

## ENVIRONMENTAL PROTECTION AGENCY

[ 40 CFR Part 446 ]

[FRL 335-8]

### EFFLUENT LIMITATIONS AND GUIDELINES FOR EXISTING SOURCES AND STANDARDS OF PERFORMANCE AND PRETREATMENT STANDARDS FOR NEW SOURCES

#### Paint Formulating Point Source Category

Notice is hereby given that effluent limitations and guidelines for existing sources and standards of performance and pretreatment standards for new sources set forth in tentative form below are proposed by the Environmental Protection Agency (EPA). The regulation proposed below will cover the oil-base paint subcategory (Subpart A) and the water-base paint subcategory (Subpart B) of the paint formulating point source category pursuant to sections 301, 304 (b) and (c), 306(b) and 307(c) of the Federal Water Pollution Control Act as amended 33 U.S.C. 1251, 1311, 1314 (b) and (c), 1316(b) and 1317 (c); 86 Stat. 816 et seq.; Pub. L. 92-500 (the Act).

(a) Legal authority. (1) Existing point sources. Section 301(b) of the Act requires the achievement by not later than July 1, 1977, of effluent limitations for point sources, other than publicly owned treatment works, which require the application of the best practicable control technology currently available as defined by the Administrator pursuant to section 304(b) of the Act. Section 301 (b) also requires the achievement by not later than July 1, 1983, of effluent limitations for point sources, other than publicly owned treatment works, which require the application of best available technology economically achievable which will result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants, as determined in accordance with regulations issued by the Administrator pursuant to section 304(b) of the Act.

Section 304(b) of the Act requires the Administrator to publish regulations providing guidelines for effluent limitations setting forth the degree of effluent reduction attainable through the application of the best practicable control technology currently available and the degree of effluent reduction attainable through the application of the best control measures and practices achievable including treatment techniques, process and procedure innovations, operating methods and other alternatives. The regulation proposed herein sets forth effluent limitations and guidelines, pursuant to sections 301 and 304(b) of the Act, for the oil-base paint subcategory (Subpart A) and the water-base paint subcategory (Subpart B) of the paint formulating point source category.

(2) New sources. Section 306 of the Act requires the achievement by new sources of a Federal standard of performance providing for the control of the discharge of pollutants which reflects the greatest degree of effluent reduction

which the Administrator determines to be achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants.

Section 306(b) (1) (B) of the Act requires the Administrator to propose regulations establishing Federal standards of performance for categories of new sources included in a list published pursuant to section 306(b) (1) (A) of the Act. The regulations proposed herein set forth the standards of performance applicable to new sources for the oil-base paint subcategory (Subpart A) and the water-base paint subcategory (Subpart B) of the paint formulating point source category.

Section 307(c) of the Act requires the Administrator to promulgate pretreatment standards for new sources at the same time that standards of performance for new sources are promulgated pursuant to section 306. Sections 446.16 and 446.26, proposed below, provide pretreatment standards for new sources within the oil-base paint subcategory (Subpart A), and the water-base paint subcategory (Subpart B) of the paint formulating point source category.

Section 304(c) of the Act requires the Administrator to issue to the States and appropriate water pollution control agencies information on the processes, procedures or operating methods which result in the elimination or reduction of the discharge of pollutants to implement standards of performance under section 306 of the Act. The report or "Development Document" referred to below provides, pursuant to section 304(c) of the Act, information on such processes, procedures or operating methods.

(b) Summary and basis of proposed effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources.

#### (1) General methodology.

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

The control and treatment technologies existing within each segment were

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

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

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

The pretreatment standards proposed herein are intended to be complementary to the pretreatment standards proposed for existing sources under 40 CFR 128. The basis for such standards is set forth in the FEDERAL REGISTER of July 19, 1973, 38 FR 19236. The provisions of Part 128 are equally applicable to sources which would constitute "new sources" under section 306 if they were to discharge pollutants directly to navigable waters, except for § 128.133. That section provides a pretreatment standard for "incompatible pollutants" which requires application of the "best practicable control technology currently available," subject to an adjustment for amounts of pollutants removed by the publicly owned treatment works. Since the pretreatment standards proposed herein apply to new sources, §§ 446.16 and 446.26 below amend § 128.133 to specify the application of the standard of performance for new sources rather than the "best practicable" standard applicable to existing sources under sections 301 and 304(b) of the Act.

