ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 465

[WH-FRL 2226-3]

Coil Coating Point Source Category Effluent Limitations Guidelines, Pretreatment Standards, and New Source Performance Standards

AGENCY: Environmental Protection Agency.

ACTION: Final rule.

SUMMARY: This regulation establishes effluent limitations and standards limiting the discharge of pollutants into navigable waters and into publicly owned treatment works by existing and new coil coating operations. The Clean Water Act and a consent decree require EPA to promulgate this regulation. The purpose of this action is to establish specific effluent limitations based on "best practicable technology" and "best available technology," new source preformance standards based on "best demonstrated technology" and pretreatment standards for existing and new indirect dischargers.

DATES: In accordance with 40 CFR 100.1 this regulation shall be considered issued for the purposes of judicial review at 1:00 p.m. Eastern Time on December 15, 1982. This regulation shall become effective January 17, 1983, except section 465.03(a)2, which contains information collection requirements which are under review at OMB. The compliance date for the BAT regulations is as soon as possible, but no later than July 1, 1984. The compliance date for New Source Preformance Standards (NSPS) and Pretreatment Standards for New Sources (PSNS) is the date the new source begins operations. The compliance date for Pretreatment Standards for Existing Sources (PSES) is December 1, 1985.

Under Section 509(b)(1) of the Clean Water Act, judicial review of this regulation can be made only by filing a petition for review in the United States Court of Appeals within 90 days after the regulation is considered issued for purposes of judicial review. Under Section 509(b)(2) of the Clean Water Act, the requirements in this regulation may not be challenged later in civil or criminal proceedings brought by EPA to enforce these requirements.

ADDRESSES: Technical information may be obtained by writing to Ms. Mary L. Belefski, Effluent Guidelines Division (WH-552), EPA, 401 M Street, S.W., Washington, D.C. 20460, or by calling (202) 382-7126. Copies of the technical and economic documents may be obtained from the National Technical Information Service, Springfield, Virginia 22161 (703/487-4600).

The Record will be available for public review on or before February 7, 1983, in EPA's Public Information Reference Unit, Room 2004 (Rear) (EPA Library), 401 M Street, S.W., Washington, D.C. The EPA information regulation (40 CFR Part 2) provides that a reasonable fee may be charged for copying.

FOR FURTHER INFORMATION CONTACT: Ernst P. Hall, (202) 382-7126.

SUPPLEMENTARY INFORMATION:

Organization of This Notice

I. Legal Authority

This regulation is being promulgated under the authority of Sections 301, 304, 306, 307, and 501 of the Clean Water Act (the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1251 *et seq.*, as amended by the Clean Water Act of 1977, Pub. L. 95-217), also called the "Act." It is also being promulgated in response to the Settlement Agreement in *Natural Resources Defense Council, Inc.*, v. *Train*, 8 ERC 2120 (D.D.C. 1976), *modified*, March 9, 1979, 12 ERC 1833 (D.D.C. 1979).

II. Scope of This Rulemaking

This final regulation, which was proposed January 12, 1981 (46 FR 2934), establishes effluent limitations and standards for existing and new coil coating operations. Coil coating consists of that sequence or combination of steps or operations which clean, surface or conversion coat, and apply an organic (paint) coating to a long thin strip or coil of metal.

EPA's 1973 to 1976 round of rulemaking emphasized the achievement of best practicable technology currently available (BPT) by July 1, 1977. In general, BPT represents the average of the best existing performances of well-known technologies for control of familiar (i.e., "classical") pollutants.

In contrast, this round of rulemaking aims for the achievement by July 1, 1984, of the best available technology economically achievable (BAT) that will result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants. At a minimum, BAT represents the performance of the best available technology economically achievable in any industrial category or subcategory. Moreover, as a result of the Clean Water Act of 1977, the emphasis of EPA's program has shifted from "classical" pollutants to the control of a lengthy list of toxic substances.

EPA is promulgating BPT, BAT, new source performance standards (NSPS) and pretreatment standards for existing and new sources (PSES and PSNS) for the steel basis material (steel), galvanized steel basis material (galvanized) and aluminum alloys basis material (aluminum) subcategories of the coil coating category.

III. Summary of Legal Background

The Federal Water Pollution Control Act Amendments of 1972 established a comprehensive program to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters" (Section 101(a)). To implement the Act, EPA was to issue effluent standards, pretreatment standards, and new source performance standards for industry dischargers.

The Act included a timetable for issuing these standards. However, EPA was unable to meet many of the deadlines and, as a result, in 1976, it was

sued by several environmental groups. In settling this lawsuit, EPA and the plaintiffs executed a court-approved "Settlement Agreement." This Agreement required EPA to develop a program and adhere to a schedule in promulgating effluent limitations guidelines, new source performance standards and pretreatment standards for 65 "priority" pollutants and classes of pollutants, for 21 major industries. See *Natural Resources Defense Council, Inc.* v. *Train*, 8 ERC 2120 (D.D.C. 1976), *modified*, 12 ERC 1833 (D.D.C. 1979).

Many of the basic elements of this Settlement Agreement program were incorporated into the Clean Water Act of 1977. Like the Agreement, the Act stressed control of toxic pollutants, including the 65 "priority" pollutants. In addition, to strengthen the toxic control program, Section 304(e) of the Act authorizes the Administrator to prescribe "best management practices" (BMPs) to prevent the release of toxic and hazardous pollutants from plant site runoff, spillage or leaks, sludge or waste disposal, and drainage from raw material storage associated with, or ancillary to, the manufacturing or treatment process.

Under the Act, the EPA program is to set a number of different kinds of effluent limitations. These are discussed in detail in the proposed regulation and Development Document. The following is a brief summary:

1. *Best Practicable Control Technology (BPT).* BPT limitations are generally based on the average of the best existing performance by plants of various sizes, ages, and unit processes within the industry or subcategory.

In establishing BPT limitations, we consider the total cost of applying the technology in relation to the effluent reduction derived, the age of equipment and facilities involved, the process employed, the engineering aspects of the control technologies, process changes, and non-water quality environmental impacts (including energy requirements). We balance the total cost of applying the technology against the effluent reduction.

2. Best Available Technology (BAT). BAT limitations, in general, represent the best existing performance in the industrial subcategory or category. The Act establishes BAT as the principal national means of controlling the direct discharge of toxic and nonconventional pollutants to navigable waters.

In arriving at BAT, the Agency considers the age of the equipment and facilities involved, the process employed, the engineering aspects of the control technologies, process changes, the cost of achieving such effluent reduction, and non-water quality environmental impacts. The Administrator retains considerable discretion in assigning the weight to be accorded these factors.

3. Best Conventional Pollutant Control Technology (BCT). BCT limitations are based on the "best conventional pollutant control technology" for discharges of conventional pollutants from existing sources. Section 304(a)(4) defines conventional pollutants to include BOD, TSS, fecal coliform, pH and any additional pollutants defined by the Administrator as conventional. On July 30, 1979 the Administrator defined oil and grease as a conventional pollutant (44 FR 44501).

BCT is not an additional limitation but replaces BAT for the conventional pollutants. In addition to other factors specified in Section 304(b)(4)(B), the Act requires that BCT limitations be assessed in light of a two-part "cost reasonableness" test, *American Paper Institute* v. *EPA*, 660 F.2d 954 (4th Cir. 1981). The first test compares the cost for private industry to reduce its conventional pollutants with the costs to publicly owned treatment works for similar levels of reduction in their discharge of these pollutants. The second test examines the cost-effectiveness of additional treatment beyond BPT. EPA must find that limitations are "reasonable" under both tests before establishing them under BCT. In no case may BCT be less stringent than BPT.

EPA published its methodology for analyzing BCT costs on August 29, 1979 (44 FR 50732). In the case noted above the Court of Appeals ordered EPA to correct data errors underlying EPA's calculation of the first test and to apply the second test. (EPA had argued that a second test was not required).

EPA has determined that the technology which is the basis for the coil coating BAT can remove significant amounts of conventional pollutants. However, EPA has not yet promulgated a revised BCT methodology in response to the *American Paper Institute* v. *EPA* decision mentioned earlier. Accordingly, EPA is deferring a decision on the appropriate final BCT limitations.

4. New Source Performance Standards (NSPS). NSPS are based on the best available demonstrated technology (BDT). New plants have the opportunity to install the best and most efficient production processes and wastewater treatment technologies.

5. Pretreatment Standards for Existing Sources (PSES). PSES are designed to prevent the discharge of pollutants that pass through, interfere with, or are otherwise incompatible with the operation of publicly owned treatment works (POTW). They must be achieved within three years of promulgation. The Clean Water Act of 1977 requires pretreatment for pollutants that pass through the POTW in amounts that would violate direct discharger effluent limitations or interfere with the POTW's treatment process or chosen sludge disposal method. The legislative history of the 1977 Act indicates that pretreatment standards are to be technology-based, analogous to the best available technology for removal of toxic pollutants. EPA has generally determined that there is pass through of pollutants if the percent of pollutants removed by a well operated POTW achieving secondary treatment is less than the percent removed by the BAT model treatment system. The general pretreatment regulations, which served as the framework for the pretreatment regulations are found at 40 CFR Part 403.

6. Pretreatment Standards for New Sources (PSNS). Like PSES, PSNS are to prevent the discharge of pollutants which pass through, interfere with, or are otherwise incompatible with the operation of the POTW. PSNS are to be issued at the same time as NSPS. New indirect dischargers, like new direct dischargers, have the opportunity to incorporate the best available demonstrated technologies. The Agency considers the same factors in promulgating PSNS as it considers in promulgating PSES.

IV. Methodology and Data Gathering Efforts

The data gathering methodology and efforts used in developing the proposed regulations were summarized in the "Preamble to the Proposed Coil Coating Point Source Category Effluent Limitations Guidelines, Pretreatment Standards, and New Source Performance Standards" (FRL 1671-6, January 12, 1981). The *Development Document for Effluent Guidelines, New Source Performance Standards, and Pretreatment Standards for the Coil Coating Point Source Category* expands and details this summary.

After proposal, the Agency performed statistical reanalyses to assure itself that the data base used for determining treatment effectiveness of model technologies accurately reflected the ability of the technologies to achieve the limitations and standards established for coil coating. These analyses led to changes discussed below and in Section VII of the development document.

V. Control Treatment Options and Technology Basis for Final Regulations

A. Summary of Category

"Coil coating" is a term generally used to describe the combination of processing steps involved in converting a coil—a long thin strip of metal rolled into a coil—into a coil of painted metal ready for further industrial use.

Three basis materials are commonly used for coil coating: steel, galvanized (steel), and aluminum. Additionally, there is some minor amount of coating of other material such as brass, galvalum and coated steels.

