal and, when requested, copies of the BID were distributed to interested parties. To provide interested persons the opportunity for oral presentation of data, views, or arguments concerning the proposed standards, a public hearing was held on January 6, 1981, at Research Triangle Park, North Carolina. The hearing was open to the public, and each attendee was given an opportunity to comment on the proposed standards. The public comment period was from November 28, 1980 to February 5, 1981. At industry's request, the public comment period was reopened from February 27 through March 30, 1981.

Eighteen comment letters were received and four interested parties testified at the public hearing concerning issues relative to the proposed standards of performance for the beverage can surface coating industry. The comments have been carefully considered; and, where determined to be appropriate by the Administrator, changes have been made in the proposed standards.

Significant Comments and Changes to the Proposed Standards

Comments on the proposed standards were received from the beverage can surface coating industry, coating manufacturers, Federal agencies, State pollution control agencies, and a trade association. A detailed discussion of these comments and responses can be found in the BID, which is referred to in the ADDRESSES section of this preamble. The comments and analyses expressed in the responses serve as the basis for the revisions that have been made to the standards between proposal and promulgation. The major comments and responses are summarized in this preamble. The comments have been divided into the following areas: general, emission control technology, modification and reconstruction, economic impact, environmental impact, energy impact, legal considerations, test methods and monitoring, reporting and recordkeeping, and miscellaneous.

Major changes in the promulgated standards from the proposed standards are (1) exclusion of three-piece cans from the standards, (2) exclusion of end sheet coating from the standards, (3) adding the requirement that precision factors, as described in Section 4.4 of Method 24, be used when Method 24 data are employed to determine VOC content of waterborne coatings for compliance determinations, and (4) changing the requirement for immediate reporting of exceedances to semiannual reporting.

General

Six commenters stated that three-piece beverage cans were being phased out, with an estimated 1985 production of between 0.5 and 1.5 billion cans, and should be excluded from the standards. As a result of these comments, EPA analyzed previous projections and determined that estimated demands for three-piece can capacity in 1985 would be about 50 percent of the estimated available capacity. Consequently, three-piece cans are excluded from the promulgated standards. The decrease in three-piece can production would free more coating capacity than is needed for the coating of steel and aluminum sheets for the manufacture of beverage can ends. This capacity can be used for coating aluminum sheets for ends with little or no change. Thus, no end sheet coating capacity would become subject to NSPS through 1985. Consequently, surface coating of end stock is also excluded from the standards.

Several comments were received stating that the proposed standards were not based on the best demonstrated systems of continuous emission reduction. Three commenters stated that the use of waterborne coatings has not been demonstrated as being commercially available. One commenter doubted that solvent-borne coatings and incineration could be used in the event waterborne coatings were impracticable. One commenter stated that promulgation of the proposed standards would force the industry to turn to one supplier for inside spray materials.

As a result of these comments, EPA significantly expanded the data base upon which the promulgated standards are based through telephone and written communications with coaters and coating suppliers. The expanded data base substantiated EPA's previous determination that the use of waterborne coatings is BDT and that coatings meeting the promulgated emission limits are available from more than one supplier. Summary of the data base by coating operations follow:

Two-piece Can Exterior Base Coat

Five canmakers, four merchant and one captive, reported using coatings with VOC contents equal to or less than that specified in the standards. Three of these canmakers identified four coatings from one supplier as being used, two reporting the use of complying coatings for all base coat requirements. Of the remaining canmakers, one did not identify the coating being used, and the other claimed confidentiality for the coating being used. One additional

coating from a second supplier has been qualified for use on one merchant coater's new and existing can lines. In discussions with canmakers during the collection of the data, no specific cases were identified in which waterborne coatings could not be used for the application of exterior base coat to two-piece beverage cans.

Two-Piece Can Overvarnish/Clear Base Coat

Four canmakers, three merchant and one captive, reported using coatings with VOC contents equal to or less than that specified in the standards. Two of these canmakers identified four coatings from two suppliers as being used, one reporting the use of complying coatings for all overvarnish requirements. Of the remaining canmakers, one did not identify the coating being used, and the other claimed confidentiality for five coatings used. All of the captive canmakers' requirements are being satisfied by waterborne coatings meeting the NSPS emission limitations. Five additional coatings meeting the NSPS emission limitations are available from three suppliers. Future testing is planned for some of these coatings. In discussions with canmakers during the collection of the data, no specific cases were identified in which waterborne coatings could not be used for the application of overvarnish or clear base coat to two-piece beverage cans.

Two-Piece Can Inside Spray

Seven canmakers, five merchant and two captive, reported using coatings with VOC contents equal to or less than that specified in the standards. Five of these canmakers identified four coatings from three suppliers as being used, two canmakers reporting the use of complying coatings for all inside spray requirements. Of the remaining two, one did not identify the coating being used, and the other claimed confidentiality for the coatings being used. During the collection of the data, two specific cases were identified in which satisfactory waterborne coatings were not available. One canmaker reported that at two plants making cans for export, excessive pinholing occurred because the extreme abuse the cans received in shipping and handling caused separation of the coating. In subsequent discussions, the canmaker reported that the problems had been resolved and that waterborne coatings meeting the NSPS emission limitations are now being used for all inside spray operations at one plant, and that a program is underway at the second plant to develop a suitable waterborne inside spray system. This plant is currently incinerating VOC

emissions from inside spray operations to meet local regulations. In the second case, difficulty was being experienced in applying waterborne inside spray to steel cans. In this case, solvent-borne coatings are required to make satisfactory cans and incineration is employed to satisfy the local emission limitations. The same procedures can be used to satisfy NSPS emission limitations. The necessary capture and destruction of VOC can be attained by enclosing the flashoff areas and incinerating flashoff and cure oven exhausts.

One public hearing participant took exception to statements made in the beverage can factsheet that probably 4 new three-piece can plants and 10 to 20 new two-piece can plants were to be built between 1980 and 1985. The participant felt that this was not consistent with data that industry presented at the NAPCTAC meeting in June 1980 that indicated a dramatic reduction in three-piece can production and a leveling off of demand for two-piece cans.

The beverage can factsheet, a summary of the proposal BID and regulation published at the time of proposal, states that "EPA estimates 10 to 20 two-piece beverage can plants and 4 three-piece beverage can plants will be affected by the proposed NSPS, the latter subject under the modification or reconstruction provisions." These plants are model plants and are the number that were considered subject to NSPS for the purposes of the economic analyses. It should be noted that the statement concerning three-piece can plants specifically excludes new facilities and indicates that facilities in place in 1979 would become subject to the modification or reconstruction provisions. The estimates of the number of model plants that would be subject to NSPS were based on industry estimates of the projected market share of two-piece and three-piece beverage cans that were later changed by data provided by the industry during the public comment period. As previously mentioned, EPA analyzed the new industry data and developed revised projections that show that no three-piece can plants would be subject to the NSPS through 1985. Insofar as two-piece can plants are concerned, based on the revised projection it is estimated that between 7 and 15 two-piece model plant equivalents would be subject to NSPS in 1985, half under the reconstruction or modification provisions. These estimates are based on an average of 5 percent of existing capacity becoming subject to NSPS under the modification

and reconstruction provisions each year through 1985. These estimates are consistent with industry projections that show an increase in two-piece can shipments from 49.6 billion cans in 1980 to 61.9 billion cans in 1985.

Two participants at the public hearing were concerned that if NSPS emission limitations were promulgated, major reformulation of coatings developed to meet RACT would be required. This redirection of coating suppliers' efforts would be at the expense of developing coatings to satisfy RACT. Such an approach could result in achieving neither RACT nor NSPS.