(2) Summary of conclusions with respect to the oil-base paint subcategory (Subpart A), and the water-base paint

subcategory (Subpart B), of the paint formulating point source category.

(i) Categorization. For the purpose of studying waste treatment and effluent limitations, the paint formulating category was divided into two discrete subcategories; primarily based upon the differences in the waste water treatability as described in the Development Document for the paint and printing ink point source categories. When a plant is subject to effluent limitations covering more than one subcategory, the discharge limitation shall be the aggregate of the limitations applicable to the total production covered by each subcategory.

The industry produces paints, varnishes and lacquers, which consist of film-forming binders (resins or drying oils) dissolved in volatile solvents or dispersed in water. In addition, all paint and most lacquers contain pigments and extenders (calcium carbonate, clays and silicates). The industry also produces such products as putty, caulking compounds, sealants, paint and varnish removers, and thinners. The paint formulating category was broken into two subcategories, oil-base and water-base paints. Subpart A, oil-base paints, includes all of the above items that use oil as the major carrier vehicle. Subpart B, water-base paints, includes all of the above items that use water as the major carrier vehicle.

(ii) Waste characteristics. The significant pollutant parameters in waste waters resulting from the paint formulating category include five-day biochemical oxygen demand (BOD<sub>5</sub>), total suspended solids (TSS), pH, and selected metals. There are possibly other pollutants to be found in paint wastes but as they are intermittent each plant should be treated on a case-by-case basis.

Effluent limitations guidelines and standards of performance are established below to control each of the above pollutants:

(iii) Origin of waste water pollutants. The origin of waste water pollutants in the paint formulating category is principally from cleanup of mixing and milling equipment. Minor sources are from cleanup of product and raw material spills, and from leaking product transfer equipment in both oil- and water-base paint production.

(iv) Treatment and control technology. Waste water treatment and control technologies have been studied for each subcategory of the industry to determine what is (a) the best practicable control technology currently available, (b) the best available technology economically achievable, and (c) the best available demonstrated control technology, processes, operating methods or other alternatives.

**Oil-base paints**—Best practicable control technology currently available for the oil-base paint subcategory is no discharge of waste water pollutants to navigable waters. The most commonly employed system to achieve this standard includes redistillation and reuse of solvents, improved maintenance to prevent product leaks, utilization of dry or mini-

mum water use, floor cleanup procedures and closed loop tub washing systems with excess solids being landfilled.

**Water-base paints**—Best practicable control technology currently available for the water-base paint subcategory is no discharge of waste water pollutants to navigable waters. The most commonly employed treatment systems to achieve these standards are the use of closed loop washing machines with sludge sent to a landfill, improved maintenance to prevent product leaks and the utilization of dry or minimum water use floor cleanup procedures. Some small plants may conserve wash water and drum the entire floor for subsequent disposal by a scavenger company. At least one small paint manufacturer has programmed production methods to use all wash water in subsequent product batches.

Solid waste control must be considered. Solid residue and sludge are potential problems because of the need for periodic disposal. Solid waste must be handled properly to assure that no landfill or associated problems develop. Best practicable control technology and best available control technology, as they are known today, require disposal of the pollutants removed from waste waters in this industry in the form of solid wastes and liquid concentrates. In most cases these are non-hazardous substances requiring only minimal custodial care. However, some constituents may be hazardous and may require special consideration. In order to ensure long term protection of the environment from these hazardous or harmful constituents, special consideration of disposal sites must be made. All landfill sites where such hazardous wastes are disposed should be selected so as to prevent horizontal and vertical migration of these contaminants to ground or surface waters. In cases where geologic conditions may not reasonably ensure this, adequate precautions (e.g. impervious liners) should be taken to ensure long term protection to the environment from hazardous materials. Where appropriate, the location of solid hazardous materials disposal sites should be permanently recorded in the appropriate office of the legal jurisdiction in which the site is located.

(v) Cost estimates for control of waste water pollutants.

It is estimated that the treatment technology required to achieve no discharge of waste water pollutants would increase paint costs in a range from \$0.006 to \$0.017 per gallon depending on the methods used to meet the requirements and the size of the producing unit.

(vi) Energy requirements and non-water quality environmental impacts.