There are three major groups or standard process steps used in manufacturing coated coils: (1) Cleaning to remove soil, oil, corrosion, and similar dirt; (2) chemical conversion coating in which a coating of chromate, phosphate or complex oxide materials is chemically formed in the surface of the metal; and (3) the application and drying of one or more coats of organic polymeric material such as paint.

Water is used throughout the coil coating processes. The cleaning processes for removing oil and dirt usually employ water-based alkaline cleaners, and acid pickling solutions are sometimes used to remove oxides and corrosion. Water is used to rinse the strip after it has been cleaned. Most of the chemical conversion coating processes are water based and water is used to rinse excess and spent solutions from the strip. After painting, the strip is baked in an oven to dry the paint and then chilled with water to prevent burning or charring of the organic coating. The characteristics of the wastewater generated by coil coating may vary depending on the basis material and the process options selected for cleaning and chemical conversion coating.

The most important resulting pollutants or pollutant parameters are: (1) Toxic pollutants—chromium, zinc, nickel, lead, copper, cyanide; (2) conventional pollutants—suspended solids, pH, and oil and grease, and (3) nonconventional pollutants—iron, aluminum, phosphorus, and fluoride. Toxic organic pollutants were not found in large quantities. Because of the amount of toxic metals present, the sludges generated during wastewater treatment generally contain substantial amounts of toxic metals.

B. Control and Treatment Options

The control and treatment technologies considered by EPA in developing this regulation include both in-process and end-of-pipe treatments. A wide range of treatment options were considered before proposing the coil coating regulations and were detailed in the preamble to the proposed regulation. Major technology options considered after proposal are discussed below; all of the options which were considered in developing the proposed rule are discussed in the development document.

In-process treatment considered includes a variety of water flow reduction steps and major process changes such as: Countercurrent cascade rinsing (to reduce the amount of water used to remove unwanted materials from the product surface); cooling and recycling of quench water; and substitution of non-wastewater generating conversion coating processes (no-rinse conversion coating).

End-of-pipe treatment considered includes: Cyanide oxidation or precipitation; hexavalent chromium reduction; chemical precipitation of metals using hydroxides, carbonates, or sulfides; and removal of precipitated metals and other materials using sedimentation, filtration, and combinations of these technologies; and sludge dewatering and disposal. Because the amount of priority organic materials in the wastewater is small and can be adequately controlled by controlling oil and grease, no specific organic removal wastewater treatment except oil removal has been considered. Similarly, because of high energy costs and low product recovery values, distillation has not been seriously considered as an end-of-pipe treatment.

The effectiveness of these treatment technologies has been evaluated and established by examining the performance of these technologies on coil coating and other similar wastewaters. The data base for the performance of hydroxide precipitation—sedimentation technology is a composite of data drawn from EPA sampling and analysis of copper and aluminum forming, battery manufacturing, porcelain enameling, and coil coating. This data, called the combined metals data base, reports influent and effluent concentration for nine pollutants. These wastewaters are judged to be similar in all material respects for treatment because they contain a range of dissolved metals which can be removed by precipitation and solids removal.

In the proposed coil coating regulation, the Agency relied on the data we collected from sampling and analyzing raw and treated wastewaters from the aluminum forming, battery manufacturing, copper forming, coil coating, porcelain enameling and electroplating categories to determine the effectiveness of the lime and settle, and lime, settle and filter technologies. Subsequent to proposal, an analysis of variance of both raw and treated pollutant concentrations was made of this data to determine homogeneity. The electroplating data were found to substantially reduce the homogeneity of the pooled data while the inclusion or removal of data from any other category did not meaningfully alter the homogeneity of the data pool. Therefore, the electroplating data were removed from the pooled data base and only data from the remaining five categories were used for determining treatment effectiveness of the technologies.

The lime and settle treatment effectiveness values used in the proposed regulation were derived from the full pooled data set described above using statistical methodology which assumed the data set was normally distributed. Variability factors for estimating one day and thirty day average values were transferred from electroplating pretreatment. The treatment effectiveness values used in this promulgation are derived from the reduced data set using statistical methodology which assumes the data set is log normally distributed. One day maximum and ten day average regulatory values and variability factors are derived directly from the data set. These variability factors are applied to long term mean values to derive treatment effectiveness for other pollutants. The derivation of the treatment effectiveness values is detailed in Section VII of the technical development document. The Agency performed this analysis to assure itself that performance data from other industries reflects the ability of the technology to achieve the established results in coil coating facilities.

The Agency examined the effectiveness of end-of-pipe treatment now being used to treat coil coating wastewater and found the treatment was universally inadequate. Data collected by the Agency and discussed in Section IX of the development document indicate that adequate operation is intermittent and that adequate performance must be based on performance data transferred from other categories. Based on similarities in the quantity and characteristics of the wastewater and the processes used, we are confident that the technology used in the other categories will perform as well in coil coating facilities as it does in facilities in the other categories. The intermittent performance of some coil coating facilities confirms that conclusion. Therefore, the transfer of technology performance data with

respect to this is supportable under *Tanners' Council* v. *Train*, 5405. 2d 1188, 4th Cir. 1976.

To establish the treatment effectiveness of lime, settle and filter, the technologies used as the basis for NSPS and PSNS, EPA used data from three plants that had the recommended technology in place; these plants had wastewater that was similar to the wastewater generated at coil coating plants. In generating long-term average standards for NSPS and PSNS, EPA applied variability factors from the combined metals data base because the combined data base provided a better statistical basis for computing variability than the data from the three plants sampled. The combined data base is composed of data showing the treatment effectiveness of lime and settle without filtration. It was assumed that filtration would remove 33 percent more pollutants than lime and settle. This assumption was based upon a comparison of removals of several pollutants by lime and settle and lime, settle, and filter technologies. Similarly lime, settle—and filter technology performance which is used for new sources is based on the performance of full scale commercial systems treating multicategory wastewaters which are essentially similar to coil coating wastewaters. This also is discussed fully in Section VII of the development document.

The limitations and standards established for this category are mass based (mass of pollutant allowed to be discharged per unit of production) and are derived as the product of the regulatory flow and the overall treatment effectiveness. The regulatory flows are derived from sampling and measurement of flows in manufacturing operations and flow data supplied by the industry. Because flow reduction is a significant part of the overall pollutant reduction technology, the Agency has concluded that mass based limitations and standards are necessary to ensure adequate pollution control is achieved.

C. Technology Basis for Final Regulations

A brief summary of the technology basis for the regulation is presented below. A more detailed summary is presented in the "Preamble to the Proposed Coil Coating Point Source Category Effluent Limitations Guidelines, Pretreatment Standards, and New Source Performance Standards" (FRL 1671–6, January 12, 1981) and the *Development Document for Effluent Limitations Guidelines and Standards for the Coil Coating Point Source Category.*

The technologies outlined below apply to all of the coil coating subcategories, and the final effluent concentrations resulting from the application of the technology are identical for all three subcategories. However, the mass limitations for each subcategory vary due to different water uses among the subcategories and the absence of some pollutants in some subcategories.

The Agency is revising certain monitoring and compliance requirements of the proposed regulation in response to comments. The Agency has reduced the number of pollutants regulated to five metals and three conventional pollutants. This level of control and regulation will effectively ensure that the treatment technology is installed and properly operated. The pollutants not being regulated are metals which are effectively removed by properly operated lime and settle technology and will be removed coincidentally with removal of the regulated pollutants.

Cyanide is widely used as a process chemical in the aluminum subcategory. An exemption procedure is provided so that a plant that demonstrates and certifies that it neither has nor uses cyanide may be exempted from the requirements of monitoring for cyanide. This procedure is a change from proposal. In the preamble to the proposed regulation the Agency stressed the desirability of achieving the cyanide limitations by changing to non-cyanide conversion coating. This exemption procedure allows a coil coating plant which has selected alternate non-cyanide processes to avoid the expense of making regular analysis for cyanide.

The 30 day average limitations and standards that were proposed have been replaced with monthly average limitations based on the average of 10 consecutive sampling days. The 10 day average value was selected as the minimum number of consecutive samples which need to be averaged to arrive at a stable slope on the statistically based curve relating 1 day and 30 day average values and it approximates the most frequent monitoring requirements of direct discharge permits. Monthly averages based on 10 days of data are slightly less stringent than monthly averages based on 30 days of data. The monthly average figures shown in the regulation and derived from 10 days of monitoring data are to be used by plants with combined wastestreams that use the "combined wastestream formula" set forth at 40 CFR 403.6(e) and by permit writers in writing direct discharge permits.

BPT: This regulation imposes BPT requirements on all three subcategories. The technology basis for the BPT limitations being promulgated is the same as for the proposed regulation and includes removal of cyanide and reduction of hexavalent chromium in conversion coating wastewaters; combination of all wastewater streams and oil skimming to remove oil and grease and some organics; and lime and settle technology to remove metals and solids from the combined wastewaters. Sludge from the settling tank is concentrated to facilitate landfill disposal. The effluent which would be expected to result from the application of these technologies was evaluated against the known performance of some of the best plants in the category. From this examination, the Agency found that there is uniformly inadequate performance due to improper operating practices throughout the category. This finding is detailed in Sections VII and IX of the development document.

The pollutants regulated in all three subcategories under BPT include chromium, cyanide, zinc, oil and grease, TSS and pH. Additionally, iron is regulated in the steel subcategory, iron and copper are regulated in the galvanized subcategory and aluminum is regulated in the aluminum subcategory.

Implementation of the BPT limitations will remove annually an estimated 72,000 kg of toxic pollutants and 555,000 kg of other pollutants (from estimated current discharge) at a capital cost above equipment already in place of $9.70 million and an annual cost of $3.82 million.

BAT: This regulation establishes BAT for all three subcategories. The BAT limitations being promulgated are changed from the proposed BAT limitations. The promulgated BAT limitations are based on the technology for BPT plus in-process wastewater reduction including quench water recycle and reuse; wastewater discharge is reduced by approximately 60 percent. The proposed BAT limitations were based on the BPT technology plus filtration after sedimentation and in-process wastewater reduction. Industry objected to the use of filtration because of its cost. The addition of filtration would remove annually 150 kg of toxic pollutants and 9790 kg of other pollutants. This translates into an additional removal of approximately 0.021 kg of toxic pollutants and 0.135 kg of other pollutants per day per direct discharger. The incremental costs of these effluent reduction benefits are

$2.16 million capital cost and $1.87 million total annual costs. In addition, some coil coating facilities are intergrated facilities which are not currently subject to effluent limitations based on filtration of their other wastewater streams. These facilities may incur additional cost if the coil coating wastewater streams were subject to effluent limitations based on filtration. In response to these comments the Agency re-evaluated filtration and determined that filtration was too costly for existing facilities.

The BAT model technology does not include countercurrent cascade rinsing, which is used as a basis for NSPS. The installation of countercurrent cascade rinsing to existing sources is impractical because it would require the plants to shut down temporarily and, therefore, is not used as the basis for BAT by the Agency.