EPA agrees that major reformulation may be required for some low-solvent coatings. However, given the coating data obtained from canmakers and coating suppliers, this does not appear to be a problem. A majority of the coatings developed to satisfy RACT requirements would also satisfy NSPS requirements. Four coatings each for exterior base coat, overvarnish, and inside spray, developed in response to RACT requirements but also meeting the NSPS emission limitations, are being widely used by the industry.

Two comments were received questioning the change in format of the standards from kilograms of VOC per litre of coating less water, as used in RACT, to kilograms of VOC per litre of solids. EPA has determined that the format of the promulgated standards is appropriate. Compliance with the promulgated standards is determined by comparing a volume-weighted average of the VOC content of all coatings and diluent solvents applied at an affected facility during each calendar month with the emission limitations of the promulgated standards. This requires conversion of VOC content of each coating used to mass of VOC per volume of coating solids. This procedure must be used in averaging VOC content of coatings for RACT determination as well. Consequently no change is made to the format of the standards.

One commenter questioned the need for an NSPS that requires industry to do what is already being done. New installations in nonattainment areas would be required to use lowest achievable emission rate (LAER), which in this case would be "achieved in practice," that would be the same as the proposed NSPS. Installations in attainment areas, if any, would of course be required to apply best available control technology (BACT), which would be the coatings now in use and the same as the proposed NSPS.

In enacting Section 111, Congress intended to insure that every new, modified, or reconstructed facility,

wherever located, control emissions to at least a nationally uniform emission ceiling. Congress recognized that in individual cases greater emissions reduction could be achieved than that achievable through application of BDT. For these individual cases, the Act may require application of more stringent requirements. Even though, as the commenter suggests, BACT or LAER requirements applicable in such individual cases may eventually spur development of broadly demonstrated coatings similar to or better than NSPS-level coatings, Section 111 still requires the Agency to set minimum nationally applicable standards that will insure control of emissions at new sources to at least the level achievable through use of BDT.

One commenter stated that the proposed standards do not require the "best demonstrated system of continuous emission reduction . . ." and that by regulating the VOC content of coatings for new sources without regard to quantity of coating supplied, the Agency is encouraging the construction of new facilities with greater emissions than identical existing CTG facilities. The commenter further stated that the quantity of coating needed by the various canmakers to produce an acceptable can is a much more significant factor in emission reduction technology than is the VOC content of the waterborne coatings used, and that manufacturing materials that inherently require less applied coating than other materials represents a better system of emission reduction. The commenter submitted that this is an obvious conclusion drawn from the draft EIS and from information contained in Docket A-80-4. As a result of ignoring this fact, the Agency has prepared a standard that cannot possibly be construed as meeting the intent of Section 111 of the Clean Air Act.

In EPA's judgment, the promulgated standards are based on BDT. Formatting the standards in terms of mass of VOC per unit of production, e.g., 1,000 cans, was considered in the development of the standards. This approach was discarded because of inflexibility in accommodating the range of coating thicknesses used by the industry to meet the requirements of the many types of beverage cans produced by the industry, especially at merchant can plants. Such an approach also raised problems in setting numerical limits for the standards. If an industry-average coating thickness is used as the basis, coaters using an above-average coating thickness would be penalized. The Agency considers the cost of specifying maximum coating thickness for each

usage unreasonable and exorbitant. Consequently, this format was rejected in favor of the mass of VOC per volume of coating solids format.

Emission Control Technology

A comment was made that the proposed emission limitations were so stringent that coating suppliers would not have any latitude to vary formulations as required to meet the wide range of equipment used and the environmental conditions encountered in beverage can surface coating operations.

EPA has determined from coating data obtained from canmakers that coating suppliers are providing coatings meeting the promulgated emissions limitations for a wide range of equipment and environmental conditions. Only two specific cases were identified involving two-piece can inside spray operations in which satisfactory waterborne coatings were not available. In these cases operational and environmental requirements were being satisfied through the use of solvent-borne coatings and incineration. Furthermore, the monthly averaging provisions of the standards for each affected facility would permit the use of some coatings not meeting the standards, provided other coatings with lower VOC content were used to bring the monthly volume-weighted average to the promulgated emission limitations.

One commenter stated that under NSPS, existing coating systems that have not yet been able to meet RACT values must meet even more stringent emission standards. Essentially only incineration, a counterproductive energy-consuming system, can be used.

Existing coating systems are not required to meet the promulgated standards unless the facility undergoes modification or reconstruction as defined in 40 CFR Part 60. Under such circumstances, in EPA's judgement, there are sufficient coatings commercially available for a wide variety of coating systems to meet the standards. Based on the economic analysis in Chapter 8, proposal B1D, incineration is considered to be a reasonable and affordable option.

Several commenters expressed concern that if NSPS materials for two-piece can inside spray are not available, afterburners will have to be used. This could very well call for an overall control efficiency of 80 percent, requiring approximately 90 percent capture efficiency, which is not attainable.

In response to this and other comments, EPA expanded the coating

data base with information from canmakers and coating suppliers that indicates the availability of a variety of waterborne coatings for inside spray. The VOC content of waterborne coatings reported as being used by both merchant and captive canmakers ranges from 0.46 kg VOC/litre of solids to 0.90 kg VOC/litre solids compared with the promulgated emission limitation of 0.89 kg VOC/litre of solids. The promulgated regulations permit monthly averaging, which should facilitate satisfying the requirements.

During the collection of data only two cases were identified in which satisfactory waterborne coatings were not available. In these cases, solvent-borne coatings and incineration provided the emission reduction required by the applicable SIP.

A typical higher solids solvent-borne inside spray coating in general use contains 3.01 kg VOC/litre of coating solids (Table 4-2, proposal BID). An overall control efficiency of 70 percent is required to reduce the VOC emissions from the use of this typical inside spray coating to the emission level prescribed in the promulgated standards. A test at a two-piece can plant, using Method 25 procedures, showed a 78-percent capture efficiency of VOC emissions from coater, flashoff area, and cure oven on an inside spray line. This capture efficiency is considered to be conservative because the cure oven quench exhaust was not quantified in the test. Combining this capture efficiency with a nominal 90-percent incinerator destruction efficiency results in an overall control system efficiency of 70 percent. It is the Agency's engineering judgment that in instances in which the use of waterborne coatings may not be applicable, the necessary capture and control (destruction or recovery) are attainable at a reasonable and affordable cost (Chapter 8, proposal BID).

Several commenters stated that because of (1) difficulties being experienced in implementing the RACT program, (2) the limited capabilities of users to qualify new coatings, (3) the problems involved in qualifying NSPS materials on existing lines prior to the construction of new facilities, and (4) small incremental emission reduction from NSPS compared to that resulting from the trend away from three-piece cans to two-piece cans, RACT values should form the basis for NSPS.

EPA has determined that the promulgated emission limitations for two-piece cans represent BDT. The problems of implementing RACT and the problem generated by the limited capabilities of users to qualify new

coatings appear to be overstated in light of the coating data obtained from canmakers and coating suppliers.

Numerous coatings with VOC content equal to or less than RACT are being used on existing two-piece can lines. In addition to meeting RACT, many of these coatings also satisfy the NSPS requirements. The problems of qualifying NSPS materials on existing lines prior to the construction of new facilities would not be resolved by using RACT as the basis of the NSPS. One practice prevalent throughout the industry is that coatings must be qualified on each line regardless of their use in other plants operated by the same canmaker. EPA agrees that there has been a significant reduction in VOC emissions as a result of RACT and the trend away from three-piece cans to two-piece cans. However, EPA is mandated under Section 111 of the Clean Air Act to base NSPS on BDT, which for this industry is the use of coatings with lower organic solvent content than RACT coatings.

