

filing of registration statements included in the SEC News Digest, is no longer being required because the Commission believes that the Commission staff can write the necessary shorter News Digest notices.

EFFECTIVE DATE: July 7, 1977.

FOR FURTHER INFORMATION CONTACT:

Linda Griggs, Office of Disclosure Policy and Proceedings, Division of Corporation Finance, Securities and Exchange Commission, 500 North Capitol Street, Washington, D.C. 20549 (202-755-1750).

SUPPLEMENTARY INFORMATION:

The Securities and Exchange Commission today announced that it has rescinded Rule 458 (17 CFR 230.458) promulgated under the Securities Act of 1933 (the "Act") (15 U.S.C. 77a et seq., as amended by Pub. L. No. 94-29 (June 4, 1975)). Rule 458 (Brief Descriptive Summary of Registration Statement) required corporations to furnish to the Commission a summary of the offering as a part of the materials accompanying the initial filing of a registration statement on forms other than Form S-8 (17 CFR 239.16b) or Form S-12 (17 CFR 239.19) under the Act. The rule calls for the inclusion of certain specified information in the summary.

The staff of the Commission has used the Rule 458 summaries in the preparation of the notices of filing of registration statements included in the SEC News Digest. The Commission has rescinded the rule because it believes that the notices should be shortened and that the staff can write notices containing the appropriate amount of information. Henceforth, the notices in the News Digest will include the following information: (1) The file number; (2) the form on which the registration statement is filed; (3) the name, address, and phone number of the issuer of the security; (4) the title and the number or face amount of the securities being offered; (5) the name of the managing underwriters, if any; and (6) whether the offering is a rights offering.¹

§ 230.458, Brief descriptive summary of registration statement, is hereby rescinded.

This action is taken pursuant to section 19(a) of the Securities Act of 1933. The Commission finds that this action relaxes a burden upon registrants and that publication for comment pursuant to the Administrative Procedure Act of 1946 (5 U.S.C. 553) is not necessary.

This action is effective immediately.

By the Commission.

GEORGE A. FITZSIMMONS,
Secretary.

JULY 5, 1977.

[FR Doc.77-19913 Filed 7-11-77;8:45 am]

¹ The availability of this information on the cover page of a prospectus makes it readily accessible to the editors of the News Digest.

Title 22—Foreign Relations

CHAPTER I—DEPARTMENT OF STATE

SUBCHAPTER C—FEES AND FUNDS

[Departmental Reg. 108.741]

PART 21—FEES FOR SERVICES IN THE UNITED STATES

PART 22—SCHEDULE OF FEES FOR CONSULAR SERVICES—DEPARTMENT OF STATE AND FOREIGN SERVICE

Consular Services—Change in Fees

AGENCY: Department of State.

ACTION: Final rule.

SUMMARY: This rule combines the two schedule of fees charged for consular services performed in the United States and its Foreign Service posts into one schedule of fees. This action will enable the Department to carry out consular services and ensure that its fees are consistent with U.S. foreign policy interests and with the user charge principle as prescribed by the Congress and applied by the President.

EFFECTIVE DATE: September 1, 1977.

FOR FURTHER INFORMATION CONTACT:

Hugh Adamson, 202-632-9010.

SUPPLEMENTARY INFORMATION:

On May 26, 1977 there was published in the FEDERAL REGISTER (42 FR 26994) a notice of proposed rulemaking inviting interested persons to submit comments concerning the proposed combination and revision of fees for consular services. No comments were received; therefore, except for a change in the effective date (§ 22.8), and minor printing errors, this regulation is adopted as set forth below. Parts 21 and 22 of Title 22 of the Code of Federal Regulations will read as set forth below.

Dated: June 29, 1977.

For the Secretary of State.

RICHARD M. MOOSE,
Deputy Under Secretary
for Management.

1. Part 21 is vacated and reserved as follows:

PART 21—[RESERVED]

2. Part 22 now reads as set forth below:

PART 22—SCHEDULE OF FEES FOR CONSULAR SERVICES—DEPARTMENT OF STATE AND FOREIGN SERVICE

Sec.

- 22.1 Schedule of fees.
- 22.2 Requests for services in the United States.
- 22.3 Remittances in the United States.
- 22.4 Request for services, Foreign Service.
- 22.5 Remittances to Foreign Service Posts.
- 22.6 Refund of fees.
- 22.7 Collection and return of fees.
- 22.8 Effective date.

AUTHORITY: Secs. 3, 4, 63 Stat. 111, as amended (22 U.S.C. 811a; 2658; 22 U.S.C. 2651; 5 U.S.C. 483a; 22 U.S.C. 1201), E.O. 10718, 22 FR 4632; 3 CFR, 1954-1958 Comp. page 382.

RULES AND REGULATIONS

§ 22.1 Schedule of fees.

Item No.	PASSPORT AND CITIZENSHIP SERVICES	Fee
1	Execution of application for passports (22 U.S.C. 214).....	\$3.00
2	Examination of passport application executed before a foreign official.....	3.00
3	Issuance of passport (22 U.S.C. 214).....	10.00
	(Item No. 4 vacant.)	
5	Issuance of card of identity and registration.....	5.00
6	Execution of application for or issuance of passport:	
	(a) To officers or employees of the United States proceeding abroad or returning to the United States in the discharge of their official duties, or members of their immediate families (22 U.S.C. 214).....	No fee
	(b) To American seamen who require a passport in connection with their duties aboard an American flag-vessel (22 U.S.C. 214).....	No fee
	(c) To widows, children, parents, brothers, or sisters of deceased members of the Armed Forces proceeding abroad to visit the graves of such members (22 U.S.C. 214).....	No fee
	(d) To employees of the American National Red Cross proceeding abroad as a member of the Armed Forces of the United States (10 U.S.C. 2602(c)).....	No fee
	(e) To Peace Corps volunteers and volunteer leaders, who are deemed to be employees of the United States for purposes of exemption from passport fees (22 U.S.C. 2504(k)).....	No fee
7	Amendment of passport:	
	(a) To show current or new information, including changes in members of family.....	No fee
	(b) To correct administrative error.....	No fee
	(c) To extend time limitation.....	No fee
8	Verification of passport.....	No fee
9	Execution of application for registration.....	No fee
10	Execution of affidavit in regard to American birth in connection with application for passport or citizenship determination.....	No fee
11	Administering the oath of allegiance to a native-born American woman who lost her citizenship solely by marriage to an alien.....	No fee
12	For delivery to the applicant of a certified copy of an executed form:	
	(a) Of repatriation of a native-born American woman whose marital status with an alien terminated prior to Jan. 13, 1941.....	3.00
	(b) Of repatriation of a native-born American woman under sec. 324 of the Immigration and Nationality Act (8 U.S.C. 1435).....	3.00
	(c) Of repatriation under the act of July 20, 1954 (8 U.S.C. 1438 supp.) of a person who while a citizen of the United States lost his citizenship by voting in Japan between Sept. 2, 1945, and Apr. 27, 1952, inclusive.....	3.00
13	Documents relating to births, marriages or deaths of American citizens abroad where reported to a Foreign Service post:	
	(a) Registration of birth of American citizen, including furnishing 1 Certification of Birth and 1 copy of form FS-240 "Report of Birth Abroad of a Citizen of the United States of America".....	6.00
	(b) "Certificate of Witness to Marriage" in quadruplicate.....	45.00
	(c) Authentication of original documents of marriage, per copy.....	3.00
	Department of State, Washington, D.C. 20524, per copy.....	3.00
	(d) "Report of Death of an American Citizen" and sending 1 copy each to legal representative and to closest known relative or relatives.....	No fee
	Additional certified copies may be obtained from the Office of Special Consular Services, Department of State, Washington, D.C. 20520, per copy.....	3.00
14	Documents from passport files and related records (except as specified in item 13):	
	(a) For file search.....	6.00
	(b) For duplicating by photocopy or other such means each copy of each page.....	.15
	(c) For certifying of a true copy for each copy of each page.....	1.00
	(d) For certifying by letter under official seal a statement or extract from passport files or a statement that no record of a passport file can be located (plus \$6 search charge 14a).....	1.00
15	Any service described in item 14 when:	
	(a) Required for official use by an agency of the Federal Government or of any of the States or their subdivisions or of the District of Columbia, or of any of the territories and possessions of the United States.....	No fee
	(b) Performed in response to a subpoena or other order of a court. (However, fees are chargeable when the service is for the benefit of a party in interest and a court order or subpoena is issued in his behalf.).....	No fee
	(c) Performed in providing to a party in interest, a copy of the transcript of a hearing held before a panel, board, or other authority of the Department.....	No fee
16	Granting an exception under 22 CFR 53.2(h) of travel control regulations.....	25.00
17	For any passport service furnished in the United States upon request during nonregular duty hours. (This fee is in addition to any statutory fees or communication costs.).....	10.00
18	Instant photo service, where offered by a Foreign Service post, for each pair of identical photographs (Item No. 10 vacant.).....	3.00

VISA SERVICES FOR ALIENS

20	Furnishing and verification of application for immigrant visa, including duplicate copy.....	5.00
21	Issuance of each immigrant visa.....	20.00
22	Furnishing and verification of application and issuance of nonimmigrant visa. (Fees prescribed in appendix C, Visa Handbook of Department of State, as amended from time to time.).....	Recip.

Item No.	VISA SERVICES FOR ALIENS—(Continued)	Fee
23	Furnishing and verification of application and issuance of nonimmigrant visa to:	
	(a) An alien proceeding solely in transit to and from the headquarters district of the United Nations under the provisions of sec. 11 of the agreement between the United Nations and the United States of America regarding the headquarters of the United Nations (61 Stat. 756)	No fee
	(b) An official representative of a foreign government, or an international or regional organization of which the United States is a member.	No fee
	(c) An alien participating in a U.S. Government program.	No fee
24	Visa or supplemental visa of alien crew list up to 40 crew members.	10.00
	41 to 100 crew members.	25.00
	101 to 200 crew members.	45.00
	Over 200 crew members.	60.00
25	Revalidation or transfer of a nonimmigrant visa.	Recip.
	(Item Nos. 26 through 29 vacant.)	
SERVICES RELATING TO VESSELS AND SEAMEN		
30	Noting marine protest, when required by a master of a foreign or an undocumented vessel.	7.00
31	Extending marine protest, when required by master of a foreign or an undocumented vessel.	10.00
32	Protest of master against charterers or freighters, when required by master of a foreign or an undocumented vessel.	6.00
33	Shipment or discharge of seaman on undocumented vessel, each seaman.	14.00
34	Recording of bill of sale of vessel purchased abroad, taking of application for provisional certificate of registry or certificate of American ownership, and investigation.	10.00
35	Issuance of provisional certificate of registry or certificate of American ownership.	8.00
36	Services under this tariff (unless designated "no exceptions") when performed for American vessels or for American seamen (22 U.S.C. 1186).	No fee
	(The consular officer should charge under item 93 for time spent away from the consular office or after duty hours for item No. 30 through 36.)	
	(Item Nos. 37 through 44 vacant.)	
NOTARIAL SERVICES AND AUTHENTICATION		
45	Administering an oath and certificate thereof.	3.00
46	Taking the acknowledgment of the execution of a document, and certificate thereof.	3.00
47	Certifying under official seal that a copy or extract made from an official or a private document is a true copy. For certifying each copy of each page.	1.00
48	Certifying to official character of a foreign notary or other official (i.e. authenticating a document).	3.00
49	Administering oaths, taking acknowledgments, or supplying authentications, in connection with application for letters patent or registration of trademarks, or with the assignment or transfer of rights thereunder.	3.00
50	Administering an oath and certificate thereof for petition for immediate relative, nonimmigrant fiancé(e), temporary worker nonimmigrant intracompany transferee, or preference immigrant status.	3.00
51	Administering oaths or taking acknowledgments, or authenticating the signatures of officials, in connection with kinsmen's petitions for wages and effects of deceased seamen of the American merchant marine (46 U.S.C. 627).	10.00
52	For affidavit of petitioner or his agent on documents or evidence to be presented to the Federal Government.	3.00
53	Authenticating a Federal, State or territorial seal, or certifying to the official status of an officer of the U.S. Department of State, or of a foreign diplomatic or consular officer accredited to or recognized by the U.S. Government, on any document submitted to the Department for that purpose.	3.00
	(Item number 54 vacant.)	
55	Noting of a negotiable instrument for want of acceptance or payment, certifying to protest, and giving notice to issuer and endorsers when requested to do so. (In addition to this fee the consular officer should charge under item 93 for time spent away from the consular office or after duty hours in presentment of the instrument for acceptance or payment.)	8.00
	(Item Nos. 56 and 57 vacant.)	
58	Services under the heading, "Notarial Services and Authentications", when rendered:	
	(a) In connection with the execution of forms or documents required by or to be presented to any department or agency of the Federal Government.	No fee
	(b) In connection with the execution of forms or documents required by or to be presented to the States and their subdivisions, the District of Columbia, or any of the territories or possessions of the United States.	No fee
	(c) In connection with the assignment and transfer of U.S. bonds or other Federal financial obligations or the execution of powers of attorney therefor to collect interest thereon.	No fee
	(d) To claimants and beneficiaries and their witnesses, in connection with Federal, State, and municipal allotment, pension, retirement, insurance, medical compensation, or like benefits.	No fee
	(e) In the execution of tax returns for filing with the Federal or State Governments or political subdivisions thereof.	No fee
	(f) To American citizens, while outside the United States, in preparation of ballots to be used in any primary, general, or other public elections in the United States or in territories under their jurisdiction.	No fee
	(g) For official noncommercial use by a foreign government or by an international agency of which the Government of the United States is a member.	No fee
	(h) To an official of a foreign government in circumstances where furnishing the service is an appropriate or reciprocal courtesy.	No fee
	(i) To U.S. Government personnel and Peace Corps volunteers or their dependents officially stationed or traveling in a foreign country.	No fee
59	Affidavit on preparation and packing of remains.	No fee
60	Consular mortuary certificate.	No fee
	(Items 61 through 64 vacant.)	
65	In taking depositions or executing commissions to take testimony:	
	(a) For the services of a diplomatic or consular officer. (for each hour or fraction thereof.)	37.00
	(b) For the services, if required, of a staff member of the Foreign Service as interpreter, stenographer, or typist. (For each hour or fraction thereof.)	11.00
	(c) If services of (a) or (b) above are required to be performed away from office or after duty hours, the charge shall be as follows for each hour or fraction thereof for:	
	(1) American employee.	61.00
	(2) Foreign Service local employee.	22.00
	(Transportation and incidental expenses as defined in item 93 shall be collected if applicable to services performed under (a), (b), or (c) above.)	
66	Executing commissions to take testimony in connection with foreign documents for use in criminal cases when the commission is accompanied by an order of Federal court on behalf of an indigent party as contemplated by 18 U.S.C. 3495.	No fee
67	Providing seal and certificate for return of letters rogatory executed by foreign officials.	12.00
	(Item Nos. 68 and 69 vacant.)	
DECEDENTS AND DECEDENTS' ESTATES		
70	Taking into possession under 22 U.S.C. 1175 the personal estate of any citizen who shall die within the limits of a consular district, inventorying, selling, and finally disposing thereof according to law, for each \$100 of inventory value or fraction thereof.	\$ 5.00
71	Service as described under item 70 above when performed in the case of a deceased officer or employee of the United States.	No fee

Item No.	DECEDENTS AND DECEDENTS' ESTATES—(Continued)	Fee
72	Placing or removal of official seal on estates of decedents; for disbursing funds supplied by relatives and others; for forwarding to legal representative or other authorized person of securities and other instruments not negotiable (or not negotiable) by the consular officer, or evidence of bank deposits of the decedent; or for releasing on the spot against memorandum receipt and without occasion either for safekeeping on official accountability or for consular inventory and appraisal, to the legal representative or other authorized person in the country, of personal property taken into nominal possession for the explicit purpose of transfer of custody.	No fee
73	Arrangements for shipping or other disposition of remains. (Item No. 74 vacant.)	No fee

COPYING, RECORDING AND PROCTORING

75	For typing a copy of a document or extract of a document. (For each 200 words or part thereof).	2.00
76	For photocopying or otherwise duplicating a document. (For each copy of each page). (This fee does not apply to such customary activities as issuance of copies of records; (1) from supplies kept for distribution, such as press releases and information leaflets; (2) as part of normal and generally reciprocal services performed by the post's library or the library of the Department at the request of similar agencies or institutions; or (3) in lieu of or as enclosures to letters with the purpose of saving costs in preparing mail.)	.15
78	Supervising or proctoring an examination at the request of an agency or instrumentality of the Federal or a State Government by a consular or other officer, including completion of a certificate without seal, for each hour or fraction thereof, unless the cost thereof is reimbursable to the Department of State by an agency or instrumentality of the Federal or a State Government. (Item Nos. 79 through 81 vacant.)	37.00

OTHER SPECIAL CONSULAR SERVICES

82	Preparing and sending interested party messages for the primary benefit of nongovernment individuals, organizations or groups: (a) From Department of State to Foreign Service post. (b) From a Foreign Service post to the Department of State.	15.00 15.00
83	Translating of documents to assist nongovernment individuals, organizations, or groups. (For each quarter hour or fraction thereof of staff employee time.)	3.00
84	U.S. Selective Service Registration in a foreign country.	No fee
85	Distribution of U.S. Treasury checks to Federal beneficiaries.	No fee
86	Searching for and forwarding a document requested from a Foreign Service post by a nongovernment individual, organization, or group (for each document). (Item Nos. 87 through 90 vacant.)	6.00
91	Collection of fees by a Foreign Service post for: Services performed by Department of State offices within the United States under this schedule of fees; services performed under sec. 6.14 of title 22, Code of Federal Regulations (Freedom of Information services).	No fee

EXEMPTION FOR FEDERAL AGENCIES AND CORPORATIONS

92	Any and all services (unless above designated "no exceptions") performed for the official use of the Government of the United States or of any corporation in which the Federal Government or its representative shall own the entire outstanding capital stock.	No fee
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SERVICE RENDERED AWAY FROM OFFICE OR AFTER DUTY HOURS IN A FOREIGN COUNTRY

93	Except for instances of common disaster (i.e. ship wrecks, air crashes, etc.) or evacuations, a surcharge for services when rendered elsewhere than at a Foreign Service post or after duty hours at the request of the parties, shall be added to the regular fee for each quarter hour or fraction thereof for: (1) American employee. (2) Foreign Service local employee. (In addition to the surcharge prescribed above, transportation and other incidental costs actually and necessarily incurred by officers or staff employees of the Foreign Service shall be collected from the persons requesting the performance of such services. Such collections shall not be considered as part of the official fees but shall be recorded as deposit funds and accounted for as such.)	6.00 3.00
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§ 22.2 Requests for services in the United States.

