

**ENVIRONMENTAL PROTECTION
AGENCY**
40 CFR Part 60
[AD-FRL 2224-6]
**Standards of Performance for New
Sources; Pressure Sensitive Tape and
Label Surface Coating Industry**
AGENCY: Environmental Protection
Agency (EPA).

ACTION: Final rule.

SUMMARY: Standards of performance for the pressure sensitive tape and label surface coating industry were proposed in the *Federal Register* on December 30, 1980 (45 FR 86278). This action promulgates a standard of performance to limit emissions of volatile organic compound (VOC) from new, modified, and reconstructed pressure sensitive tape and label coating lines. This standard implements Section 111 of the Clean Air Act and is based on the Administrator's determination that industrial paper coating facilities contribute significantly to air pollution which may reasonably be anticipated to endanger public health or welfare. Pressure sensitive tape and label manufacturing is one of the largest contributors to air pollution in the industrial paper coating category. The intended effect of the standard is to require all new, modified, and reconstructed pressure sensitive tape and label surface coating lines to use the best demonstrated system of continuous emissions reduction, considering costs, nonair quality health, and environmental and energy impacts.

EFFECTIVE DATE: October 18, 1983.

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

ADDRESS: Background Information Document. The background information document (BID) for the promulgated standard may be obtained from the U.S. EPA Library (MD-35), Research Triangle Park, North Carolina 27711, telephone number (919) 541-2777. Please refer to "Pressure Sensitive Tape and Label Surface Coating Industry—Background Information for Promulgated Standards" (EPA 450/3-80-003b). The BID contains:

(1) A summary of all of the public comments made on the proposed standards and the Administrator's response to the comments; and (2) a summary of the changes made to the regulation since proposal. The final environmental impact statement which summarizes the impacts of the standard is included in "Pressure Sensitive Tape and Label Surface Coating Industry—Background Information for Promulgated Standards" (EPA 450/3-80-003b). The environmental impacts have not changed since proposal.

Docket. Docket number A-79-38, containing information considered by EPA in the development of the promulgated standard, is available for public inspection between 8:00 a.m. and 4:00 p.m., Monday through Friday, at EPA's Central Docket Section (A-130), West Tower Lobby, Gallery 1, 401 M Street, SW, Washington, D.C. 20460. A reasonable fee may be charged for copying.

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

SUPPLEMENTARY INFORMATION: OMB Control Number: 2060-0004.

The Standards

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

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

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

The promulgated standard applies to each new, modified, and reconstructed pressure sensitive tape and label coating line for which construction is commenced after December 30, 1980. A coating line consists of any number or combination of adhesive, release, or precoat coating applicators, flashoff areas, and drying ovens which coat a continuous web, located between a web unwind station and a web rewind station, to produce pressure sensitive tapes and labels. Each coating line constitutes the affected facility for the purposes of this standard.

Under the standard, emissions from an affected facility would be limited to 0.20 kilograms of volatile organic compounds (VOC) per kilogram of coating solids applied to the substrate material, as measured by EPA Reference Methods 24 and 25 [promulgated in the *Federal Register* on October 3, 1980 (45 FR 65956)]. As an alternative, the owner or operator of the affected facility may demonstrate either a 90 percent overall VOC emissions reduction or an overall emissions reduction which is equivalent to the 0.20 kilograms per kilogram of coating solids applied level, whichever is less stringent. This overall emissions reduction is based on the amount of solvent applied with the coating solids.

In establishing the standard, EPA accounted for emissions from startups and shutdowns, which are normal occurrences and hence representative conditions for this source category. As a result, all data obtained during the performance test is to be used in calculating removal efficiency, except for data obtained during malfunction of a control device. In this instance only, data may be discarded provided the source demonstrates that a malfunction occurred and also demonstrates that any discarded data is clearly attributable to the malfunction. Compliance will then be determined on all remaining data.

Compliance with the standard can be determined over a calendar month averaging period by Reference Method 24 or by manufacturer's data. For coating lines which are controlled by incineration systems, Reference Method 25 or an approved alternative method will be used for performance testing.

Coating lines which input to the coating process 45 Mg (50 tons) of VOC or less per 12 month period are not subject to the emission limits of the proposed standard, but are subject to the recordkeeping requirements of the standard. If the 12 month limit stated above is exceeded, the affected facility becomes subject to the emission limits and all other requirements of the standard.

Compliance with the standard may be achieved through either the addition of control equipment to the facility, such as carbon absorption or thermal incineration, or through the use of low-solvent coatings in the production process. Certain coatings currently in use in the pressure sensitive tape and label surface coating industry, including hot melt and waterborne adhesive coatings, as well as 100 percent solid and waterborne release coatings would comply with the standard without the addition of control equipment because

they contain less than 0.20 kilograms of solvent per kilogram of coating solids applied.

The standard requires the owners or operators of pressure sensitive tape and label coating facilities to submit semiannual reports of instances in which the temperature fluctuations of an incinerator control device and the VOC emissions from an affected facility exceed the allowable levels established in the standard. This requirement may be waived in States where the program has been delegated, if EPA, in the course of delegation, approves reporting requirements or an alternative means of source surveillance adopted by the State. Such sources are required to comply with the requirements adopted by the State.

Information collection requirements contained in this regulation (Section 60.447) have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1980 U.S.C. 3501 *et seq.* and have been assigned OMB control number 2060-0004.