One commenter stated that EPA, in proposing NSPS, has tried to design can lines and specific materials.

EPA formulated model plants in order to perform the environmental and economic analyses required in NSPS development. These are not intended to represent what an actual plant should look like, but rather present a range of capacities as the basis for subsequent analyses. The model plants are based on coatings currently in use on sufficient lines to warrant the determination of the availability of NSPS-compliance coatings. EPA's specification of BDT is not in any way a requirement that facilities use a specific technology.

Two commenters challenged the implied assumption in the BID that the industry is using coatings that are RACT as defined in CTG-II.

The assumption that industry is currently using RACT coating was not made in the development of the NSPS. Rather, the assumption was made that SIP emission limitations would be based on RACT and that RACT should form the baseline case against which the environmental and energy analyses could be made.

EPA recognizes that on some can lines, coatings with VOC content lower than RACT are being used. These coatings serve as the bases for the promulgated emission limitations. On other lines RACT coatings are being used, and on the remaining lines coatings with VOC content higher than RACT are in use. In the development of a baseline for the environmental and energy analyses, EPA made the assumption that in the absence of NSPS,

the industrywide average VOC content would be equal to RACT.

One commenter stated that the distinction should be made in the draft EIS (p. 3-10) between steel and aluminum with regard to exterior base coat for two-piece cans.

EPA made no distinction between steel and aluminum two-piece cans in the development of model plants. While it is recognized that different coatings thicknesses are required, the additional effort is not justified by the marginal improvement in accuracy that would result in estimating emissions and energy requirements in the subsequent analyses.

One commenter took exception to EPA's statement in 45 FR 78982 that "transfer efficiencies of 90 percent with inside spray operations are consistently achieved." Exactly what EPA's use of 10-percent VOC assessment in this instance means was unclear. It was requested that EPA consider allowing a facility that demonstrates a consistent transfer efficiency (for inside coating operations) of greater than 90 percent to credit that percentage above 90 percent against other coating operations that may exceed the compliance limits.

Because of the absence of standardized procedures for determining transfer efficiencies, the complicated calculations for estimating transfer efficiencies, and the high transfer efficiencies consistently achieved for inside spray operations (over 90 percent), EPA determined that introducing a transfer efficiency into the equations prescribed for determining compliance would unnecessarily complicate the compliance procedures. Because of the high transfer efficiencies (90 percent or higher) that are consistently achieved, inclusion of such a term in the compliance equation would be equivalent to introducing essentially the same term on both sides of the equation. Consequently, the promulgated standards are based on an assumed 100-percent transfer efficiency. It should be noted that a 90-percent transfer efficiency was used in the environmental and energy analyses for inside spray operations.

Two commenters questioned the use of an assumed VOC density of 0.85 kg/litre in converting RACT numbers to kilograms of VOC per litre of solids. One commenter claimed that it is dangerous to propose new standards on assumptions rather than hard data. For example, an error of 5 percent in VOC density would result in a change of 37 percent in the calculated kilograms of VOC per litre of solids. Furthermore, no can manufacturer or coating supplier

has been able to duplicate the data in the BID.

EPA recognizes that the conversion of VOC content from RACT terms is sensitive to the density of the VOC solvent. The selected density of 0.85 kg/litre is below that of the VOC normally used in waterborne coatings. Use of this density results in a higher VOC content per volume of solids than if the actual VOC density of the coating upon which the promulgated emission limitations are based were used. Inasmuch as this favors the coater, EPA considers this approach appropriate. The 37-percent error in calculated kilogram of VOC per litre of solids from a 5-percent error in density appears to be overstated. EPA calculations on the impact of a 5-percent error in density indicate, as shown below, that even if the assumed density of 0.85 kg/litre were inaccurate by 5 percent, the resulting effect on conversion from RACT to NSPS terms would not be significant.

Density	Calculated VOC content (kg/litre solids)	Percent change
VOC content kg/litre of coating less water = 0.050		
0.85 x 0.95	1.213	8.2
0.85	1.214	0
0.85 x 1.05	1.137	6.3
VOC content kg/litre of coating less water = 0.15		
0.85 x 0.95	0.184	1.1
0.85	0.182	0
0.85 x 1.05	0.180	1.1

The following equation was used in converting the RACT format to MSPS.

Kilograms of VOC per litre of solids = kilograms of VOC per litre of coating less water/1 (litre of coating) - kilograms of VOC per litre of coating less water/density of VOC.

Modification and Reconstruction

One commenter felt that the replacement of a coater or oven should not be classified as reconstruction because it is replacement in kind due to wear not to increased material usage, and that replacement should not be subject to NSPS.

In promulgating 40 CFR 60.15, EPA intended to subject to NSPS existing sources that have undergone such extensive component replacement that they have become essentially new sources. Application of BDT to facilities with largely new components furthers the intent of Congress that emissions be

minimized through application of BDT with the turnover in the nation's industrial component base. This purpose is advanced through coverage of facilities that undergo substantial component replacement, whether the replacement is due to wear or increased material usage, and whether or not an emissions increase results from the replacement.

Under § 60.15, the replacement of a piece of equipment does not in itself subject an existing facility to NSPS. However, when the cost of components over time exceeds 50 percent of the cost of a comparable new facility and it is technologically and economically feasible for the facility to comply, NSPS would apply. In making decisions that involve the expenditure of funds that would trigger the reconstruction provisions, industry also should consider the cost of any control system that may be necessary to meet the NSPS requirements.

Economic Impact

Three commenters questioned EPA's conclusion that the proposed standards would have little economic impact on the beverage can industry. EPA would be imposing VOC emission limits below the (current) lowest achievable levels of several can coating manufacturers. If those manufacturers could not achieve the new levels, the November 26 proposals would be regulating them out of business at the outset. This in turn would reduce or restrict competition within the coating supply industry, which would cause substantial economic hardship on can manufacturers. One commenter stated that industry's comments on this matter were ignored.

Because EPA's analyses of industry projections showed that no end or three-piece can capacity would be subject to the standards in 1985, only two-piece cans are covered by the promulgated standards. Therefore, response will be limited to two-piece beverage cans. The promulgated standards will not apply to existing facilities except when they become subject to the modification or reconstruction provisions of 40 CFR Part 60. Industry's recommendations concerning the adoption of emission limits lower than RACT were not ignored. For example, as a result of industry comments at the NAPCTAC meeting, application of end-sealing compound was excluded from the proposed standards. Industry recommendations were considered in

the development of the promulgated standards, but in the light of other economic and coating availability data, a determination was made that the promulgation of NSPS for the beverage can surface coating industry would not result in exorbitant or unreasonable economic impacts.

As discussed in the General Comments section above, waterborne coatings that can meet the promulgated standards are available and in use in a sufficient number of cases to conclude that the technology is available for all uses except for inside spray for steel cans. Two existing plants have not been able to find a waterborne coating that performs properly for their particular applications and are using solvent-borne inside sprays with incineration to meet State and local emission standards. EPA's analysis indicates that there are no economic impacts to the industry if waterborne coatings are used. Waterborne coatings which comply with the standard are comparable in cost with waterborne coatings used to meet State and local regulations based on RACT; and both are less costly than the use of solvent-borne coatings with add-on controls. As noted above, two existing plants are currently meeting State and local standards by using solvent-borne coatings with incineration. These same controls could be used at new plants and, while additional costs may be required for fugitive capture to meet the NSPS and for a slightly larger incinerator, these represent a small increment of the existing capture and incineration costs and would not affect plant viability or competition.