(a) *Requests for records.* Requests by the file subject or his/her authorized agent for services involving U.S. passport applications and related records, including consular birth and marriage records, shall be addressed to Passport Office, Department of State, Washington, D.C. 20524. Requests for consular birth records should specify if a Consular Report of Birth (long form) or Certification of Birth (short form) is desired. Requests for certified copies of Report of Death of an American citizen shall be addressed to Office of Special Consular Services, Department of State, Washington, D.C. 20520. Advance remittance of the exact fee is required for each service.

(b) *Authentication services.* Requests for authentication services including documents presented to the Department of State for authentication, accompanied by remittance of the exact total fee chargeable, shall be addressed to the Authentication Officer, Department of State, Washington, D.C. 20520.

§ 22.3 Remittances in the United States.

(a) *Remittances in the United States.* Remittances shall be in the form either of (1) check or bank draft drawn on a bank in the United States, (2) money order, postal, international or bank, or (3) U.S. currency. Remittances shall be made payable to the order of the Department of State. The Department will assume no responsibility for cash which is lost in the mail.

(b) *Exact payment of fees.* Fees must be paid in full prior to issuance of requested documents. If uncertainty as to the existence of a record or as to the number of sheets to be copied precludes remitting the exact fee chargeable with the request, the Department of State will inform the interested party of the exact amount required.

§ 22.4 Requests for services, Foreign Service.

Officers of the Foreign Service shall charge for official services performed abroad at the rates prescribed in this schedule, in coin of the United States or at its representative value in exchange

(22 U.S.C. 1202). For definition of representative value in exchange, see § 23.4 of this chapter. No fees named in this schedule shall be charged or collected for the official services to American vessels and seamen (22 U.S.C. 1186). The term "American vessels" is defined to exclude, for the purposes of this schedule, undocumented American vessels and the fees prescribed herein shall be charged and collected for such undocumented vessels. However, the fees prescribed herein shall not be charged or collected for American public vessels, which includes any vessel owned or operated by a U.S. Government department or agency and engaged exclusively in official business on a non-commercial basis. This schedule of fees shall be kept posted in a conspicuous place in each Foreign Service office, subject to the examination of all persons interested therein (22 U.S.C. 1197).

§ 22.5 Remittances to Foreign Service posts.

Remittances to Foreign Service posts from persons in the United States in payment of official fees and charges or for the purpose of establishing deposits in advance of rendition of services shall be in a form acceptable to the post, drawn payable to the "American Embassy (name of city)" (or American Legation, American Consulate General, or American Consulate, as the case may be). This will permit encashment of negotiable instruments for deposit in the Treasury, when not negotiated locally, see § 23.2 of this chapter.

(a) *Time at which fees become payable.* Fees are due and payable prior to issuance or delivery to the interested party of a signed document, a copy of a record, or other paper representative of a service performed.

(b) *Receipts for fees; register of services.* Every officer of the Foreign Service responsible for the performance of services as enumerated in the Schedule of Fees for Consular Services—Department of State and Foreign Service (§ 22.1), shall give receipts for fees collected for the official services rendered, specifying the nature of the service and numbered to correspond with entries in a register maintained for the purpose (22 U.S.C. 1192, 1193, and 1194). The register serves as a record of official acts performed by officers of the Foreign Service in a governmental or notarial capacity, corresponding in this regard with the record which notaries are usually expected or required to keep of their official acts, see § 92.2 of this chapter.

(c) *Deposits to guarantee payment of fees or incidental costs.* When the amount of any fee is determinable only after initiation of the performance of a service, or if incidental costs are involved, the total fee and incidental costs shall be carefully estimated and an advance deposit required, subject to refund of any unused balance to the person making the deposit.

§ 22.6 Refund of fees.

Fees which have been collected for deposit in the Treasury are refundable (a) as specifically authorized by law (see 22 U.S.C. 214a concerning passport fees erroneously charged persons excused from payment, 22 U.S.C. 216 concerning passport fees in cases where the appropriate representative in the United States of a foreign government refuses a visa, and 46 U.S.C. 8 concerning fees improperly imposed on vessels or seamen), (b) when the principal officer at the consular post where the fee was collected (or the officer in charge of the consular section at a combined diplomatic consular post) finds upon review of the facts that the collection was erroneous under applicable law and regulation is made by the Department of State with a view to payment of the refund in the United States in cases in which it is impracticable to have the facts reviewed and refund effected at the direction of the responsible consular office. See § 13.1 of this chapter concerning refunds of fees improperly exacted by consular officers who have neglected to return the same to the Treasury.

§ 22.7 Collection and return of fees.

No fees other than those prescribed in the Schedule of fees, § 22.1, or by or pursuant to an act of Congress, shall be charged or collected by officers of the Foreign Service for official services performed abroad (22 U.S.C. 1201). All fees received by any officer of the Foreign Service for services rendered in connection with the duties of his/her office or as a consular officer shall be accounted for and paid into the Treasury of the United States (22 U.S.C. 99, 1942 Edition, as amended by sec. 1131 (26) of the Foreign Service Act of 1946, 60 Stat. 1037, and as modified by 22 U.S.C. 812 of the 1952 Edition). For receipt, registry, and numbering provisions, see § 22.5(c).

§ 22.8 Effective date.

The charges hereby established will become effective on September 1, 1977 with respect to all services rendered pursuant to requests received in the Department of State and the Foreign Service on or after the effective date.

[FR Doc. 77-19907 Filed 7-11-77; 8:45 am]

Title 32A—National Defense, Appendix
CHAPTER XV—FEDERAL RESERVE
SYSTEM

[R-0106]

PART 1505—LOAN GUARANTEES FOR
DEFENSE PRODUCTION (REG. V)

Change of Guaranteeing Agency

AGENCY: Board of Governors of the Federal Reserve System.

ACTION: Final rule.

SUMMARY: Regulation V is being amended to reflect that the name of the Defense Supply Agency has been changed to the Defense Logistics Agency.

EFFECTIVE DATE: This amendment becomes effective June 30, 1977.

FOR FURTHER INFORMATION CONTACT:

Ralph C. Maurer, Credit Specialist, Division of Federal Reserve Bank Operations, Board of Governors of the Federal Reserve System, Washington, DC 20551, 202-452-3174.

SUPPLEMENTARY INFORMATION: Effective January 1, 1977, the name of the Defense Supply Agency was changed to the Defense Logistics Agency. The purpose of this amendment is to reflect this name change by substituting the renamed agency in the list of Federal departments and agencies authorized to guarantee V-Loans. This action is taken pursuant to the Board's authority under Defense Production Act of 1950 and Executive Order No. 10480 of August 14, 1953, as amended.

The change made by this amendment is a technical one designed to conform Regulation V to directives issued by the Department of Defense. Therefore, the Board for good cause finds that the procedures prescribed by the provisions of section 553 of Title 5, United States Code, relating to notice, public procedure, and deferred effective date are unnecessary and would serve no useful purpose.

Section 1 [Amended]

Effective immediately, section 1 of Regulation V (Loan Guarantees for Defense Production) of the Board of Governors is amended by deleting "the Defense Supply Agency" and substituting the phrase "the Defense Logistics Agency."

By order of the Board of Governors, June 30, 1977.

THEODORE E. ALLISON,
Secretary of the Board.

[FR Doc. 77-19926 Filed 7-11-77; 8:45 am]

Title 34—Government Management
CHAPTER II—GENERAL SERVICES
ADMINISTRATION

SUBCHAPTER E—MANAGEMENT SYSTEMS
PART 271—CENTRAL SUPPORT
SERVICES

Centralized Services in Federal Buildings

CROSS REFERENCE: For a document which deletes and reserves the provisions of 34 CFR Part 271, see FR Doc. 77-19882 appearing under Title 41 in the Rules and Regulations section of this issue.

Title 40—Protection of Environment

CHAPTER I—ENVIRONMENTAL
PROTECTION AGENCY

SUBCHAPTER C—AIR PROGRAMS

PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

Massachusetts Revision

AGENCY: Environmental Protection Agency.

ACTION: Final rule.

SUMMARY: The Haverhill Paperboard Corporation, Haverhill, Massachusetts is approved to burn 1.4 percent sulfur content residual fuel oil in accordance with the recently revised Regulation 5.1, "Sulfur Content of Fuels and Control Thereof," for the Merrimack Valley Air Pollution Control District. Haverhill Paperboard Corporation was required to continue burning 1.0 percent sulfur content fuel until further information showed that they could burn a specified higher sulfur content fuel without causing violations of the National Ambient Air Quality Standards for sulfur dioxide.

EFFECTIVE DATE: July 12, 1977.

FOR FURTHER INFORMATION CONTACT:

Wallace Woo, Air Branch, Environmental Protection Agency, Region I, Room 2113, JFK Federal Building, Boston, Massachusetts 02203, 617-223-5609.

SUPPLEMENTARY INFORMATION: On May 31, 1972 (37 FR 10872), pursuant to Section 110 of the Clean Air Act and 40 CFR Part 51, the Administrator approved, with exceptions, the Massachusetts Implementation Plan for attainment of National Ambient Air Quality Standards (NAAQS).

On December 30, 1976 (41 FR 56804) the Administrator approved a revision to Regulation 5.1, "Sulfur Content of Fuels and Control Thereof," of the State Implementation Plan (SIP) which permits fossil fuel utilization facilities in the Merrimack Valley Air Pollution Control District (MVAPCD) to burn fossil fuel with a sulfur content not in excess of 1.21 pounds per million Btu heat release potential (approximately equivalent to 2.2 percent sulfur content residual fuel oil by weight) until May 1, 1978. The MVAPCD is the same geographic area as the Massachusetts portion of the Merrimack Valley—Southern New Hampshire Interstate Air Quality Control Region (AQCR). Use of the higher sulfur content fuel by fossil fuel utilization facilities of over 100 million Btu/hr energy input capacity is contingent upon application for and receipt of written approval from the Massachusetts Department of Environmental Quality Engineering (the Massachusetts Department). Excluded from this revision are

the City of Lawrence, and the Towns of Andover, Methuen, and North Andover. Sources in these areas remain subject to the previously approved requirements of Regulation 5.1, which stipulate that sources are permitted to burn fossil fuel having a sulfur content not in excess of 0.55 pounds per million Btu heat release potential (approximately equivalent to 1.0 percent sulfur content residual fuel oil by weight).

Haverhill Paperboard Corporation, Haverhill, Massachusetts was not approved to implement the provisions of the revision because violations of the NAAQS for SO₂ are predicted if the plant were to burn 2.2 percent sulfur content fuel oil. However, on December 30, 1976 the Massachusetts Department submitted additional conditions and technical information, and an EPA review of these data shows that the plant could burn fossil fuel having a sulfur content not in excess of 0.75 pounds per million Btu heat release potential (approximately equivalent to 1.4 percent sulfur content residual fuel oil by weight) without violating the NAAQS for SO₂. On April 13, 1977 (42 FR 19359) the Regional Administrator published a Notice of Proposed Rulemaking indicating that he was considering approval of Haverhill Paperboard Corporation to burn 1.4 percent sulfur content fuel oil. Haverhill Paperboard Corporation is required to apply for and receive written approval from the Massachusetts Department before burning the specified higher sulfur content fuel, and will be required to conform to all other provisions of the revised Regulation 5.1.

No comments were received during the 30-day comment period.

After evaluation of the State's submittal, the Administrator has determined that the Massachusetts revision meets the requirements of the Clean Air Act and 40 CFR Part 51. Accordingly, this revision is approved as a revision to the Massachusetts Implementation Plan.

(Sec. 110(a) of the Clean Air Act, as amended, 42 U.S.C. § 1857c-5(a).)

Dated: July 5, 1977.

DOUGLAS M. COSTLE,
Administrator.

Part 52 of Chapter I, Title 40, Code of Federal Regulations, is amended as follows:

SUBPART W—MASSACHUSETTS

1. Section 52.1120(c), paragraph (8) is revised to read as follows:

§ 52.1120 Identification of Plan.

(c) The plan revisions listed below were submitted on the dates specified.

(8) A revision to Regulation 5.1, Sulfur Content of Fuels and Control Thereof, for the Merrimack Valley Air Pollution Control District, submitted on January 28, 1976, and additional technical information pertinent to the Haverhill Paperboard Corporation, Haverhill, Massachusetts, submitted on December 30, 1976,

by the Secretary of Environmental Affairs.

2. In § 52.1126, paragraph (e) is revised to read as follows:

§ 52.1126 Control strategy: Sulfur oxides.

(e) Massachusetts Regulation 5.1 for the Merrimack Valley Air Pollution Control District, excluding the City of Lawrence and the Towns of Andover, Methuen, and North Andover, submitted on January 28, 1976, is approved except as to the following source which is limited to burning fossil fuel having a sulfur content not in excess of 0.75 lb. per million Btu heat release potential (approximately equivalent to 1.4 percent sulfur content residual fuel oil by weight):

Haverhill Paperboard Corporation, Haverhill, Massachusetts.

[FR Doc. 77-19980 Filed 7-11-77; 8:45 am]

SUBCHAPTER N—EFFLUENT GUIDELINES AND STANDARDS

PART 413—ELECTROPLATING POINT SOURCE CATEGORY

Pretreatment Standards for Existing Sources; Interim Final Regulations

AGENCY: Environmental Protection Agency.

ACTION: Interim final regulation.

SUMMARY: These regulations limit the concentrations of certain pollutants which may be discharged into publicly owned treatment works by electroplating operations. The purpose is to regulate those pollutants which interfere with, pass through, or are otherwise incompatible with the operation of treatment works. The Federal Water Pollution Control Act requires these regulations to be issued. The effect of these regulations will be to require pretreatment of waste water by operations which do electroplating and which discharge waste water into publicly owned treatment works.

EFFECTIVE DATE: July 12, 1977.

ADDRESS: Send comments to: Environmental Protection Agency, 401 M St., SW., Washington, D.C. 20460, Attention: Distribution Officer, WH-552.

FOR FURTHER INFORMATION CONTACT:

Harold B. Coughlin, Effluent Guidelines Division, (WH-552) Environmental Protection Agency, 401 M St., SW., Washington, D.C. 20460. (202) 426-2560.

SUPPLEMENTARY INFORMATION:

BACKGROUND

On March 28, 1974, EPA promulgated a regulation adding Part 413 to Title 40 of the Code of Federal Regulations (39 FR 11510). That regulation (the "Phase I regulation") with subsequent amendments (the "Phase II regulation") (40 FR 18130, April 24, 1975) established effluent limitations guidelines for existing sources in five subcategories and standards of performance and pretreatment stand-

ards for new sources in one subcategory. Proposed revisions and additions setting forth effluent limitations guidelines based on "best available technology economically achievable" (BAT), pretreatment standards for new and existing sources, and standards of performance for new sources were also published for five subcategories (39 FR 11515, March 28, 1974 and 40 FR 18140, April 24, 1975). The history of rulemaking for the category by the Agency prior to December 1976 is described in greater detail in 41 FR 53018 (December 3, 1976).

On December 3, 1976, the Agency suspended the promulgated effluent limitations guidelines based on "best practicable control technology currently available" (BPT). The effluent limitations guidelines based on "best available technology economically achievable" (BAT), new source performance standards, and pretreatment standards for Subpart A of the Electroplating Point Source Category (41 FR 53081) were revoked. The Agency also withdrew its notices of proposed rulemaking for the category (41 FR 53070). The Agency took this action for the purpose of reevaluating the appropriateness of limitations and standards earlier established in light of new data and further analysis.

The pretreatment standards for existing sources which were originally proposed were based on the data and analysis relied upon in promulgating the BPT regulations. The effort to conduct new data gathering and analyses as a basis for reevaluation of the BPT regulations was thus expected to encompass the proposed pretreatment regulations as well. The interim final regulations set forth below take into account the additional study which has been conducted over the past several months.

Pretreatment standards are established for pollutants discharged into publicly owned treatment works (POTW) from existing sources which fall within the following subcategories of the Electroplating Point Source Category: Electroplating of Common Metals Subcategory (Subpart A); Electroplating of Precious Metals Subcategory (Subpart B); Anodizing Subcategory (Subpart D); Coatings Subcategory (Subpart E); Chemical Etching and Milling Subcategory (Subpart F); Electroless Plating (Subpart G) and Printed Circuit Boards (Subpart H). Subparts G and H are new subcategories which are established by this regulation. The content of the standards is discussed in detail below under Summary of Standards.

LEGAL AUTHORITY

These regulations are promulgated pursuant to section 307(b) of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251, 1317(b)); 86 Stat. 816 et seq.; Pub. L. 92-500 (the Act), which requires the establishment of pretreatment standards for pollutants introduced into publicly owned treatment works (POTW).

SUMMARY OF STANDARDS

These regulations establish two sets of pretreatment requirements for the

subcategories mentioned. The first set, the "prohibited discharge" standards, are designed to prevent inhibition of, or interference with, publicly owned treatment works, by prohibiting the discharge of pollutants of a nature or in a quantity that would endanger the mechanical or hydraulic integrity of the works. Except for minor changes, these prohibited discharge standards are identical to the prohibitions contained in the general pretreatment regulation now found at 40 CFR 128.131.

The second set of standards, known as "categorical" pretreatment standards, contain specific numerical limitations based on an evaluation of available technologies in a particular industrial subcategory. The specific numerical limitations are arrived at separately for each subcategory, and are imposed on pollutants which may interfere with, pass through, or otherwise be incompatible with publicly owned treatment works. For plants with an average daily flow of 40,000 gallons or more, the present regulations specifically limit the concentrations of total cyanide, amenable cyanide, hexavalent chromium, and the pH range for wastes discharged into a POTW. For plants with an average daily process waste water flow of less than 40,000 gallons, limitations on only amenable cyanide are imposed at this time, due to preliminary indications that these plants might experience relatively severe economic problems if more stringent standards were established. Requiring treatment of cyanide is the logical first step, since destruction of cyanide is a prerequisite for any subsequent removal of metals.

However, the Agency in the near future will issue in proposed or interim form additional limitations for some or all portions of the industry, based on further analysis. First, the Agency will issue limitations on total cyanide, hexavalent chromium, and pH for some or all of the plants which will be subject only to limitations on amenable cyanide under the regulations which are currently being promulgated. Secondly, the Agency will issue limitations on metals for certain portions of the industry. As discussed below, the reasons for the Agency's decision to issue regulations in stages are closely related to the ongoing effort to develop an accurate economic picture of this industry. Decisions regarding the appropriate stringency and scope of the additional standards will depend upon the outcome of current efforts to characterize the most vulnerable parts of the industry and to determine the possible economic impacts of various levels of regulations.