Summary of Environmental, Energy and Economic Impacts

In determining the environmental impacts which will result from the new source performance standard for the pressure sensitive tape and label surface coating industry, EPA established as a baseline for analytical purposes the level of emissions reduction identified in the control techniques guideline (CTG) document for this industry entitled "Control of Volatile Organic Emissions from Existing Stationary Sources—Volume II: Surface Coating of Cans, Coil, Paper, Fabrics, Automobiles, and Light-Duty Trucks" [EPA 420/2-77-008(CTG)]. Although States are not required to adopt the emission limits and control techniques recommended in this document, they are the limits and techniques most likely to be instituted in the State implementation plans (SIP's).

Compared to this baseline, the national emissions of VOC from the pressure sensitive tape and label surface coating industry would be further reduced by 16 percent in 1985. Annual emissions of VOC from affected facilities would be reduced by 9,500 megagrams (10,600 tons) in 1985.

Other environmental impacts of the application of the standard to the pressure sensitive tape and label surface coating industry would be reasonable in light of the gains in emissions reduction being achieved through the standard. National wastewater discharges from the industry would increase by 13 percent over the discharges occurring under baseline controls resulting in an

annual increase in discharges of about 2.5 million liters (661,000 gallons) in 1985. The generation of solid waste from an affected facility would be increased slightly in relation to the present generation of large quantities of flawed product and discarded packing materials and spools which are disposed of as solid waste. The only addition to this material from an affected facility is spent activated carbon from carbon adsorption units. Under this standard, the maximum increase in solid waste generated by affected facilities on a nationwide basis is expected to be 55 megagrams (60 tons) per year in 1985.

The national energy impact of the standard is dependent upon which of three control scenarios are followed by the industry in complying with this standard. The use of low-solvent coatings for VOC emissions control would result in no energy impact from this standard, since this method would involve no additional control technology or loss of solvent. However, since EPA is unable to predict the extent to which this technology will be employed by the industry, this analysis focused on the two other technological controls capable of meeting the standard—carbon adsorption and incineration. Based on an analysis of the industry during the development of the standard, the majority of plants using VOC emission control devices used carbon adsorption instead of incineration. It has been estimated that 80 percent of the control systems to be installed by 1985 will be carbon adsorption. The energy impacts associated with this standard will be more closely approximated by the figures given for carbon adsorption controls.

The substantial use of carbon adsorption controls would result in a net energy savings because usable solvent would be recovered from the process. These net savings would be the equivalent of 27,100 barrels (4.3 million liters) of crude oil per year in 1985 if all affected facilities used carbon adsorption. The use of incineration controls by some facilities (approximately 20 percent) will reduce the potential energy savings achievable below the 27,100 barrel figure since this technique recovers no solvent. However, the efficient use of heat recovery by incinerator users will enable an overall net energy savings to be maintained.

The situation of all or the majority of affected facilities using incineration to control VOC emissions is not expected. If incineration did become the predominant control technique a potential energy demand of 31,000 barrels (9.9 million liters) of crude oil could result. However, for practicality

and energy efficiency incinerator users would perform some degree of heat energy recovery such that the energy demand would realistically be much less than 31,000 barrel figure. The use of primary and secondary heat recovery by a large number of facilities could even result in a net energy savings. Under both the probable and worst case situations the energy impacts of the standard are reasonable.

EPA has analyzed the effect of the standard on a wide range of model facilities of varying sizes and production capacities. Both the capital and annualized costs of compliance were found to be reasonable except for coating lines which input to the coating process 45 Mg (50 tons) or less per 12 month period. The 45 Mg (50 tons) per 12 month period or less lines have been exempted from compliance with the emission limits of the standard.

Incremental compliance costs are those incurred by a plant above what is normally required of the facility under a typical SIP regulation. For example, a typical affected facility with a 1.5 meter (60 inch) wide coating line would be projected to incur approximately \$300,000 in incremental capital expenditures for control equipment. Incremental annualized costs in 1985 for emissions control would be \$43,000 for carbon adsorption, while incineration would result in a cost savings of about \$8,000. These costs were calculated assuming a 50 percent credit value for usable solvent or heat recovery.

The incremental cumulative capital cost of compliance to the tape and label industry in 1985 would be \$12.5 million. The annualized cost of compliance to the industry in 1985, including capital costs (interest and depreciation), would be \$1.7 million over the baseline costs. This annualized cost was also determined assuming a 50 percent credit value for solvent/heat recovery.

Further economic impact of the standard on the pressure sensitive tape and label surface coating industry is expected to be minimal. A product price increase of 0.9 percent would be expected in order to allow the industry to recover the cost of compliance with the standard and the installation of control equipment. The effects of this standard on growth in the industry, and industry structure and profitability would not cause significant inflationary impacts or market withdrawals.

The environmental, energy, and economic impacts are discussed in greater detail in the background information document for the promulgated standards, "Pressure Sensitive Tape and Label Surface

Coating Industry—Background Information for Promulgated Standards" (EPA 450/3-80-003b).

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

Public Participation

Prior to proposal of the standards, interested parties were advised by public notice in the *Federal Register* on November 14, 1979 (44 FR 65670) of a meeting of the National Air Pollution Control Techniques Advisory Committee to discuss the new source performance standard for the pressure sensitive tape and label surface coating industry recommended for proposal. This meeting was held on December 13, 1979. The meeting was open to the public and each attendee was given the opportunity to comment on the standards recommended for proposal. The standards were proposed and published in the *Federal Register* on December 30, 1980 (45 FR 86278). The preamble to the proposed standards discussed the availability of the background information document (BID) "Pressure Sensitive Tape and Label Surface Coating Industry—Background Information for Proposed Standards" (EPA-450/3-80-003a), which described in detail the regulatory alternative considered and the impacts of those alternatives. Public comments were solicited at the time of proposal and, when requested, copies of the BID were distributed to interested parties. To provide interested persons the opportunity for oral presentation of data, views, or arguments concerning

the proposed standards, a public hearing was held on January 30, 1981 at Research Triangle Park, North Carolina. The hearing was open to the public and each attendee was given an opportunity to comment on the proposed standards. The public comment period was from December 30, 1980 to March 2, 1981.