Energy Impact

One comment was made that the energy requirements in Tables 6-6, 7-18, and 7-22, draft EIS, do not take into account that ventilating air must be heated in winter.

Ventilating air must be heated in the winter whether or not NSPS are promulgated. The energy analysis is based on the incremental energy requirements between the base case and the emission control option under consideration. In all cases except one, the ventilating air requirements are significantly less than for the base case. End forming, the exception, has been excluded from the standards. Thus, any error introduced by not including the heating or ventilating air results in a lower energy savings than would actually be realized over the base case.

One commenter took exception to the statement in the preamble that the proposed standards would result in a net energy reduction because less coating per can would be used (based upon higher solids contents of waterborne coatings). Experience indicates that waterborne coatings require as much or more energy expenditure as solvent coatings. Further review or data collection concerning this issue was recommended. The commenter offered to submit data for both waterborne and solvent-based can coatings, upon EPA's request.

This comment was subsequently withdrawn by the commenter because appropriate inquiries to other canmakers led to the conclusion that the comment was not applicable to the industry as a whole. However, because the issue was raised, EPA considers that a general discussion of energy requirements is appropriate. It is assumed that the comment applies only to two-piece cans because the commenter's company makes only that type of can. Under some conditions, cure oven energy requirements for waterborne coatings for two-piece cans may be higher than for solvent-borne coatings. As discussed in Chapter 3 of the proposal BID, when waterborne coatings are used, exhaust air flow through the cure oven is based on considerations other than the lower explosive limit. Sufficient air must pass through the oven to clear the VOC and compounds that may be formed during the curing process. In general, air flows are about the same as when solvent-borne coatings are used.

In such a case the energy to heat and vaporize the water content of the coating would be greater than that required for an equivalent volume of VOC. However, energy required to heat and vaporize water or VOC is less than 10 percent of the total energy requirements when pin ovens are used. The greater portion of the energy requirements are for heating the air, heating the cans, and heating the pins. Similar considerations would apply to other than pin-type ovens.

In determining incremental energy impacts, both the base case and regulatory alternative energy requirements were based on the use of waterborne coatings. Because the energy impact is based on the difference between the base case and the alternatives under analysis and for the reasons cited above, the energy analyses are considered to be sufficiently accurate for standards development.

Environmental Impact

Two commenters stated that emission reductions will occur naturally as a result of conversion from three-piece to two-piece can production. Coating material used for the manufacture of two-piece cans is approximately 28 percent less than the coating material used for the manufacture of three-piece cans, regardless of whether the material used is conventional high solvent or RACT. Therefore, a net emission reduction results with the shift from three-piece cans to two-piece cans. This reduction far outweighs any reduction that will occur as a result of implementation of NSPS.

EPA agrees that there has been a significant reduction in VOC emissions as a result of the trend away from three-piece cans to two-piece cans. Emission data to date substantiate this. It is also true that reduction attainable through the promulgation of the beverage can surface coating NSPS will be much less than that achievable upon complete implementation of the RACT program. However, EPA is required under Section 111 of the Clean Air Act to promulgate NSPS for industries within source categories on the Priority List where, as in the case of this industry, application of control technology will achieve significant reduction beyond that achieved without NSPS. Application of BDT, which for this industry is the use of coatings with lower organic solvent content than RACT coatings, would achieve such a reduction. As a result, Section 111 requires EPA to promulgate standards reflecting such application.

Legal Considerations

Two canmakers were concerned that moving an existing plant to another site would subject the plant to NSPS or State new source emission limitations.

Movement of an affected facility to another site, in itself, is exempted from NSPS under § 60.14(e)(6). This exemption applies to 40 CFR 60 only. State and local regulations and other Federal regulations covering prevention of significant deterioration or new source review could apply.

Two commenters stated that the Agency's definition of an affected facility as any coating operation, as opposed to an entire line or an entire manufacturing plant, may not provide the same degree of latitude as the existing "bubble concept" and may limit methods of compliance and preclude the use of alternative compliance procedures based on total plant emissions. If the total facility emissions are equivalent to NSPS limitations using an alternate compliance plan, there is no

detriment to the environment; therefore, an alternate compliance plan should be permissible. Particularly in a facility that would have a combination of NSPS and RACT limitations, an alternate compliance plan should be allowed. This would permit the facility to use the same materials for all lines, NSPS and RACT in combination. This plan would improve implementation of an air pollution control program.

The "bubble concept" refers to application of a standard to an entire plant rather than to individual emission points, although emission ceilings may concurrently be assigned to individual emission points. The term "affected facility" refers to the particular portion of a plant to which a standard applies. In this case the affected facility has been defined as a surface coating operation, which consists of a coating application station(s), flashoff area(s), and cure oven. The choice of the affected facility for any standard is based on the Agency's interpretation of the Clean Air Act, as amended, and judicial construction of its meaning. Under Section 111, the NSPS must apply to "new sources"; a "source" is defined as "any building, structure, facility, or installation which emits or may emit any air pollutant" [Section 111(a)(3)]. Most industrial plants, however, consist of numerous pieces or groups of equipment that emit air pollutants and that might be viewed as "sources." EPA uses the term "affected facility" to designate the equipment, within a particular kind of plant, that is chosen as the "source" covered by a given standard.

In choosing the affected facility, EPA must decide which pieces or groups of equipment are the appropriate units for separate emission standards in the particular industrial context involved. The Agency does this by examining the situation in light of the terms and purpose of Section 111. One major consideration in this examination is that the use of a narrower definition results in bringing replacement equipment under the NSPS sooner; if, for example, an entire plant were designated the affected facility, no part of the plant would be covered by the standard unless the plant as a whole were "modified." If, on the other hand, each piece of equipment were designated the affected facility, as each piece were replaced, the replacement piece would be a new source subject to the standard. Because the purpose of Section 111 is to minimize emissions by application of the best demonstrated control technology (considering cost, other health and environmental effects, and energy

requirements) at all new, modified, or reconstructed sources, the presumption is that a narrower designation of the affected facility is proper. This designation insures that new emission sources within plants will be brought under coverage of the standards as they are installed. This presumption can be overcome where the impacts attributable to the narrower designation are unreasonable in the light of the emissions reduction resulting from the selection of that definition.

The Agency has determined that in these standards the selection of each coating operation as the affected facility would not result in unreasonable impacts. It is technologically and economically feasible to control each surface coating operation. Choosing a combination of surface coating operations or the whole plant as the affected facility would be inconsistent with the language and intent underlying Section 111 because this broader definition would delay NSPS coverage of new facilities within the plant. Bubbling emissions at NSPS-regulated facilities with emissions at RACT facilities could permit all NSPS-regulated facilities in a plant to achieve less than BDT-level control. This would be inconsistent with Section 111's requirement that emissions at NSPS-regulated facilities be controlled to the level reflecting application of BDT. Therefore, the Agency has selected each surface coating operation as the affected facility for these standards.

One commenter stated that EPA's banking policy provides a built-in incentive for industry to develop materials superior to RACT. Resulting reduction in emissions from existing plants will far outweigh any benefits that might result from the implementation of NSPS.