Because the present interim final regulations provide for up to three years for compliance (see Compliance Date, below), the issuance of regulations in two stages should not materially affect the process of planning for and installing the necessary treatment technology. The time necessary for compliance will again be considered when new regulations are promulgated and when existing regulations are finalized.

The Agency is also in the process of formulating new BPT regulations as well as standards of performance and pretreatment standards for new sources. The Agency expects to issue these regulations in the near future.

For the purpose of clarity, the subcategories affected by the present regulations are exempted from 40 CFR Part 128. The provisions of the present regulation overlap considerably with the language of 40 CFR Part 128. 40 CFR Part 128 was proposed on July 19, 1973 (38 FR 19236), and published in final form in November 1973 (38 FR 30982). It limits the discharge of pollutants which pass through or interfere with the operation of publicly owned treatment works, but it does not set numerical limitations or explicitly list particular pollutants to be regulated. The provisions of 40 CFR Part 128 have sometimes been a source of confusion in the past. New general pretreatment regulations have been proposed (42 FR 6476, February 2, 1977) which will revoke and replace 40 CFR Part 128 upon promulgation. Therefore, the general pretreatment requirements set forth in 40 CFR Part 128 are superseded with respect to the subcategories governed by the present regulations. All pretreatment requirements currently applicable to the subcategories listed are included in the regulations set forth below. When the new general pretreatment regulations are promulgated, these standards will be reviewed for consistency with the new general policies.

TECHNICAL BASIS FOR STANDARDS

The technical analysis upon which these regulations are based included an identification of the principal waste water pollutants generated by this industry, a consideration of the extent to which these pollutants interfere with or pass through POTW, and a study of the various pretreatment technologies which are available for controlling the discharge of such pollutants. Information gathered in an ongoing technical study of direct and indirect dischargers for this industry was used as the primary basis for assessing available pretreatment technologies. Additionally, data gathered earlier in support of the direct discharge limitations under sections 301 and 304 as well as data submitted by the industry were used. Appendix A summarizes these data and the analysis used in developing these limitations. The details of these studies are set forth in the "Pretreatment Report Supplementing the Interim Final Development Documents for the Electroplating Point Source Category", the "Development Document for Interim Final Effluent Limitations Guidelines for the Common and Precious Metals, and Metal Finishing Segments of the Electroplating Point Source Category", and the "Development Document for Effluent Limitations Guidelines and New Source Performance Standards for the Copper, Nickel, Chromium and Zinc Segment of the Electroplating Point Source Category". The Agency also relied upon a report entitled "A Survey of Three Ex-

emplary Electroplating Waste Treatment Systems".

ECONOMIC IMPACT ANALYSIS

In establishing the present regulations, the Agency has studied and taken into account the potential economic impact on the industry of implementing the standards. The analyses which have been undertaken are described in Appendix A. The details of the economic studies are set forth in a report entitled "Preliminary Economic Analysis of Interim Final Pretreatment Standards for the Electroplating Point Source Category, May, 1977."

Total investment costs for the metal finishing job shops to comply with the standards are estimated to be 38 million dollars. Annualized compliance costs are estimated to be 15 million dollars per year including both capital charges and operating and maintenance costs. It is estimated that 235 metal finishing job shops representing 5,900 jobs may close as a result of the standards. This represents eight percent of the firms and nine percent of the employment in the job shop sector of the industry.

Executive Orders 11821 and 11949, and OMB Circular A-107 require that major proposals for legislation and promulgation of regulations and rules by agencies of the executive branch be accompanied by a statement certifying that the inflationary impact of the proposal has been evaluated. It is hereby certified that the inflationary impact of these standards has been evaluated in the economic impact analysis.

FUTURE REGULATIONS

The present standards represent a minimal level of control which leaves unregulated many harmful pollutants which pass through or interfere with the operation of a POTW or have deleterious effects on the sludge resulting from the operation of such treatment works. The Agency is considering establishing regulations in addition to those which are now being promulgated. In particular, the Agency has considered the need for limitations on metals, as well as limitations on pH, total cyanide, and hexavalent chromium for those plants which are currently subject only to limitations on amenable cyanide. The harmfulness of such pollutants is known, as is the technology for controlling these discharges. However, the preliminary results of an economic analysis indicate that the closure rates for implementation of the full range of limitations by all plants may be high. Consequently, limitations on the full set of parameters are not being promulgated at this time. The Agency, however, will issue further limitations for some or all portions of the industry in the near future, after additional economic analysis has been completed.

Particular attention is being devoted to the representativeness of the data base, the accuracy of the financial information, the feasibility of alternative sources of capital, and the appropriateness of the compliance cost estimates. The Agency hopes to have a more accurate

economic picture of the industry soon, following further evaluation of the data base, review of the costs which were used, and "reality testing" of the economic model by comparing results with the actual experience of municipalities which have enforced regulations similar to those under consideration. In addition, the Agency is currently studying the industry in an effort to more precisely characterize the most vulnerable portions of the industry and to define those groups of plants which are responsible for the most significant environmental harm. Specific factors under consideration include process mix, flow, sales, number of metal finishing employees, total number of employees, and location. Identifiable differences between captive and job shops will also be considered. The Agency will be looking for factors which might provide the basis for formulating a spectrum of standards for different groups of plants, or for establishing variances or exemptions to a central set of standards.

Comments from the public are particularly solicited. The Agency will issue additional limitations in approximately two months from the date of this promulgation.

AVAILABILITY OF DOCUMENTS

The EPA technical and economic reports mentioned above are available for inspection at the EPA Public Information Reference Unit, Room 2922 (EPA Library), Waterside Mall, 401 M St. SW., Washington, D.C. 20460, at all EPA Regional Offices and at State Water Pollution Control Offices.

Copies of the supplemental EPA reports described are being sent to persons or institutions affected by the regulation or who have placed themselves on a mailing list for this purpose (see EPA's Advance Notice of Public Review Procedures, 38 FR 21202, August 6, 1973). A limited number of additional copies are available. Persons wishing to obtain a copy may write the Environmental Protection Agency, Effluent Guidelines Division, Washington, D.C. 20460, Attention: Distribution Officer, WH-552.

When this regulation is promulgated in final rather than interim form, revised copies of the technical documentation will be available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Copies of the economic analysis document will be available through the National Technical Information Service, Springfield, Virginia 22151.

PUBLIC PARTICIPATION

Numerous agencies and groups have participated at various stages in the development of pretreatment regulations for existing sources in this industry. Comments were solicited when proposed pretreatment standards were issued on March 28, 1974 (Phase I) and on April 24, 1975 (Phase II). Many agencies and groups were also consulted in the course of developing the proposed regulations. Similar opportunities for public participation were also provided in the

related development of Phase I and Phase II regulations based upon best practicable control technology currently available. Furthermore, a public hearing on pretreatment standards for the electroplating industry was held on June 10, 1974. On December 3, 1976, the Agency announced that the regulations which had been previously proposed or promulgated would be reevaluated. Since that time the Agency has reconsidered the formulation of pretreatment standards and other regulations in light of all comments which have been received. The Agency has also continued to consult with, and receive comments from, interested agencies and groups. Furthermore, at the request of the National Association of Metal Finishers, the Agency has released split samples for duplicate analysis as well as additional data on the electroplating plants that were selected for sampling and study as a basis for reevaluating the regulations. A summary of public participation in this rule-making, public comments, and the Agency's response to major issues which have been raised is contained in Appendix B of this preamble.

EFFECTIVE DATE

The Agency is subject to an order of the United States District Court for the District of Columbia entered in "Natural Resources Defense Council (NRDC) v. EPA," 8 E.R.C. 2120 (D.D.C. 1976) which requires the promulgation of pretreatment standards for this industry category no later than May 15, 1977. The court order which was entered by the United States Court for the District of Columbia on June 8, 1976, following a consent agreement among the parties to four lawsuits, placed EPA on rigid timetables for the preparation and publication of water pollution regulations for 21 broad industry categories and 65 families of water pollutants.

It has not been practical to develop and republish regulations for this category in a second proposed form and to provide a 30-day comment period within the time constraints imposed by the court order referred to above. Accordingly, the Agency has determined pursuant to 5 U.S.C. 553(b) that notice and comment on the interim final regulations prior to promulgation would be impractical and contrary to the public interest. The effective date shall therefore be the date of publication of these regulations.

COMPLIANCE DATE

Section 301 of the Act anticipates that pretreatment standards for existing sources would be established and compliance would be required before July 1, 1977, while section 307(b) specifies "a time for compliance not to exceed three years from the date of promulgation" of the standard. In view of this conflict of statutory language and the fact that the pretreatment standards are only now being promulgated, the Agency believes that the compliance deadline as set forth in section 307(b) should apply. The time for compliance with the categorical pre-

treatment standards will be not later than three years from the effective date. However, a Regional Administrator or local or state authority should establish a more expeditious compliance date on an individual basis where it is appropriate. Compliance with the prohibited discharge standards is required immediately upon the effective date of these regulations since these standards are essentially the same as 40 CFR 128.131 and since the deadline for compliance with 40 CFR 128.131 has passed.

OPPORTUNITY FOR PUBLIC COMMENT

Interested persons are encouraged to submit written comments. Comments should be submitted in triplicate to the Environmental Protection Agency, 401 M St., SW., Washington, D.C. 20460, Attention: Distribution Officer, WH-552. Comments on all aspects of the regulation are solicited. In the event comments are in the nature of criticisms as to the adequacy of data which are available, or which may be relied upon by the Agency, comments should identify and, if possible, provide any additional data which may be available and should indicate why such data suggest amendment or modification of the regulation. In the event comments address the approach taken by the Agency in establishing pretreatment standards, EPA solicits suggestions as to what alternative approach should be taken and why and how this alternative better satisfies the detailed requirements of section 307(b) of the Act. The Agency particularly solicits comments on other technologies for treating metal finishing effluents. All comments received on or before September 12, 1977, will be considered.

A copy of all public comments will be available for inspection and copying at the EPA Public Information Reference Unit, Room 2922 (EPA Library), Waterside Mall, 401 M St. SW., Washington, D.C. 20460. A copy of the technical studies and economic studies referred to above, and certain supplementary materials will be maintained at this location for public review and copying. The EPA information regulation, 40 CFR Part 2, provides that a reasonable fee may be charged for copying.

An opportunity for public hearing will be provided shortly after the close of the comment period. The place and time will be announced in a later notice.

SMALL BUSINESS ADMINISTRATION LOANS

Section 8 of the FWPCA authorizes the Small Business Administration, through its economic disaster loan program, to make loans to assist any small business concern in effecting additions to or alteration in equipment, facilities, or methods of operation so as to meet water pollution control requirements under the FWPCA, if the concern is likely to suffer a substantial economic injury without such assistance.

For further details on this Federal loan program write to EPA, Office of Analysis and Evaluation, WH-586, 401 M St. SW., Washington, D.C. 20460.

In consideration of the foregoing, 40 CFR Part 413 is hereby amended as set forth below.

Dated: June 30, 1977.

BARBARA BLUM,
Acting Administrator.

APPENDIX A—TECHNICAL SUMMARY AND
BASIS FOR REGULATIONS

This Appendix summarizes the basis for interim final pretreatment standards for existing sources in the electroplating point source category.

(1) *General methodology.* The pretreatment standards set forth herein were developed in the following manner: The point source category was first studied for the purpose of determining whether separate standards are appropriate for different segments within the category. The raw waste characteristics for each such segment were then identified. This included an analysis of the source, flow and volume of water used in the process employed, the sources of waste and waste waters in the operation and the constituents of all waste water. The compatibility of each raw waste characteristic with municipal treatment works was then considered. Waste water constituents posing pass-through or interference problems for POTW were identified.

The control and treatment technologies existing within each segment were identified. This included identification of each distinct control and treatment technology, including both in-plant and end-of-process technologies, which exist or are capable of being designed for each segment. It also included identification of the effluent level resulting from the application of each of the technologies in terms of the amount of constituents and the chemical, physical, and biological characteristics of pollutants. The problems, limitations, and reliability of each treatment and control technology were also identified. In addition, the nonwater quality environmental impact, such as the effects of the application of such technologies upon other pollution problems, including air, solid waste, noise, and radiation were identified. The energy requirements of each control and treatment technology were determined as well as the cost of the application of such technologies.

The information, as outlined above, was then evaluated in order to determine what levels of technology reflected the application of appropriate pretreatment technologies. In identifying such technologies, various factors were considered. These included the total cost of application of technology, the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, non-water quality environmental impact (including energy requirements) and other factors.

The data upon which the above analysis was performed included EPA permit applications, EPA sampling and inspections, consultant reports, and industry submissions.

(2) *Summary of technical analyses—(1) Categorization.* Previous regulations for the electroplating point source category were subcategorized on the basis of process considerations. Electroplating was separated from metal finishing processes because electroplating always requires the action of an electrical current to deposit a metallic coating on the basis material acting as an electrode. Metal finishing processes may or may not require a current and may or may not deposit a metallic coat on the basis material. The processes of anodizing, coatings, chemical etching and milling are sufficiently different so as to warrant separate subcate-

gories. Anodizing, usually performed on aluminum, converts the surface of the object to the metal oxide. The object serves as the anode. Coatings refer principally to chromating, phosphating, and immersion plating. Each of these processes applies a thin protective coat on the treated object. An electrical current may or may not be applied. Chemical etching and milling involve the dissolution of the basis material.

In restudying the industry for the purpose of establishing pretreatment regulations, it was decided that printed circuit board manufacturing and electroless plating also warrant separate subcategorization because of the unique mixture of electrolytic and electroless plating operations found in these processes. Additionally, these processes produce pollutants which may render normal waste treatment techniques ineffective if proper safeguards are ignored.

Finally, the foregoing subcategorization is consistent with the existing structure of the industry, each subcategory tending to be oriented toward individual markets which do not overlap significantly.

(ii) *Origins and characteristics of waste water pollutants.* Waste water from this industry comes from the pretreatment and post treatment operations as well as the actual metal finishing and electroplating steps. The known significant pollutants and pollutant properties from these operations include pH, total suspended solids, oil and grease, cyanide, chromium, copper, nickel, zinc, cadmium, lead, tin, iron, aluminum, fluoride, phosphorus, silver, palladium, and various precious metals and organic compounds. The present study indicates that many of these pollutants may occur together and that their individual concentrations may exceed 100 mg/l.

Waste water results from the following operations in this industry: (1) Rinsing to remove films of processing solution from the surface of work pieces at the site of each operation, (2) rinsing away spills, (3) washing the air that passes through ventilation ducts so as to remove spray from the air before it is exhausted, (4) dumps of spent solutions, (5) washing of equipment, and (6) cooling water used in heat exchangers to cool solutions in metal finishing processes. Approximately 90 percent of the water consumed is in rinsing. That used as cooling water is usually recycled for rinsing. Operating solutions to be dumped are slowly trickled into the rinse waters prior to treatment.

Many of the pollutants which are generated pose significant interference or pass through problems at POTW. The problems posed by the parameters affected by the present regulations are as follows:

(a) *Cyanide.* Cyanides are widely used in the electroplating industry and are among the most toxic of pollutants commonly discharged in industrial waste waters. Cyanide may exist as free cyanide as hydrocyanic acid, or in a complex, bound in varying degree to metals which are also present in wastes from this industry.

Of these three forms, hydrogen cyanide (HCN) is probably the most acutely lethal compound. HCN dissociates in water to hydrogen ions and cyanide ions in a pH dependent reaction. The cyanide ion is less acutely lethal than HCN. The relationship of pH to HCN shows that as the pH is lowered to below 7 there is less than 1 percent of the cyanide molecules in the form of the CN ion and the rest is present as HCN. When the pH is increased to 8, 9, and 10, the percentage of cyanide present as CN ions is 6.7, 42, and 87 percent, respectively. The toxicity of cyanides is increased by increases in temperature and reductions in oxygen tensions. A temperature rise of 10°C produces a two to

threefold increase in the rate of the lethal action of cyanide.

In the body, the CN ion, except for a small portion exhaled, is rapidly changed into a relatively non-toxic complex (thiocyanate) in the liver and eliminated in the urine. The safe ingested limit of cyanide has been estimated at amounts less than 18 mg/day, part of which comes from normal environmental and industrial exposure. The average fatal dose of HCN by ingestion by man is 50 to 60 mg. The U.S. Public Health Service recommended limit for drinking water was 0.1 mg/l, with a mandatory maximum of 0.2 mg/l; however, the National Interim Primary Drinking Water Regulations do not limit cyanide.

Cyanides are more toxic to fish than to lower aquatic organisms such as midge larval, crustaceans, and mussels. Toxicity to fish is a function of chemical form and concentration, and is influenced by the rate of metabolism (temperature), the level of dissolved oxygen, and pH. In the laboratory free cyanide concentrations ranging from 0.05 to 0.15 mg/l have been proven to be fatal to sensitive fish species including trout, blue gills, and fathead minnows. Levels above 0.2 mg/l are rapidly fatal for many species. Long term sublethal concentrations of cyanide as low as 0.01 mg/l have been shown to affect the ability of fish to function normally, e.g., reproduce, grow, move freely.

Cyanide forms complexes with metal ions present in waste water. All these complexes exist in equilibrium with HCN. Therefore, the concentration of free cyanide present is dependent on the pH of the waste and the relative strength of the metal-cyanide complex. The cyanide complexes of zinc, cadmium, and copper may dissociate to release free cyanide. Also, where these complexes occur together, synergistic effects have been demonstrated. Zinc, copper, and cadmium cyanide are more toxic than an equal concentration of sodium cyanide.

Iron cyanides are tightly bound complexes and are not extremely toxic. However, iron cyanide readily dissociates when exposed to sunlight. This poses problems for cyanide discharges into a POTW. Ferric chloride is commonly added in a POTW as part of the treatment system. Cyanide in the waste water will readily complex with the iron, remain dissolved, pass through the POTW, and subsequently photodecompose, releasing cyanide to the ambient waters.

A second pass-through problem related to cyanide is caused by chlorination of waste waters by the POTW for the purpose of disinfection. Chlorination has been found to convert residual cyanide into highly toxic cyanogen chloride, which is subsequently released to the environment.

Finally, cyanide can also interfere with the operation of a POTW. Threshold inhibiting concentrations for POTW range from 0.1-5.0 mg/l. Inhibition of activated sludge units has been reported between 0.5-5.0 mg/l. Sludge discharges of cyanide have caused complete failure of some POTW.

At lower concentrations, cyanide is partially biodegradable. However, POTW treatment efficiency is highly variable, with some plants reporting less than 30 percent removal.

(b) *Hexavalent chromium.* Chromium exists in two states, Cr(III) and Cr(VI), and it is the latter form that is more toxic. Hexavalent chromium is an irritant, and corrosive, and may be absorbed by inhalation, ingestion, and through the skin. It causes skin ulcers, is a skin sensitizer, can have corrosive effects on the intestinal tract and cause inflammation of the kidneys.