There should be no significant impact caused by these discharge limitations on energy requirements, noise, air pollution or radiation pollution. There would be an increased need to dispose of waste sludge in landfills.

(vii) Economic impact analysis.

The proposed guidelines are expected to have a significant impact on certain segments of the paint industry. As many

as 88 plant closures are possible in 1977 as a result of the guidelines, primarily in the very small plant categories (less than 333,000 gal/yr of final product). These closures would represent 44 percent of the estimated 199 plants which are currently discharging directly to surface water, or 5.4 percent of all plants in the industry. The threatened plants account for 10.6 percent of production from all existing direct discharge plants or 1.7 percent of total industry production. Approximately 2400 employees would be affected by closure, but it is not expected that they would be regionally concentrated and most closures would occur in large cities where they would have little effect on the city economic base.

The predicted closures would be concentrated among plants which produce primarily industrial finishes, with a lesser number occurring in trade sales and none expected in allied products.

Possible closures as a direct result of effluent control costs will occur in the paint industry as a result of the required new investment which is a high (up to 44%) percentage of current fixed investment, and annual costs which are a substantial (up to 1.5%) percentage of sales (in the case of very small plants exceeding profit before taxes as a percent of sales). Both factors combine to reduce profitability on the threatened plants such as to cast serious doubts on their access to capital markets; and in the case of some very small plants, the increase in annual costs will be greater than their current profit before taxes.

The threatened plants are neither sufficiently large nor numerous to be able to pass forward their increased costs in a highly price-competitive market. Therefore, no general price increases are expected in the paint industry as a result of the proposed guidelines.

Considerable data discrepancy exists between the cost study performed by the EPA National Field Investigation Center (Denver) and the economic analysis performed by Arthur D. Little, Inc., particularly on the subject of the existing number of directly discharging paint and ink plants. The ADL data, derived from recent trade association surveys, indicate the existence of 199 plants and 46 ink plants which are currently directly discharging their process effluent to surface waters. The NFIC data, drawn from EPA permit program data, show only 27 paint plants and 8 ink plants as direct dischargers. Plant closures predicted herein are based on the ADL data, though efforts are continuing to resolve this discrepancy.

New source performance standards and new source pretreatment standards are not expected to deter or otherwise influence industry growth other than possibly to further an existing industry trend toward a declining number of very small plants. No other secondary effects are expected.

The report entitled "Development Document for Proposed Effluent Limitations Guidelines and New Source Performance Standards for the Paint and Printing Ink Formulating Point Source Categories"

details the analysis undertaken in support of the regulation being proposed herein and will be made available for inspection in the EPA Information Center, Room 204, West Tower, Waterside Mall, Washington, D.C., at all EPA regional offices, and at State water pollution control offices. A supplementary analysis prepared for EPA of the possible economic effects of the proposed regulation is also available for inspection at these locations. Copies of both of these documents are being sent to persons or institutions affected by the proposed regulation, or who have placed themselves on a mailing list for this purpose (see EPA's Advance Notice of Public Review Procedures, 38 FR 21202, August 6, 1973). An additional limited number of copies of both reports will be made available. Persons wishing to obtain a copy may write the EPA Information Center, Environmental Protection Agency, Washington, D.C. 20460, Attention: Ms. Ruth Brown, A-107.

On June 14, 1973, the Agency published procedures designed to insure that, when certain major standards, regulations, and guidelines are proposed, an explanation of their basis, purpose and environmental effects is made available to the public (38 FR 15653). The procedures are applicable to major standards, regulations and guidelines which are proposed on or after December 31, 1973, and which prescribe national standards of environmental quality or require national emission, effluent or performance standards and limitations.

The Agency determined to implement these procedures in order to insure that the public was apprised of the environmental effects of its major standards setting actions and was provided with detailed background information to assist it in commenting on the merits of a proposed action. In brief, the procedures call for the Agency to make public the information available to it delineating the major nonenvironmental factors affecting the decision, and to explain the viable options available to it and the reasons for the option selected.

The procedures contemplate publication of this information in the FEDERAL REGISTER, where this is practicable. They provide, however, that where, because of the length of these materials, such publication is impracticable, the material may be made available in an alternate format.