The NSPS program does not prevent existing plants from banking emissions. NSPS are emission limits for new, modified, and reconstructed affected facilities based on BDT. In accordance with Section 111, these standards insure at least a specified minimum level of control at new, modified, and reconstructed facilities, wherever located—including those for which banking and other economic incentives may not be sufficient to induce good control of VOC emissions in the absence of NSPS.

One commenter was concerned that the promulgation of NSPS would jeopardize the ongoing RACT program if a new line were added to an existing plant, which is very common in the can business. The new line would be governed by NSPS limitations. Different coatings would be required for use on

the new line than on the old line. Maintaining inventory and regulating the use of the two different sets of coatings for the production of the same can would be unmanageable. If the plant used alternate compliance, a complicated calculation scheme would be needed to demonstrate compliance with both NSPS and RACT. The dual system of RACT and NSPS in a plant will not work and will lead to demise of one or another in terms of practicality. Either the entire facility will be switched to NSPS, or RACT materials will be incinerated on NSPS lines. This concept is contrary to the recent U.S. EPA policy of discouraging the use of afterburners.

EPA considers that the situation that would result from the addition of a new line subject to NSPS to an existing plant appears to be no different from the situation in existing plants that make more than one type of beverage can, each of which may require different types of coating. The same procedures used to maintain inventories and regulate the use of different coatings in the latter plant are considered to be applicable to the situation described in the comment.

The procedures outlined for determining compliance for plants using RACT coatings and in the draft regulation for plants using NSPS coatings are not incompatible and permit the use of RACT coatings on one line and NSPS coatings on another. Furthermore, in enacting Section 111, Congress recognized that to enhance air quality over the long run it is important that new sources within a plant achieve limits based on the best demonstrated technology, irrespective of the level of control at existing sources within the plant.

Compliance of the NSPS affected facilities in a can plant would be determined using volume of coatings, VOC content thereof, and diluent solvent used in the affected facility by the procedures presented in the proposed regulations. Compliance of that portion of the plant subject to RACT would be in accord with provisions of the applicable State and local regulations. The data required for these calculations are considered to be those that any prudent manufacturer would maintain even if these standards were not promulgated.

One commenter felt that the information needed by EPA to determine compliance and to calculate emission inventories could be done with annual reports as opposed to monthly compliance determinations. These reports would only need to list each coating used by the plant along with kilograms of VOC per litre of solids and

actual usage amounts. Those plants required to run control equipment would also have to report the average percentage of VOC reduction by the equipment and the number of production hours that the control equipment was not running, which could be backed up by a simple chart record.

Annual compilations are not considered an acceptable basis for determining compliance. Such an approach would permit a wide fluctuation in the mass of VOC emitted to the atmosphere at any one time. All of the canmakers contacted during the development of the standards reported maintaining coating-usage data on at least a monthly basis. As stated in a subsequent section of this preamble, EPA has investigated alternatives for reducing recordkeeping and reporting burdens and has changed the requirement for immediate reporting of noncompliance to semiannual reporting.

The promulgated regulations do not require reporting the average percentage of VOC reduction if an incinerator was used, or the number of hours the control system was not operating. Where compliance is achieved through the use of incineration, the owner or operator is required to identify and report, semiannually, all 3-hour periods during which the operating temperature, when cans are being processed, is more than 28° C below the average temperatures of the device during the most recent performance test or, for catalytic incinerators, when the average temperature difference is less than 80 percent of that determined during the most recent performance test. The destruction efficiency of the control device determined during the most recent performance test is used in determining compliance during any calendar month.

Test Methods and Methodology

Two commenters questioned the relationship of the proposed standards and the use of Reference Method 24 for determining compliance. Recommendations were made that the proposed standards should include a "cushion" that would allow for differences in test findings resulting from variation of the three experimentally determined physical constants used to calculate VOC content of coatings. Upward readjustment of the proposed standards to at least RACT level is required to avoid capricious erroneous noncompliance findings.

EPA recognizes the potential variability in the results when Method 24 is used to analyze waterborne coatings. The promulgated regulation

requires that, when Method 24 data are used to determine VOC content of waterborne coatings for compliance determinations, they be adjusted as described in Section 4.4 of Method 24.

If the VOC level of a waterborne coating, based on formulation, is at or below the standard, there is less than one chance in 10,000 that the Method 24 adjusted results would show the VOC level to be above the standard. The Agency considers this risk insignificant compared to the usefulness of Method 24 in determining compliance.

Reporting and Recordkeeping

One commenter stated that the recordkeeping requirements are unnecessarily tedious and time consuming, ask for much nonessential information, and necessitate intimidating and complex calculations. Production people would be required to do day-to-day and even hour-to-hour monitoring. The recordkeeping requirements penalize manufacturers that must meet the standard using control equipment instead of compliance coatings. The Agency's estimate that the proposed requirements would cost the industry 12 person-years over the first 5 years of the standards is unrealistically low. The commenter added that his company has less than 10 percent of the nation's two-piece can business, and conservatively estimates a cost of 2.3 person-years over the first 5 years of the standards. Even if the Agency's estimate is correct, the requirements are unnecessarily involved and are another example of an inflationary, nonproductive expense imposed upon industry by a governmental agency.

EPA has been investigating alternative ways of reducing monitoring, recordkeeping and reporting burdens on owners and operators. The goal is to reduce all recordkeeping and reporting that is not essential to insuring proper operation and maintenance. After reviewing the requirements in the proposal, EPA determined that monitoring and compiling data are essential for both the owner or operator and EPA to insure proper operation and maintenance. A responsible owner or operator would need monitoring information compiled in a usable form to determine when adjustments in the control system are needed to insure that it is performing at its intended effectiveness level. Because EPA judges that monitoring and recordkeeping are essential for proper operation and maintenance, these requirements have not been changed since proposal. It was judged, however, that immediate reporting of noncompliance with the standards is not essential to EPA.

Semiannual reporting is considered sufficient to enable EPA to discharge its enforcement responsibility. Therefore, after initial performance testing, the requirement to report immediately all instances of noncompliance, as required in the proposal package, has been changed to require only semiannual reports. Reports required under the general provisions of 40 CFR part 60 remain unchanged. States delegated the authority to enforce these standards remain free to impose their own reporting requirements in conjunction with this regulation.

EPA disagrees that day-to-day or hour-to-hour monitoring will be required. Compliance is determined on a monthly basis and requires data that any prudent manufacturer would normally maintain. For facilities using waterborne coatings, required data consist of the volume and VOC content of each coating and the volume and density of each diluent VOC solvent used during each calendar month. When an emission control system is used, the most recently determined overall reduction efficiency of the system also is required.

Recordkeeping provisions of the proposed standards require maintaining records of all data and calculations for at least 2 years. In addition, records of incinerator operating temperatures are required if incineration is used, as are data on daily solvent recovery if a solvent recovery system is used. Incinerator temperatures and daily solvent recovery data are considered as essential to the operation of these devices and would be generated, maintained, and examined, whether or not required by the standards.

Details of the estimate that 12 person-years would be required by industry during the first 5 years of the standard are contained in the Reports Impact Analysis (Docket Item II-1-53). The estimate of industry requirements during the first 5 years has been revised downward to 11 person years as a result of the changes between proposal and promulgation (Docket Item IV-J-2). In a subsequent discussion the commenter stated that the 2.3 person-years was a worst case estimate based on all existing facilities being modified or reconstructed during 1980-1985.

It is EPA's judgment that the estimates are based on best available data, that the estimates are realistic, and that the requirements are not inflationary.

Miscellaneous

One commenter felt that the draft EIS and the proposed preamble and regulation are much more complex and lengthy than necessary. Discussion of

incineration and the three-piece can should be eliminated.