For fish, the range of 96-hour LC50 values is 10-300 mg/l, including 17.6 mg/l for fathead minnows and 118 mg/l for bluegill. Alevin and juvenile chinook salmon, and

rainbow trout are more sensitive to chromium than adults. Concentrations of 0.01-0.20 mg/l Cr(VI) increase alevin mortality and retard growth temporarily. Chromium stress during maturation and spawning is suspected of causing susceptibility to infections. Freshwater zooplankton studies have shown the water flea to be the most sensitive invertebrate to Cr(VI), with a 48-hour LC50 of 0.022 mg/l. It appears that adult fish are relatively tolerant of Cr(VI), but that both freshwater and marine invertebrates are quite sensitive. A Cr(VI) level of 0.001-0.002 mg/l is a safe level for invertebrates and fish. The National Interim Primary Drinking Water Regulations limit chromium in drinking water to not more than 0.05 mg/l.

Cr(VI) is toxic to activated sludge. Threshold inhibitory concentrations range from 1-10 mg/l. Inhibition of activated sludge units has been reported between 5-10 mg/l. In many large cities industrial sources are responsible for 72-100 percent of influent chromium concentrations. Current local sewer ordinance limitations range from 0.05-10 mg/l.

Chromium is moderately removed by POTW. There is a great deal of variability among POTW; the average is around 50 percent removal, but for some systems it is as low as 14 percent.

The chromium which does not pass through a POTW is deposited in the POTW sludge. Concentrations of chromium in sludge varied in one study from 20-10,000 mg/kg, with over half of the measurements less than 100 mg/kg. Sludge in Buffalo, New York had concentrations of 2840 mg/kg before implementation of pretreatment standards, and 1040 mg/kg after the regulations were put into effect. The chromium content in municipal sludge can limit the use of the sludge as a soil conditioner. Chromium is mobile in soil, and may readily leach from land fill, or filter into a water supply. This is a significant problem since a large portion of the Nation's water supply comes from underground sources. One Canadian study compared levels of chromium in soil, and vegetation before and after application of sludge, and found that the concentrations in the soil and the plants increased 50 percent after the sludge use. In some agricultural crops chromium can cause reduced growth or death of the crop. Adverse effects of low concentrations of chromium on corn, tobacco and sugar beets have been documented.

(c) *pH*. Extremes of pH or rapid pH changes can exert stress conditions or kill biological life outright. At a pH greater than 10, disruption of a biological treatment system is likely. At a low pH, corrosion of sewer pipes may be caused. Furthermore, at a pH below 7.5, only small amounts of metals are converted to hydroxide form. Since soluble metals tend to pass through POTW untreated, whereas metal hydroxides will tend to be removed in primary clarifiers, pH levels have an important indirect effect on the significance of metal pass-through problems.

(iv) *Treatment and control technology*. Waste water treatment and control technologies have been studied for this industry to determine the best practicable pretreatment technologies. This study showed that although there are differences between subcategories in the types and quantities of wastes generated, the same general treatment technologies are available to this entire industrial segment.

Electroplating wastes are typically treated by a number of sequential control techniques. General practice includes segregation and individual treatment of the wastes containing cyanide and chrome followed by the removal of metals by pH adjustment and clarification or filtration in a common treatment system. As discussed elsewhere in the

preamble, this regulation does not require removal of the metals. Therefore, the present pretreatment limitations for this industry are based on the following control techniques: The reduction of hexavalent chromium to trivalent chromium, (2) oxidation of cyanides, and (3) pH adjustment to the range of 7.5 to 10. The use of the technologies discussed below formed the basis of the pretreatment standards which are being established. However, this does not preclude the use of other waste water treatment techniques which provide equivalent or better levels of treatment. Alternate treatment technologies are discussed in the development document.

(a) *Chrome reduction*. Reduction of hexavalent chrome to trivalent chrome is widely practiced within the industry and is typically done using sulfur dioxide at a pH of approximately 2.

Seventy-three plants sampled by the Agency had operating chrome reduction facilities. The number of data points from each plant varied from one to one hundred and thirty-three. The data from each plant were averaged into a single number so that all plants were considered equally. Approximately 60 percent of these plants already meet the limitations specified by this regulation.

(b) *Cyanide destruction*. Cyanide must be treated before treatment for metals removal may take place. If this is not done soluble metal cyanide complexes rather than insoluble metal hydroxides will be formed.

Cyanide destruction is generally done in a two-stage oxidation treatment system using chlorine or hypochlorite. The first stage of the reaction oxidizes cyanide to cyanate, and the second, cyanate to nitrogen and carbon dioxide. The amenable cyanide limitations set by this regulation may be achieved by a single stage treatment system that completes the first step in this reaction.

The total cyanide limitation set by this regulation is based on two stage treatment and careful separation of iron, nickel, and certain other metal bearing wastes from the cyanide wastes in order to avoid formation of metal cyanide complexes that are untreatable by established waste treatment technologies. This latter segregation practice is standard good housekeeping procedure and is well established within the industry.

Eighty-five plants sampled during this study had cyanide oxidation facilities. The data from each plant were treated in the same manner as the data on chrome reduction. The limitations set by this regulation based on cyanide oxidation are currently achieved by approximately 60 percent of the data base.

(c) *pH adjustment*. pH control is an established and readily available control technique which was practiced by all of the plants sampled in this study. Typically, the pH is adjusted by adding an acid, such as hydrochloric or sulfuric, or base (lime or caustic) to the waste stream in an agitated tank. pH control is achieved by mixing sufficient amounts of acid or base to the waste to maintain the pH in the desired range.

(iv) *Cost estimates for control of waste water pollutants*. Cost information was obtained from industry, from engineering firms, equipment suppliers, government sources, and available literature whenever possible. Costs based on actual industrial installations or engineering estimates for projected facilities as supplied by contributing companies were also used.

The foregoing cost information was used to develop and verify a costing program which was then used to cost treatment plants for electroplating establishments of various sizes and compositions. Eighty-one model plants were used to characterize the treatment costs associated with this industry.

These models and a summary of the costing methodology are available for public inspection at the EPA Public Information Reference Unit, Room 2922, (EPA Library), Waterside Mall, 401 M Street SW., Washington, D.C. 20460.

(v) *Energy requirements and nonwater quality environment impacts*. The energy costs related to the implementation of these regulations are generally limited to electricity required for liquid transfer pumps and agitator motors.

The major nonwater quality consideration which may be associated with these pretreatment standards is the generation and release to the POTW of metal bearing solid wastes. Use of pH adjustment without metals removal by the industrial user generally result in incidental removal of some fraction of the metals at the POTW. Contamination of the sludge from the POTW with these wastes can limit the sludge disposal alternatives available to the POTW, increase the cost of adequate sludge disposal facilities and prevent the use of the sludge for beneficial purposes such as agriculture. For these reasons, as discussed elsewhere in the preamble, the Agency is currently considering additional limitations which would require removal of these wastes by the industrial user.

Under the present regulations, sludge disposal by the industrial user should not pose a problem.

No significant increase in noise, radiation, air pollution or thermal pollution will result from the implementation of these pretreatment standards.

(3) *Economic summary*. This section summarizes the economic and inflationary impacts of the pretreatment standards for the Electroplating Point Source Category. Executive Orders 11821 and 11949, and OMB Circular A-107 require that major proposals for legislation and promulgation of regulations and rules by agencies of the executive branch be accompanied by a statement certifying that the inflationary impact of the proposal has been evaluated. The inflationary impact of these standards has been evaluated in an economic impact analysis, the results of which are summarized below.

The standards directly affect two kinds of firms: (1) independent establishments performing processes covered by these standards as their primary line of business, and (2) captive establishments performing regulated processes as part of the manufacture of some other product.

The standards are expected to have adverse economic impacts on some independent operations. Although captive establishments were not analyzed in great detail, it is anticipated that the impact on them will be less than on independent operations. The adverse impacts on independent shops are primarily due to capital availability problems that the captives are expected to have to a much lesser degree. In addition, the compliance cost a captive tends to be a much smaller fraction of production cost since it is being spread over more production operations. The specifics of the following discussion refer only to metal finishing job shops.

Total investment costs for the metal finishing job shops to comply with the standards are estimated to be 38 million dollars. This estimate allows for the fact that some jobs have treatment facilities already in place. Annualized compliance costs are estimated to be 15 million dollars per year. This includes both capital charges and operations and maintenance costs.

An estimated 235 job shops representing 5,900 jobs may close as a result of the pretreatment standards. This represents eight percent of the job shops and nine percent of the workers in the job shop sector of the industry.

Prices are expected to rise to account for increased compliance costs. The price of the regulated metal finishing services is expected to rise by an average of between 1.2 and 4.2 percent. Profitability and owners' compensation are expected to drop slightly in the short run for those firms that remain open, but are expected to return to their original levels within a few years of compliance as the industry adjusts to the new abatement requirements.

APPENDIX B.—SUMMARY OF PUBLIC PARTICIPATION

The following are the principal agencies and groups consulted in the development of regulations: (1) Effluent Standards and Water Quality Information Advisory Committee (established under section 515 of the Act); (2) all State and U.S. Territory Pollution Control Agencies; (3) Department of Interior; (4) Department of Commerce; (5) Department of Defense; (6) Department of the Treasury; (7) Water Resources Council; (8) Atomic Energy Commission; (9) Office of Management and Budget; (10) National Association of Metal Finishers; (11) Metal Finishers Suppliers Association; (12) American Electroplating Society; (13) Institute of Printed Circuits; (14) Alberts Plating Works, Inc.; (15) American Hot Dip Galvanizers; (16) American Society of Mechanical Engineers; (17) Hudson River Sloop Restoration, Inc.; (18) The Conservation Foundation; (19) Environmental Defense Fund, Inc.; (20) Natural Resources Defense Council; (21) The American Society of Civil Engineers; (22) Water Pollution Control Federation; (23) National Wildlife Federation; (24) American Institute of Chemical Engineers; (25) New England Interstate Water Pollution Control Commission.

The following responded with comments following publication of the Phase I and Phase II regulations: California State Water Resources Control Board; Delaware River Basin Commission; State of New York Department of Environmental Conservation; Commonwealth of Kentucky Department of Natural Resources and Environmental Protection; State of Ohio Environmental Protection Agency; The Commonwealth of Massachusetts Water Resources Commission; State of Michigan Department of Natural Resources; State of Georgia Department of Natural Resources; City of Philadelphia; Colorado Department of Public Health; Municipality of Metropolitan Seattle; Dallas Water Utilities; State of Connecticut Department of Environmental Protection; Department of Commerce; Department of Defense; Department of Health, Education and Welfare; United States Department of the Interior; API Industries; State of Nebraska; State of Wisconsin; State of Virginia; State of North Carolina; State of Illinois; State of Indiana; Isaac Walton League of America; Environmental Resources Defense Council; General Electric; Ford Motor Company; Hewlett Packard; R. O. Hull and Company; MacDermid, Inc.; Institute of Printed Circuits; Kalamus and Associates, Inc.; Berlinger Plating, Inc.; Chromium Inc.; Honeywell; Alcoa Cad-Nickel Plating Corporation; Frank G. Pallard and Associates; Tri-Country Hard Chrome, Inc.; National Association of Metal Finishers; Bell and Howell; Western Electric; Digital Equipment Corporation; The Plate-All Metal Company; American Electroplaters' Society, Inc.; Metal Finishing Suppliers Association, Inc.; Barnard and Maybeck; Hay Company; Harshaw Chemical Company; Alcoa Company; Frederick Gumm Chemical Company; Scientific Control Laboratories; Milwaukee Plating Company; Raytheon Company; GTE Sylva; Eastman Kodak Company; Chrome-

Rite Company; Graham Plating; Welch Allyn; Bendix Corporation; Gould Corporation; H.I.G., Incorporated; Luster-On Products, Inc.; The Anslu Company; Olin Brass; Photo Chemical Machining Institute; Whirlpool Corporation; Reynolds Metals Company; Monet-Monocraft; American Iron and Steel Institute; Optic-Gage, Inc.; Sperry Univac; Teledyne CAE; Andes, Inc.; Baker Brothers; Rockwell International; Industrial Filter and Pump Manufacturing Company; Rogers Corporation; Control Data Corporation; NRC Corporation; Litton Industry; C. E. Mangle Development Laboratory; Platers Supply Company; Sybron Corporation; Van DerHorst Corporation of America; Pratt and Whitney Division of United Aircraft; Columbus Industrial Association; Keeler Brass Company; Lancy Laboratories; Masters-Electroplating Association; Association of Home Appliance Manufacturers; Oxy Metal Finishing Corporation; E. I. DuPont de Nemours, Inc.; Electronic Industries Association; TRW, Inc.; Burndy Corporation; Jamestown Electroplating Works, Inc.; Douglas and Lomason Company; Revere Copper and Brass, Inc.; Sargent and Company; AMP, Inc.; Products Finishing; Wald Manufacturing Company; United States Water Resources Council; S. K. Williams Company; Manufacturing Jewelers and Silversmith of America, Inc.; True Temper Corporation; Texas Instruments, Inc.; Caterpillar Tractor Company; BASF Wyandotte Corporation; Lea-Ronal, Inc.; Automatic Plating Corporation; American Institute of Chemical Engineers; Aircraft Radio and Control.

The major issues raised by commenters during the development of these regulations and the subsequent resolution of these issues are as follows:

1. Numerous commenters questioned the need for pretreatment except in cases where the POTW fails to meet its permit limits.

By requiring pretreatment only when POTW permit conditions are violated, the Agency would be ignoring serious pollutant problems. Incompatible toxic pollutants introduced into a POTW by an industrial user may pass through the POTW substantially untreated into the receiving water without causing the POTW to violate its BOD, TSS, or pH permit limitations. Pass-through of toxic pollutants can result in accumulations in receiving water sediments with subsequent damage to benthic biota, bioaccumulations of toxic pollutants to unacceptable levels in fish, and other water quality problems.

The Agency believes that the requirements for industrial users of POTW established pursuant to section 307 (b) and (c) of the Act and the standards for POTW pursuant to sections 301 and 304 are separate requirements designed to be achieved concurrently. The pollutant parameters governed by the present standards pass through or interfere with the operation of POTW. These standards, accordingly, apply whether or not a particular POTW is already in compliance with secondary treatment standards or other limitations established in its permit. Conversely, a POTW must comply with applicable standards and limitations even though industries discharging to it have not met pretreatment standards.

2. Many commenters stated that the pretreatment limitations should be expressed in terms of concentration rather than as mass limitations.

The limitations specified in this regulation are expressed in terms of concentration although optional mass-based limitations may be developed later which will allow local enforcement authorities to choose between the two. The Agency has decided to use concentration limits in this regulation because of the ease of enforcing such limits and because of the need to implement the pretreatment

program as quickly as possible. However, dilution may be a problem in some instances. Where dilution is encountered and is of concern, local authorities should consider the need for prohibitions on dilution, inspection of pretreatment and industrial facilities and enforcement of mass limitations.

3. Numerical limitations different than those established by this regulation were proposed by some commenters. The comments focused on the technical feasibility of attaining certain limitations by means of given treatment technologies. The comments also focused on the economic impact of establishing various levels of standards.

The standards set forth in these regulations are based on a careful assessment by the Agency of data concerning the levels of control which can be attained by use of available treatment technologies. Data supplied by the commenters as well as data collected by the Agency was used in developing the standards. Furthermore, the Agency has given careful attention to the possible economic impact of establishing various standards. As discussed elsewhere in the preamble, the decision to develop regulations in two stages is closely related to the Agency's efforts to fully consider the economic situation of different segments of the industry in establishing pretreatment standards. The formulation of the present standards is described in more detail in Appendix A.

Part 413, Chapter I, Subchapter N, Title 40 of the Code of Federal Regulations is amended as follows:

Subpart A—Electroplating Point Source Category

Subpart A, § 413.11 is amended by revising paragraph (d) and adding paragraphs (e), (f), and (g) as follows:

§ 413.11 Specialized definitions.

(d) The term "CN,A" shall mean cyanide amenable to chlorination.

(e) The term "CN,T" shall mean cyanide, total.

(f) The term "Cr,VI" shall mean hexavalent chromium.

(g) The term "electroplating process waste water" shall mean process waste water generated in operations which are subject to regulations for the electroplating point source category.

Subpart A is amended by adding § 413.14 as follows:

§ 413.14 Pretreatment standards for existing sources.

For the purpose of establishing pretreatment standards under section 307 (b) of the Act for a source within the electroplating of common metals subcategory, the provisions of Part 128 of this chapter shall not apply. The pretreatment standards for an existing source within the electroplating of common metals subcategory are set forth below.

(a) No pollutant (or pollutant property) introduced into a publicly owned treatment works shall interfere with the operation or performance of the works. Specifically, the following wastes shall not be introduced into the publicly owned treatment works:

(1) Pollutants which create a fire or explosion hazard in the publicly owned treatment works.

(2) Pollutants which will cause corrosive structural damage to treatment works, but in no case pollutants with a pH lower than 5 unless the works is designed to accommodate such pollutants.

(3) Solid or viscous pollutants in amounts which would cause obstruction to the flow in sewers, or other interference with the proper operation of the publicly owned treatment works.

(4) Pollutants at either a hydraulic flow rate or pollutant flow rate which is excessive over relatively short time periods so that there is a treatment process upset and subsequent loss of treatment efficiency.

(b) In addition to the general prohibitions set forth in paragraph (a) of this section, the following pretreatment standards establish the quality or quantity of pollutants or pollutant properties controlled by this section which may be introduced into a publicly owned treatment works by a source subject to the provisions of this subpart.

(1) For plants discharging less than 40,000 gallons per day of electroplating process waste water the following limitations shall apply:

Pollutant or pollutant property	Pretreatment standard	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Milligrams per liter		
CN, A.....	0.20.....	0.08

(2) For plants discharging 40,000 gallons per day or more of electroplating process waste water the following limitations shall apply:

Pollutant or pollutant property	Pretreatment standard	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Milligrams per liter		
CN, A.....	0.20.....	0.08
CN, T.....	0.64.....	0.24
Cr, VI.....	0.25.....	0.09
pH.....	Within the range 7.5 to 10.0.	

Subpart B—Electroplating of Precious Metals Subcategory

Subpart B, § 413.21 is amended by revising paragraph (d) and adding paragraphs (e), (f), and (g) as follows:

§ 413.21 Specialized definitions.

(d) The term "CN,A" shall mean cyanide amenable to chlorination.

(e) The term "CN,T" shall mean cyanide, total.