The pollutants regulated under BAT are chromium, copper, cyanide, zinc, aluminum and iron.

Implementation of the BAT limitations will remove annually an estimated 72,700 kg of toxic pollutants and 607,000 kg of other pollutants (from estimated current discharge) at a capital cost above equipment in place of $9.93 million and an annual cost of $4.01 million.

The incremental effluent reduction benefits of BAT above BPT are the removal annually of 700 kg of toxic pollutants and 52,000 kg of other pollutants. The incremental costs of these benefits are $0.23 million capital cost and $0.19 million total annual costs.

NSPS: This regulation establishes NSPS for all three subcategories. The technology basis for the NSPS being promulgated includes oil skimming, precipitation of metals, sedimentation, polishing filtration, dewatering of sludge, recycle of quench water, reuse of quench water blowdown as cleaning and conversion coating rinse water, and three stage countercurrent cascade rinsing for both cleaning and conversion coating.

The Agency proposed no-rinse conversion coatings as a part of the basis for the proposed NSPS. However, the industry commented that no-rinse conversion coating has not been demonstrated for some applications and there is no Food and Drug Administration approved no-rinse conversion coating. Since food containers are often manufactured from coil coated stock, it is necessary to have FDA approval of the coating applied to the coil. The Agency reconsidered the requirement for no-rinse conversion coating and substituted multistage countercurrent cascade rinsing in both the cleaning and conversion coating segments. This alternate technology, which was discussed in the proposed development document, will provide essentially equivalent overall pollutant control. The pollutants regulated under NSPS are the same as those under BPT.

A new direct discharge normal plant having the industry average annual production level in the steel subcategory of 12.2 million square meters per year would generate a raw waste of 550 kg toxic pollutants and 18,400 kg total pollutants. The NSPS technology would reduce these pollutant levels to 4.0 kg toxics and 60 kg total pollutants. Estimates of the investment and annual compliance costs reflect that the cost of pollution control for NSPS are less expensive than the cost of pollution control for existing sources because of the addition of multistage countercurrent cascade rinsing which reduces the flow rate and, consequently, the size of the required treatment systems. The average capital investment cost for new plants is estimated to be $230,000. These new source performance standards do not pose a barrier to entry into the category because they impose no greater cost than BAT effluent limitations.

PSES: In establishing pretreatment standards interference and pass-through of the pollutants must be considered. POTW removals of the major toxic pollutants found in coil coating wastewater average about 50 percent (Cr–18%, Cu–58%, CN–52%, Zn–65%) while BAT technology treatment removes more than 99 percent of these pollutants. This difference in removal effectiveness clearly indicates pass-through of pollutants will occur unless coil coating wastewaters are adequately pretreated.

The Agency found a small amount of several toxic organic compounds (collectively referred to as total toxic organics or (TTO) in coil coating wastewaters. The Agency considered whether these pollutants should be specifically regulated and determined that they did not require such regulation. Oil and grease removal technology would reduce the amount of TTO by an estimated 85 to 97 percent, while removal of these pollutants in a POTW is somewhat less—about 65 percent. Thus clearly there is pass through of these pollutants. Because the raw waste level of TTO is only about 1.6 mg/l the treatment effected by POTW is judged to reduce the amount and toxicity of TTO below the level that would require national regulation. The Agency has considered the time for compliance for PSES. Few if any of the coil coating plants have installed and are properly operating the treatment technology for PSES. Additionally, the readjustment of internal processing conditions to achieve reduced wastewater flows may require more time than for only the installation of end-of-pipe treatment equipment. Additionally, many plants in this and other industries will be installing the treatment equipment suggested as model technologies for this regulation at about the same time, and this may result in delays in engineering, ordering, installing, and operating this equipment. For all these reasons, the Agency has decided to set the PSES compliance date at three years after promulgation of this regulation: November, 1985.

The pollutants to be regulated by PSES include chromium, copper (Subpart B only), cyanide, and zinc. Oil and grease and TSS are not regulated by pretreatment because these conventional pollutants in the quantities encountered do not interfere with or pass through a POTW. Iron and aluminum, which are sometimes added as coagulant aids at POTW are not regulated by pretreatment because at the levels released to the POTW, they will neither pass through nor interfere with the POTW.

The technology basis for PSES is analogous to BAT; flow reduction by reusing quench water, hexavalent chromium reduction, cyanide removal, and lime and settle end-of-pipe treatment. We proposed PSES based in part on filtration after lime and settle treatment. Because, as indicated above in the BAT discussion, filters were found to be too costly for existing facilities they are not included in the technology basis for PSES. The incremental effluent reduction benefits of the proposed PSES above the promulgated PSES are the removal annually of 330 kg of toxic pollutants and 14,200 kg of other pollutants. The incremental costs of these benefits are $2.23 million capital cost and $2.8 million total annual costs.

The proper operation of this technology on coil coating wastewater will result in the removal of all of the major pollutants to the levels demonstrated (see Section VII of the development document); however only some key pollutants need to be regulated to ensure installation and effective operation of technology which will meet PSES. For this reason chromium, copper, cyanide and zinc are regulated at PSES; the remaining toxic metals are expected to be removed adequately by the treatment technology when regulated levels of the specified metals are achieved.

Implementation of the PSES standards will remove annually an estimated 106,000 kg of toxic pollutants and 898,000 kg of other pollutants (from estimated current discharge) at a capital cost above equipment in place of $14.32 million and an annual cost of $5.03 million. The technologies are discussed more fully in Section XII of the development document.

PSNS: The technology used as a basis for proposing and now promulgating PSNS is analogous to the technologies for proposing and promulgating NSPS except that oil skimming is not required. The changes from proposal technology to promulgation technology are discussed under NSPS above and apply equally to PSNS. As discussed under PSES, pass through of the regulated pollutants will occur without adequate pretreatment and therefore pretreatment standards are required. The pollutants regulated under PSNS are chromium, copper (Subpart B only), cyanide and zinc for the reasons cited under PSES.

A new indirect discharge normal plant having the industry average annual production level in the steel subcategory, would generate a raw waste of 550 kg toxic pollutants and 18,400 kg total pollutants. The PSNS technology would reduce these pollutant levels to 4.0 kg toxics and 60 kg total pollutants. The average capital cost for PSNS treatment is $230,000 per plant about 3.2 percent of the construction cost for a new coil coating plant. PSNS costs, like NSPS costs, are expected to be lower than existing source costs because countercurrent cascade rinsing reduces the water use and end-of-pipe treatment equipment size and cost. These PSNS do not pose a barrier to entry into the category because they do not impose greater compliance costs than PSES.

VI. Costs and Economic Impacts

Executive Order 12291 requires EPA and other agencies to perform regulatory impact analyses of "major rules," defined as rules which impose an annual cost on the economy of $100 million or more or meet other economic impact criteria. On the basis of these criteria, EPA does not consider the final regulation for Coil Coating to be a major rule. This rulemaking satisfies the requirements of the Executive Order for a non-major rule.

The economic impact assessment is presented in *Economic Impact Analysis of Effluent Limitations and Standards for the Coil Coating Industry.* Copies of the analysis can be obtained by contacting the National Technical Information Service, 5282 Port Royal Road, Springfield, VA 22161 (703/487-4600). The analysis details the investment and annual costs for the industry as a whole and for individual plants in each subcategory covered by the regulation. The analysis also assesses the impact of effluent control costs in terms of price changes, profitability changes, plant closures, production changes, employment effects, and balance of trade effects.

Since proposal, the economic impact analysis has been revised to reflect several changes. Revised compliance costs are based on a modified computer cost model program. These compliance costs are engineering estimates for the effluent control systems described earlier in the preamble. Compliance cost estimates account for the equipment in place at each plant. The revised cost estimates address many of industry's comments on the proposal. A discussion of the revisions to the cost model is presented in Section VIII of the development document. In addition, these costs reflect the conclusion that only one of the wastewater treatment sludges generated by the model technology (the aluminum subcategory) is likely to be hazardous, as defined in the Resource Conservation and Recovery Act. The appropriate sludge disposal costs are included in the economic analysis. The analysis also reflects other industry comments and additional information provided since proposal and uses more current information on financial and economic characteristics of the industry.

EPA has identified 69 coil coating plants. Total investment costs for combined BAT and PSES (above equipment in place) is estimated to be $24.3 million with annual costs of $9.0 million. These costs are expressed in 1982 dollars. Costs will be incurred by 68 plants; one plant discharges no process wastewater.

Industry is expected to incur a price increase as a percent of production of 1.15 percent and a change in quantity demanded of one-half of one percent. The price and quantity changes are small and indicate that, on average, coil coating plants will be able to pass through most of their compliance costs, due to the expected increase in the demand for coated metal coils. No plant closures are projected for either the baseline (without this regulation) or for the final regulation. Other impacts on the coil coating industry such as product substitution, and foreign trade effects are negligible. Also, secondary impacts on employment and the community are not anticipated.

In summary, the Agency has concluded that the economic impacts of the cost of additional water pollution controls likely to be incurred as a result of this regulation are not substantial and are justified by the effluent reduction benefits associated with compliance with the limitations and standards.

The economic analysis basically utilizes plant-specific production data and compliance costs estimated by EPA for 62 sample plants (which represent 80 percent of the plants in the category) to determine the impact of the proposed regulation. The first step of the analytical procedure was to determine the industry-wide price change as a percent of production and resulting change in quantity demanded at each compliance level. Those estimates served as the basis for the screening analysis which identified plants that may potentially incur significant costs and economic impacts. A decrease in profit margin of two percent or more was chosen as the criterion for determining those plants likely to incur substantial impacts as a result of this regulation.

The potentially vulnerable plants were then subjected to further financial analysis to quantify the level of anticipated impact and to assess the likelihood of plant closure. Financial profiles were developed and subsequently used to calculate financial ratios in order to analyze plant profitability and the magnitude of captial investment requirements. The plant-specific ratios were compared to threshold values established at levels at which closures became likely. The plant closure threshold values differed among three categories developed for the economic analysis: (1) Toll coaters, which coat customer-owned metal on a service basis; (2) captive operations, which coat metal as part of a proprietary product manufacturing process; and (3) adjunct operations, which are performed in plants with rolling mills on the plant site. Return on investment (ROI) was chosen as the primary profitability measure to assess the likelihood of potential plant closures among toll coaters and adjunct plants. Plants with an ROI of less than 8 percent were considered potential closure candidates. The ratio of "profits to annual compliance costs" was calculated for captive plants. Plants with a ratio below 1.0 were categorized as potential plant closures. The ratio of compliance capital investment requirements to plant revenues (CCI/R) was used to analyze a coil coating plant's ability to raise additional capital. A threshold value of 10 percent for toll coaters and 30 percent for adjunct and captive plants was used. The differences in the threshold levels were established

to account for differences in the financial characteristics of the plants within the three sectors. However, in general, the conclusions of the study are relatively insensitive to the economic categorization. The result of the screening analysis indicates that no plant closures or employment effects are projected for the final regulations.