Fourteen comment letters were received and two interested parties testified at the public hearing concerning issues relative to the proposed standards of performance for the pressure sensitive tape and label surface coating industry. The comments have been carefully considered and, where determined to be appropriate by the Administrator, changes have been made in the proposed standard.

Significant Comments and Changes to the Proposed Standards

Comments on the proposed standards were received from industry, two members of Congress, one State pollution control agency, and one trade association. A detailed discussion of these comments and responses can be found in the background information document (BID) which is referred to in the ADDRESS section of this preamble. The summary of comments and responses in the BID serve as the basis for the revisions which have been made to the standards between proposal and promulgation. The major comments and responses are summarized in this preamble. Most of the comment letters contained multiple comments. The comments have been divided into the following areas: General, Emission Control Technology, Modification and Reconstruction, Economic Impact, Affected Facility Definition, Reporting and Recordkeeping, Small Source Exemption, Level of the Proposed Standard, and NSPS and State Implementation Plan (SIP) Coordination.

General

One commenter pointed out that the discussion of solventless technologies in the BID did not reflect the latest improvements in such technologies which, although not in common use in the United States, are being used in Europe. The technological variations discussed by this commenter were considered in the development of the BID and this standard, but were determined not to add significantly to the standard. Upon further consideration, the technological configuration discussed by this commenter might offer advantages to the industry in reducing VOC emissions, and the promulgation and operation of the standard will not adversely affect the use of such technology.

Another commenter discussed the application of the standard to radiation-cured coatings, asking that they either be exempted from the standard or that analytical methods be revised to accommodate the characteristics of this process. It was determined that radiation-cure coating processes do not involve coatings containing VOCs, and therefore the processes would fall below the standard of 0.20 kilograms of VOC per kilogram of coating solids without requiring further controls.

Another commenter objected to the inclusion of water in water-based coatings as a part of the emissions to be measured in determining whether the facility is subject to the standard. This is an apparent misunderstanding of the provisions of the standard. The standard does not include water in the calculation of VOC emissions.

Another commenter objected to certain conclusions stated in the background information document concerning the level of inlet VOC concentration required to operate an incinerator for the control of VOC emissions without the necessity of adding supplementary fuel to the incinerator. This objection was based on the results of tests performed on the commenter's own incinerator in 1972 which varied from the results reported in EPA's analysis. The level reported in the BID is based on a model incinerator designed to represent the typical incinerator used for VOC control in the PSTL industry and is intended to indicate the trends in incinerator performance as various loadings of solvent are added to the incinerator. Therefore, variance between the results reported for this representative model incinerator study and for other tests on individual incinerators is to be expected (see Section 2.1.4 of the BID for further discussion).

Several commenters in this section stated that no standard is necessary since there is already adequate economic incentive for the users of coatings containing VOC to recover the maximum amount of solvent possible for reuse. Although the Administrator viewed these economic incentives as important to the overall operation and success of the standard, an examination of the industry indicates that economic incentives alone are not sufficient to ensure that the pressure sensitive tape and label surface coating industry will use the best demonstrated technology for the control of VOC emissions. Indeed, during the examination of these facilities leading to the development of this standard, it was noted that in spite of these incentives, some facilities did

not recover any solvent from their coating operations.

Emission Control Technology

One commenter stated that the use of hooding to capture fugitive VOC emissions from coating heads has not been demonstrated except on a theoretical basis. During the development of this standard, EPA examined a facility which employed hooding to capture fugitive emissions. Based on tests performed at this facility and observation of other facilities employing hooding for the capture of fugitive emissions, the Administrator has determined that hooding is an effective device for capturing these emissions and that compliance with the standard can be achieved employing this technology and add-on control devices.

Modification and Reconstruction

Several comments were received concerning the application of the modification and reconstruction provisions of the General Provisions of 40 CFR Part 60 to this standard for the pressure sensitive tape and label surface coating industry. One stated that these provisions were vague and subject to misinterpretation. Experience with these provisions and examination of their applicability to this industry indicates that problems with interpreting when a facility has been modified or reconstructed and thereby made subject to the standard should be minimal. The modification provisions establish a fairly straightforward rule that when an alteration to a facility results in an increase in emissions the facility is then subject to the standard, unless the alteration falls within certain specifically listed exemptions. The reconstruction provision involves a plant specific review by the Agency to determine whether a major expenditure at a facility should include the provisions of the control technology required for compliance with the standard. Although the operation of this provision involves the application of judgment to the circumstances of the alteration, it also provides for the inclusion of a greater variety of factors, such as the economic impact of the standard, in determining whether the facility will be subject to the standard.

Two comments were received concerning the applicability of the modification and reconstruction provisions to specific alterations to a facility. The first comment questioned whether normal repairs to a facility constitutes a modification. The applicable sections of the modification provisions state that normal repairs to a

facility do not constitute modifications which would render a facility subject to the standard. The second comment concerned the application of the standard to a facility which converts to solventless or low-solvent coatings. This case would not constitute a modification of the facility, since there would be no increase in emissions from the facility. Whether such a conversion would constitute a reconstruction would involve a calculation of whether the cost of the conversion was greater than 50 percent of the cost of an entirely new plant, and then involve an additional review of the circumstances of the conversion by the Administrator before the applicability of the standard to the facility could be determined.