(f) The term "Cr,VI" shall mean hexavalent chromium.

(g) The term "electroplating process waste water" shall mean process waste water generated in operations which are subject to regulations for the electroplating point source category.

Subpart B is amended by adding § 413.24 as follows:

§ 413.24 Pretreatment standards for existing sources.

For the purpose of establishing pretreatment standards under Section 307 (b) of the Act for a source within the electroplating of precious metals subcategory, the provisions of Part 128 of this chapter shall not apply. The pretreatment standards for an existing source within the electroplating of precious metals subcategory are set forth below.

(a) No pollutant (or pollutant property) introduced into a publicly owned treatment works shall interfere with the operation or performance of the works. Specifically, the following wastes shall not be introduced into the publicly owned treatment works:

(1) Pollutants which create a fire or explosion hazard in the publicly owned treatment works.

(2) Pollutants which will cause corrosive structural damage to treatment works, but in no case pollutants with a pH lower than 5, unless the works is designed to accommodate such pollutants.

(3) Solid or viscous pollutants in amounts which would cause obstruction to the flow in sewers, or other interference with the proper operation of the publicly owned treatment works.

(4) Pollutants at either a hydraulic flow rate or pollutant flow rate which is excessive over relatively short time periods so that there is a treatment process upset and subsequent loss of treatment efficiency.

(b) In addition to the general prohibitions set forth in paragraph (a) of this section, the following pretreatment standards establish the quality or quantity of pollutants or pollutant properties controlled by this section which may be introduced into a publicly owned treatment works by a source subject to the provisions of this subpart.

(1) For plants discharging less than 40,000 gallons per day of electroplating process waste water the following limitations shall apply:

Pollutant or pollutant property	Pretreatment standard	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Milligrams per liter		
CN, A.....	0.20.....	0.08

(2) For plants discharging 40,000 gallons per day or more of electroplating process waste water the following limitations shall apply:

Pollutant or pollutant property	Pretreatment standard	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Milligrams per liter		
CN, A.....	0.20.....	0.08
CN, T.....	0.64.....	0.24
Cr, VI.....	0.25.....	0.09
pH.....	Within the range 7.5 to 10.0.	

Subpart D—Anodizing Subcategory

Subpart D, § 413.41 is amended by revising paragraph (d) and adding paragraphs (e), (f), and (g) as follows:

§ 413.41 Specialized definitions.

(d) The term "CN,A" shall mean cyanide amenable to chlorination.

(e) The term "CN,T" shall mean cyanide, total.

(f) The term "Cr,VI" shall mean hexavalent chromium.

(g) The term "electroplating process waste water" shall mean process waste water generated in operations which are subject to regulations for the electroplating point source category.

Subpart D is amended by adding section 413.44 as follows:

§ 413.44 Pretreatment standards for existing sources.

For the purpose of establishing pretreatment standards under section 307 (b) of the Act for a source within the anodizing subcategory, the provisions of Part 128 of this chapter shall not apply. The pretreatment standards for an existing source within the anodizing subcategory are set forth below.

(a) No pollutant (or pollutant property) introduced into a publicly owned treatment works shall interfere with the operation or performance of the works. Specifically, the following wastes shall not be introduced into the publicly owned treatment works:

(1) Pollutants which create a fire or explosion hazard in the publicly owned treatment works.

(2) Pollutants which will cause corrosive structural damage to treatment works, but in no case pollutants with a pH lower than 5, unless the works is designed to accommodate such pollutants.

(3) Solid or viscous pollutants in amounts which would cause obstruction to the flow in sewers, or other interference with the proper operation of the publicly owned treatment works.

(4) Pollutants at either a hydraulic flow rate or pollutant flow rate which is excessive over relatively short time periods so that there is a treatment process upset and subsequent loss of treatment efficiency.

(b) In addition to the general prohibitions set forth in paragraph (a) of this section, the following pretreatment standards establish the quality or quantity of pollutants or pollutant properties controlled by this section which may be introduced into a publicly owned treatment works by a source subject to the provisions of this subpart.

(1) For plants discharging less than 40,000 gallons per day of electroplating process waste water the following limitations shall apply:

Pollutant or pollutant property	Pretreatment standard	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Milligrams per liter		
CN, A.....	0.20.....	0.08

(2) For plants discharging 40,000 gallons per day or more of electroplating process waste water the following limitations shall apply:

Pollutant or pollutant property	Pretreatment standard	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Milligrams per liter		
CN, A	0.20	0.08
CN, T	0.64	0.24
Cr, VI	0.25	0.09
pH	Within the range 7.5 to 10.0.	

Subpart E—Coatings Subcategory

Subpart E, § 413.51 is amended by revising paragraph (d) and adding paragraphs (e), (f), and (g) as follows:

§ 413.51 Specialized definitions.

(d) The term "CN,A" shall mean cyanide amenable to chlorination.

(e) The term "CN,T" shall mean cyanide, total.

(f) The term "Cr,VI" shall mean hexavalent chromium.

(g) The term "electroplating process waste water" shall mean process waste water generated in operations which are subject to regulations for the electroplating point source category.

Subpart E is amended by adding § 413.54 as follows:

§ 413.54 Pretreatment standards for existing sources.

For the purpose of establishing pretreatment standards under section 307 (b) of the Act for a source within the coatings subcategory, the provisions of Part 128 of this chapter shall not apply. The pretreatment standards for an existing source within the coatings subcategory are set forth below.

(a) No pollutant (or pollutant property) introduced into a publicly owned treatment works shall interfere with the operation or performance of the works. Specifically, the following wastes shall not be introduced into the publicly owned treatment works:

(1) Pollutants which create a fire or explosion hazard in the publicly owned treatment works.

(2) Pollutants which will cause corrosive structural damage to treatment works, but in no case pollutants with a pH lower than 5, unless the works is designed to accommodate such pollutants.

(3) Solid or viscous pollutants in amounts which would cause obstruction to the flow in sewers, or other interference with the proper operation of the publicly owned treatment works.

(4) Pollutants at either a hydraulic flow rate or pollutant flow rate which is excessive over relatively short time periods so that there is a treatment process upset and subsequent loss of treatment efficiency.

(b) In addition to the general prohibitions set forth in paragraph (a) of this section, the following pretreatment standards establish the quality or quantity of pollutants or pollutant properties controlled by this section which may be introduced into a publicly owned treatment works by a source subject to the provisions of this subpart.

(1) For plants discharging less than 40,000 gallons per day of electroplating process waste water the following limitations shall apply:

Pollutant or pollutant property	Pretreatment standard	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Milligrams per liter		
CN, A	0.20	0.08

(2) For plants discharging 40,000 gallons per day or more of electroplating process waste water the following limitations shall apply:

Pollutant or pollutant property	Pretreatment standard	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Milligrams per liter		
CN, A	0.20	0.08
CN, T	0.64	0.24
Cr, VI	0.25	0.09
pH	Within the range 7.5 to 10.0.	

Subpart F—Chemical Etching and Milling Subcategory

Subpart F, § 413.61 is amended by revising paragraph (d) and adding paragraphs (e), (f), and (g) as follows:

§ 413.61 Specialized definitions.

(d) The term "CN,A" shall mean cyanide amenable to chlorination.

(e) The term "CN,T" shall mean cyanide, total.

(f) The term "Cr,VI" shall mean hexavalent chromium.

(g) The term "electroplating process waste water" shall mean process waste water generated in operations which are subject to regulations for the electroplating point source category.

Subpart F is amended by adding § 413.64 as follows:

§ 413.64 Pretreatment standards for existing sources.

For the purpose of establishing pretreatment standards under section 307 (b) of the Act for a source within the chemical etching and milling subcategory, the provisions of Part 128 of this chapter shall not apply. The pretreatment standards for an existing source within the chemical etching and milling subcategory are set forth below.

(a) No pollutant (or pollutant property) introduced into a publicly owned treatment works shall interfere with the operation or performance of the works. Specifically, the following wastes shall not be introduced into the publicly owned treatment works:

(1) Pollutants which create a fire or explosion hazard in the publicly owned treatment works.

(2) Pollutants which will cause corrosive structural damage to treatment works, but in no case pollutants with a pH lower than 5.0, unless the works is designed to accommodate such pollutants.

(3) Solid or viscous pollutants in amounts which would cause obstruction to the flow in sewers, or other interference with the proper operation of the publicly owned treatment works.

(4) Pollutants at either a hydraulic flow rate or pollutant flow rate which is excessive over relatively short time periods so that there is a treatment process upset and subsequent loss of treatment efficiency.

(b) In addition to the general prohibitions set forth in paragraph (a) of this chapter, the following pretreatment standards establish the quality or quantity of pollutants or pollutant properties controlled by this section which may be introduced into a publicly owned treatment works by a source subject to the provisions of this subpart.

(1) For plants discharging less than 40,000 gallons per day of electroplating process waste water the following limitations shall apply:

Pollutant or pollutant property	Pretreatment standard	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Milligrams per liter		
CN, A	0.20	0.08

(2) For plants discharging 40,000 gallons per day or more of electroplating process waste water the following limitations shall apply:

Pollutant or pollutant property	Pretreatment standard	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Milligrams per liter		
CN, A	0.20	0.08
CN, T	0.64	0.24
Cr, VI	0.25	0.09
pH	Within the range 7.5 to 10.0.	

40 CFR Part 413 is amended by adding a new Subpart G as follows:

Subpart G—Electroless Plating

Sec.

413.70 Applicability; description of the electroless plating subcategory.

413.71 Specialized definitions.

413.72-413.73 [Reserved]

413.74 Pretreatment standards for existing sources.

AUTHORITY: Sec. 307(b), Federal Water Pollution Control Act, as amended (33 U.S.C. 1251, 1317(b)); 86 Stat. 816 et seq.; Pub. L. 92-500 (the Act).

Subpart G—Electroless Plating**§ 413.70 Applicability; description of the electroless plating subcategory.**

The provisions of this subpart are applicable to discharges resulting from the electroless plating of a metallic layer on a metallic or nonmetallic substrate.

§ 413.71 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "electroless plating" shall mean the deposition of conductive material from an autocatalytic plating solution without application of electrical current.

(c) The term "sq m" ("sq ft") shall mean the area plated expressed in square meters (square feet).

(d) The term "operation" shall mean any step in the electroless plate process which is followed by a rinse and in which a metal is deposited on a basis material.

(e) The term "CN,A" shall mean cyanide amenable to chlorination.

(f) The term "CN,T" shall mean cyanide, total.

(g) the term "Cr, VI" shall mean hexavalent chromium.

(h) The term "electroplating process waste water" shall mean process waste water generated in operations which are subject to regulations for the electroplating point source category.

§ 413.72 [Reserved]**§ 413.73 [Reserved]****§ 413.74 Pretreatment standards for existing sources.**

For the purpose of establishing pretreatment standards under section 307 (b) of the Act for a source within the electroless plating subcategory, the provisions of part 128 of this chapter shall not apply. The pretreatment standards for an existing source within the electroless plating subcategory are set forth below.

(a) No pollutant (or pollutant property) introduced into a publicly owned treatment works shall interfere with the operation or performance of the works. Specifically, the following wastes shall not be introduced into the publicly owned treatment works:

(1) Pollutants which create a fire or explosion hazard in the publicly owned treatment works.

(2) Pollutants which will cause corrosive structural damage to treatment works, but in no case pollutants with a pH lower than 5.0, unless the works is designed to accommodate such pollutants.

(3) Solid or viscous pollutants in amounts which would cause obstruction to the flow in sewers, or other interference with the proper operation of the publicly owned treatment works.

(4) Pollutants at either a hydraulic flow rate or pollutant rate which is excessive over relatively short time periods so that there is a treatment process upset and subsequent loss of treatment efficiency.

(b) In addition to the general prohibitions set forth in paragraph (a) of this section, the following pretreatment standards establish the quality or quantity of pollutants or pollutant properties controlled by this section which may be introduced into a publicly owned treatment works by a source subject to the provisions of this subpart.

(1) For plants discharging less than 40,000 gallons per day of electroplating process waste water the following limitations shall apply:

Pollutant or pollutant property	Pretreatment standard	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Milligrams per liter		
CN, A.....	0.30.....	0.06

(2) For plants discharging 40,000 gallons per day or more of electroplating process waste water the following limitations shall apply:

Pollutant or pollutant property	Pretreatment standard	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Milligrams per liter		
CN, A.....	0.20.....	0.06
CN, T.....	0.64.....	0.24
Cr, VI.....	0.23.....	0.09
pH.....	Within the range 7.5 to 10.0.	

Subpart H—Printed Circuit Board

Sec.

413.80 Applicability; description of the printed circuit board subcategory.**413.81 Specialized definitions.**

413.82-413.83 [Reserved]

413.84 Pretreatment standards for existing sources.

AUTHORITY:—Sec. 307(b), Federal Water Pollution Control Act, as amended (33 U.S.C. 1251, 1317(b)); 86 Stat. 816 et seq.; Pub. L. 92-500 (the Act).

Subpart H—Printed Circuit Board**§ 413.80 Applicability; description of the printed circuit board subcategory.**

The provisions of this subpart are applicable to the manufacture of printed circuit boards including all manufacturing operations required or used to convert an insulating substrate to a finished printed circuit board. The provisions set forth in other subparts of this category are not applicable to the manufacture of printed circuit boards.

§ 413.81 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "printed circuit board" shall mean any insulating carrier which has circuitry adhered thereto or encapsulated therein primarily for the purpose of interconnecting electric and electronic components.

(c) The term "sq m" ("sq ft") shall mean the area of the printed circuit board immersed in an aqueous process bath.

(d) The term "operation" shall mean any step in the printed circuit board manufacturing process wherein the board is immersed in an aqueous process bath which is followed by a rinse.

(e) The term "CN,A" shall mean cyanide amenable to chlorination.

(f) The term "CN,T" shall mean cyanide, total.

(g) The term "Cr, VI" shall mean hexavalent chromium.

(h) The term "electroplating process waste water" shall mean process waste water generated in operations which are subject to regulations for the electroplating point source category.

§ 413.82 [Reserved]**§ 413.83 [Reserved]****§ 413.84 Pretreatment standards for existing sources.**

For the purpose of establishing pretreatment standards under section 307 (b) of the Act for a source within the printed circuit board subcategory, the provisions of Part 128 of this chapter shall not apply. The pretreatment standards for an existing source within the printed circuit board subcategory are set forth below.

(a) No pollutant (or pollutant property) introduced into a publicly owned treatment works shall interfere with the operation or performance of the works. Specifically, the following wastes shall not be introduced into the publicly owned treatment works:

(1) Pollutants which create a fire or explosion hazard in the publicly owned treatment works.

(2) Pollutants which will cause corrosive structural damage to treatment works, but in no case pollutants with a pH lower than 5.0, unless the works is designed to accommodate such pollutants.

(3) Solid or viscous pollutants in amounts which would cause obstruction to the flow in sewers, or other interference with the proper operation of the publicly owned treatment works.

(4) Pollutants at either a hydraulic flow rate or pollutant flow rate which is excessive over relatively short time periods so that there is a treatment process upset and subsequent loss of treatment efficiency.

(b) In addition to the general prohibitions set forth in paragraph (a) of this section, the following pretreatment standards establish the quality or quantity of pollutants or pollutant properties

controlled by this section which may be introduced into a publicly owned treatment works by a source subject to the provisions of this subpart.

(1) For plants discharging less than 40,000 gallons per day of electroplating process waste water the following limitations shall apply:

Pollutant or pollutant property	Pretreatment standard	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Milligrams per liter		
CN, A.....	0.20.....	0.08

(2) For plants discharging 40,000 gallons per day or more of electroplating process waste water the following limitations shall apply:

Pollutant or pollutant property	Pretreatment standard	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Milligrams per liter		
CN, A.....	0.20.....	0.08
CN, T.....	0.64.....	0.24
Cr, VI.....	0.25.....	0.09
pH.....	Within the range 7.5 to 10.0.	

[FR Doc.77-19823 Filed 7-11-77; 8:45 am]

[PRL 755-2]

PART 436—MINERAL MINING AND PROCESSING POINT SOURCE CATEGORY

Final Rule Making

AGENCY: Environmental Protection Agency.

ACTION: Final rule.

SUMMARY: These regulations limit the discharge of pollutants into navigable waters from existing crushed stone, construction sand and gravel, industrial sand, phosphate rock and mining operations. The Federal Water Pollution Control Act requires these regulations to be issued. These limitations will be incorporated in National Pollutant Discharge Elimination System (NPDES) permits issued by the Federal EPA or by States with approved programs. The effect of these regulations will be to require treatment of waste water discharged from the above types of operations in the mineral mining industry.

EFFECTIVE DATE: August 11, 1977.

FOR FURTHER INFORMATION CONTACT:

Harold B. Coughlin, Effluent Guidelines Division (WH-552), Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460, 202-426-2560.

SUPPLEMENTARY INFORMATION:

BACKGROUND

On October 16, 1975 (40 FR 48652), and June 10, 1976 (41 FR 23552), EPA promulgated interim final effluent limitations based on the application of "best practicable control technology currently available" (BPT) for 40 CFR Part 436—Mineral Mining and Processing Point Source Category. On June 10, 1976, the Agency also proposed effluent limitations based on the application of "best available technology economically achievable" (BAT) and standards of performance and pretreatment standards for new sources (41 FR 23561). The final regulations set forth below amend the June 10, 1976 interim final regulations, and will be applicable to existing point sources for the crushed stone subcategory (Subpart B), the construction sand and gravel subcategory (Subpart C), the industrial sand subcategory (Subpart D), and the phosphate rock subcategory (Subpart R).

The Agency is not promulgating pretreatment standards for existing sources or finalizing the pretreatment standards for new sources which were proposed in the June 10, 1976 interim final regulations because there are no known situations in which such standards would be applicable. Should information become available which indicates there is a need for such standards, then regulations will be issued. The regulations based upon best available technology economically achievable (BAT) and new source performance standards (NSPS) which were proposed on June 10, 1976 are also not being promulgated at this time because the Agency is currently reviewing the regulatory approach which should be taken in all mining categories with respect to BAT effluent limitations and new source performance standards.

LEGAL AUTHORITY

These regulations are promulgated pursuant to sections 301(b) and 304(b) of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251, 1311 (b), 1314(b); 86 Stat. 816 et seq.; Pub. L. 92-500) (the Act). Section 301(b)(1) requires the attainment of effluent limitations based on the application of "best practicable control technology currently available" (BPT) by July 1, 1977. Section 304(b)(1) provides for the promulgation of such effluent limitations and specifies the factors to be taken into account in assessing BPT in compliance with section 301(b)(1).