EPA considered that the material in the draft EIS and in the proposal preamble and regulation was necessary to present the technical basis and the rationale for the development of the proposed standards. The beverage can surface coating industry is complex, involving as many as eleven coating operations on five separate items. Discussion of each of these was considered necessary to determine the scope and level of the proposed standards. A discussion of incineration was considered essential because one canmaker had recently constructed two plants using solvent-borne coatings. Also incineration is considered to be an affordable and reasonable alternative to the use of waterborne coatings.

Docket

The docket is an organized and complete file of all the information considered by EPA in the development of this rulemaking. The docket is a dynamic file, since material is added throughout the rulemaking development. The docketing system is intended to allow members of the public and industries involved to identify readily and locate documents so that they can intelligently and effectively participate in the rulemaking process. Along with the statement of basis and purpose of the proposed and promulgated standards and EPA responses to significant comments, the contents of the docket [except for certain materials noted in Section 307(d)(7)(A)] will serve as the record in case of judicial review.

Miscellaneous

The effective date of this regulation is August 25, 1983. Section 111 of the Clean Air Act provides that standards of performance or revisions thereof become effective upon promulgation and apply to affected facilities for which construction, reconstruction, or modification was commenced after the date of proposal (November 26, 1980).

As prescribed by Section 111, the promulgation of these standards was preceded by the Administrator's determination (40 CFR 60.16, 44 FR 49222, dated August 21, 1979) that these sources contribute significantly to air pollution which may reasonably be anticipated to endanger public health or welfare. In accordance with Section 117 of the Act, publication of these promulgated standards was preceded by consultation with appropriate advisory committees, independent experts, and Federal departments and agencies.

The standard requires that owners or operators of affected facilities submit three types of reports, those required under the General Provisions of 40 CFR Part 60, initial performance test reports, and semiannual reports of instances in which the VOC content of coatings used exceeds the allowable level established in the standard and instances in which incinerator operating temperatures vary significantly from those used to establish emission control system efficiencies where compliance is achieved through the use of incineration.

This regulation will be reviewed no later than four years from the date of promulgation as required by the Clean Air Act. This review will include an assessment of such factors as the need for integration with other programs, the existence of alternative methods, enforceability, improvements in emission control technology, and reporting requirements. The reporting requirements in this regulation will be reviewed as required under EPA's sunset policy for reporting requirements in regulations.

Section 317 of the Clean Air Act requires the Administrator to prepare an economic impact assessment for any new source standard of performance promulgated under Section 111(b) of the Act. An economic impact assessment was prepared for this regulation and for other regulatory alternatives. All aspects of the assessment were considered in the formulation of the standards to insure that cost was carefully considered in determining BDT. The economic impact assessment is included in the BID for the proposed standards.

Under Executive Order 12291, EPA must judge whether a regulation is "major" and therefore subject to the requirement of a Regulatory Impact Analysis. This regulation is not major because it would result in none of the adverse economic effects set forth in Section 1 of the Order as grounds for finding a regulation to be major. There will be no increase in industrywide annualized costs as a result of this regulation. No significant increase in price is associated with the proposed standards; thus there would be no "major increase in costs or prices" specified as the second criterion in the Order. The economic analysis of the proposed standards' effects on the industry did not indicate any significant adverse effects on competition, investment, productivity, employment, innovation, or the ability of U.S. firms to compete with foreign firms (the third criterion in the Order).

This regulation was submitted to the Office of Management and Budget

(OMB) for review as required by Executive Order 12291. Any comments from OMB to EPA and any EPA response to those comments are available for public inspection in the docket referenced in the address section of this preamble.

Information collection requirements contained in this regulation (Sections 60.493, 60.494, and 60.495) have been approved by OMB under the provision of the Paperwork Reduction Act of 1980, 44 U.S.C. 3501 *et seq.* and have been assigned OMB control number 2060-0001.

List of Subjects in 40 CFR Part 60

Air pollution control, Aluminum, Ammonium sulfate plants, Asphalt, Cement industry, Coal copper, Electric power plants, Glass and glass products, Grains, Intergovernmental relations, Iron, Lead, Metals, Metallic minerals, Motor vehicles, Nitric acid plants, Paper and paper products industry, Petroleum, Phosphate, Sewage disposal, Steel, Sulfuric acid plants, Waste treatment and disposal, Zinc, Tires, Incorporation by reference, Can surface coating.

Dated August 18, 1983.

William D. Ruckelshaus,
Administrator.

PART 60—[AMENDED]

40 CFR Part 60 is amended by adding Subpart WW as follows:

Subpart WW—Standards of Performance for the Beverage Can Surface Coating Industry

- Sec.
- 60.490 Applicability and designation of affected facility.
 - 60.491 Definitions.
 - 60.492 Standards for volatile organic compounds.
 - 60.493 Performance test and compliance provisions.
 - 60.494 Monitoring of emissions and operations.
 - 60.495 Reporting and recordkeeping requirements.
 - 60.496 Test methods and procedures.

Authority: Secs. 111 and 301(a) of the Clean Air Act, as amended [42 U.S.C. 7411 and 7601(a)], and additional authority, as noted below.

§ 60.490 Applicability and designation of affected facility.

(a) The provisions of this subpart apply to the following affected facilities in beverage can surface coating lines: each exterior base coat operation, each overvarnish coating operation, and each inside spray coating operation.

(b) The provisions of this subpart apply to each affected facility which is identified in paragraph (a) of this section and commences construction,

modification, or reconstruction after November 26, 1980.

§ 60.491 Definitions.

(a) All terms which are used in this subpart and are not defined below are given the same meaning as in the Act and Subpart A of this part.

(1) *Beverage can* means any two-piece steel or aluminum container in which soft drinks or beer, including malt liquor, are packaged. The definition does not include containers in which fruit or vegetable juices are packaged.

(2) *Exterior base coating operation* means the system on each beverage can surface coating line used to apply a coating to the exterior of a two-piece beverage can body. The exterior base coat provides corrosion resistance and a background for lithography or printing operations. The exterior base coat operation consists of the coating application station, flashoff area, and curing oven. The exterior base coat may be pigmented or clear (unpigmented).

(3) *Inside spray coating operation* means the system on each beverage can surface coating line used to apply a coating to the interior of a two-piece beverage can body. This coating provides a protective film between the contents of the beverage can and the metal can body. The inside spray coating operation consists of the coating application station, flashoff area, and curing oven. Multiple applications of an inside spray coating are considered to be a single coating operation.

(4) *Overvarnish coating operation* means the system on each beverage can surface coating line used to apply a coating over ink which reduces friction for automated beverage can filling equipment, provides gloss, and protects the finished beverage can body from abrasion and corrosion. The overvarnish coating is applied to two-piece beverage can bodies. The overvarnish coating operation consists of the coating application station, flashoff area, and curing oven.

(5) *Two-piece can* means any beverage can that consists of a body manufactured from a single piece of steel or aluminum and a top. Coatings for a two-piece can are usually applied after fabrication of the can body.

(6) *VOC content* means all volatile organic compounds (VOC) that are in a coating. VOC content is expressed in terms of kilograms of VOC per litre of coating solids.