A final commenter stated generally that the standard should not be made applicable to a facility which undergoes updating and modification because this will result in outdated and less efficient plants being left in operation for a longer period of time. While it is true that the effect of the standard will enter into decisions concerning the updating of plants, the savings in energy and efficiency resulting from improvements to the facility are expected to be overriding considerations in this decision. Therefore, the application of the standard to pressure sensitive tape and label surface coating facilities which undergo extensive alteration is consistent with the scheme of the Clean Air Act.

Economic Impact

One commenter on the economic analysis performed in the development of the standard objected that the cost figures reported in the BID (Volume I) were not consistent with current values. The values listed in the BID, and the basis of the analysis performed there, were based on 1979 figures. Although these figures may change in time, they remain consistent in relation to each other and do not change the validity of the conclusions reached in the analysis concerning the reasonableness of the standard. If converted into current cost figures and reanalyzed, the relations of cost to the achievements of the standard would remain the same. Therefore, it is the relationship between the figures, and not their absolute accuracy for all points in time, that is crucial to the analysis of the economic impact of the standard.

Another commenter stated that the added costs of pollution control required by the standard would be passed on to consumers, resulting in an inflationary impact on the economy. EPA's analysis, however, shows that even with full pass-through of the costs to the consumer the maximum product price

increase would be 0.9 percent. This minimal cost increase is considered by the Administrator to be reasonable and noninflationary.

In several comments, objections were made to the standard on the basis of the minimal reduction in emissions which would be achieved under the standard as compared to existing State regulations as compared to the greatly increased cost of compliance with the standard. These reductions and costs were analyzed by the EPA in the BID. It was determined that by 1985 emissions from pressure sensitive tape and label surface coating facilities would be reduced by 16 percent per year as compared to the controls required by existing regulations. The increase in product price necessitated by this 16 percent reduction in emissions would be less than 1 percent. Therefore, the additional emissions reduction seems well justified in terms of the costs required for achieving them.

The effect of the standard on the conversion of the industry to solventless and low-solvent technologies was also the subject of one comment. This commenter was concerned that the costs of complying with the standard would cause owners of facilities to forego conversion. However, low-solvent and solventless technologies are treated essentially equally under the standard and under existing regulations, since they typically are able to comply with the standard without the necessity of further add-on controls. In addition, it is believed that economic factors outside of the operation of this standard, such as the cost and availability of solvents, will provide additional incentive for the conversions of coating lines to low-solvent and solventless costing technologies.

Four commenters stated that the economic analysis performed by EPA was insufficient, particularly with relation to small facilities. Chapter 8 of the BID contains this economic analysis, which is directed specifically to small facilities as well as large and medium facilities. Model coating lines of all three sizes and various technological characteristics were analyzed and the impact of the standard on each determined in the development of the standard. This analysis is necessarily representative rather than exhaustive of each facility in the industry, but does accurately reflect the standard and its impact on the industry.

A final commenter in this segment stated that the standard should only be applied on a case-by-case basis after analyzing the costs and benefits of the additional control to each individual

plant. Section 111 of the Clean Air Act does not provide for case-by-case application of a standard but instead requires that the standard be applied to the entire source category or to distinguishable subgroups within that category. In addition, it is not expected that the impact of this standard on any individual plant will vary from the models used in the development of the standard to the extent that the impact of the standard would be unreasonable.

Affected Facility Definition

The Administrator has determined that the definition of affected facility proposed for inclusion in the standard should be changed in response to comments made on this issue by several commenters and upon further consideration by the Agency.

As explained in the preamble to the proposed standard, EPA adopts that definition of affected facility which produces the greatest emission reduction without imposing unreasonable costs or other impacts. The original definition proposed for this industry provided that each separate coating head and drying oven combination along a coating line would constitute an affected facility for the purpose of this standard. Thus, there would be more than one affected facility associated with each coating line, each of which would be required to comply with the standard. Several commenters urged the Agency to amend this definition to make the affected facility, for the purposes of this standard, the entire coating line, including all individual coating heads and drying ovens. Under this definition, the combination of sources along a coating line would be required to comply with the standard, rather than each individual source.

In urging this change, the commenters made several points. First, they argued that the coating line is the basic production unit for the industry and marks the most logical unit for control in terms of the configuration of the production processes and plants. In support, they pointed out that the various State implementation plans (SIP's) under which they operate consider the coating line to be the basic unit for control, not each coating head and oven combination. Secondly, they argued that this broader definition would allow the operators of facilities to control their emissions in the most cost effective manner. By grouping these emission sources together under one overall requirement, the owner or operator of the facility may control these sources where the greatest reduction may be achieved at the lowest

cost and minimize expenditures for emissions control where the benefits in reductions would be small. Finally, they pointed out that the broader definition covering the entire coating line would promote the development and use of low-solvent and solventless technologies as emissions control techniques, resulting in an overall betterment in air quality beyond that achievable by the standard and technological requirements alone. In support of this position, new data were submitted by the industry showing that the relative costs of low-solvent compared to solvent-based adhesive coating technology have changed since EPA's BID was prepared. These data show that low-solvent technology is more limited in application than the EPA and industry had previously anticipated and that the cost is higher than the current cost of comparable solvent-based systems.

After reviewing these comments and the two definitions, the Administrator determined that in light of the similar degree of overall emissions reduction achievable under either definition, the greater flexibility in allocating control costs available under the broadened definition, and the physical compatibility of the broadened definition with the characteristics of the pressure sensitive tape and label surface coating production line, the affected facility definition should be amended to provide for the inclusion of the entire coating line. The Administrator believes that the broad definition will encourage the use of low-solvent and solventless adhesive coatings, and achieve an equal or greater emission reduction than the narrow definition. When the standard is reviewed in four years as required under Section 111(b) of the Act, the low-solvent and solventless adhesive technology will be closely evaluated.