SUMMARY AND BASIS OF REGULATIONS

Effluent limitations are established in these regulations for total suspended solids (TSS) and pH. The regulations govern discharges of process generated waste water pollutants and discharges of mine dewatering pollutants by existing sources in all four subcategories listed above.

The best practicable control technology currently available for control-

ling the discharge of process generated waste water pollutants includes recycle of waste water for use in processing. In addition, excess process water and mine water can be treated prior to discharge by settling and, if necessary, occasional use of flocculation. Available technologies are discussed in detail in Appendix A. As in all other mining categories, the limitations for these four subcategories are applied on a concentration basis (mg/l) rather than a mass basis (lbs/ton of product) (except for industrial sand operations using hydrogen flotation), because no correlation between water usage and production can be established. The method of analyses for all parameters shall conform to the methods specified in "Guidelines Establishing Test Procedures for the Analysis of Pollutants," 40 CFR Part 136, published in 41 FR 52780 (December 1, 1976).

Additional waste water pollutants which may be present in some instances are asbestos fibers, radium 226, and phosphates. Control of total suspended solids will have the effect of controlling these pollutants to some extent. Existing treatment systems are not generally designed to specifically remove these pollutants, and additional treatment of these pollutants will not be practicable for most operations. Consequently, specific limitations for these pollutants are not established at this time. The permit issuing authority could, however, impose specific limitations on such pollutants on a case-by-case basis, if practicable technology were nevertheless shown to be available in the particular instance. Furthermore, the permit must, of course, include any additional limitations on such pollutants which are necessary to meet applicable water quality standards.

A report entitled "Development Document for Interim Final Effluent Limitations Guidelines and New Source Performance Standards for the Mineral Mining and Processing Point Source Category" was issued at the time that the interim final BPT regulations for the four subcategories listed above were published on June 10, 1976. A supplementary report on the possible economic effects of the regulations was also issued at that time. Comments on both reports were solicited by the Agency.

After the interim regulations were issued, the Agency collected and analyzed additional data on the four subcategories which are subject to these final regulations. A report entitled "Development Document for Final Effluent Limitations Guidelines and New Source Performance Standards for the Mineral Mining and Processing Point Source Category" details the analyses undertaken in support of the final regulation set forth here. A supplementary analysis on the possible economic effects of the final regulations has also been prepared. Copies of both reports are available for inspection at the EPA Public Information Reference Unit, Room 2922 (EPA Library), Waterside Mall, 401 M St., SW., Washington, D.C., at all EPA regional offices, and at State

water pollution control offices. Copies of both documents are being sent to persons or institutions affected by the final regulation or who have placed themselves on a mailing list for this purpose (see EPA's Advance Notice of Public Review Procedures, 38 FR 21202, August 6, 1973). Further copies of the Development Document will be available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Copies of the economic analysis document will be available through the National Technical Information Service, Springfield, Va. 22151.

The technical and economic analyses undertaken in support of these regulations are discussed in detail in Appendix A to this preamble. Significant changes which have been made in the interim final regulations are discussed below under Summary of Major Changes.

SUMMARY OF PUBLIC PARTICIPATION

At the time that interim final regulations were issued, public comment on the regulations was solicited. In addition, a public meeting was held in Washington, D.C. on December 2, 1976, to enable further public participation. As a result of comments received following publication of the interim final regulations and further consideration by the Agency, the limitations originally established have been reevaluated. A summary of public participation in this rulemaking, public comments, and the Agency's consideration and response is contained in Appendix B of this preamble.

SUMMARY OF MAJOR CHANGES

As a result of the comments and information which were received following promulgation of the interim final regulations, and as a result of additional study by the Agency, a number of changes are being made in the interim final regulations.

The interim final regulations required no discharge of process generated waste water pollutants by operations in the crushed stone subcategory, the construction sand and gravel subcategory, and the industrial sand subcategory. This limitation was imposed on the grounds that large numbers of operations currently recycle all water used in processing and have no continuous discharge of process generated waste water pollutants. However, it is apparent that a number of the facilities which currently recycle experience occasional discharges due to natural occurrences, such as rainfall or seepage. Consequently, the regulations have been changed to allow a limited discharge of process generated waste water pollutants from operations which recycle water for processing, although systems which do not recycle process water will remain subject to a no discharge requirement. These limitations continue to be based on the Agency's view that the best practicable control technology currently available for these industries includes recycling of process water.

The interim final regulations would have required the crushed stone industry to treat mine water and process water in

separate treatment systems in order to discharge mine water. Under the new regulations for the crushed stone, industrial sand, and construction sand and gravel subcategories, a facility which recycles process water may discharge from a treatment system in which process water and mine water are commingled. Facilities which do not recycle process water may not discharge from such a combined treatment system, since all discharges from the system are subject to the limitations on process generated waste water pollutants.

The limitations on total suspended solids (TSS) in both mine dewatering and process water discharges have also been changed for the crushed stone, construction sand and gravel, and industrial sand subcategories. The limitations for these subcategories now include an average limitation for thirty consecutive days of 25 mg/l for TSS. The daily maximum limitation has been increased from 30 mg/l to 45 mg/l. These changes were made because additional data collected since the promulgation of the interim final regulations indicated that the day-to-day variations in discharges from individual operations were greater than initially found, and because the additional information collected provided the broader data base necessary for formulating a monthly average limitation.

The mine dewatering definition for these three subcategories has also been changed to indicate that only water which has collected or been impounded in the mine and is removed through the efforts of the mine operator will be subject to the limitations on mine dewatering discharges. This change clarifies the Agency's intentions regarding discharges of storm water runoff. Discharges due to storm water runoff are subject to the limitations imposed in these regulations for process water or mine water pollutants only if the runoff enters the treatment systems for process water or mine water. Storm water which does not enter a treatment system is not covered by this regulation. Storm water can be kept out of treatment systems by use of berms or storm water diversion ditching.

The process water limitations for the phosphate rock subcategory have also been changed. The interim final regulations imposed a no discharge requirement on process generated waste water pollutants in ore transport water, pump seal water, air scrubber water and ore wash water. These types of water can be recycled. Pollutants in waste water from the flotation processes of this industry, by contrast, were not subject to a no discharge requirement because recycling waste water in the flotation circuit causes loss in recovery. The regulations further provided for monitoring of discharges when the various waste water streams were commingled. The Agency concluded that these regulations, while reasonable, created excessively complex enforcement problems. Waste water streams are often combined within the plant and cannot be separated without expensive rearrangement of existing piping. Enforcement under the interim final regulations would be difficult even if ex-

tensive site visits were carried out unless the waste streams were separated. Consequently, a single set of limitations has been imposed in the final regulation for all waste streams. The effect of this change is not expected to be significant, since most of the facilities covered are already recycling process water to the extent possible.

The TSS limitations for the phosphate rock subcategory have been reevaluated in the light of comments and additional data received, but they have not been changed. Several commenters suggested that the limitations should be more stringent. It was suggested that data submitted with the comments support more stringent limitations. In the Agency's judgment, more stringent limitations are not warranted. First, the commenters excluded from the data base certain plants with high TSS values in their discharges. The high TSS values were said to be due to algae growth resulting from high phosphorus levels in the plants' intake water. The contamination of the intake water was said to be caused by upstream fertilizer-chemical plants. The Agency does not agree that the high TSS levels found should be excluded from the data base on the grounds suggested. Many plants experience high rates of algae growth in their settling ponds either because of the nature of the intake water, or for other reasons, such as the presence of nitrogen in the waste water (ammonia is used as a processing reagent), the warm temperatures in southern regions, or the shallowness of the pond. The age of the pond also appears to be an important factor. While new treatment ponds in this industry experience relatively low algae growth, they gradually become eutrophic, and the TSS levels in the discharges increase. Volatile suspended solids then comprise the majority of the TSS discharged, as many of the samples which were taken indicate. Consequently, the Agency feels that the operations excluded by the commenters from the data base should be considered in assessing BPT and in effluent limitations that can be attained by using such technology.

Secondly, the Agency believes that more stringent limitations would force many of the plants in this industry to use groundwater rather than surface water for processing in order to prevent algae growth in the treatment system that is caused by upstream contamination of intake water. The commenters have failed to address the serious groundwater depletion problems in the part of Florida where most of the mines are located, and which would be seriously aggravated if more stringent limitations on TSS were imposed on the industry. At the present time, therefore, the Agency does not believe that the costs to this industry of converting to alternative water sources would be justified, particularly in the light of the environmental harm that would be caused by further depletion of groundwater. However, the Agency also believes that the quality of river water used for processing will improve as upstream chemical plants achieve effluent

limitations imposed in their permits. Limitations for phosphate rock operations may therefore need to be reevaluated at a later date under section 301(d) of the Act if TSS discharges are reduced as a result of cleaner intake water.

ECONOMIC ANALYSES

The capital cost for industry to comply with these regulations is estimated to be approximately \$25 million. The annualized cost of complying (which includes amortization, operating and maintenance expense) is approximately \$10.4 million. No significant economic impacts on the phosphate and industrial sand categories are anticipated. Of the crushed stone industry's 4800 plants, approximately 78 will switch from selling wet processed to dry processed stone, and perhaps 35 small operations in metropolitan areas may close, with an associated loss of 60 jobs. Depending upon local market conditions, prices could remain stable or increase by up to eight percent. For sand and gravel, perhaps 26 out of 5150 operations may close, with an attendant loss of up to 86 jobs. Prices may increase about \$0.04 per ton (2.5%) in large markets and by up to 10 percent in small metropolitan or rural markets. In both the crushed stone and sand and gravel categories, it is expected that more closures would occur in large metropolitan areas and therefore not have significant community effects.

The costs and resultant economic impacts of the regulations are more fully discussed in Appendix A to this preamble and are substantially detailed in the economic analysis document. The Environmental Protection Agency has determined that this regulation does not require preparation of an Economic Impact Analysis under Executive Orders 11821 and 11949 and OMB Circular A-107. However, the economic analysis prepared in support of this regulation fulfills the requirements of these Executive Orders and Circular A-107.

SMALL BUSINESS ADMINISTRATION LOANS

Section 8 of the FWPCA authorizes the Small Business Administration, through its economic disaster loan program, to make loans to assist any small business concerns in effecting additions to or alterations in their equipment, facilities, or methods of operation so as to meet water pollution control requirements under the FWPCA, if the concern is likely to suffer a substantial economic injury without such assistance.

For further details on this Federal loan program write to EPA, Office of Analysis and Evaluation, WH-586, 401 M St. SW., Washington, D.C. 20460.

In consideration of the foregoing, 40 CFR Part 436 is hereby amended as set forth below.

Dated: June 27, 1977.

BARBARA BLUM,
Acting Administrator.

APPENDIX A—TECHNICAL SUMMARY AND BASIS FOR REGULATIONS

This Appendix summarizes the basis of final effluent limitations guidelines for ex-

isting sources to be achieved by the application of the best practicable control technology currently available.

(1) *General methodology.* The effluent limitations guidelines set forth herein were developed in the following manner: The point source category was first studied for the purpose of determining whether separate limitations are appropriate for different segments within the category. This analysis included a determination of whether differences in raw material used, product produced, manufacturing process employed, age, size, waste water constituents and other factors require development of separate limitations for different segments of the point source category. The raw waste characteristics for each such segment were then identified. This included an analysis of the source, flow and volume of water used in the process employed, the sources of waste and waste waters in the operation and the constituents of all waste water. The constituents of the waste waters which should be subject to effluent limitations were identified.

The control and treatment technologies existing within each segment were identified. This included an identification of each distinct control and treatment technology, including both in-plant and end-of-process technologies, which is existent or capable of being designed for each segment. It also included an identification of, in terms of the amount of constituents and the chemical, physical, and biological characteristics of pollutants, the effluent level resulting from the application of each of the technologies. The problems, limitations and reliability of each treatment and control technology were also identified. In addition, the nonwater quality environmental impact, such as the effects of the application of such technologies upon other pollution problems, including air, solid waste, noise and radiation, were identified. The energy requirements of each control and treatment technology were determined, as well as the cost of the application of such technologies.

The information, as outlined above, was then evaluated in order to determine what levels of technology constitute the "best practicable control technology currently available." In identifying such technologies, various factors were considered. These included the total cost of application of the technology in relation to the effluent reduction benefits to be achieved from such application, the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, nonwater quality environmental impact (including energy requirements) and other factors.

The data upon which the above analysis was performed included EPA NPDES permit applications, EPA NPDES permits, EPA sampling and inspections, consultant reports, and industry submissions.

(2) *Summary of conclusions with respect to the crushed stone subcategory (Subpart B), the construction sand and gravel subcategory (Subpart C), the industrial sand subcategory (Subpart D) and the phosphate rock subcategory (Subpart R) of the mineral mining and processing point source category.*

(i) *Categorization.* For the purpose of studying waste treatment and establishing effluent limitations guidelines and standards of performance, the mineral mining and processing category was divided into subcategories. These subcategories consist of specific mineral types or classes of minerals. In addition, within each subcategory a determination was made whether subparts required different effluent limitations based on type of ore, method of ore transport, type of processing, use of wet air emissions control devices, type of product, and ground

water intrusion and runoff into the mine and process waste water impoundments.

For the four commodities affected by the present regulations, crushed stone, construction sand and gravel, industrial sand, and phosphate rock, the processing techniques were sufficiently different to form four separate subcategories. Within each subcategory consideration was given to each of the types of discharges given in the following list.

Crushed stone: dry processing discharges, wet processing discharges, flotation processing discharges, mine dewatering discharges, area runoff (point source) discharges.

Construction sand and gravel: dry processing discharges; wet processing discharges; dredging with land processing, dredging water discharges, other process water discharges; mine dewatering discharges; area runoff (point source) discharges.

Industrial sand: dry processing discharges; wet processing discharges; acid and alkali flotation discharges, acid leaching discharges, hydrofluoric acid (HF) flotation discharges; other process water discharges; mine dewatering discharges; area runoff (point source) discharges.

Phosphate rock: flotation processing discharges, other processing discharges, mine dewatering discharges, area runoff (point source) discharges.

Upon completion of the technical and economic analysis, it was concluded that several types of process waste water discharges within three subcategories should be governed by a single set of limitations in light of the feasibility of achieving the same levels of pollutants in the discharges. Hence, discharges from dry, wet, and flotation processing of construction sand and gravel are subject to the same set of limitations. Discharges from dry and wet processing of construction sand and gravel are similarly subject to the same set of limitations. Discharges from dry, wet, and acid and alkali flotation processing of industrial sand are also subject to the same limitations. However, it was concluded that discharges from acid leaching and HF flotation in the industrial sand subcategory should be considered separately due to differences in the nature of the discharge. Separate limitations on process generated waste water pollutants are established for operations using HF flotation, but no national limitations are established at this time for operations using acid leaching, due to lack of adequate data.

Dredge water discharges from land-based construction sand and gravel process plants are not regulated at this time. Dredging and on-board processing in navigable waters are regulated by the Corps of Engineers pursuant to section 404 of the Act and are not subject to these regulations. Point source discharges of area runoff are likewise not covered in this regulation unless the runoff enters process or mine dewatering waste water impoundments.

(ii) *Waste characteristics.* The known significant pollutants and pollutant properties in the four subcategories covered include pH and total suspended solids. Fluoride is present in the process waste waters of operations in the industrial sand subcategory which use HF flotation. In isolated cases asbestos-form pollutants have been found in the crushed stone industry. Fluoride, phosphate and radium 226 exist in the waste waters from the phosphate rock subcategory.

(iii) *Origin of waste water pollutants.* The sources of mine dewatering pollutants include surface runoff of rain water into the mine and mine water treatment systems, ground water seepage and infiltration into the mine. The quantity of mine water discharged is either unrelated or only indirectly related to the mine production rate. As in

other mining categories, therefore, effluent limitations are expressed in terms of concentration rather than units of production.

Process generated waste water includes ore transport water, ore and product wash water, dust suppression water, classification water, heavy media separation water, flotation water, solution water, air emissions control equipment water, and floor and equipment wash down water. Where production could be related to process water flow, the effluent limitations are tied to the units of production. In cases where uncontrolled volumes of water, such as mine dewatering, are normally mixed with process water or in cases where process water flow cannot be related to the rate of production, the effluent limitations for process waste water are expressed in terms of concentration.

(iv) *Treatment and control technology.* Waste water treatment and control technologies have been studied for each subcategory of the industry to determine what is the best practicable control technology currently available. The following discussion of treatment technology provides the basis for the effluent limitations guidelines. This discussion does not preclude the selection of other waste water treatment alternatives which provide equivalent or better levels of treatment.

(1) *Treatment for the crushed stone subcategory.* Dry processing plants will usually have no discharge of process generated waste water, although water may be used, such as for dust suppression. Water at wet processing plants is used to wash the stone and control dust. The waste water, if clarified in a settling pond, is usually of sufficient quality that it can be recirculated directly to the process, and no discharge will be necessary unless water from other sources enters the treatment system. Similarly, at facilities that use flotation, for instance, to obtain calcite, the waste flotation water can be used to wash the stone. Excess waste water from the treatment impoundment may result from precipitation or from surface runoff or because the mine water and process water are combined for treatment in one common treatment system. Waste water from these processes of the crushed stone industry in excess of that amount of water which is recycled for process water purposes may be treated and discharged. Treatment for this excess waste water consists of settling in one or more settling ponds, and possible use of flocculants. A series of ponds is recommended in order to improve the settling efficiency and allow for dredging of the primary pond without having to discontinue recycle. The use of flocculants in the secondary ponds is sometimes practiced. For land-based processors, particularly small plants, treatment other than single settling ponds followed by recycle may not be an economically viable technology. The limitations, therefore, are based on this technology. (Level C in the Development Document.)

Due to the nature of the hard rock mined in crushed stone quarries, water that collects on the quarry floor is quite clear. This water can originate from direct rainfall or ground water seepage into the quarry. It is poor practice to allow surface runoff to enter the quarry, and diversion ditches or berms can prevent this. Quarry water is collected in a low spot or sump, which is rarely designed to efficiently remove suspended solids. From this sump quarry water is pumped to the surface and discharged. This water is typically of excellent purity unless poor practices are followed, such as positioning the pump near the sump influent, or allowing mine vehicles to drive through flooded areas.

Based on the available data on quarries, the Agency has established TSS limitations of 45

mg/l daily maximum and 25 mg/l monthly average. In instances where the mine water quality does not already meet these limitations, the Agency requires that the mine provide adequate settling time. The sump pump can be positioned opposite the sump influent. Pumping may be temporarily stopped to allow the water to clear. In some cases a settling pond at ground level can be built to provide additional settling time. The intermittent use of flocculants is a possible alternative. Treatment of mine water in a common treatment system with process water is another means of treatment. Recycle of process water from a combined treatment system must be practiced in order to discharge from this combined treatment system. The process water discharge limitations would then apply to the waste water discharged.