(b) Notations used under § 60.493 of this subpart are defined below:

C_a = the VOC concentration in each gas stream leaving the control device and

entering the atmosphere (parts per million as carbon)

C_a = the VOC concentration in each gas stream entering the control device (parts per million as carbon)

D_c = density of each coating, as received (kilograms per litre)

D_d = density of each VOC-solvent added to coatings (kilograms per litre)

D_r = density of VOC-solvent recovered by an emission control device (kilograms per litre)

E = VOC destruction efficiency of the control device (fraction)

F = the proportion of total VOC emitted by an affected facility which enters the control device to total emissions (fraction)

G = the volume-weighted average of VOC in coatings consumed in a calendar month per volume of coating solids applied (kilograms per litre of coating solids)

H_a = the fraction of VOC emitted at the coater and flashoff areas captured by a collection system

H_b = the fraction of VOC emitted at the cure oven captured by a collection system

L_c = the volume of each coating consumed, as received (litres)

L_d = the volume of each VOC-solvent added to coatings (litres)

L_r = the volume of VOC-solvent recovered by an emission control device (litres)

L_s = the volume of coating solids consumed (litres)

M_d = the mass of VOC-solvent added to coatings (kilograms)

M_o = the mass of VOC-solvent in coatings consumed, as received (kilograms)

M_r = the mass of VOC-solvent recovered by emission control device (kilograms)

N = the volume-weighted average mass of VOC emissions to atmosphere per unit volume of coating solids applied (kilograms per litre of coating solids)

Q_a = the volumetric flow rate of each gas stream leaving the control device and entering the atmosphere (dry standard cubic meters per hour)

Q_b = the volumetric flow of each gas stream entering the control device (dry standard cubic meters per hour)

R = the overall emission reduction efficiency for an affected facility (fraction)

S_c = the fraction of VOC in coating and diluent VOC-solvent emitted at the coater and flashoff area for a coating operation

S_b = the fraction of VOC in coating and diluent solvent emitted at the cure oven for a coating operation

V_c = the proportion of solids in each coating, as received (fraction by volume)

W_o = the proportion of VOC in each coating, as received (fraction by weight).

§ 60.492 Standards for volatile organic compounds.

On or after the date on which the initial performance test required by § 60.8(a) is completed, no owner or operator subject to the provisions of this subpart shall discharge or cause the discharge of VOC emissions to the atmosphere that exceed the following

volume-weighted calendar-month average emissions:

(a) 0.29 kilogram of VOC per litre of coating solids from each two-piece can exterior base coating operation, except clear base coat;

(b) 0.46 kilogram of VOC per litre of coating solids from each two-piece can clear base coating operation and from each overvarnish coating operation; and

(c) 0.89 kilogram of VOC per litre of coating solids from each two-piece can inside spray coating operation.

§ 60.439 Performance test and compliance provisions.

(a) Section 60.8(d) does not apply to monthly performance tests and § 60.8(f) does not apply to the performance test procedures required by this subpart.

(b) The owner or operator of an affected facility shall conduct an initial performance test as required under § 60.8(a) and thereafter a performance test each calendar month for each affected facility.

(1) The owner or operator shall use the following procedures for each affected facility that does not use a capture system and a control device to comply with the emission limit specified under § 60.492. The owner or operator shall determine the VOC-content of the coatings from formulation data supplied by the manufacturer of the coating or by an analysis of each coating, as received, using Reference Method 24. The Administrator may require the owner or operator who uses formulation data supplied by the manufacturer of the coating to determine the VOC content of coatings using Reference Method 24 or an equivalent or alternative method. The owner or operator shall determine from company records the volume of coating and the mass of VOC-solvent added to coatings. If a common coating distribution system serves more than one affected facility or serves both affected and existing facilities, the owner or operator shall estimate the volume of coating used at each facility by using the average dry weight of coating, number of cans, and size of cans being processed by each affected and existing facility or by other procedures acceptable to the Administrator.

(i) Calculate the volume-weighted average of the total mass of VOC per volume of coating solids used during the calendar month for each affected facility, except as provided under § 60.493(b)(1)(iv). The volume-weighted average of the total mass of VOC per volume of coating solids used each calendar month will be determined by the following procedures.

(A) Calculate the mass of VOC used ($M_o + M_d$) during the calendar month for the affected facility by the following equation:

$$M_o + M_d = \sum_{i=1}^n L_{ci} D_{ci} W_{oi} + \sum_{j=1}^m L_{dj} D_{dj} \quad (1)$$

($\sum L_{dj} D_{dj}$ will be 0 if no VOC solvent is added to the coatings, as received.) where n is the number of different coatings used during the calendar month and m is the number of different diluent VOC-solvents used during the calendar month.

(B) Calculate the total volume of coating solids used (L_s) in the calendar month for the affected facility by the following equation:

$$L_s = \sum_{i=1}^n L_{ci} V_{ci} \quad (2)$$

where n is the number of different coatings used during the calendar month.

(C) Calculate the volume-weighted average mass of VOC per volume of solids used (G) during the calendar month for the affected facility by the following equation:

$$G = \frac{M_o + M_d}{L_s} \quad (3)$$

(ii) Calculate the volume-weighted average of VOC emissions discharged to the atmosphere (N) during the calendar month for the affected facility by the following equation:

$$N = G.$$

(iii) Where the value of the volume-weighted average of mass of VOC per volume of solids discharged to the atmosphere (N) is equal to or less than the applicable emission limit specified under § 60.492, the affected facility is in compliance.

(iv) If each individual coating used by an affected facility has a VOC content equal to or less than the limit specified under § 60.492, the affected facility is in compliance provided no VOC-solvents are added to the coating during distribution or application.

(2) An owner or operator shall use the following procedures for each affected facility that uses a capture system and a control device that destroys VOC (e.g., incinerator) to comply with the emission limit specified under § 60.492.

(i) Determine the overall reduction efficiency (R) for the capture system and control device.

For the initial performance test, the overall reduction efficiency (R) shall be determined as prescribed in A, B, and C below. In subsequent months, the owner or operator may use the most recently determined overall reduction efficiency for the performance test providing control device and capture system operating conditions have not changed. The procedure in A, B, and C, below, shall be repeated when directed by the Administrator or when the owner or operator elects to operate the control device or capture system at conditions different from the initial performance test.

(A) Determine the fraction (F) of total VOC used by the affected facility that enters the control device using the following equation:

$$F = \frac{S_a H_a + S_b H_b}{S_a H_a + S_b H_b} \quad (5)$$

where H_a and H_b shall be determined by a method that has been previously

$$E = \frac{\sum_{i=1}^n Q_{vi} C_{vi} - \sum_{j=1}^m Q_{aj} C_{aj}}{\sum_{i=1}^n Q_{vi} C_{vi}} \quad (6)$$

where n is the number of vents before the control device, and m is the number of vents after the control device.

(C) Determine overall reduction efficiency (R) using the following equation:

$$R = EF \quad (7)$$

(ii) Calculate the volume-weighted average of the total mass of VOC per volume of coating solids (G) used during the calendar month for the affected facility using equations (1), (2), and (3).

(iii) Calculate the volume-weighted average of VOC emissions discharged to the atmosphere (N) during the calendar month by the following equation:

$$N = G \times [1-R] \quad (8)$$

(iv) If the volume-weighted average of mass of VOC emitted to the atmosphere for the calendar month (N) is equal to or less than the applicable emission limit specified under § 60.492, the affected facility is in compliance.

(3) An owner or operator shall use the following procedure for each affected facility that uses a capture system and a control device that recovers the VOC (e.g., carbon adsorber) to comply with the applicable emission limit specified under § 60.492.

(i) Calculate the volume-weighted average of the total mass of VOC per unit volume of coating solids applied (G)

approved by the Administrator. The owner or operator may use the values of S_a and S_b specified in Table 1 or other values determined by a method that has been previously approved by the Administrator.