BPT—EPA estimates that the BPT effluent limitation will cause the coil coating industry to incur additional total capital investment and annual compliance costs (including interest and depreciation) of $9.7 million and $3.8 million, respectively. The economic analysis based on the profitability and capital investment requirement ratios indicates that no plant closures or employment effects are expected for the plants affected by the regulation.

BAT—Assuming that direct dischargers implement BAT from present equipment in place, EPA estimates that they will incur additional capital investment and annual compliance costs of $9.9 million and $4.0 million, respectively. These figures were extrapolated from the plant-specific cost data for 27 direct dischargers to the projected universe of 29 plants. No plant closures or unemployment effects are estimated as a result of this regulation.

PSES—EPA estimates that the indirect discharging segment of the coil coating industry will incur additional capital investment and annual compliance costs of $14.3 million and $5.0 million, respectively. These figures were extrapolated from the plant-specific cost data for 31 indirect dischargers to the projected universe of 39 plants. The one plant that now discharges no process wastewater was an indirect discharger.

No plant closures or employment impacts are expected among existing indirect dischargers. Other impacts such as employment, product substitution, and foreign trade effects are not anticipated.

NSPS–PSNS—The coil coating category has experienced strong growth over the period 1962 through 1978. Total coated metal coil shipments have grown at a compounded annual rate of over 12 percent. Growth during the same period for the end-use markets (transportation equipment and building products) have averaged 3–4 percent for the use of coated metal coils has grown more rapidly than that of other materials. The industry is still expected to be relatively profitable and to grow at a rate at least as great as the GNP through 1985 (which has averaged around 3 percent in real terms since World War II).

EPA estimates the average cost to build a new coil coating plant of 78.1 million square meters per year would be $20 million ($15 million for equipment costs and $5 million for building costs). Our analysis indicates that these cost estimates will be the same regardless of whether a new coil coating plant is built on a new or existing plant site. The average investment cost for a plant of this size to comply with NSPS or PSNS is $686,000 which represents approximately 3 percent of the cost to build a new coil coating plant. Because of this high growth rate and the relatively low capital investment required by the NSPS and PSNS regulation, the construction of new coil coating lines is not expected to be adversely impacted. The competitive advantages of coated coil over other products combined with the forecasted growth and expanded end-product uses through 1985 should allow the plants to earn a level of profits sufficient to attract needed capital funding.

Regulatory Flexibility Analysis: Pub. L. 96–354 requires EPA to prepare an Initial Regulatory Flexibility Analysis for all regulations that have a significant impact on a substantial number of small entities. The analysis may be conducted in conjunction with a part of other Agency analyses. A small business analysis for this industry is included in the economic impact analysis.

Plant annual production is the primary variable used to distinguish firm size. The small category includes 10 facilities (16 percent of the total) with annual production of 50,000 square feet or less of coil (long strips of metal) coated. Annual BAT and PSES compliance costs for these small plants are $960 thousand, and investment costs are $2.7 million. No plant closures or employment effects are projected for small firms as a result of this regulation; therefore, a formal Regulatory Flexibility Analysis is not required. The Agency has concluded that this regulation will have no significant impact on a substantial number of small entities.

VII. Non-Water-Quality Environmental Impacts

Eliminating or reducing one form of pollution may cause other environmental problems. Sections 304(b) and 306 of the Act require EPA to consider the non-water-quality environmental impacts (including energy requirements) of certain regulations. In compliance with these provisions, we considered the effect of this regulation on air pollution, solid waste generation, water scarcity, and energy consumption. This regulation was circulated to and reviewed by EPA personnel responsible for non-water-quality programs. While it is difficult to balance pollution problems against each other and against energy use, we believe that this regulation will best serve often competing national goals.

The following non-water-quality environmental impacts (including energy requirements) are associated with the final regulation. The Administrator has determined that the impacts identified below are justified by the benefits associated with compliance with the limitations and standards.

A. Air Pollution—Imposition of BPT, BAT, NSPS, PSES, and PSNS will not create any substantial air pollution problems because the wastewater treatment technologies required to meet these limitations and standards do not cause air pollution.

B. Solid Waste—EPA estimates that coil coating facilities generate 43,900 kkg/yr of solid wastes (wet basis—1976). These wastes were comprised of treatment system sludges containing toxic metals, including chromium, copper, lead, nickel and zinc.

EPA estimates that the BPT limitations will contribute an additional 11,500 kkg/yr of solid wastes. BAT and PSES will increase these wastes by approximately 1,100 kkg/yr beyond BPT levels. These sludges will necessarily contain additional quantities (and concentrations) of toxic metal pollutants. New sources (either direct or indirect dischargers) are projected to generate 127 kkg/yr sludge for each new steel basis material plant.

Only one of the wastewater treatment sludges from coil coating is likely to be hazardous under the regulations implementing subtitle C of the Resource Conservation and Recovery Act (RCRA). Under those regulations, generators of these wastes must test the wastes to determine if the wastes meet any of the characteristics of hazardous waste (see 40 CFR 262.11, 45 FR 33142–33143, May 19, 1980). Wastewater sludge generated by aluminum coil coating may contain cyanides and may exhibit extraction procedure (EP) toxicity. Therefore these wastes may require disposal as a hazardous waste. We have estimated the added cost above the cost of disposing an equivalent mass of non-hazardous waste at $361,800 per year.

C. *Consumptive Water Loss*—Treatment and control technologies which require extensive recycling and reuse of water may, in some cases, require cooling mechanisms. Where evaporative cooling mechanisms are used, water loss may result and contribute to water scarcity problems, a concern primarily in arid and semi-arid regions. This regulation envisions the evaporative cooling and recycling of

relatively small quantities of cooling water. For the average size coil coating plant, this could result in evaporative loss of about 2,000 gal/day of water. This quantity of water does not constitute a significant consumptive water loss.

D. *Energy Requirements*—EPA estimates that the achievement of BPT effluent limitations will result in a net increase in electrical energy consumption of approximately 0.55 million kilowatt-hours per year. BAT limitations are projected to add another 2.84 million kilowatt-hours to electrical energy consumption. To achieve the BPT and BAT effluent limitations, a typical direct discharger will increase total energy consumption by less than one percent of the energy consumed for production purposes.

The Agency estimates that PSES will result in a net increase in electrical energy consumption of approximately 3.54 million kilowatt-hours per year. To achieve PSES, a typical existing indirect discharger will increase energy consumption less than one percent of the total energy consumed for production purposes.

The energy requirements for NSPS and PSNS are estimated to be similar to energy requirements for BAT and PSES. However, this can only be quantified in kwh/year after projections are made for new plant construction.

VIII. Pollutants and Subcategories Not Regulated

The Settlement Agreement in *NRDC v. Train, supra* contains provisions authorizing the exclusion from regulation in certain instances of toxic pollutants and industry subcategories.

Paragraph 8(a)(iii) of the Revised Settlement Agreement allows the Administrator to exclude from regulation toxic pollutants not detectable by Section 304(h) analytical methods or other state-of-the-art methods. The toxic pollutants not detected and therefore, excluded from regulation are listed in Appendix B to this preamble—first those excluded from all subcategories, then by subcategory those not excluded in all subcategories.

Paragraph 8(a)(iii) also allows the Administrator to exclude from regulation toxic pollutants detected in amounts too small to be effectively reduced by technologies known to the Administrator. Appendix C to this preamble lists the toxic pollutants in each subcategory which were detected in the effluent in amounts at or below the nominal limit of analytical quantification, which are too small to be effectively reduced by technologies and which, therefore, are excluded from regulation.

Paragraph 8(a)(iii) allows the Administrator to exclude from regulation toxic pollutants detectable in the effluent from only a small number of sources within the subcategory which are uniquely related to those sources. Appendix D to this preamble lists for each subcategory the toxic pollutants detected in the effluent from only a small number of sources within the subcategory which are uniquely related to these sources.

Paragraph 8(a)(iii) also allows the Administrator to exclude from regulation, toxic pollutants present in amounts too small to be effectively reduced by technologies considered applicable to the category. Appendix E to this notice lists for each subcategory the which are not treatable using technologies considered applicable to the category.

Paragraph 8(a)(iii) also allows the Administrator to exclude from regulation toxic pollutants which will be effectively controlled by the technologies upon which are based other effluent limitations and standards. Appendix F list those toxic pollutants which will be adequately controlled by the BPT and BAT limitations promulgated here even though they are not specifically regulated.

Paragraph 8(b)(ii) allows the Administrator to exclude from regulation, toxic pollutants introduced into POTW whose amount and toxicity are so insignificant as to not justify developing a pretreatment regulation. Appendix G lists by subcategory pollutants not regulated in pretreatment because the quantity is so insignificant that it does not justify regulation.

IX. Public Participation and Response to Comments

Industry and government groups have participated during the development of these effluent guidelines and standards. Following the publication of the proposed rule on January 12, 1981 in the Federal Register, we provided the development document supporting the proposed rules to industry, Government agencies, and the public sector for comments. A workshop was held on the Coil Coating BAT Rulemaking in Washington, D.C., on March 10, 1981. On March 11, 1981, in Washington, D.C., a public hearing was held on the proposed pretreatment standards at which one person presented testimony. The comment period closed April 13, 1981 and eight commenters submitted a total of 48 comments on the proposed regulation.

All comments received have been carefully considered, and appropriate changes in the regulation have been made whenever available data and information supported those changes. Major issues raised by the comments are addressed below in this preamble. A summary of the comments received and our detailed responses to all comments are included in a report "Responses to Public Comments, Proposed Coil Coating Effluent Limitations and Standards," which is a part of the public record for this regulation. This report, along with the rest of the public record, will be available for public review February 7, 1983, in EPA's Public Information Reference Unit, Room 2004 (Rear), (EPA Library), 401 M Street, SW., Washington, D.C.

The principal comments received and the Agency response follows:

1. Some commenters felt the Agency should limit regulation to pH, TSS, oil and grease, and chromium as only these parameters are needed, in their view, to control pollution.

We agree that the final regulation need not establish limitations for all the pollutants identified in the proposal. However, we do not believe industry's suggestion for pollutant control is adequate. We have concluded that a better regulatory approach for direct dischargers is to regulate pH, TSS, oil and grease, and three to four metals depending on the subcategory for direct dischargers. This approach reduces the number of metals to be regulated from eight in the proposed regulation to three or four in the final regulation and would, therefore, decrease the cost of sampling and analysis for industry. For indirect dischargers we conclude that regulation of toxic metals (and cyanide) is adequate.