(2) *Treatment for the construction sand and gravel subcategory.* Water at wet processing plants is used for ore washing, dust suppression, heavy media separation and classification. As in the crushed stone subcategory, process waste water can be recycled after clarification in settling ponds. Waste water in excess of that amount of water which is recycled for process water purposes may be treated and discharged.

In dredged ponds that are not navigable waters, process waste water is almost always returned to the ponds untreated to maintain the water level. Discharges from these ponds to navigable waters do not normally occur. Discharges from these ponds due to sub-surface ground water intrusion are considered to be mine dewatering.

For dredging operations in navigable waters, slurry water pumped ashore is not regulated at this time. Few facilities operate in this mode. Land-based processing facilities that do not slurry-transport from the dredge can recycle process waste water as do other land-based non-dredge operations.

The discussion of methods for controlling the discharge of process generated waste water pollutants set forth above in reference to the crushed stone subcategory also applies to the construction sand and gravel subcategory. The limitations on mine dewatering can be met by the use of well designed and operated settling ponds. Intermittent use of flocculants may be necessary in a few cases. If recycle of process waste water is practiced, mine water may be combined with process water in a common treatment system. The subsequent discharge would be subject to the limitations on process generated waste water pollutants.

(3) *Treatment for the industrial sand subcategory.* This subcategory resembles the construction sand and gravel subcategory except that additional beneficiation is done. The same technologies for recycling and settling are used in this subcategory as in the construction sand and gravel subcategory, and the same discussion applies here. Certain operations require fresh water make-up, but the excess is usually lost through evaporation, product drying and sludge disposal. Excess water that cannot be recycled may be treated and discharged. Treatment of this waste water would usually consist of settling in ponds and possible use of flocculants. Clarifiers are used at some locations to increase settling efficiency and to minimize the treatment area. However, this latter technology is not economically feasible for many plants. Therefore the limitations are based on the technology of settling and recycle (Level B in the Development Document).

Sludge disposal can present problems if a watershed is dammed and an excess of runoff enters the sludge pond. This runoff can be diverted around the impoundment and the

supernatant pond water returned to the process water system.

There is one plant that uses hydrofluoric acid in the flotation circuit. At the present time this facility is able to recycle about 90 percent of its process waste water. Total recycle is claimed to hinder the HF flotation of feldspar. The daily maximum for total suspended solids was based on data supplied by the plant.

Limited data were available for the acid leaching process; therefore, this process will not be nationally regulated at this time.

Industrial sand mines are identical to sand and gravel mines and the same reasoning for the mine dewatering limitations applies.

(4) *Treatment for the phosphate rock subcategory.* Control of discharges of process generated waste water pollutants and mine dewatering pollutants can be achieved through settling in ponds. Recycling of water for processing is also possible. While facilities that practice flotation with amines, fatty acids and other reagents can practice only partial recycle because concentrations of impurities which interfere with processing build up in a total recirculation system, facilities that do not use flotation to process the ore, and non-flotation unit operations within flotation plants, are able to use recycled waste water without using fresh make up water.

The present regulations limit TSS and pH. Radium 226, phosphate, and fluoride are also present in the waste water, but existing treatment systems are generally not designed to specifically remove these pollutants, and additional treatment of these pollutants to concentrations below present levels is not judged to be practicable for most operations. However, control of total suspended solids does effect control of radium 226 and phosphates. For the reasons set forth under Summary of Major Changes, the present regulations do not specifically reflect the ability of most operations to achieve partial or total recycle of process water. However, most operations are already recycling process water to the extent possible, particularly since recycling helps to minimize the ground water depletion problems in parts of Florida where many of the operations are located.

A statistical analysis of the long term effluent data from several facilities shows that a total suspended solids concentration of 30 mg/l can be met as a maximum monthly average and 60 mg/l as a daily maximum. As noted in the Development Document, several plants are meeting these limitations. Those plants that do not achieve the standards all of the time can upgrade their treatment systems by various methods. A number of poor practices were observed during the study of this subcategory. Some plants are continuing to use their ponds beyond their efficient life. These operations should construct new treatment ponds. One plant was observed to be fertilizing the inner pond walls and excessive aquatic growth apparently resulted which increased the total suspended solids level. Such fertilization should be stopped. Earthen ditches are frequently used to convey the pond overflow to the discharge point, and excessive flow rates through these ditches were observed to result in erosion to the walls. Larger channels with well compacted walls or concrete or pipe conveyances would minimize this problem. The use of wooden boards in overflow towers can result in significant leaks between the boards from sub-surface levels of water in the impoundments which have higher levels of suspended solids.

(5) *Overflow exemption.* In all four subcategories, an allowance has been made for the type of unregulated discharge from treatment facilities which would be caused by abnormal precipitation events. The best practicable control technology currently available

is that treatment systems be designed, constructed and maintained to contain or treat the volume of waste water which would result from a 10-year 24-hour precipitation event. If treatment systems are properly designed, constructed, and maintained to handle the larger amounts of water entering the system during such an event, then any overflow which occurs is exempt from the applicable limitations.

(v) *Cost estimates for control of waste water pollutants.* The costs estimated to result from the promulgated regulations are listed below.

Subcategory	Capital costs	Annual costs
Crushed stone.....	\$13,531,000	\$6,941,000
Construction sand and gravel.....	7,490,000	2,283,000
Industrial sand.....	644,000	159,000
Phosphate rock.....	3,340,000	1,050,000
Total.....	24,975,000	10,449,000

(vi) *Energy requirements and nonwater quality environmental impacts.* The additional energy requirements are estimated as follows:

Mineral:	Million kilowatt per year hours
Crushed stone.....	140
Construction sand and gravel.....	22.7
Industrial sand.....	8
Phosphate rock.....	42.3
Total.....	213.0

These figures are overstated since the savings in not pumping as much fresh water as make-up were not subtracted.

The regulations will increase the amount of solid wastes. However, most of the solid wastes in these four subcategories are inert solids. No significant sludge disposal problems are anticipated.

(vii) *Economic impact analysis.* The impact of these regulations on phosphate mining and processing are not expected to be significant. Prices may increase about \$0.11 per ton, or less than 1 percent over mid-1974 levels of \$12.10 per ton. No plants are expected to close, and the effects on the balance of trade will be minimal.

Depending upon local market conditions, prices for crushed stone could increase up to eight percent. However, only about 18 percent of production would be subject to price increases. Approximately 78 out of the 4800 crushed stone facilities will switch from producing both wet and dry processed stone to only dry process production. A maximum of 35 small facilities accounting for 0.1 percent of the national production and located in metropolitan market areas may close, with an associated loss of 60 jobs. Because these closures are expected to occur in scattered metropolitan areas, no community impacts are anticipated.

The economic analysis of the sand and gravel industry indicated that the only technology which is economically viable is a settling pond with recycle. More extensive treatment, which involves additional ponds or flocculation, may be feasible for some plants but is considered to be economically impractical in general. In particular, plants which have no treatment at present and are in a large metropolitan market will be unable to install treatment in addition to settling and recycle. Therefore, the BPT limitations are based on a technology of settling and recycle. The price of sand and gravel may increase from between \$0.04 to \$0.20 per ton in small cities or rural areas. Up to 26 plants in major metropolitan areas which

have to absorb control costs may close. These plants represent a total of 0.3 percent of the present national production and are a very small proportion of the 5,150 operations in the industry. The closures could result in the loss of work for up to 86 persons, but are not expected to affect local economies.

The price of industrial sand is expected to increase less than 1 percent over present levels of about \$5 to \$7 per ton. Settling with recycle is the technology on which the best practicable technology guidelines are based. Based upon this technology, no closures are predicted, and local economies, employment, industry growth and the balance of trade will not be significantly affected. Although mechanical thickening is judged to be a technically possible alternative, it is one which will not be economically feasible for most plants and so is not a technology upon which these regulations are based.

APPENDIX B—SUMMARY OF PUBLIC PARTICIPATION

Prior to this publication, many agencies and groups listed below were consulted and given an opportunity to participate in the development of effluent limitations, guidelines and standards proposed for the mineral mining and processing category. All participating agencies have been informed of project developments. An initial draft of the Development Document was sent to all participants and comments were solicited on that report. A revised copy of the above report entitled "Development Document for Interim Final Effluent Limitations Guidelines and New Source Performance Standards for the Mineral Mining and Processing Industry Point Source Category" (June 1976) was also distributed for comments. The Interim Final regulations were published in the FEDERAL REGISTER on June 10, 1976. In addition to the comments received on the above documents, a public comment meeting was held on December 2, 1976, in Washington, D.C. The following are the principal agencies and groups consulted: (1) Effluent Standards and Water Quality Information Advisory Committee (established under section 515 of the Act); (2) all State and U.S. Territory Pollution Control Agencies; (3) the Ohio River Valley Sanitation Commission; (4) the Delaware River Basin Commission; (5) the New England Interstate Water Pollution Control Commission; (6) U.S. Department of Commerce; (7) U.S. Department of the Interior; (8) U.S. Department of Defense; (9) U.S. Department of Agriculture; (10) U.S. Department of Transportation; (11) U.S. Department of Health, Education and Welfare; (12) U.S. Department of Housing and Urban Development; (13) U.S. Department of Treasury; (14) Tennessee Valley Authority; (15) Council of Environmental Quality; (16) National Commission on Water Quality; (17) Federal Power Commission; (18) Federal Energy Administration; (19) Office of Management and Budget; (20) Internal Revenue Service; (21) Nuclear Regulatory Commission; (22) The American Society of Mechanical Engineers; (23) the Conservation Foundation; (24) Businessmen for the Public Interest; (25) Environmental Defense Fund, Inc.; (26) Natural Resources Defense Council, Inc.; (27) The American Society of Civil Engineers; (28) Water Pollution Control Federation; (29) National Wildlife Federation; (30) Gypsum Association; (31) Indiana Limestone Institute of America; (32) Marble Institute of America; (33) National Crushed Stone Association; (34) National Industrial Sand Association; (35) National Limestone Institute; (36) National Sand and Gravel Association; (37) American Mining Congress; (38) Asbestos Information Association of North America; (39) Barre Granite Association; (40) Brick Institute of America; (41)

Building Stone Institute; (42) The Fertilizer Institute; (43) Florida Limerock Institute; (44) Florida Phosphate Council; (45) North Carolina Minerals Association; (46) North Carolina Sand, Gravel and Crushed Stone Association; (47) Portland Cement Association; (48) The Refractories Institute; (49) Salt Institute; (50) Sorptive Minerals Institute; (51) National Clay Pipe Institute; (52) National Lime Association; (53) Environmental Protection Service, Canada; (54) Manufacturing Chemists Association; and Georgia Association of Mineral Producing Industries.

The following responded with comments on the interim final regulations: Aggregates and Concrete Association of Northern California, Inc.; Aggregates Producers Association of South Carolina, Inc.; Agrico Chemical Company; Angelo Tomasso, Inc.; Ark-hola Sand and Gravel Company; Becker Phosphate Corporation; Buffalo Slag Company, Inc.; Bethlehem Steel Corporation; Central Silica Company; C. F. Mining Corporation; Connecticut Crushed Stone Association; Dixie Sand and Gravel Company; Evansville Materials, Inc.; Faylor-Middlecreek, Inc.; The Fertilizer Institute; Florida Department of Environmental Regulation; Florida Phosphate Council; Gardiner, Inc.; Georgia Crushed Stone Association; Georgia Marble Company; Grove Stone and Sand; Harry T. Campbell Sons' Company; Hempt Brothers, Inc.; Ideal Basic Industries; Illinois Association of Aggregate Producers; Indiana Mineral Aggregates Association, Inc.; Iowa Limestone Producers Association, Inc.; J. R. Simplot Company; Kentucky Crushed Stone Association, Inc.; Lehigh Portland Cement Company; Martin Marietta Cement; Massachusetts Crushed Stone Association; Maryland Aggregate Association, Inc.; Material Service Corporation; Missouri Limestone Producers Association; Monsanto Industrial Chemicals Company; Mulzer Crushed Stone Company; National Crushed Stone Association; National Industrial Sand Association; National Limestone Institute, Inc.; National Sand and Gravel Association; North Carolina Aggregate Association; Ohio Aggregates Association; Oregon Concrete and Aggregate Producers; Owens-Illinois Inc.; Pennsylvania Stone Producers Association; Phillips Petroleum Company; Portland Cement Association; Sarasota County, Florida; Swift Agriculture Chemical Company; Tennessee Crushed Stone Association; United States Steel Corporation; U.S. Department of Health, Education, and Welfare; U.S. Department of the Interior; U.S. Energy Research and Development Administration; Wisconsin Department of Natural Resources; W. R. Grace and Company. The more significant issues raised are discussed below:

1. Several commenters in the crushed stone industry questioned the requirement of no discharge of process generated waste water pollutants because this requirement effectively precludes the discharge of mine dewatering waste water which is combined in a common treatment system with process water. One commenter stated that the cost for separating rather than combining the two waste water sources would be substantial.

As explained under Summary of Major Changes, the regulation now allows a treated discharge of process generated waste water pollutants provided waste water is recycled from the treatment system for use as process water. Since a discharge from a combined treatment system is subject to the process water limitations, discharge of commingled waste water from a combined treatment system is not precluded as long as recycling of waste water for processing is practiced. Where recycle from process treatment systems is not practiced, a no discharge limitation would apply to process waste water and

other waste waters that are combined with process water.

2. Several commenters within the crushed stone industry questioned the limitations for mine dewatering. Some commenters suggested a limitation for TSS of 30 mg/l as a monthly average and 60 mg/l as a daily maximum. Several commenters stated that upset conditions may occur due to surface runoff or because solids of softer rocks and clay which may be mined have poor settling characteristics. Several commenters felt that the beneficial effect of limestone solids were not taken into consideration when the Agency determined the TSS limitation.

As indicated under Summary of Major Changes, the Agency has revised the daily maximum and established a monthly average based on consideration of comments and additional data.

Upset conditions can usually be avoided by better water management practices. Methods for preventing upset conditions include repositioning the sump pump opposite the influent, allowing an adequate time for the waste water to settle without being churned up by mining equipment, and other water management practices. Providing additional impoundment capacity to provide a longer retention time for settling and intermittent use of flocculants may be necessary for some operations in order to avoid upset conditions.

The addition of limestone in the ionized form of dissolved calcium carbonate may have a beneficial effect by neutralizing streams polluted by acid mine drainage. However, hardness caused by dissolved calcium carbonate and suspended solids may also have a harmful effect on receiving waters. Under the provisions of the Act, limestone solids are considered pollutants and are subject to regulation. The limitations are based on an assessment of available treatment technology, not on an evaluation of the water quality of individual receiving streams.

3. Several commenters stated that the costs of treating mine dewatering were not included in evaluating the economic impact on the crushed stone industry.

Costs for mine dewatering have been included in the development document and economic analysis. In most cases these costs are small (e.g. \$0.009 per metric ton) compared to treatment costs for process water (e.g. \$0.021 per ton) from wet process plants. Adequate treatment usually can be achieved in the mine at the sump. In many cases, the mine water may also be treated with process water in a common treatment system. However, the mine dewatering treatment cost may be significant if flocculants are required. Some small operators in metropolitan markets who would need flocculants and cannot pass on costs may be forced to close.

4. Many commenters questioned the no discharge requirement for process generated waste water pollutants in the crushed stone industry, the sand and gravel industry and the industrial sand industry. Several commenters suggested allowing a discharge of process water pollutants similar to the mine dewatering limitations. One commenter noted that some metal mining industry categories are allowed a discharge and requested that similar regulations be established for this industry. One commenter stated that the no discharge requirement was unreasonable for plants using mine dewatering waste water as make-up process water.

Several commenters said that the cost of achieving no discharge had not been adequately considered. One commenter stated that the cost for retrofitting an older plant with total recycle technology would result in a substantial cost to the plant, and might result in closure of the plant. One com-

menter stated that the alternative of switching to a dry process to avoid a discharge was not feasible due to specifications for finished products and because of added costs for air pollution control. Several commenters stated that the requirement of zero discharge would limit resource development and preclude the operation of plants where land is not available to construct settling ponds. One commenter said that mechanical clarification treatment systems, which require less land area, are costly and do not produce a water that can be continuously recycled because of a buildup of fines and dissolved solids in the recycled water.

The available data show that large numbers of plants are currently practicing recycle of waste water for use as process water. As explained in the Summary of Major Changes, however, the Agency has concluded that the "no discharge" requirement should be revised to reflect the need for occasional discharges when the recycling of process water is practiced. As indicated, the revised regulation continues to reflect the judgment that BPT for the three subcategories includes recycling of process water as a means of limiting the discharge of pollutants. In addition, the process water discharge limitations are based on adequate settling to reduce total suspended solids and the possible occasional use of flocculation.

The economic impact analysis examined the economic feasibility for plants to install recycling equipment. In general the analysis indicates it is economically feasible. However, plants without a settling pond which are located in competitive metropolitan areas may not be able to pass on the costs of recycling process water. It is anticipated that under final BPT guidelines approximately 78 processors representing about 0.8 percent of industry production (and a small proportion of the metropolitan market) will switch to selling only dry processed stone. The ability of firms to specialize in only dry processed stone is illustrated by the many crushed stone operations producing no wet processed stone.

It is not anticipated that these guidelines will prevent the sale of wet processed stone in an area. If a wet processor cannot raise his prices then he must be in a market where others are supplying wet processed stone. On the other hand, if he is the only supplier, then he should have a sufficiently strong market position to raise his price to cover the cost of compliance and he should be able to continue to supply wet processed stone.

The Agency does not believe that these guideline limitations will inhibit resource development. It is anticipated that operations will incorporate the additional area needed for settling ponds into future siting specifications. The guidelines are not expected to affect industry growth.

The guidelines for construction aggregates are based upon settling as a treatment technology. Should an operator wish to use a mechanical clarifier to comply with the limitations, he would be allowed a discharge from a recycling system to eliminate a build up of fines or dissolved solids. However, no such problems with recycling were observed during this study.

5. One commenter stated that treatment costs were not considered for waste water from wet dust suppression systems, but treatment was required since this waste water was included in the definition of process water.

Although waste water from these dust suppression systems is defined as process water, very little waste water results from these air pollution control units. When operated properly, the fine mist of water usually adheres and is dissolved into the material. The cost

for treating any excess water would not be considered significant compared to the total treatment cost for process water.

6. Several commenters concerned with the crushed stone industry felt that the regulations should not require impoundment and treatment of storm water runoff and stated that to construct a treatment system to treat the amount of waste water from a 10-year 24-hour storm would be excessive. One commenter stated that ground water intrusion from such a storm was not considered and would have a greater effect on the treatment system than the surface runoff.