Reporting and Recordkeeping

Several commenters objected to the reporting and recordkeeping requirements of the standard, stating that these requirements are costly and burdensome. They further contended that these requirements would hinder the development and adoption of innovative coating technologies by the industry by requiring facilities to keep records and make reports even though the characteristics of their coatings bring them within the limits set by the standard without technological controls.

The Administrator has reviewed the recordkeeping and reporting requirements of the proposed standard, and determined that those requirements calling for reports to be submitted to the Agency should be modified in the

promulgated standard. Reporting requirements in the promulgated standard have been reduced to only requiring semiannual reports of instances when the temperature fluctuations of an incinerator control device and the VOC emissions from an affected facility exceed the allowable levels established in the standard. In the proposed standard such reports were required on a calendar month basis. The other reporting requirement in the proposed standard for the submittal of initial (and any subsequent) performance test results to the Administrator remains unchanged in the promulgated standard.

The compiling and keeping of records of the performance of the control equipment installed in compliance with this standard is necessary, both to the Agency in determining compliance and to the company operating the facility to determine whether the control equipment is functioning adequately. The recordkeeping requirements therefore have not been changed since proposal. In order to determine compliance with the standard, the Agency may inspect the records kept by a facility at any time.

Small Solvent Use Exemption

One commenter urged the Agency to include an exemption for small sources in the standard, raising the minimum levels of emissions for inclusion under the regulation from 15 megagrams per year to an unspecified higher level. The reasons stated by this commenter in support of the change were that small sources comprise a minor part of the total VOC emissions for the entire industry, that the cost of emissions control for small sources is unreasonable for the benefits in emissions reduction achieved, and that a small source exemption would encourage the development of low-solvent and solventless coatings. In analyzing this issue, the Administrator has determined that a broadened small source exemption is not warranted on the bases of contributing a minor part to total industry emissions or the failure of the standard to encourage the development of low-solvent or solventless coatings. Section 111 requires new source performance standards to reflect the best demonstrated technology. It does not provide a basis for exempting subcategories of sources (for which control technology is technically and economically available) from any standard merely because their emissions are less than the emissions of other subcategories. Further, it has been

determined by the Administrator that this standard will not impede the conversion to and development of solventless and low-solvent technologies.

However, the Agency has reanalyzed the cost effectiveness (i.e., the cost of VOC emissions control relative to the emission reduction which is achieved by such controls) over the range of line sizes found in this industry. For each type of line, annualized control costs were calculated and compared to the emission reductions which would occur if potential, uncontrolled emissions are reduced to the level of the standard. This analysis showed that the cost effectiveness of controls is primarily a function of the quantity of solvent used, and that the parameters are inversely related. That is, as solvent use (and therefore potential emissions) increases, the cost effectiveness decreases. It should be noted that this cost curve does not necessarily represent the actual amounts of money that will be spent to install and operate VOC controls for any particular coating line. Rather, the costs are estimates which are representative of facilities likely to be built. The costs for a VOC control system will vary according to coating line size, system airflow rate, solvent loading level, the lower explosive limit levels maintained in the oven, the degree of solvent or heat recovery practiced, and other factors. However, the cost curve provides a useful guide for judging the reasonableness of requiring VOC controls at different potential VOC emission levels.

In the past, the maximum estimated cost per megagram of pollutant material removed (VOC, particulate matter, SO₂) has ranged from somewhat less than \$1,000 to \$2,000. This package has a maximum estimated cost per megagram of \$2,000. In prior source categories for which NSPS have been developed, VOC maximum estimated control costs have generally not exceeded \$1,000 per megagram. In this case, because of the "worst case" character of the cost calculations, EPA believes the proposed standards are reasonable.

The maximum estimated cost in this package will not be viewed as a precedent for future actions. Instead, in the future, we will continue to evaluate each package on an individual basis.

The cost curve for the application of VOC controls to coating lines shows that the potential cost per Mg of VOC controlled is greater than \$2,000 for input solvent levels of about 45 Mg (50 tons) per year or less. Therefore, in the promulgated standard, coating lines which input to the coating process 45 Mg (50 tons) per 12 month period or less of

VOC will not be subject to the standard's emission limits. These lines will, however, be subject to all applicable recordkeeping and reporting requirements given in the standard.

The Agency realizes that this exemption could inadvertently create an incentive for the construction of smaller lines in order to avoid the need for VOC emissions control. The Agency does not believe, however, that this incentive is sufficient to markedly alter the construction pattern of new PSTL lines such that national VOC emissions would be greatly increased. However, this standard will be reviewed four years from now, and the effect of the small solvent use exemption on the size of new facilities will specifically be examined.

Level of Proposed Standard

One commenter stated that the 90 percent reduction level in the standard seemed to be arbitrary. On the contrary, the 90 percent reduction level was developed through extensive study and analysis of the pressure sensitive tape and label surface coating industry, the available emissions control equipment, and the environmental, energy and economic impacts of various control levels. It was determined that the best demonstrated control technology could continually achieve a 90 percent reduction in emissions over a long term period of operation. The analyses of the technological systems of emissions control are contained in Chapter 4 of the BID—Volume I, and the energy, environmental, and economic impacts of these technologies are discussed in Chapters 7 and 8 of the BID—Volume I.

Another commenter stated that a turndown ratio of 10 to 1 could not be achieved in drying oven exhausts, as stated in the BID. (Turndown ratio refers to the degree by which oven exhaust air can be reduced from the level for which the oven is designed in response to reduced solvent loadings.) In its examination of this issue, the Agency has determined that the technical points made by this commenter are generally valid (particularly for his own plant, on which his comments were based), but that new facilities are still capable of achieving compliance with the standard on a consistent basis even with a lower turndown ratio, such as the four to one ratio cited by the commenter. This determination is based on the experience of other facilities examined by the Agency during the course of the development of this standard which were able to meet the reduction level required by the standard even at the lower turndown ratios. This analysis is

presented in detail in Volume I of the BID.