Regulating the three or four metals which occur in large amounts or which are unique to that subcategory and pH and TSS will control all eight of the metals that were limited in the proposed regulation.

2. Comments suggested that only hexavalent chromium should be regulated because trivalent chromium is not toxic.

While hexavalent chromium is clearly the more toxic form of chromium, the trivalent form of chromium is also toxic. Therefore we have no basis for not regulating trivalent chromium along with the hexavalent form.

3. Some commenters supported a concentration based regulation instead of a mass based regulation because a mass based regulation would, in their opinion, tend to disclose confidential information.

The fundamental problem with concentration-based limitations is that the amount of pollutants in the efflunet stream is not limited by effluent concentration. The mass limitations set forth are the only method of designating effluent standards. Concentration standards can be met without implementing the water flow reduction which is a major feature of the treatment and control system. Therefore, to regulate on the basis of concentration only is not adequate because it will not control the quantity of toxics to POTW. Therefore mass based limitations are necessary to adequately control pollution from this category.

4. Comments objected to the use of data from other categories to establish the treatment effectiveness of the major technologies. Commenters argued that there were differences in the base metals used and that these differences indicate that technology used in other categories cannot achieve equivalent results in coil coating facilities.

Our plant visits and sampling revealed that the wastewater in coil coating facilities is similar to the wastewater of the other categories from which data to support this regulation were derived. As discussed earlier in this preamble the Agency made a detailed analysis of data from several sources to assure the correctness of using the pooled data base in many categories. Based on similarities in the quantity and characteristics of the wastewater and the processes used, we are confident that the technology used in the other categories will perform as well in coil coating facilities as it does in facilities in the other categories. Therefore, the transfer of technology performance data with respect to this is supportable under *Tanners' Council v. Train.*

5. Industry objected to NSPS based on no-rinse conversion coating because industry believed that the use of no-rinse conversion coating had not been fully demonstrated for all product applications and that no no-rinse conversion coatings have been approved by the Food and Drug Administration for use in food containers.

The proposed NSPS was based on reduction of process wastewater and elimination of coatings wastewater by the use of no-rinse conversion coatings followed by lime, settle and filter treatment. This is the proposed BAT plus flow reduction using no-rinse conversion coating. At the time of proposal, we were also evaluating an equivalent option which would not require elimination of coating wastewater but which achieves essentially equivalent pollutant reduction by using multistage countercurrent cascade rinsing to reduce flow with cyanide removal, hexavalent chromium reduction, oil removal, and lime, settle and filter treatment.

Based on the comments submitted, we re-evaluated the requirement for no-rinse conversion coating. Because no-rinse conversion coatings cannot be used across all product lines, the model NSPS technology is now based on alternative control technology in which countercurrent rinsing replaces no-rinse conversion coating. This will not result in a substantial increase in the discharge of pollutants from conversion coating operations.

6. Several commenters expressed the fear that the reuse of quench water in the cleaning and conversion coating rinses would damage the quality of their products.

The comment suggesting that product quality will be degraded by the reuse of quench water was not supported and does not appear to be valid. Thirty percent of the coil coating plants already recycle quench water; many facilities reuse the quench water in the cleaning and conversion coating rinses. Therefore we are continuing to rely on the reuse of quench water as a viable pollution control technology for BAT, NSPS, PSES and PSNS.

7. Some comments raised the problem of meeting the 30 day average limitations when fewer than 30 samples were taken because a lesser number is required by their permit.

The issue of sampling frequency and monthly average permit requirements was considered fully during the final consideration of this regulation. Because most coil coating plants are not required to monitor each day, we are publishing a "monthly average" number which is similar to the 30-day average number but is based on the average of ten consecutive sampling days (not necessarily calendar days). This monthly average number shall be the basis for monthly average permit and pretreatment compliance and for use in the combined waste stream formula regardless of the number of samples required to be taken.

The Agency rejected shorter time periods for averaging into a monthly average because they do not reasonably approximate the daily values over one month and because shorter time periods such as a four-day average used for a monthly average would allow much greater discharges of pollutants.

8. Comment from one company complained that the cyanide limitation is too low and connot be achieved.

We do not agree with the comment that the cyanide limitation is unattainable. Our limitation is based on cyanide removal data from three coil coating plants. After receiving the comment we inspected the commenter's plant and found the treatment process to be improperly operated. With proper operation we believe that this plant can meet the limitations. Furthermore, alternative processes which do not use cyanide are available to eliminate cyanide and treatment needs. The Agency believes that non-cyanide coatings are the most appropriate solution to cyanide removal problems.

We are promulgating the limitations for cyanide allowing the plant to be relieved from monitoring cyanide after certifying that cyanide is not present in either the process or wastewaters.

9. Industry criticized the oil and grease limitation as being too low and not achievable.

Because of the comment, we re-evaluated the oil and grease limitations and find they are achievable by plants now operating in the category. During sampling we made oil and grease analysis of 39 effluents and found that 26 achieved the one day limitation; five of the eleven that did not meet the limitation had no oil and grease removal treatment.

10. We proposed to use oil and grease as an indicator for BAT for the removal of toxic organic pollutants. One comment questioned the relationship between oil and grease and toxic organic pollutants.

Twenty-five toxic organic pollutants were found during sampling and analysis. Most of those are polycyclic aromatic hydrocarbon (PAH) compounds found at low concentrations above the limits of detection. The organics appear to come from the cold-rolling lubricants used in manufacturing the metal strip. (Similar compounds were found in iron and steel and aluminum forming). The organics are not uniformly used across the category but may vary from coil to coil depending on the rolling oil used by the mill which manufactured the coil. The variability of the presence of specific compounds and the ability to shift rolling lubricant formulas from one toxic organic to another makes regulation of a subset of specific toxic organic compounds appear ineffective. The relationship between oil and grease and toxic organics is established in the development document and high removals seem assured by regulating oil and grease. We proposed the use of an oil and grease limitation in BAT as an indicator of adequate removal of the toxic organics; however, further analysis makes this now appear unnecessary. Good oil and

grease control at BPT should remove more than 85 percent of the toxic organics present reducing all but 2 of them below the limit of analytic quantification; the two remaining above quantification would not be treatable and therefore would be excluded from regulation.

11. A few commenters asserted that the economic impact of the regulation would be too great. These comments generally were not specific and included no data. One comment criticized our return on investment (ROI) assumptions.

We estimate the total investment for these plants to be $24.3 million to comply with BAT ($9.9 million) and PSES ($14.3 million). For all existing source regulations (BAT & PSES), the annual compliance costs of $9.0 million are about 1 percent of the industry revenues and will cause minimal industry-wide price and quantity changes. No plant closures or employment impacts are projected for the final regulation. In the most recent economic impact analysis, the ROI has been adjusted upward to 8.0 percent. The reasons for this adjustment is explained in the economic impact report.

12. In response to a request for comments, three commenters expressed the view that canmaking is sufficiently different from coil coating to require separate regulation rather than be covered under one of the coil coating subcategories. They cited flow and oil and grease or lubricant type as major differences.

We agree with the commenters that, because of process and wastewater differences, canmaking is sufficiently different from coil coating to require separate limitations. Canmaking has a separate schedule under the Court Order and we plan to regulate canmaking as separate subcategories of coil coating.

X. Best Management Practices

Section 304(e) of the Clean Water Act gives the Administrator authority to prescribe "best management practices" (BMP). EPA is not now considering promulgating BMP specific to coil coating.

XI. Upset and Bypass Provisions

A recurring issue of concern has been whether industry guidelines should include provisions authorizing noncompliance with effluent limitations during periods of "upset" or "bypass." An upset, sometimes called an "excursion", is an unintentional noncompliance occurring for reasons beyond the reasonable control of the permittee. It has been argued that an upset provision in EPA's effluent limitations is necessary because such upsets will inevitably occur even in properly operated control equipment. Because technology based limitations require only what technology can achieve, it is claimed that liability for such situations is improper. When confronted with this issue, courts have disagreed on whether an explicit upset or excursion exemption is necessary, or whether upset or excursion incidents may be handled through EPA's exercise of enforcement discretion. Compare *Marathon Oil Co.* v. *EPA*, 564 F. 2d 1253 (9th Cir. 1977) with *Weyerhaeuser* v. *Costle, supra*, and *Corn Refiners Association, et al.* v. *Costle*, No. 78–1069 (8th Cir., April 2, 1979). See also *American Petroleum Institute* v. *EPA*, 540 F. 2d 1023 (10th Cir. 1976); *CPC International, Inc.* v. *Train*, 540 F. 2d 1320 (8th Cir. 1976); *FMC Corp.* v. *Train*, 539 F. 2d 973 (4th Cir. 1976).

An upset is an unintentional episode during which effluent limits are exceed; a bypass however, is an act of intentional noncompliance during which waste treatment facilities are circumvented in emergency situations. We have, in the past, included bypass provisions in NPDES permits.

We determined that both upset and bypass provisions should be included in NPDES permits and have promulgated Consolidated Permit regulations that include upset and bypass permit provisions (See 40 CFR 122.60, 45 FR 33290 (May 19, 1980). The upset provision establishes an upset as an affirmative defense to prosecution for violation of technology-based effluent limitations. The bypass provision authorizes bypassing to prevent loss of life, personal injury, or severe property damage. Consequently, although permittees in the coil coating industry will be entitled to upset and bypass provisions in NPDES permits, this final regulation does not address these issues.

XII. Variances and Modifications

Upon the promulgation of this regulation, the effluent limitations for the appropriate subcategory must be applied in all Federal and State NPDES permits thereafter issued to direct dischargers in the coil coating industry. In addition, on promulgation, the pretreatment limitations are directly applicable to any indirect dischargers.

For the BPT effluent limitations, the only exception to the binding limitations is EPA's "fundamentally different factors" variance. See *E. I. duPont deNemours & Co.* v. *Train*, 430 U.S. 112 (1977); *Weyerhaeuser Co.* v. *Costle, supra*. This variance recognizes factors concerning a particular discharger that are fundamentally different from the factors considered in this rulemaking. Although this variance clause was set forth in EPA's 1973–1976 industry regulations, it is now included in the NPDES regulations and will not be included in the coil coating or other industry regulations. See the NPDES regulations at 40 CFR Part 125, Subpart D.

The BAT limitations in this regulation are also subject to EPA's "fundamentally different factors" variance. BAT limitations for nonconventional pollutants are subject to modifications under Sections 301(c) and 301(g) of the Act. These statutory modifications do not apply to toxic or conventional pollutants. According to Section 301(j)(1)(B), applications for these modifications must be filed within 270 days after promulgation of final effluent limitations guidelines. No regulations establishing criteria for 301(c) and 301(g) determinations have been proposed or promulgated, but the Agency recently announced in the April 12, 1982 Regulatory Agenda plans to propose such regulations by December, 1982 (47 FR 15702). All dischargers who file an initial application within 270 days will be sent a copy of the substantive requirements for 301(c) and 301(g) determinations once they are promulgated. Modification determinations will be considered at the time the NPDES permit is being reissued. Pretreatment standards for existing sources are subject to the "fundamentally different factors" variance and credits for pollutants removed by POTW. (See 40 CFR 403.7, 403.13).