The report entitled "Development Document for Proposed Effluent Limitations Guidelines and New Source Performance Standards for the Paint and Printing Ink Formulating Point Source Categories" contains information available to the Agency concerning the major environmental effects of the regulation proposed below, including:

(1) The pollutants presently discharged into the Nation's waterways by manufacturers of paint and the degree of pollution reduction obtainable from implementation of the proposed guidelines and standards (see particularly sections IV, V, VI, IX, X, and XI);

(2) The anticipated effects of the proposed regulation on other aspects of the environment including air, solid waste disposal and land use, and noise (see particularly section VIII); and

(3) Options available to the Agency in developing the proposed regulatory system and the reasons for its selecting the particular levels of effluent reduction which are proposed (see particularly sections VI, VII, and VIII).

The supplementary report entitled "Economic Analysis of Proposed Effluent Guidelines for the Paint and Allied Products and the Printing Ink Industries" contains an estimate of the cost of pollution control requirements and an analysis of the possible effects of the proposed regulation on prices, production levels, employment, communities in which paint manufacturing plants are located, and international trade. In addition, the Development Document describes, in section VIII, the cost and energy consumption implications of the proposed regulations.

The two reports described above in the aggregate exceed 100 pages in length and contain a substantial number of charts, diagrams, and tables. It is clearly impracticable to publish the material contained in these documents in the FEDERAL REGISTER. To the extent possible, significant aspects of the material have been presented in summary form in foregoing portions of this preamble. Additional discussion is contained in the following analysis of comments received and the Agency's response to them. As has been indicated, both documents will be made available for inspection at the Agency's Washington, D.C. and regional offices and at State water pollution control agency offices. Copies of each have been distributed to persons and institutions affected by the proposed regulations or who have placed themselves on a mailing list for this purpose. Finally, so long as the supply remains available, additional copies may be obtained from the Agency as described above.

When this regulation is promulgated, revised copies of the Development Document will be available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Copies of the Economic Analysis will be available through the National Technical Information Service, Springfield, Virginia 22151.

(c) Summary of public participation. Prior to this publication, the agencies and groups listed below were consulted and given an opportunity to participate in the development of effluent limitations, guidelines and standards proposed for the paint formulating category. All participating agencies have been informed of project developments. An initial draft of the Development Document was sent to all participants and comments were solicited on that report. The following are the principal agencies and groups consulted: (1) Effluent Standards and Water Quality Information Advisory Committee (established under section 515 of the Act); (2) all State and U.S. Territorial Pollution Control Agencies; (3)

National Paint and Coatings Association; (4) U.S. Department of the Treasury; (5) Government of Guam and Government of Samoa Trust Territories of the Pacific Islands; (6) Puerto Rico; (7) The Conservation Foundation; (8) American Society of Mechanical Engineers; (9) Hudson River Sloop Restoration, Inc.; (10) Conservation Foundation; (11) Businessmen for the Public Interest; (12) Environmental Defense Fund, Inc.; (13) Natural Resources Defense Council; (14) American Society of Civil Engineers; (15) National Wildlife Federation; (16) Water Pollution Control Federation; (17) Ohio River Valley Sanitation Commission; (18) New England Interstate Water Pollution Control Commission; (19) Delaware River Basin Commission; (20) U.S. Department of Health, Education, and Welfare; (21) U.S. Department of Commerce; (22) U.S. Department of Agriculture; (23) Water Resources Council; (24) U.S. Department of the Interior; (25) Federation of Societies for Paint Technology; (26) East Bay Municipal Utilities District; (27) Midland Division—Dexter Corporation; (28) Celanese Coatings Company; (29) Reliance Universal; (30) Benjamin Moore & Company; (31) Sherwin Williams Company; (32) E. I. DuPont de Nemours; (33) PPG Industries; (34) DeSoto, Inc.; (35) Kohler McLister Paint Company; (36) Porter Paints Company; (37) Morwear Paint Company; (38) Wellco Chemical Company and (39) Permutit Corporation.

The following responded with comments: New York State Department of Environmental Conservation; Delaware River Basin Commission; Benjamin Moore and Company; Glidden Durkee Company; Minnesota Pollution Control Agency; Colorado Department of Health; U.S. Water Resources Council; Westvaco; National Paint and Coatings Association; Federation of Societies for Paint Technology; Sherwin-Williams Company; U.S. Department of Agriculture; Reliance Universal Inc.; Delaware Department of Natural Resources; E. I. du Pont de Nemours & Company; North Carolina Department of Natural and Economic Resources and the California State Water Resources Board.