A third commenter on the issue of the level of the standard stated that the mass emission limit should be 0.25 kilograms of VOC per kilogram of coating solids, rather than 0.20 kilograms, in order to allow a wider range of low-solvent coatings to be used without requiring the use of additional control technology in order to comply with the standard. The EPA examined a number of solventless and low-solvent coatings during the preparation of this standard. It was determined that a 0.20 kilogram emission limit could be attained using the best technological system of emissions reduction (consistent with energy, environmental, and economic considerations). No comments were received which presented argument or data contradicting this determination. Although there will be some new coatings which cannot be used without further controls in compliance with the standard, these coatings may still be useful in combination with other coatings in achieving the emissions reduction required. If used with other low-solvent coatings on a line, coatings capable of achieving 0.25 kilograms of VOC per kilogram of coating solid could help keep the monthly compliance average below 0.20 kilograms. If used with conventional solvent based coatings, these coatings would reduce the level of control necessary to achieve compliance with the standard.

NSPS and SIP Coordination

Two commenters suggested that the implementation of the standard be postponed for a 5 to 10 year period in order to assess the impact on air quality of the newest limits recommended for State implementation plans (SIP's) of 2.9 pounds of VOC per gallon of applied coating. During the development of the standard, this SIP requirement was examined and its impact on national VOC emissions projected. Further, this SIP requirement formed the baseline against which each of the regulatory alternatives has been evaluated. Therefore, no further delay in the promulgation of this standard is required in order to determine the impact of the SIP provisions since these impacts have been projected and formed a major consideration in the development of the standard.

The last two commenters in this section pointed out that the units of measurement in the standard (kg VOC/kg coating solids) are different from those used in many of the SIP's (pounds/gallon of coating minus water), and that

this difference would be confusing to owners and operator of facilities which must attempt to comply with both the new source standard and a SIP. The unit of measurement used in this standard was developed through consultation with industry representatives who pointed out that companies have experienced difficulties in interpreting and implementing the mass per volume measurement used in the SIP's. The mass measurement used in this standard was found to be simpler to understand and to calculate from typical coating formulation data. Further, there should be no confusion over compliance with different standards which may apply to a facility since compliance with the more stringent in each case also satisfies the requirements of the less stringent. In this case, compliance with the 0.20 kilograms VOC per kilogram of coating solid new source standard would also constitute compliance with a 2.9 pounds VOC per gallon requirement of a SIP.

Docket

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

Miscellaneous

The effective date of this regulation is October 18, 1983. Section 111 of the Clean Air Act provides that standards of performance or revisions thereof become effective upon promulgation and apply to affected facilities, construction or modification of which was commenced after the date of proposal (December 30, 1980).

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

consultation with appropriate advisory committees, independent experts, and Federal departments and agencies.

The rulemaking process that implements a performance standard assures adequate technical review and promotes participation of representatives of the industry being considered for regulation, government, and the public affected by that industry's emissions. The resultant regulation represents a balance in which government resources are applied in a well-publicized national forum to reach a decision on a pollution emission level that allows for a dynamic economy and a healthful environment.

This regulation will be reviewed 4 years from the date of promulgation as required by the Clean Air Act. This review will include an assessment of such factors as the need for integration with other programs, the existence of alternative methods, enforceability, improvements in emission control technology, and reporting requirements. The reporting requirements in this regulation will be reviewed as required under EPA's sunset policy for reporting requirements in regulations.

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

In addition to conducting an economic impact analysis, EPA examined the emission reduction and annualized costs, expressed in dollars per Mg (ton) of pollutant removed per year, for three alternative levels of control. The three levels of control are an overall emissions reduction of 81 percent, as specified in many existing SIP's; an overall emissions reduction of 85 percent; and an overall emissions reduction of 90 percent, as required by the NSPS. This examination showed that for a typical medium-sized pressure sensitive tape and label surface coating line an 85 percent level of control reduces emissions by 41 Mg (45 tons) per year relative to the 81 percent level (SIP level) and increases annualized costs by \$145/Mg (\$130/ton). It also showed that the incremental emission reduction achieved by increasing the control level

from 85 to 90 percent is (38 tons) at an incremental annualized cost of \$115/Mg (\$105/ton). These annualized costs per ton of pollutant removed are comparable to costs and associated emissions in other industries that control VOC emissions. In addition, as described in the section "Small Solvent Use Exemption," the Agency also analyzed the overall cost effectiveness of adding controls to uncontrolled lines and on the basis of this established a low solvent use cut-off.

The Paperwork Reduction Act of 1980 (Pub. L. 96-511) requires EPA to submit to the Office of Management and Budget (OMB) certain public reporting/recordkeeping requirements. The reporting/recordkeeping requirements associated with this standard have been approved by OMB.

Under Executive Order 12291, EPA must judge whether a regulation is "major" and therefore subject to the requirement of a Regulatory Impact Analysis. This regulation is not major because it would result in none of the adverse economic effects set forth in Section 1 of the Order as grounds for finding a regulation to be major. The industry-wide annualized costs in the fifth year after the standards would go into effect would be \$1.7 million, much less than the \$100 million established as the first criterion for a major regulation in the Order. The estimated price increase of less than 2 percent associated with the standards would not be considered a "major increase in costs or prices" specified as the second criterion in the Order. The economic analysis of the standards' effects on the industry did not indicate any significant adverse effects on competition, investment, productivity, employment, innovation, or the ability of the U.S. firms to compete with foreign firms (the third criterion in the Order).