These regulations do not require impoundment of storm water runoff. Furthermore, treatment of storm water runoff is not required unless the water enters the treatment system for mine water or process water. Methods to prevent this from occurring include water management practices such as diversion ditches. However, if storm water runoff or water from some other source (for instance, mine water intrusion) enters the mine dewatering or process water treatment system, causing it to overflow, then the overflow must meet the mine dewatering or process water limitations unless the facility falls within the exemption set forth in the 10-year 24-hour storm event provision. That provision states that any overflow from facilities governed by this subpart shall not be subject to the limitations if the facilities are designed, constructed and maintained to contain or treat the volume of waste water which would result from a 10-year 24-hour precipitation event.

In establishing effluent limitations and guidelines for point sources whose flow volumes may be dependent upon precipitation events, a determination was made as to when treatment facilities would be overwhelmed by extraordinary volumes. The 10-year 24-hour precipitation event and the flow resulting from such an event was selected as it represents a volume which can be used for national guidelines providing maximum protection to the environment without creating undue financial hardship on individual industries by requiring total containment or treatment regardless of volumes encountered.

7. One commenter requested that net limitations be considered rather than gross limitations.

The present regulations limit the gross discharge of pollutants. The Agency has promulgated regulations (40 CFR 125.28) concerning the net or gross application of effluent standards. Prior to the time of permit issuance an affected plant can petition for a net limitation if the applicant demonstrates that specified pollutants which are present in the applicant's intake water will not be removed by waste water treatment systems designed to reduce process waste water pollutants and other added pollutants to the levels required by the applicable limitations or standards. In light of these provisions for adjustment of effluent limitations, the gross limitations established in the present regulations are appropriate, as indicated in "Apalachian Power v. Train," 9 E.R.C. 1033, 1053-4 (4th Cir. 1976).

8. Several commenters requested an exemption from the pH limitations, where acceptable to receiving waters, when the waste water exceeds pH 9.

The data available to the Agency do not indicate there is a problem in meeting the pH limitation. Furthermore, background water is generally not of this nature.

9. One commenter stated that the limitations for the crushed stone industry do not reflect the localized nature of the industry, which is predominately composed of small quarries.

The Agency realized that much of the industry was composed of small producers, and

during the study an attempt was made to obtain data and information on as many small and large operations as possible. Small producers, (less than 25,000 tons/year) were found to have small shallow quarries which are mined only a small percentage of the year, usually by a portable operation. These shallow quarries may not require dewatering and the portable process plants may not use process water. Those process plants using water typically construct a temporary settling pond and recycle waste water to the process plant. For this reason, the small quarries are expected to have less significant treatment costs than those associated with large deep quarries.

10. One commenter stated that the costs of constructing settling ponds for treating granite fines are much greater than for treating limestone fines, but that the higher costs of constructing larger treatment facilities were not taken into account in establishing limitations for the crushed stone industry. Data were collected on both carbonate and noncarbonate (granite) quarries. The settling rates for granite and limestone fines were found to be somewhat different, necessitating slightly larger settling ponds for granite fines than for limestone fines. In developing the costs of the treatment facilities, the possible need for a slightly larger pond was taken into consideration by "overdesigning" the treatment system on which the cost figures for the industry were based.

11. Two commenters stated that the acid leaching process in the industrial sand industry was not studied during the development of the regulation.

The acid leaching process as part of the industrial sand industry was not initially included in the study to develop regulations. Information and some data have now been made available to the Agency on three plants which use this process. However, more data would be necessary before a national regulation could be developed. Therefore national limitations for operations using this process will not be established at this time.

12. One commenter stated that the definition of "process water" might be read to include water that has been used in dredging operations to pump dredged material directly to onshore classification processes. The commenter felt that regulation of such discharges was not intended, and requested clarification of the process water definition.

Waste water (hydraulic water) from operations which use a hydraulic dredge to pump dredged material directly to onshore processing facilities is not included in the definition of process water and will not be nationally regulated at this time. Water which is used in the processing of the material will be subject to the limitations established for this industry. The regulatory language concerning this matter has been clarified.

13. One commenter stated that the definition of process waste water should be amended to exclude non-contact cooling water.

Non-contact cooling water is not included in the process water definition and will not be nationally regulated.

14. One commenter requested that the regulations provide for a blowdown where problems occur due to a buildup of fines or dissolved solids.

A blowdown of dissolved solids because of a build up of these solids in the process water will be allowed provided recycle of waste water to the process is practiced and this discharge is treated to the specified limitations. The difficulty in recycling said to be caused by dissolved solids build up was not found to be a problem in this study.

15. Two commenters requested that the ore slurry transport water used by the phosphate mining operations located in the West

be excluded from the no discharge requirement for process water. They stated that recycling entails high energy costs in mountainous areas.

The no discharge requirement for slurry transport water has been amended in this regulation to allow a treated discharge subject to the specified limitations.

16. Several commenters requested clarification of language in the regulation for the phosphate mining industry concerning the waste water pollutants that were required to meet a no discharge limitation. Clarification of the statement allowing discharge of combined waste waters was also requested. Two commenters stated that detrimental effects on scrubber efficiency may occur if scrubber waste water is recycled in order to meet a no discharge requirement. One commenter stated that plant hydraulic water could not be used as pump seal water in remote transport line pumping locations.

The Agency has decided to amend the no discharge requirement imposed on certain phosphate industry discharges by the interim final regulations for the reasons set forth under Summary of Major Changes. The regulations have been amended to allow a discharge of waste waters from all sources within specified limitations. In most cases the companies are already practicing recycle of waste water to the extent possible in order to prevent depletion of ground water supplies.

17. Two commenters requested that more stringent TSS limitations be considered for the phosphate mining industry, and that specific limitations be imposed on radium 226, phosphorus and fluoride.

The Agency believes that the current TSS limitations are supported by the available data, for the reasons set forth under Summary of Major Changes. Practicable technology is not currently available within the phosphate industry to treat waste water specifically for radium 226, phosphorus or fluoride. However, radium 226 is removed by the settled slime and is controlled by the limitations on TSS. Phosphorus and fluoride appear to result from upstream contamination of intake water by chemical plants. The levels of these pollutants in the intake water will therefore be affected by regulations applicable to the upstream plants.

Subpart B—Crushed Stone Subcategory

Sec.

- 436.20 Applicability; description of the crushed stone subcategory.
- 436.21 Specialized definitions.
- 436.22 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Subpart C—Construction Sand and Gravel Subcategory

Sec.

- 436.30 Applicability; description of the construction sand and gravel subcategory.
- 436.31 Specialized definitions.
- 436.32 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Subpart D—Industrial Sand Subcategory

Sec.

- 436.40 Applicability; description of the industrial sand subcategory.
- 436.41 Specialized definitions.
- 436.42 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Subpart R—Phosphate Rock Subcategory

Sec.

- 436.180 Applicability; description of the phosphate rock subcategory.
- 436.181 Specialized definitions.
- 436.182 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

AUTHORITY: Sec. 301(b), 304 (b) and (c), Federal Water Pollution Control Act, as amended (33 U.S.C. 1251, 1311, 1314 (b) and (c), 86 Stat. 816 et seq., Pub. L. 92-500) (the Act).

Subpart B—Crushed Stone Subcategory

§ 436.20 Applicability; description of the crushed stone subcategory.

The provisions of this subpart are applicable to the mining or quarrying and the processing of crushed and broken stone and riprap. This subpart includes all types of rock and stone. Rock and stone that is crushed or broken prior to the extraction of a mineral are elsewhere covered. The processing of calcite, however, in conjunction with the processing of crushed and broken limestone or dolomite is included in this subpart.

§ 436.21 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "mine dewatering" shall mean any water that is impounded or that collects in the mine and is pumped, drained or otherwise removed from the mine through the efforts of the mine operator. However, if a mine is also used for treatment of process generated waste water, discharges of commingled water from the facilities shall be deemed discharges of process generated waste water.

(c) The term "10-year 24 hour precipitation event" shall mean the maximum 24 hour precipitation event with a probable re-occurrence interval of once in 10 years. This information is available in "Weather Bureau Technical Paper No. 40," May 1961 and "NOAA Atlas 2," 1973 for the 11 Western States, and may be obtained from the National Climatic Center of the Environmental Data Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce.

(d) The term "mine" shall mean an area of land, surface or underground, actively mined for the production of crushed and broken stone from natural deposits.

(e) The term "process generated waste water" shall mean any waste water used in the slurry transport of mined material, air emissions control, or processing exclusive of mining. The term shall also include any other water which becomes commingled with such waste water in a pit, pond, lagoon, mine, or other facility used for treatment of such waste water.

§ 436.22 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry sub-categorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(a) Subject to the provisions of paragraphs (b) and (c) of this section, the following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

(1) Discharges of process generated waste water pollutants from facilities that recycle waste water for use in processing shall not exceed the following limitations:

Effluent limitations		
Effluent characteristic	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
TSS.....	45 mg/l.	25 mg/l.
pH.....	Within the range 6.0 to 9.0.	

(2) Except as provided for in paragraph (a) (1) of this section, there shall be no discharge of process generated waste water pollutants into navigable waters.

(3) Mine dewatering discharges shall not exceed the following limitations:

Effluent limitations		
Effluent characteristic	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
TSS.....	45 mg/l.	25 mg/l.
pH.....	Within the range 6.0 to 9.0.	

(b) Any overflow from facilities governed by this subpart shall not be subject to the limitations of paragraph (a) of this section if the facilities are designed, constructed and maintained to contain or treat the volume of waste water which would result from a 10-year 24-hour precipitation event.

(c) In the case of a discharge into receiving waters for which the pH, if unaltered by man's activities, is or would be less than 6.0 and water quality criteria in water quality standards approved under the Act authorize such lower pH, the pH limitation for such discharge may be adjusted downward to the pH water quality criterion for the receiving waters. In no case shall a pH limitation outside the range 5.0 to 9.0 be permitted.

Subpart C—Construction Sand and Gravel Subcategory

§ 436.30 Applicability; description of the construction sand and gravel subcategory.

The provisions of this subpart are applicable to the mining and the processing of sand and gravel for construction or fill uses, except that on-board processing of dredged sand and gravel which is subject to the provisions of 33 CFR Part 230 and Part 230 of this chapter will not be governed by the provisions of this subpart.

§ 436.31 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "mine dewatering" shall mean any water that is impounded or that collects in the mine and is pumped, drained, or otherwise removed from the mine through the efforts of the mine operator. This term shall also include wet pit overflows caused solely by direct rainfall and ground water seepage. However, if a mine is also used for treatment of process generated waste water, discharges of commingled water from the mine shall be deemed discharges of process generated waste water.

(c) The term "10-year 24 hour precipitation event" shall mean the maximum 24 hour precipitation event with a probable re-occurrence interval of once in 10 years. This information is available in "Weather Bureau Technical Paper No. 40," May 1961 and "NOAA Atlas 2," 1973 for the 11 Western States, and may be obtained from the National Climatic

Center of the Environmental Data Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce.

(d) The term "mine" shall mean an area of land, surface or underground, actively mined for the production of sand and gravel from natural deposits.

(e) The term "process generated waste water" shall mean any waste water used in the slurry transport of mined material, air emissions control, or processing exclusive of mining. The term shall also include any other water which becomes commingled with such waste water in a pit, pond, lagoon, mine or other facility used for treatment of such waste water. The term does not include waste water used for the suction dredging of deposits in a body of water and returned directly to the body of waste without being used for other purposes or combined with other waste water.

§ 436.32 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry sub-categorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(a) Subject to the provisions of paragraphs (b) and (c) of this section, the following limitations establish the quantity or quality of pollutants or

pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

(1) Discharges of process generated waste water pollutants from facilities that recycle waste water for use in processing shall not exceed the following limitations:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
TSS	45 mg/l	25 mg/l
pH	Within the range 6.0 to 9.0	

(2) Except as provided for in paragraph (a) (1) of this section, there shall be no discharge of process generated waste water pollutants into navigable waters.

(3) Mine dewatering discharges shall not exceed the following limitations:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
TSS	45 mg/l	25 mg/l
pH	Within the range 6.0 to 9.0	

(b) Any overflow from facilities governed by this subpart shall not be subject to the limitations of paragraph (a) of this section if the facilities are designed, constructed and maintained to contain or treat the volume of waste water which would result from a 10-year 24-hour precipitation event.

(c) In the case of a discharge into receiving waters for which the pH, if unaltered by man's activities, is or would be less than 6.0 and water quality criteria in water quality standards approved under the Act authorize such lower pH, the pH limitation for such discharge may be adjusted downward to the pH water quality criterion for the receiving waters. In no case shall a pH limitation outside the range 5.0 to 9.0 be permitted.

Subpart D—Industrial Sand Subcategory

§ 436.40 Applicability; description of the industrial sand subcategory.

The provisions of this subpart are applicable to the mining and the processing of sand and gravel for uses other than construction and fill. These uses include, but are not limited to, glassmaking, molding, abrasives, filtration, refractories, and refractory bonding.

§ 436.41 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations, and

methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "mine dewatering" shall mean any water that is impounded or that collects in the mine and is pumped, drained, or otherwise removed from the mine through the efforts of the mine operator. This term shall also include wet pit overflows caused solely by direct rainfall and ground water seepage. However, if a mine is also used for the treatment of process generated waste water, discharges of commingled water from the mine shall be deemed discharges of process generated waste water.

(c) The term "10-year 24 hour precipitation event" shall mean the maximum 24 hour precipitation interval with a probably re-occurrence interval of once in 10 years. This information is available in "Weather Bureau Technical Paper No. 40," May 1961 and "NOAA Atlas 2," 1973 for the 11 Western States, and may be obtained from the National Climatic Center of the Environmental Data Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce.

(d) The term "mine" shall mean an area of land actively mined for the production of sand and gravel from natural deposits.

(e) The term "process generated waste water" shall mean any waste water used in the slurry transport of mined material, air emissions control, or processing exclusive of mining. The term shall also include any other water which becomes commingled with such waste water in a pit, pond, lagoon, mine or other facility used for treatment of such waste water. The term does not include waste water used for the suction dredging of deposits in a body of water and returned directly to the body of water without being used for other purposes or combined with other wastewater.

§ 436.42 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the

establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(a) Subject to the provisions of paragraphs (b) and (c) of this section, the following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart with the exception of operations using acid leaching, after application of the best practicable control technology currently available:

(1) With the exception of operation using HF flotation, discharges of process waste water pollutants from facilities that recycle waste water, for use in processing shall not exceed the following limitations:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed
TSS	45 mg/l	25 mg/l
pH	Within the range 6.0 to 9.0	

(2) Except as provided in paragraphs (a) (1) and (3) of this section, there shall be no discharge of process generated waste water pollutants into navigable waters.

(3) Process generated waste water from facilities employing HF flotation shall not exceed the following limitations:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
TSS	0.046	0.023
Total fluoride	.006	.003
pH	Within the range 6.0 to 9.0	

(4) Mine dewatering discharges shall not exceed the following limitations:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
TSS	45 mg/l	25 mg/l
pH	Within the range 6.0 to 9.0	

(b) Any overflow from facilities governed by this subpart shall not be subject to the limitations of paragraph (a) of this section if the facilities are designed, constructed and maintained to contain or treat the volume of waste water which would result from a 10-year 24-hour precipitation event.

(c) In the case of a discharge into receiving waters for which the pH, if unaltered by man's activities, is or would be less than 6.0 and water quality criteria in water quality standards approved under the Act authorize such lower pH, the pH limitation for such discharge may be adjusted downward to the pH water quality criterion for the receiving waters. In no case shall a pH limitation outside the range 5.0 to 9.0 be permitted.

Subpart R—Phosphate Rock Subcategory

§ 436.180 Applicability; description of the phosphate rock subcategory.

The provisions of this subpart are applicable to the mining and the processing of phosphate bearing rock, ore or earth for the phosphate content.

§ 436.181 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "mine dewatering" shall mean any water that is impounded or that collects in the mine and is pumped, drained or otherwise removed from the mine through the efforts of the mine operator. However, if a mine is also used for the treatment of process generated waste water, discharges of commingled water from the mine shall be deemed discharges of process generated waste water.

(c) The term "10-year 24 hour precipitation event" shall mean the maximum 24 hour precipitation event with a probable re-occurrence interval of once in 10 years. This information is available in "Weather Bureau Technical Paper No. 40," May 1961 and "NOAA Atlas 2," 1973 for the 11 Western States, and may be obtained from the National Climatic Center of the Environmental Data Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce.

(d) The term "mine" shall mean an area of land, surface or underground, actively used for or resulting from the extraction of a mineral from natural deposits.

(e) The term "process generated waste water" shall mean any waste water used in the slurry transport of mined material, air emissions control, or processing exclusive of mining. The term shall also include any other water which becomes commingled with such waste water in a pit, pond, lagoon, mine, or other facility used for settling or treatment of such waste water.

§ 436.182 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategory and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(a) Subject to the provisions of paragraph (b) of this section, the following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

(1) Discharges of process generated waste water and mine dewatering discharges, shall not exceed the following limitations:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
TSS	60 mg/l	30 mg/l
pH	Within the range 6.0 to 9.0	

(b) Any overflow from facilities governed by this subpart shall not be subject to the limitations of paragraph (a) of this section if the facilities are designed, constructed and maintained to contain or treat the volume of waste water which would result from a 10-year 24-hour precipitation event.

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Title 41—Public Contracts and Property Management

CHAPTER 101—FEDERAL PROPERTY MANAGEMENT REGULATIONS

SUBCHAPTER A—GENERAL

[FPMR Amdt. A-27]

PART 101-5—CENTRALIZED SERVICES IN FEDERAL BUILDINGS

GSA Policy Concerning Centralized Services in Federal Buildings

AGENCY: General Services Administration.

ACTION: Final rule.

SUMMARY: This change removes references to outdated regulations. A recent reorganization in GSA resulted in a consolidation of functions and eliminated the need for certain regulations.

EFFECTIVE DATE: July 12, 1977.

FOR FURTHER INFORMATION CONTACT:

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SUPPLEMENTARY INFORMATION: Federal Management Circular (FMC) 73-4, December 4, 1973, provides policy guidance for the executive branch concerning the establishment and management of central supporting services in Federal office buildings. That circular is codified in the Code of Federal Regulations (34 CFR Part 271). Since March 1965 the Federal Property Management Regulations have also provided policy guidance pertaining to this subject area. As a means to eliminate this duplication in the Code of Federal Regulations and to enable agencies to more readily react to GSA policy pronouncements affecting the applicable separate functional areas (e.g., transportation services, printing and duplicating services, health units, etc.), certain overlapping GSA regulations are being canceled. These cancellations will have no effect on existing GSA