The primary issues raised in the development of the proposed effluent limitations guidelines and standards of performance and the treatment of these issues herein are as follows:

(1) A commenter stated that the requirement of no discharge of waste water pollutants to navigable waters was beyond the authority of the law at this time.

The requirement does not go beyond the intent of the law as, in the surveys made by the EPA, at least 44 plants of varying sizes and ages were found that did not discharge process waste waters. These plants included manufacturers of both oil-base and water-base paints. There is at least one commercial washing system on the market that discharges only sludge from the system. There were other cases of modified systems and total wash water reuse systems that discharge no process waste waters.

As there was sufficient demonstration that the technology to control process waste waters was available and in use, there was no choice but to pick no discharge of process waste waters to surface waters. This was determined to meet the statutory criteria for the best practicable control technology currently available.

(2) Others commented that the economic impact would be so great that many small paint plants would be forced out of business.

The information available to the Agency indicates that in the paint formulating industry, a very small number of direct dischargers have applied for NPDES permits, which indicates a minimal economic impact. However, the Agency's economic contractor has indicated that there are a large number of direct dischargers and that the economic impact to the smaller producers would be severe. These results are contradictory and need to be clarified. The Agency solicits information from the industry concerning number of direct dischargers and economic impact so that the guidelines might be properly adjusted to account for any adverse economic impacts.

(3) Of major concern to several commenters was the problem of disposal of the large quantities of sludge to landfills as many local agencies are severely restricting what can be placed in landfills.

As the requirements for air and water pollution control are increased, the residual solids will increase. Where possible, these residuals should be recycled or reclaimed. Incineration and secure landfills are considered environmentally adequate for disposal of these types of wastes. Ink and paint manufacturers concerned with adequate land disposal may have to seek out or cause the creation of adequate, secure disposal sites.

(4) Several comments were received which claimed the "no discharge" limitations would restrict their option to leave a municipal system and discharge to a water course. The reasoning was that the municipal systems were increasing their discharge fees and becoming unduly restrictive in what they would accept.

The comment that this degree of control removed the option to leave a municipal system and discharge to a navigable water course is not considered valid since methods for achieving "no discharge" have been demonstrated.

(5) There were a considerable number of comments where the reviewer completely agreed with the guidelines.

(6) Several commenters expressed the fear that setting a limitation of "no discharge" to surface waters would encourage municipalities to forbid discharge of paint wastes to publicly owned plants.

The setting of a limitation of no discharge of paint wastes to surface waters is not meant to encourage municipalities to prohibit paint manufacturers from discharging their wastes to publicly owned plants. With proper pretreatment, as described in the Development Document, paint wastes are compatible with

municipal treatment system and will not cause the municipality to exceed its permit conditions.

(7) Several commenters stated that a zero discharge limit would be technologically difficult to meet as the recycle cleaning systems described in the development document would require occasional discharges due to buildup of salts and rinse waters in the cleaning solution which would make the cleaning solution unusable.

The Agency's current data base does not support an occasional cleaning solution discharge. The Agency solicits information from the industry concerning the need for this discharge, the volumes involved, its raw waste constituents, and the quality of the discharge after treatment.

(8) Questions have been raised concerning the availability of standards or guidelines applicable to the disposal of solid wastes resulting from the operation of pollution control systems.

The principles set forth in "Land Disposal of Solid Wastes Guidelines" (40 CFR 241) may be used as guidance for acceptable land disposal techniques. Potentially hazardous wastes may require special considerations to ensure their proper disposal. Additionally, state and local guidelines and regulations should be considered wherever applicable.

Interested persons may participate in this rulemaking by submitting written comments in triplicate to the EPA Information Center, Environmental Protection Agency, Washington, D.C. 20460, Attention: Ms. Ruth Brown, A-107. Comments on all aspects of the proposed regulation are solicited. In the event comments are in the nature of criticisms as to the adequacy of data which are available, or which may be relied upon by the Agency, comments should identify and, if possible, provide any additional data which may be available and should indicate why such data are essential to the development of the regulations. In the event comments address the approach taken by the Agency in establishing an effluent limitations guideline or standard of performance, EPA solicits suggestions as to what alternative approach should be taken and why and how this alternative better satisfies the detailed requirements of sections 301, 304(b), 306 and 307 of the Act.