TABLE 1.—DISTRIBUTION OF VOC EMISSIONS

Coating operation	Emission distribution	
	Coater/flashoff (S_a)	Curing oven (S_b)
Two-piece aluminum or steel can:		
Exterior base coat operation.....	0.75	0.25
Overvarnish coating operation.....	0.75	0.25
Inside spray coating operation.....	0.80	0.20

(B) Determine the destruction efficiency of the control device (E) using values of the volumetric flow rate of each of the gas streams and the VOC content (as carbon) of each of the gas streams in and out of the device by the following equation:

used during the calendar month for the affected facility using equations (1), (2), and (3).

(ii) Calculate the total mass of VOC recovered (M_r) during each calendar month using the following equation:

$$M_r = L_r D_r \quad (9)$$

(iii) Calculate overall reduction efficiency of the control device (R) for the calendar month for the affected facility using the following equation:

$$R = \frac{M_r}{M_a + M_r} \quad (10)$$

(iv) Calculate the volume-weighted average mass of VOC discharged to the atmosphere (N) for the calendar month for the affected facility using equation (8).

(v) If the weighted average of VOC emitted to the atmosphere for the calendar month (N) is equal to or less than the applicable emission limit specified under § 60.492, the affected facility is in compliance.

(Approved by the Office of Management and Budget under control number 2060-0001)

§ 60.494 Monitoring of emissions and operations

The owner or operator of an affected facility that uses a capture system and an incinerator to comply with the emission limits specified under § 60.492 shall install, calibrate, maintain, and operate temperature measurement devices as prescribed below.

(a) Where thermal incineration is used, a temperature measurement device shall be installed in the firebox. Where catalytic incineration is used, temperature measurement devices shall be installed in the gas stream immediately before and after the catalyst bed.

(b) Each temperature measurement device shall be installed, calibrated, and maintained according to the manufacturer's specifications. The device shall have an accuracy the greater of ± 0.75 percent of the temperature being measured expressed in degrees Celsius or $\pm 2.5^\circ \text{C}$.

(c) Each temperature measurement device shall be equipped with a recording device so that a permanent continuous record is produced.

(Approved by the Office of Management and Budget under control number 2060-0001)

(Sec. 114 of the Clean Air Act as amended (42 U.S.C. 7414))

§ 60.495 Reporting and recordkeeping requirements

(a) The owner or operator of an affected facility shall include the following data in the initial compliance report required under § 60.8(a).

(1) Where only coatings which individually have a VOC content equal to or less than the limits specified under § 60.492 are used, and no VOC is added to the coating during the application or distribution process, the owner or operator shall provide a list of the coatings used for each affected facility and the VOC content of each coating calculated from data determined using Reference Method 24 or supplies by the manufacturers of the coatings.

(2) Where one or more coatings which individually have a VOC content greater than the limits specified under § 60.492 are used or where VOC are added or used in the coating process, the owner or operator shall report for each affected facility the volume-weighted average of the total mass of VOC per volume of coating solids.

(3) Where compliance is achieved through the use of incineration, the owner or operator shall include in the initial performance test required under § 60.8(a) the combustion temperature (or the gas temperature upstream and downstream of the catalyst bed), the

total mass of VOC per volume of coating solids before and after the incinerator, capture efficiency, and the destruction efficiency of the incinerator used to attain compliance with the applicable emission limit specified under § 60.492. The owner or operator shall also include a description of the method used to establish the amount of VOC captured by the capture system and sent to the control device.

(b) Following the initial performance test, each owner or operator shall submit for each semiannual period ending June 30 and December 31 a written report to the Administrator of exceedances of VOC content and incinerator operating temperatures when compliance with § 60.492 is achieved through the use of incineration. All semiannual reports shall be postmarked by the 30th day following the end of each semiannual period. For the purposes of these reports, exceedances are defined as:

(1) Each performance period in which the volume-weighted average of the total mass of VOC per volume of coating solids, after the control device, if capture devices and control systems are used, is greater than the limit specified under § 60.492.

(2) Where compliance with § 60.492 is achieved through the use of thermal incineration, each 3-hour period when cans are processed, during which the average temperature of the device was more than 28° C below the average temperature of the device during the most recent performance test at which destruction efficiency was determined as specified under § 60.493.

(3) Where compliance with § 60.492 is achieved through the use of catalytic incineration, each 3-hour period when cans are being processed, during which the average temperature of the device immediately before the catalyst bed is more than 28° C below the average temperature of the device immediately before the catalyst bed during the most recent performance test at which destruction efficiency was determined as specified under § 60.493 and all 3-hour periods, when cans are being processed, during which the average

temperature difference across the catalyst bed is less than 80 percent of the average temperature difference across the catalyst bed during the most recent performance test at which destruction efficiency was determined as specified under § 60.493.

(c) Each owner or operator subject to the provisions of this subpart shall maintain at the source, for a period of at least 2 years, records of all data and calculations used to determine VOC emissions from each affected facility in the initial and monthly performance tests. Where compliance is achieved through the use of thermal incineration, each owner or operator shall maintain, at the source, daily records of the incinerator combustion chamber temperature. If catalytic incineration is used, the owner or operator shall maintain at the source daily records of the gas temperature, both upstream and downstream of the incinerator catalyst bed. Where compliance is achieved through the use of a solvent recovery system, the owner or operator shall maintain at the source daily records of the amount of solvent recovered by the system for each affected facility.

(d) The requirements of this subsection remain in force until and unless EPA, in delegating enforcement authority to a State under Section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected facilities within the State will be relieved of the obligation to comply with this subsection, provided that they comply with the requirements established by the State.

(Approved by the Office of Management and Budget under control number 2060-0001)

(Sec. 114 of the Clean Air Act as amended (42 U.S.C. 1714))

§ 60.496 Test methods and procedures.

(a) The reference methods in Appendix A to this part, except as provided in § 60.8, shall be used to conduct performance tests.

(1) Reference Method 24, an equivalent or alternative method approved by the Administrator, or

manufacturers formulation for data from which the VOC content of the coatings used for each affected facility can be calculated. In the event of dispute, Reference Method 24 shall be the referee method. When VOC content of waterborne coatings, determined from data generated by Reference Method 24, is used to determine compliance of affected facilities, the results of the Method 24 analysis shall be adjusted as described in Section 4.4 of Method 24.

(2) Reference Method 25 or an equivalent or alternative method for the determination of the VOC concentration in the effluent gas entering and leaving the control device for each stack equipped with an emission control device. The owner or operator shall notify the Administrator 30 days in advance of any State test using Reference Method 25. The following reference methods are to be used in conjunction with Reference Method 25:

(i) Method 1 for sample and velocity traverses,

(ii) Method 2 for velocity and volumetric flow rate,

(iii) Method 3 for gas analysis, and

(iv) Method 4 for stack gas moisture.

(b) For Reference Method 24, the coating sample must be a 1-litre sample collected in a 1-litre container at a point where the sample will be representative of the coating material.

(c) For Reference Method 25, the sampling time for each of three runs must be at least 1 hour. The minimum sample volume must be 0.003 dscm except that shorter sampling times or smaller volumes, when necessitated by process variables or other factors, may be approved by the Administrator. The Administrator will approve the sampling of representative stacks on a case-by-case basis if the owner or operator can demonstrate to the satisfaction of the Administrator that the testing of representative stacks would yield results comparable to those that would be obtained by testing all stacks.

(Sec. 114 of the Clean Air Act as amended (42 U.S.C. 7414))

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