Information collection requirements contained in this regulation (§§ 60.443, 60.444, 60.445, and 60.447) have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1980, 44 U.S.C. 3501 *et seq.* and have been assigned OMB control number 2060-0004.

List of Subjects in 40 CFR Part 60

Air pollution control, Aluminum, Ammonium sulfate plants, Asphalt, Cement industry, Coal Copper, Electric power plants, Glass and glass products, Grains, Intergovernmental relations, Iron, Lead, Metals, Metallic Minerals, Motor vehicles, Nitric acid plants, Paper and paper products industry, Petroleum, Phosphate, Sewage disposal, Steel

Sulfuric acid plants, Waste treatment and disposal, Zinc, Tires, Incorporation by reference, Can surface coating, Sulfuric acid plants, Industrial organic chemicals.

Dated: October 11, 1983.

William D. Ruckelshaus,
Administrator.

PART 60—[AMENDED]

40 CFR Part 60 is amended by adding a new Subpart RR as follows:

Subpart RR—Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations

Sec.

- 60.440 Applicability and designation of affected facility.
60.441 Definitions and symbols.
60.442 Standard for volatile organic compounds.
60.443 Compliance provisions.
60.444 Performance test procedures.
60.445 Monitoring of operations and recordkeeping.
60.446 Test methods and procedures.
60.447 Reporting requirements.

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

Subpart RR—Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations

§ 60.440 Applicability and designation of affected facility.

(a) The affected facility to which the provisions of this subpart apply is each coating line used in the manufacture of pressure sensitive tape and label materials.

(b) Any affected facility which inputs to the coating process 45 Mg of VOC or less per 12 month period is not subject to the emission limits of § 60.442(a), however, the affected facility is subject to the requirements of all other applicable sections of this subpart. If the amount of VOC input exceeds 45 Mg per 12 month period, the coating line will become subject to § 60.442(a) and all other sections of this subpart.

(c) This subpart applies to any affected facility which begins construction, modification, or reconstruction after December 30, 1980.

§ 60.441 Definitions and symbols.

(a) Except as otherwise required by the context, terms used in this subpart are defined in the Act, in Subpart A of this part, or in this section as follows:

"Coating applicator" means an apparatus used to apply a surface coating to a continuous web.

"Coating line" means any number or combination of adhesive, release, or

precoat coating applicators, flashoff areas, and ovens which coat a continuous web, located between a web unwind station and a web rewind station, to produce pressure sensitive tape and label materials.

"Coating solids applied" means the solids content of the coated adhesive, release, or precoat as measured by Reference Method 24.

"Flashoff area" means the portion of a coating line after the coating applicator and usually before the oven entrance.

"Fugitive volatile organic compounds" means any volatile organic compounds which are emitted from the coating applicator and flashoff areas and are not emitted in the oven.

"Hood or enclosure" means any device used to capture fugitive volatile organic compounds.

"Oven" means a chamber which uses heat or irradiation to bake, cure, polymerize, or dry a surface coating.

"Precoat" means a coating operation in which a coating other than an adhesive or release is applied to a surface during the production of a pressure sensitive tape or label product.

"Solvent applied in the coating" means all organic solvent contained in the adhesive, release, and precoat formulations that is metered into the coating applicator from the formulation area.

"Total enclosure" means a structure or building around the coating applicator and flashoff area or the entire coating line for the purpose of confining and totally capturing fugitive VOC emissions.

"VOC" means volatile organic compound.

(b) All symbols used in this subpart not defined below are given meaning in the Act or in Subpart A of this part.

"a" means the gas stream vents exiting the emission control device.

"b" means the gas stream vents entering the emission control device.

"C_a" means the concentration of VOC (carbon equivalent) in each gas stream (j) exiting the emission control device, in parts per million by volume.

"C_{bi}" means the concentration of VOC (carbon equivalent) in each gas stream (i) entering the emission control device, in parts per million by volume.

"C_{rk}" means the concentration of VOC (carbon equivalent) in each gas stream (k) emitted directly to the atmosphere, in parts per million by volume.

"G" means the calculated weighted average mass (kg) of VOC per mass (kg) of coating solids applied each calendar month.

"M_{ci}" means the total mass (kg) of each coating (i) applied during the

calendar month as determined from facility records.

"M_r" means the total mass (kg) of solvent recovered for a calendar month.

"Q_{aj}" means the volumetric flow rate of each effluent gas stream (j) exiting the emission control device, in dry standard cubic meters per hour.

"Q_{bi}" means the volumetric flow rate of each effluent gas stream (i) entering the emission control device, in dry standard cubic meters per hour.

"Q_{rk}" means the volumetric flow rate of each effluent gas stream (k) emitted to the atmosphere, in dry standard cubic meters per hour.

"R" means the overall VOC emission reduction achieved for a calendar month (in percent).

"R_q" means the required overall VOC emission reduction (in percent).

"W_{oi}" means the weight fraction of organics applied of each coating (i) applied during a calendar month as determined from Reference Method 24 or coating manufacturer's formulation data.

"W_{si}" means the weight fraction of solids applied of each coating (i) applied during a calendar month as determined from Reference Method 24 or coating manufacturer's formulation data.

§ 60.442 Standard for volatile organic compounds.

(a) On and after the date on which the performance test required by § 60.8 has been completed each owner or operator subject to this subpart shall:

(1) Cause the discharge into the atmosphere from an affected facility not more than 0.20 kg VOC/kg of coating solids applied as calculated on a weighted average basis for one calendar month; or

(2) Demonstrate for each affected facility:

(i) a 90 percent overall VOC emission reduction as calculated over a calendar month; or

(ii) the percent overall VOC emission reduction specified in § 60.443(b) as calculated over a calendar month.