A copy of all public comments will be available for inspection and copying at the EPA Information Center, Room 204, West Tower, Waterside Mall, 401 M Street, SW., Washington, D.C. A copy of preliminary draft contractor reports, the Development Document and economic study referred to above, and certain supplementary materials supporting the study of the industry concerned will also be maintained at this location for public review and copying. The EPA information regulation, 40 CFR Part 2, provides that a reasonable fee may be charged for copying.

All comments received by March 28, 1975 will be considered. Steps previously taken by the Environmental Protection Agency to facilitate public response

within this time period are outlined in the advance notice concerning public review procedures published on August 6, 1973 (38 FR 21202).

Dated: February 12, 1975.

JOHN QUARLES,  
Acting Administrator.

**PART 446—PAINT FORMULATION  
POINT SOURCE CATEGORY**

**Subpart A—Oil-Base Paint Subcategory**

- Sec.
- 446.10 Applicability; description of the oil-base paint subcategory.
- 446.11 Specialized definitions.
- 446.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 446.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 446.14 [Reserved.]
- 446.15 Standards of performance for new sources.
- 446.16 Pretreatment standards for new sources.

**Subpart B—Water-Base Paint Subcategory**

- 446.20 Applicability; description of the water-base paint subcategory.
- 446.21 Specialized definitions.
- 446.22 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 446.23 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 446.24 [Reserved.]
- 446.25 Standards of performance for new sources.
- 446.26 Pretreatment standards for new sources.

**Subpart A—Oil-Base Paint Subcategory**

**§ 446.10 Applicability; description of the oil-base paint subcategory.**

The provisions of this subpart are applicable to discharges resulting from the production of oil-base paint. When a plant is subject to effluent limitations covering more than one subcategory, the discharge limitation shall be the aggregate of the limitations applicable to the total production covered by each subcategory.

**§ 446.11 Specialized definitions.**

For the purpose of this subpart: Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR 401 shall apply to this subpart.

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

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such

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

The following limitations establish the quantity or quality of pollutants or pollutant properties by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available: There shall be no discharge of process waste water pollutants to navigable waters.

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

The following limitations establish the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: There shall be no discharge of process waste water pollutants to navigable waters.

**§ 446.14 [Reserved]**

**§ 446.15 Standards of performance for new sources.**

The following standards of performance establish the quantity or quality of pollutants or pollutant properties which may be discharged by a new source subject to the provisions of this subpart: There shall be no discharge of process waste water pollutants to navigable waters.

**§ 446.16 Pretreatment standards for new sources.**

The pretreatment standards under section 307(c) of the Act for a source within the oil-base paint subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows: "In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 446.15; provided that, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant."

**Subpart B—Water-Base Paint Subcategory**

**§ 446.20 Applicability; description of the water-base paint subcategory.**

The provisions of this subpart are applicable to discharges resulting from the production of water-base paint: When a plant is subject to effluent limitations covering more than one subcategory, the discharge limitation shall be the aggregate of the limitations applicable to the total production covered by each subcategory.

**§ 446.21 Specialized definitions.**

For the purpose of this subpart:

Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR 401 shall apply to this subpart.

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

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

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

The following limitations establish the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available: There shall be no discharge of process waste water pollutants to navigable waters.

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

The following limitations establish the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: There shall be no discharge of process waste water pollutants to navigable waters.

**§ 446.24 [Reserved]**

**§ 446.25 Standards of performance for new sources.**

The following standards of performance establish the quantity or quality of pollutants or pollutant properties which may be discharged by a new source subject to the provisions of this subpart: There shall be no discharge of process waste water pollutants to navigable waters.

**§ 446.26 Pretreatment standards for new sources.**

The pretreatment standards under section 307(c) of the Act for a source within the water-base paint subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows: "In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of perform-

ance for new sources specified in 40 CFR 446.25; provided that, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants be correspondingly reduced in stringency for that pollutant."