The economic modification section (301(c)) gives the Administrator authority to modify BAT requirements for nonconventional pollutants [1] for dischargers who file a permit application after July 1, 1977, upon a showing that such modified requirements will (1) represent the maximum use of technology within the economic capability of the owner or operator and (2) result in reasonable further progress toward the elimination of the discharge of pollutants. The environmental modification section (301(g)) allows the Administrator, with the concurrence of the State, to modify BAT limitations for nonconventional pollutants from any point source upon a showing by the owner or operator of such point source satisfactory to the Administrator that:

[1] Section 301(l) precludes the Administrator from modifying BAT requirements for any pollutants which are on the toxic pollutant list under Section 307(l)(1) of the Act.

(a) Such modified requirements will result at a minimum in compliance with BPT limitations or any more stringent limitations necessary to meet water quality standards;

(b) Such modified requirements will not result in any additional requirements on any other point or nonpoint source; and

(c) Such modification will not interfere with the attainment or maintenance of that water quality which shall assure protection of public water supplies, and the protection and propagation of a balanced population of shellfish, fish, and wildlife, and allow recreational activities, in and on the water and such modification will not result in the discharge of pollutants in quantities which may reasonably be anticipated to pose an unacceptable risk to human health or the environment because of bioaccumulation, persistency in the environment, acute toxicity, chronic toxicity (including carcinogenicity, mutagenicity or teratogenicity), or synergistic propensities.

Section 301(j)(1)(B) of the Act requires that application for modifications under section 301 (c) or (g) must be filed within 270 days after the promulgation of an applicable effluent guideline. Initial applications must be filed with the Regional Administrator and, in those States that participate in the NPDES Program, a copy must be sent to the Director of the State program. Initial applications to comply with 301(j) must include the name of the permittee, the permit and outfall number, the applicable effluent guideline, and whether the permittee is applying for a 301(c) or 301(g) modification or both. Applicants interested in applying for both must do so in their initial application. For further details, see 43 FR 40859, September 13, 1978.

The nonconventional pollutants limited under BAT in this regulation are aluminum and iron. No regulation establishing criteria for 301(c) and 301(g) determinations have been proposed or promulgated, but the Agency recently announced in the April 12, 1982, Regulatory Agenda plans to propose such regulations by December, 1982 (47 FR 15702). All dischargers who file an initial application within 270 days will be sent a copy of the substantive requirements for 301(c) and 301(g) determinations once they are promulgated. Modification determinations will be considered at the time the NPDES permit is being reissued.

Pretreatment standards for existing sources are subject to the "fundamentally different factors" variance and credits for pollutants removed by POTW. (See 40 CFR 403.7, 403.13.) Pretreatment standards for new sources are subject only to the credits provision in 40 CFR 403.7. NSPS are not subject to EPA's "fundamentally different factors" variance or any statutory or regulatory modifications. See *E. I. du Pont de Nemours and Co.*, v. *Train*, supra.

XIII. Relationship to NPDES Permits

The BPT limitations and NSPS in this regulation will be applied to individual coil coating plants through NPDES permits issued by EPA or approved state agencies, under Section 402 of the Act. As discussed in the preceding section of this preamble, these limitations must be applied in all Federal and State NPDES permits except to extent that variances and modifications are expressly authorized. Other aspects of the interaction between these limitations and NPDES permits are discussed below.

One issue that warrants consideration is the effect of this regulation on the powers of NPDES permit-issuing authorities. The promulgation of this regulation does not restrict the power of any permitting authority to act in any manner consistent with law or these or any other EPA regulations, guidelines, or policy. For example, even if this regulation does not control a particular pollutant, the permit issuer may still limit such pollutant on a case-by-case basis when limitations are necessary to carry out the purposes of the Act. In addition, to the extent that state water quality standards or other provisions of State or Federal law require limitation of pollutants not covered by this regulation (or require more stringent limitations on covered pollutants), such limitations must be applied by the permit-issuing authority.

A second topic that warrants discussion is the operation of EPA's NPDES enforcement program, many aspects of which were considered in developing this regulation. We emphasize that although the Clean Water Act is a strict liability statute, the initiation of enforcement proceedings by EPA is discretionary. We have exercised and intend to exercise that discretion in a manner that recognizes and promotes good-faith compliance efforts.

We agree with the commenters that, because of process and wastewater differences, canmaking is sufficiently different from coil coating to require separate limitations. Canmaking has a separate schedule under the Court Order and we plan to regulate canmaking as separate subcategories of coil coating.

XIV. Availability of Technical Information

The basis for this regulation is detailed in four major documents. Analytical methods are discussed in *Sampling and Analysis Procedures for Screening of Industrial Effluents for Priority Pollutants.* EPA's technical conclusions are detailed in *Development Document for Effluent Guidelines, New Source Performance Standards and Pretreatment Standards for the Coil Coating Point Source Category.* The Agency's economic analysis is presented in *Economic Impact Analysis of Effluent Limitations and Standards for the Coil Coating Industry,* EPA. A summary of the public comments received on the proposed regulation is presented in a report "Responses to Public Comments, Proposed Coil Coating Effluent Guidelines and Standards," which is a part of the public record for this regulation and economic documents may be obtained from the National Technical Information Service, Springfield, Virginia 22161 (703/487-4600). Additional information concerning the economic impact analysis may be obtained from Ms. Josette Bailey, Economic Analysis Staff (WH-586) EPA, 401 M Street, S.W., Washington, D.C. 20460 or by calling (202)382-5382.

This regulation was submitted to the Office of Management and Budget for review as required by Executive Order 12291.

In accordance with the Paperwork Reduction Act of 1980 (Pub. L. 96-511), the reporting or recordkeeping provisions that are included in this regulation have been or will be submitted for approval to the Office of Management and Budget (OMB). They are not effective until OMB approval has been obtained and the public notified to that effect through a technical amendment to this regulation.

XV. List of Subjects in 40 CFR Part 465

Metal coating and allied services, Waste treatment and disposal, Water pollution control.

Dated: November 5, 1982.

Anne M. Gorsuch,

Administrator.

XVI. Appendices

Appendix A—Abbreviations, Acronyms, and Other Terms Used in This Notice

Act—The Clean Water Act

Agency—The U.S. Environmental Protection Agency

BAT—The best available technology economically achievable under Section 304(b)(2)(B) of the Act

BCT—The best conventional pollutant control technology, under Section 304(b)(4) of the Act

BDT—The best available demonstrated control technology processes, operating methods, or other alternatives, including where practicable, a standard permitting no discharge of pollutants under Section 306(a)(1) of the Act

BMPs—Best management practices under Section 304(e) of the Act

BPT—The best practicable control technology currently available under Section 304(b)(1) of the Act

Clean Water Act—The Federal Water Pollution Control Act Amendments of 1972 (33 U.S.C. 1251 *et seq.*), as amended by the Clean Water Act of 1977 (Pub. L. 95–217)

Direct discharger—A facility which discharges or may discharge pollutants into waters of the United States

Indirect discharger—A facility which discharges or may discharge pollutants into a publicly owned treatment works

NPDES permit—A National Pollutant Discharge Elimination System permit issued under Section 402 of the Act

NSPS—New source performance standards under Section 306 of the Act

POTW—Publicly owned treatment works

PSES—Pretreatment standards for existing sources of indirect discharges under Section 307(b) of the Act

PSNS—Pretreatment standards for new sources of indirect discharges under Section 307 (b) and (c) of the Act

RCRA—Resource Conservation and Recovery Act (Pub. L. 94–580) of 1976, Amendments to Solid Waste Disposal Act

Appendix B—Toxic Pollutants Not Detected in Wastewaters

(a) Toxic pollutants not detected in wastewaters of any subcategory.

001 Acenaphthene
002 Acrolein
003 Acrylonitrile
005 Benzidine
006 Carbon tetrachloride (tetrachloromethane)
007 Chlorobenzene
008 1,2,4-trichlorobenzene
009 Hexachlorobenzene
010 1,2-dichloroethane
012 Hexachloroethane
014 1,1,2-trichloroethane
015 1,1,2,2-tetrachloroethane
016 Chloroethane
017 Bis(chloromethyl)ether
018 Bis(2-chloroethyl)ether
019 2-chloroethyl vinyl ether (mixed)
020 2-chloronaphthalene
021 2,4,6-trichlorophenol
022 Parachlorometa cresol
024 2-chlorophenol
025 1,2-dichlorobenzene
026 1,3-dichlorobenzene
027 1,4-dichlorobenzene
028 3,3-dichlorobenzidine
031 2,4-dichlorophenol
032 1,2-dichloropropane
033 1,2-dichloropropylene (1,3-dichloropropene)
034 2,4-dimethylphenol
035 2,4-dinitrotoluene
036 2,6-dinitrotoluene
037 1,2-diphenylhydrazine
040 4-chlorophenyl phenyl ether
041 4-bromophenyl phenyl ether
042 Bis(2-chloroisopropyl) ether
043 Bis(2-chloroethoxy) methane
044 Methylene chloride (dichloromethane)
045 Methyl chloride (dichloromethane)
046 Methyl bromide (bromomethane)
047 Bromoform (tribromomethane)
048 Dichlorobromomethane
049 Trichlorofluoromethane
050 Dichlorodifluoromethane
052 Hexachlorobutadiene
053 Hexachloromyclopentadiene
056 Nitrobenzene
057 2-nitrophenol
058 4-nitrophenol
059 2,4-dinitrophenol
060 4,6-dinitro-o-cresol
061 N-nitrosodimethylamine
062 N-nitrosodiphenylamine
063 N-nitrosodi-n-propylamine
064 Pentachlorophenol
065 Phenol
086 Toluene
088 Vinyl chloride (chloroethylene)
089 Aldrin
090 Dieldrin
091 Chlordane (technical mixture and metabolites)
092 4,4-DDT
093 4,4-DDE (p, p-DDX)
094 4,4-DDD (p, p-TDE)
095 Alpha-endosulfan
096 Beta-endosulfan
097 Endosulfan sulfate
098 Endrin
099 Endrin aldehyde
100 Heptachlor
101 Heptachlor epoxide (BHC-hexachlorocyclohexane)
102 Alpha-BHC
103 Beta-BHC
104 Gamma-BHC (lindane)
105 Delta-BHC (PCB-polychlorinated biphenyls)
106 PCB-1242 (Arochlor 1242)
107 PCB-1254 (Arochlor 1254)
108 PCB-1221 (Arochlor 1221)
109 PCB-1232 (Arochlor 1232)
110 PCB-1248 (Arochlor 1248)
111 PCB-1260 (Arochlor 1260)
112 PCB-1016 (Arochlor 1016)
113 Toxaphene
115 Arsenic
116 Asbestos
117 Beryllium
125 Selenium
127 Thallium
129 2, 3, 7, 8-Tetiachlorodibenzo-p-dioxin (TCDD)

(b) Toxic pollutants not detected in wastewaters of the steel basis material subcategory.