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[40 CFR Part 447]

[FRL 336-1]

**EFFLUENT LIMITATIONS AND GUIDELINES FOR EXISTING SOURCES AND STANDARDS OF PERFORMANCE AND PRETREATMENT STANDARDS FOR NEW SOURCES**

**Printing Ink Formulating Point Source Category**

Notice is hereby given that effluent limitations and guidelines for existing sources and standards of performance and pretreatment standards for new sources set forth in tentative form below are proposed by the Environmental Protection Agency (EPA). The regulation proposed below will cover the oil-base ink subcategory (Subpart A) and the water-base ink subcategory (Subpart B) pursuant to sections 301, 304 (b) and (c), 306 (b) and 307 (c) of the Federal Water Pollution Control Act as amended 33 U.S.C. 1251, 1311, 1314 (b) and (c), 1316 (b) and 1317 (c); 86 Stat. 816 et seq.; Pub. L. 92-500 (the Act).

(a) Legal authority. (1) Existing point sources. Section 301 (b) of the Act requires the achievement by not later than July 1, 1977, of effluent limitations for point sources, other than publicly owned treatment works, which require the application of the best practicable control technology currently available as defined by the Administrator pursuant to section 304 (b) of the Act. Section 301 (b) also requires the achievement by not later than July 1, 1983, of effluent limitations for point sources, other than publicly owned treatment works, which require the application of best available technology economically achievable which will result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants, as determined in accordance with regulations issued by the Administrator pursuant to section 304 (b) to the Act.

Section 304 (b) of the Act requires the Administrator to publish regulations providing guidelines for effluent limitations setting forth the degree of effluent reduction attainable through the application of the best practicable control technology currently available and the degree of effluent reduction attainable through the application of the best control measures and practices achievable including treatment techniques, process and procedure innovations, operating methods and other alternatives. The regulation proposed herein sets forth effluent limitations and guidelines, pursuant to sections 301 and 304 (b) of the

Act, for the oil-base ink subcategory (Subpart A) and the water-base ink subcategory (Subpart B) of the printing ink formulating point source category.

(2) New sources. Section 306 of the Act requires the achievement by new sources of a Federal standard of performance providing for the control of the discharge of pollutants which reflects the greatest degree of effluent reduction which the Administrator determines to be achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants.

Section 306 (b) (1) (B) of the Act requires the Administrator to propose regulations establishing Federal standards of performance for categories of new sources included in a list published pursuant to section 306 (b) (1) (A) of the Act. The regulations proposed herein set forth the standards of performance applicable to new sources for the oil-base ink subcategory (Subpart A) and the water-base ink subcategory (Subpart B) of the printing ink formulating point source category.

Section 307 (c) of the Act requires the Administrator to promulgate pretreatment standards for new sources at the same time that standards of performance for new sources are promulgated pursuant to section 306. Sections 447.16, and 447.26, proposed below, provide pretreatment standards for new sources within the oil-base ink subcategory (Subpart A), and the water-base ink subcategory (Subpart B), of the printing ink formulating point source category.

Section 304 (c) of the Act requires the Administrator to issue to the States and appropriate water pollution control agencies information on the processes, procedures or operating methods which result in the elimination or reduction of the discharge of pollutants to implement standards of performance under section 306 of the Act. The report or "Development Document" referred to below provides, pursuant to section 304 (c) of the Act, information on such processes, procedures or operating methods.

(b) Summary and basis of proposed effluent limitations guidelines for existing source and standards of performance and pretreatment standards for new sources.

(1) General methodology.

The effluent limitations, guidelines and standards of performance proposed herein were developed in the following manner. The point source category was first studied for the purpose of determining whether separate limitations and standards are appropriate for different segments within the category. This analysis included a determination of whether differences in raw material used, product produced, manufacturing process employed, age, size, waste water constituents and other factors require development of separate limitations and standards for different segments of the point source category. The raw waste characteristics for each such segment were then identified. This included an analysis of the

source, flow and volume of water used in the process employed, the sources of waste and waste waters in the operation and the constituents of all waste water. The constituents of the waste waters which should be subject to effluent limitations and standards of performance were identified.

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

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

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

The pretreatment standards proposed herein are intended to be complementary to the pretreatment standards proposed for existing sources under 40 CFR 128. The basis for such standards is set forth in the FEDERAL REGISTER of July 19, 1973, 38 FR 19236. The provisions of Part 128 are equally applicable to sources which would constitute "new sources," under section 306 if they were to discharge pollutants directly to navigable waters, except for § 128.133. That section provides a pretreatment standard for "incompatible pollutants" which requires application of the "best practicable control technology currently available," subject to an adjustment for amounts of pollutants removed by the publicly owned treatment works. Since the pretreatment standards proposed