023 Chloroform (trichloromethane)
029 1,1-dichloroethylene
030 1,2-trans-dichloroethylene
051 Chlorodibromomethane

(c) Toxic pollutants not detected in wastewaters of the Galvanized Basis Material Subcategory.

044 Methylene chloride (dichloromethane)
114 Antimony

(d) Toxic pollutants not detected in wastewaters of the Aluminum Basis Material Subcategory.

011 1,1,1-trichlorethane
013 1,1-dichloroethane
023 Chloroform (trichloromethane)
029 1,1-dichloroethylene
030 1,2-trans-dichloroethylene
038 Ethylbenzene
051 Chlorodibromomethane
054 Isophorone
114 Antimony

Appendix C—Toxic Pollutants Detected Below the Analytical Qualification Limit

(a) Steel Basis Material Subcategory.

004 Benzene
038 Ethylbenzene
044 Methylene chloride (dichloromethane)
071 Dimethyl phthalate
085 Tetrachloroethylene
123 Mercury

(b) Galvanized Basis Material Subcategory.

004 Benzene
013 1,1-dichloroethane
023 Chloroform (trichloromethane)
038 Ethylbenzene
051 Chlorodibromomethane
069 Di-n-octyl phthalate
071 Dimethyl phthalate
085 Tetrachloroethylene
123 Mercury
126 Silver

(c) Aluminum Basis Material Subcategory.

004 Benzene
039 Fluoranthene
044 Methylene chloride (dichloromethane)
055 Naphthalene
069 Di-n-octyl phthalate
072 1,2-benzanthracene (benzo(a)anthracene)
073 Benzo(a)pyrene (3,4-benzo-pyrene)
074 3,4-Benzofluoranthene (benzo(b)fluoranthene)
075 11,12-benzofluoranthene (benzo(b)(fluoranthene)
076 Chrysene
077 Acenaphthylene
078 Anthracene
079 1,12-benzoperylene (benzo(ghi)perylene)
080 Fluorene
081 Phenanthrene
082 1,2,5,6-dibenzanthracene(dibenzo(,h)anthracene)

083 Indeno(1,2,3-cd) pyrene (2,3-o-pheynylene pyrene)
084 Pyrene
085 Tetrachloroethylene
087 Trichloroethylene
123 Mercury
126 Silver

Appendix D—Toxic Pollutants Found in a Small Number of Plants Where Such Pollutants Are Unique to These Plants

(a) Steel Basis Material Subcategory.

013 1,1-dichloroethane
054 Isophorone
066 Bis(2-ethylhexyl)phthalate
067 Butyl benzyl phthalate
068 Di-N-Butyl Phthalate
069 Di-n-octyl phthalate
070 Diethyl Phthalate
126 Silver

(b) Galvanized Basis Material Subcategory.

054 Isophorone
066 Bis(2-ethylhexyl)phthalate
067 Butyl benzyl phthalate
068 Di-N-Butyl Phthalate
070 Diethyl Phthalate

(c) Aluminum Basis Material Subcategory.

066 Bis(2-ethylhexyl)phthalate
067 Butyl benzyl phthalate
070 Diethyl Phthalate
071 Dimethyl phthalate

Appendix E—Toxic Pollutants Found in Quantities Not Treatable Using Technologies Considered Applicable to the Category

(a) Steel Basis Material Subcategory.

011 1,1,1-Trichloroethane
055 Naphthalene
114 Antimony
120 Copper

(b) Galvanized Basis Material Subcategory.

011 1,1,1-trichlorethane
029 1,1-dichloroethylene
030 1,2-trans-dichloroethylene
055 Naphthalene

(c) Aluminum Basis Material Subcategory.

068 Di-N-Butyl Phthalate
124 Nickel

Appendix F—Toxic Pollutant Effectively Controlled by BPT and BAT Limitations in This Regulation

(a) Steel Basis Material Subcategory.

039 Fluoranthene
072 1,2-benzanthracene (benzo(a)anthracene)
073 Benzo(a)pyrene(3,4-benzo-pyrene)
074 3,4- Benzofluoranthene (benzo(b)fluoranthene)
075 11,12- benzfluoranthene (benzo(b)fluoranthene)
076 Chrysene
077 Acenaphthylene
078 Anthracene
079 1,12-benzoperylene(benzo(ghi)perylene)
080 Fluorene
081 Phenanthrene
082 1,2,5,6-dibenzanthracene(dibenzo(,h)anthracene)
083 Indeno(1,2,3-cd) pyrene (2,3-o-pheynylene pyrene)
084 Pyrene
087 Trichloroethylene
118 Cadmium
120 Copper
122 Lead
124 Nickel

(b) Galvanized Basis Material Subcategory.

011 1,1,1-trichlorethane
029 1,1-dichloroethylene
030 1,2-trans-dichloroethylene
039 Fluoranthene
066 Bis(2-ethylhexyl)phthalate
070 Diethyl Phthalate
072 1,2-benzanthracene (benzo(a)anthracene)
073 Benzo(a)pyrene (3,4-benzo-pyrene)
074 3,4-Benzofluoranthene (benzo(b)fluoranthene)
075 11,12-benzofluoranthene) (benzo(b)fluoranthene)
076 Chrysene
077 Acenaphthylene
078 Anthracene
079 1,12-benzoperylene (benzo(ghi)perylene)
080 Fluorene
081 Phenanthrene
082 1,2,5,6-dibenzanthracene (dibenzo(,h)anthracene)
083 Indeno(1,2,3-cd) pyrene (2,3-o-pheynylene pyrene)
084 Pyrene
087 Trichloroethylene
118 Cadmium
122 Lead
124 Nickel

(c) Aluminum Basis Material Subcategory.

118 Cadmium
120 Copper
122 Lead
124 Nickel

Appendix G—Toxic Pollutants Not Regulated at Pretreatment Because the Toxicity and Amount are Insignificant

(a) Steel Basis Material Subcategory.

039 Fluoranthene
054 Isophorone
065 Phenol
066 Bis(2-ethylhexyl)phthalate
067 Butyl benzyl phthalate
069 Di-n-octyl phthalate
070 Diethyl Phthalate
072 1,2-benzanthracene(benzo(a) anthracene)
073 Benzo(a)pyrene (3,4-benzo-pyrene)
074 3,4-Benzofluoranthene (benzo(b)fluoranthene)
075 11,12-benzofluoranthene (benzo(b)fluoranthene)
076 Chrysene
077 Acenaphthylene
078 Anthracene
079 1,12-benzoperylene (benzo(ghi) perylene)
080 Fluorene
081 Phenanthrene
082 1,2,5,6-dibenzanthracene (dibenzo(,h)anthracene)
083 Indeno(1,2,3-cd) pyrene (2,3-o-pheynylene pyrene)
084 Pyrene
087 Trichloroethylene

(b) Galvanized Basis Material Subcategory.

011 1,1,1-trichlorethane
029 1,1-dichloroethylene
030 1,2-trans-dichloroethylene
039 Fluoranthene
066 Bis(2-ethylhexyl)phthalate
070 Diethyl Phthalate
072 1,2-benzanthracene (benzo(a)anthracene)
087 Trichloroethylene

(c) Aluminum Basis Material Subcategory.

None.

A new Part 465 is added to 40 CFR to read as follows:

PART 465—COIL COATING POINT SOURCE CATEGORY

General Provisions

Sec.
465.01 Applicability.
465.02 General definitions.
465.03 Monitoring and reporting requirements.
465.04 Compliance date for PSES.

Subpart A—Steel Basis Material Subcategory

465.10 Applicability; description of the steel basis material subcategory.
465.11 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
465.12 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
465.13 New source performance standards.
465.14 Pretreatment standards for existing sources.
465.15 Pretreatment standards for new sources.
465.16 [Reserved].

Subpart B—Galvanized Basis Material Subcategory

465.20 Applicability; description of the galvanized basis material subcategory.
465.21 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
465.22 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
465.23 New source performance standards.
465.24 Pretreatment standards for existing sources.
465.25 Pretreatment standards for new sources.
465.26 [Reserved].

Subpart C—Aluminum Basis Material Subcategory

Authority: Secs. 301, 304 (b), (c), (e), and (g), 306 (b) and (c), 307 (b) and (c), and 501 of the Clean Water Act (the Federal Water Pollution Control Act Amendments of 1972, as amended by the Clean Water Act of 1977) (the "Act"); 33 U.S.C. 1311, 1314 (b), (c), (e), and (g), 1316 (b) and (c), 1317 (b) and (c), and 1361; 86 Stat. 816, Pub. L. 92-500; 91 Stat. 1567, Pub. L. 95-217.

General Provisions

§ 465.01 Applicability.

This part applies to any coil coating facility which discharges a pollutant to waters of the United States or which introduces pollutants to a publicly owned treatment works.

§ 465.02 General definitions.

In addition to the definitions set forth in 40 CFR Part 401, the following definitions apply to this part:

(a) "Coil" means a strip of basis material rolled into a roll for handling.

(b) "Coil coating " means the process of converting basis material strip into coated stock. Usually cleaning, conversion coating, and painting are performed on the basis material. This regulation covers processes which perform any two or more of the three operations.

(c) "Basis material" means the coiled strip which is processed.

(d) "Area processed" means the area actually exposed to process solutions. Usually this includes both sides of the metal strip.

(e) "Steel basis material" means cold rolled steel, hot rolled steel, and chrome, nickel and tin coated steel which are processed in coil coating.

(f) "Galvanized basis material" means zinc coated steel, galvalum, brass and other copper base strip which is processed in coil coating.

(g) "Aluminum basis material" means aluminum, aluminum alloys and aluminum coated steels which are processed in coil coating.

§ 465.03 Monitoring and reporting requirements

The following special monitoring requirements apply to all facilities controlled by this regulation.

(a) Periodic analyses for cyanide are not required when both of the following conditions are met:

(1) The first wastewater sample taken in each calendar year has been analyzed and found to contain less than 0.07 mg/l cyanide

(2) The owner or operator of the coil coating facility certifies in writing to the POTW authority or permit issuing authority that cyanide is not used in the coil coating process.

(b) The "monthly average" regulatory values shall be the basis for the monthly average discharge limits in direct discharge permits and for pretreatment standards. Compliance with the monthly discharge limit is required regardless of the number of samples analyzed and averaged.

§ 465.04 Compliance date for PSES.

The compliance date for Pretreatment Standards for Existing Sources (PSES) is December 1, 1985.[1]

Subpart A—Steel Basis Material Subcategory

§ 465.10 Applicability; description of the steel basis material subcategory.

This subpart applies to discharges to waters of the United States, and introductions of pollutants into publicly owned treatment works from coil coating of steel basis material coils.

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

Except as provided in 40 CFR 125.30–125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available:

SUBPART A

Pollutant or pollutant property	BPT effluent limitations			
	Maximum for any 1 day		Maximum for monthly average	
	Mg/m² (pounds per 1 million ft²) of area processed			
Chromium	1.16	(0.24)	0.47	(0.096)
Cyanide	0.80	(0.17)	0.33	(0.068)
Zinc	3.66	(0.75)	1.54	(0.32)
Iron	3.39	(0.70)	1.74	(0.36)
Oil and grease	55.1	(11.3)	33.1	(6.77)
TSS	113.0	(23.1)	55.1	(11.3)
pH	[1]		[1]	

[1] Within the range of 7.5 to 10.0 at all times.

§ 465.12 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

Except as provided in 40 CFR 125.30–125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable:

SUBPART A

Pollutant or pollutant property	BAT effluent limitations			
	Maximum for any 1 day		Maximum for monthly average	
	Mg/m² (pounds per 1 million ft²) of area processed			
Chromium	0.50	(0.10)	0.20	(0.041)
Cyanide	0.34	(0.07)	0.14	(0.029)
Zinc	1.56	(0.32)	0.66	(0.14)
Iron	1.45	(0.30)	0.74	(0.15)

§ 465.13 New source performance standards.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

SUBPART A

Pollutant or pollutant property	NSPS			
	Maximum for any 1 day		Maximum for monthly average	
	Mg/m² (pounds per 1 million ft²) of area processed			
Chromium	0.12	(0.024)	0.047	(0.01)
Cyanide	0.063	(0.013)	0.025	(0.005)
Zinc	0.33	(0.066)	0.14	(0.027)
Iron	0.39	(0.086)	0.20	(0.041)
Oil and grease	3.16	(0.65)	3.16	(0.65)
TSS	4.74	(0.97)	3.48	(0.72)
pH	[1]		[1]	

[1] Within the range of 7.5 to 10.0 at all times.

[1] The Consent Decree in NRDC v. Train, 12 ERC 1833 (D.D.C. 1979) specifies a compliance data for PSES of no later than June 30, 1984. EPA will be moving for modification of that provision of the Decree. Should the Court deny that motion, EPA will be required to modify this compliance date accordingly.

§ 465.14 Pretreatment standards for existing sources.

Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR Part 403 and achieve the following retreatment standards for existing sources. The mass of wastewater pollutants in coil coating process wastewater introduced into a POTW shall not exceed the following values:

SUBPART A

Pollutant or pollutant property	PSES			
	Maximum for any 1 day		Maximum for monthly average	
	Mg/m² (pound per 1 million ft²) of area processed			
Chromium	0.50	(0.10)	0.20	(0.041)
Cyanide	0.34	(0.07)	0.14	(0.029)
Zinc	1.56	(0.32)	0.66	(0.14)

§ 465.15 Pretreatment standards for new sources.

Except as provided in CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR Part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in coil coating process wastewater introduced into a POTW shall not exceed the following values:

SUBPART A

Pollutant or pollutant property	PSNS			
	Maximum for any 1 day		Maximum for monthly average	
	Mg/m² (pounds per 1 million ft²) of area processed			
Chromium	0.12	(0.024)	0.047	(0.01)
Cyanide	0.063	(0.013)	0.025	(0.005)
Zinc	0.33	(0.066)	0.14	(0.027)

§ 465.16 [Reserved]

Subpart B—Galvanized Basis Material Subcategory

§ 465.20 Applicability; description of the galvanized basis material subcategory.

This subpart applies to discharges to waters of the United States and introductions of pollutants into publicly owned treatment works from coil coating of galvanized basis material coils.

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

Except as provided in 40 CFR 125.30–125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available:

SUBPART B

Pollutant or pollutant property	BPT effluent limitations			
	Maximum for any 1 day		Maximum for monthly average	
	Mg/m² (pounds per 1 million ft²) of area processed			
Chromium	1.10	(0.23)	0.45	(0.091)
Copper	4.96	(1.02)	2.61	(0.54)
Cyanide	0.76	(0.16)	0.32	(0.064)
Zinc	3.47	(0.71)	1.46	(0.30)
Iron	3.21	(0.66)	1.65	(0.34)
Oil and grease	52.2	(10.7)	31.3	(6.42)
TSS	107.0	(21.9)	52.2	(10.7)
pH	(1)	(1)	(1)	(1)

[1] Within the range of 7.5 to 10.0 at all times.

§ 465.22 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

Except as provided in 40 CFR 125.30–125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable:

SUBPART B

Pollutant or pollutant property	BAT effluent limitations			
	Maximum for any 1 day		Maximum for monthly average	
	Mg/m² (pounds per 1 million ft²) of area processed			
Chromium	0.37	(0.077)	0.16	(0.031)
Copper	1.71	(0.35)	0.90	(0.19)
Cyanide	0.26	(0.053)	0.11	(0.022)
Zinc	1.20	(0.25)	0.51	(0.11)
Iron	1.10	(0.23)	0.57	(0.12)

§ 465.23 New source performance standards.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section which may be discharged by a new source subject to the provisions of this subpart:

SUBPART B

Pollutant or pollutant property	NSPS			
	Maximum for any 1 day		Maximum for monthly average	
	Mg/m² (pounds per 1 million ft²) of area processed			
Chromium	0.13	(0.027)	0.052	(0.011)
Copper	0.44	(0.090)	0.21	(0.043)
Cyanide	0.07	(0.015)	0.028	(0.006)
Zinc	0.35	(0.08)	0.15	(0.030)
Iron	0.43	(0.09)	0.22	(0.045)
Oil and grease	3.43	(0.71)	3.43	(0.702)
TSS	5.15	(1.06)	3.78	(0.78)
pH	(1)	(1)	(1)	(1)

[1] Within the range of 7.5 to 10.0 at all times.

§ 465.24 Pretreatment standards for existing sources.

Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR Part 403 and achieve the following pretreatment standards for existing sources. The mass of wastewater pollutants in coil coating process wastewater introduced into a POTW shall not exceed the following values:

SUBPART B

Pollutant or pollutant property	PSES			
	Maximum for any 1 day		Maximum for monthly average	
	Mg/m² (pounds per 1 million ft²) of area processed			
Chromium	0.37	(0.077)	0.16	(0.031)
Copper	1.71	(0.35)	0.90	(0.19)
Cyanide	0.26	(0.053)	0.11	(0.022)
Zinc	1.20	(0.25)	0.51	(0.11)

§ 465.25 Pretreatment standards for new sources.

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR Part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in coil coating process wastewater introduced into a POTW shall not exceed the following values.

SUBPART B

Pollutant or pollutant property	PSNS			
	Maximum for any 1 day		Maximum for monthly average	
	Mg/m² (pounds per 1 million ft²) of area processed			
Chromium	0.13	(0.027)	0.052	(0.011)

SUBPART B—Continued

Pollutant or pollutant property	PSNS			
	Maximum for any 1 day		Maximum for monthly average	
Copper	0.44	(0.090)	0.21	(0.043)
Cyanide	0.07	(0.015)	0.028	(0.006)
Zinc	0.35	(0.072)	0.15	(0.030)

§ 465.26 [Reserved]

Subpart C—Aluminum Basis Material Subcategory

§ 465.30 Applicability; description of the aluminum basis material subcategory.

This subpart applies to discharges to waters of the United States and introductions of pollutants into publicly owned treatment works from coil coating of aluminum basis material coils.

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

Except as provided in 40 CFR 125.30–125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available:

SUBPART C

Pollutant or pollutant property	BPT Effluent limitations			
	Maximum for any 1 day		Maximum for monthly average	
	mg/m² (pounds per 1 million ft²) of area processed			
Chromium	1.42	(0.29)	0.58	(0.12)
Cyanide	0.98	(0.20)	0.41	(0.083)
Zinc	4.48	(0.92)	1.89	(0.39)
Aluminum	15.3	(3.14)	6.26	(1.28)
Oil and grease	67.3	(13.8)	40.4	(8.27)
TSS	138.0	(28.3)	67.3	(13.8)
pH	(1)	(1)	(1)	(1)

[1] Within the range of 7.5 to 10.0 at all times.

§ 465.32 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

Except as provided in 40 CFR 125.30–125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable:

SUBPART C

Pollutant or pollutant property	BAT Effluent limitations			
	Maximum for any 1 day		Maximum for monthly average	
	mg/m² (pounds per 1 million ft²) of area processed			
Chromium	0.42	(0.085)	0.17	(0.034)
Cyanide	0.29	(0.059)	0.12	(0.024)
Zinc	1.32	(0.27)	0.56	(0.12)
Aluminum	4.49	(0.92)	1.84	(0.38)

§ 465.33 New source performance standards.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart.

SUBPART C

Pollutant or pollutant property	NSPS			
	Maximum for any 1 day		Maximum for monthly average	
	Mg/m² (pounds per 1 million ft²) of area processed			
Chromium	0.18	(0.037)	0.072	(0.015)
Cyanide	0.095	(0.020)	0.038	(0.008)
Zinc	0.49	(0.10)	0.20	(0.041)
Aluminum	1.44	(0.30)	0.59	(0.121)
Oil and Grease	4.75	(0.98)	4.75	(0.98)
TSS	7.13	(1.46)	5.23	(1.07)
pH	(1)	(1)	(1)	(1)

[1] Within the range of 7.5 to 10.0 at all times.

§ 465.34 Pretreatment standards for existing sources.

Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR Part 403 and achieve the following pretreatment standards for existing sources. The mass of wastewater pollutants in coil coating process wastewater introduced into a POTW shall not exceed the following values:

SUBPART C

Pollutant or pollutant property	PSES			
	Maximum for any 1 day		Maximum for monthly average	
	Mg/m² (pounds per 1 million ft²) of area processed			
Chromium	0.42	(0.085)	0.17	(0.34)
Cyanide	0.29	(0.059)	0.12	(0.024)
Zinc	1.32	(0.27)	0.56	(0.12)

§ 465.35 Pretreatment standards for new sources.

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR Part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in coil coating process wastewater introduced into a POTW shall not exceed the following values:

SUBPART C

Pollutant or pollutant property	PSNS			
	Maximum for any 1 day		Maximum for monthly average	
	Mg/m² (pounds per 1 million ft²) of area processed			
Chromium	0.18	(0.037)	0.072	(0.015)
Cyanide	0.095	(0.02)	0.038	(0.008)
Zinc	0.049	(0.01)	0.20	(0.041)

§ 465.36 [Reserved]

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