§ 60.443 Compliance provisions.

(a) To determine compliance with § 60.442 the owner or operator of the affected facility shall calculate a weighted average of the mass of solvent used per mass of coating solids applied for a one calendar month period according to the following procedures:

(1) Determine the weight fraction of organics and the weight fraction of solids of each coating applied by using Reference Method 24 or by the coating manufacturer's formulation data.

(2) Compute the weighted average by the following equation:

$$G = \frac{\sum_{i=1}^n W_{oi} M_{di}}{\sum_{i=1}^n W_{ai} M_{di}}$$

(3) For each affected facility where the value of G is less than or equal to 0.20 kg VOC per kg of coating solids applied, the affected facility is in compliance with § 60.442(a)(1).

(b) To determine compliance with § 60.442(a)(2), the owner or operator shall calculate the required overall VOC emission reduction according to the following equation:

$$R_q = \frac{G - 0.20}{G} \times 100$$

If R_q less than or equal to 90 percent, then the required overall VOC emission reduction is R_q . If R_q is greater than 90 percent, then the required overall VOC emission reduction is 90 percent.

(c) Where compliance with the emission limits specified in § 60.442(a)(2) is achieved through the use of a solvent recovery system, the owner or operator shall determine the overall VOC emission reduction for a one calendar month period by the following equation:

$$R = \frac{M_r}{\sum_{i=1}^n W_{oi} M_{di}} \times 100$$

If the R value is equal to or greater than the R_q value specified in paragraph (b) of this section, then compliance with § 60.442(a)(2) is demonstrated.

(d) Where compliance with the emission limit specified in § 60.442(a)(2) is achieved through the use of a solvent destruction device, the owner or operator shall determine calendar monthly compliance by comparing the monthly required overall VOC emission reduction specified in paragraph (b)1 of this section to the overall VOC emission reduction demonstrated in the most recent performance test which complied with § 60.442(a)(2). If the monthly required overall VOC emission reduction is less than or equal to the overall VOC reduction of the most recent performance test, the affected facility is in compliance with § 60.442(a)(2).

(e) Where compliance with § 60.442(a)(2) is achieved through the

use of a solvent destruction device, the owner or operator shall continuously record the destruction device combustion temperature during coating operations for thermal incineration destruction devices or the gas temperature upstream and downstream of the incinerator catalyst bed during coating operations for catalytic incineration destruction devices. For thermal incineration destruction devices the owner or operator shall record all 3-hour periods (during actual coating operations) during which the average temperature of the device is more than 28°C (50°F) below the average temperature of the device during the most recent performance test complying with § 60.442(a)(2). For catalytic incineration destruction devices, the owner or operator shall record all 3-hour periods (during actual coating operations) during which the average temperature of the device immediately before the catalyst bed is more than 38°C (50°F) below the average temperature of the device during the most recent performance test complying with § 60.442(a)(2), and all 3-hour periods (during actual coating operations) during which the average temperature difference across the catalyst bed is less than 80 percent of the average temperature difference of the device during the most recent performance test complying with § 60.442(a)(2).

(f) After the initial performance test required for all affected facilities under § 60.8, compliance with the VOC emission limitation and percentage reduction requirements under § 60.442 is based on the average emission reduction for one calendar month. A separate compliance test is completed at the end of each calendar month after the initial performance test, and a new calendar month's average VOC emission reduction is calculated to show compliance with the standard.

(g) If a common emission control device is used to recover or destroy solvent from more than one affected facility, the performance of that control device is assumed to be equal for each of the affected facilities. Compliance with § 60.442(a)(2) is determined by the methods specified in paragraphs (c) and (d) of this section and is performed simultaneously on all affected facilities.

(h) If a common emission control device is used to recover solvent from an existing facility (or facilities) as well as from an affected facility (or facilities), the overall VOC emission reduction for the affected facility (or facilities), for the purpose of compliance, shall be determined by the following procedures:

(1) The owner or operator of the existing facility (or facilities) shall determine the mass of solvent recovered for a calendar month period from the existing facility (or facilities) prior to the connection of the affected facility (or facilities) to the emission control device.

(2) The affected facility (or facilities) shall then be connected to the emission control device.

(3) The owner or operator shall determine the total mass of solvent recovered from both the existing and affected facilities over a calendar month period. The mass of solvent determined in paragraph (h)(1) of this section from the existing facility shall be subtracted from the total mass of recovered solvent to obtain the mass of solvent recovered from the affected facility (or facilities). The overall VOC emission reduction of the affected facility (or facilities) can then be determined as specified in paragraph (c) of this section.

(i) If a common emission control device is used to destruct solvent from an existing facility (or facilities) as well as from an affected facility (or facilities), the overall VOC emission reduction for the affected facility (or facilities), for the purpose of compliance, shall be determined by the following procedures:

(1) The owner or operator shall operate the emission control device with both the existing and affected facilities connected.

(2) The concentration of VOC (in parts per million by volume) after the common emission control device shall be determined as specified in § 60.444(c). This concentration is used in the calculation of compliance for both the existing and affected facilities.

(3) The volumetric flow out of the common control device attributable to the affected facility (or facilities) shall be calculated by first determining the ratio of the volumetric flow entering the common control device attributable to the affected facility (facilities) to the total volumetric flow entering the common control device from both existing and affected facilities. The multiplication of this ratio by the total volumetric flow out of the common control device yields the flow attributable to the affected facility (facilities). Compliance is determined by the use of the equation specified in § 60.444(c).

(j) Startups and shutdowns are normal operation for this source category. Emissions from these operations are to be included when determining if the standard specified at § 60.442(a)(2) is being attained.

(Approved by the Office of Management and Budget under control number 2060-004)

§ 60.444 Performance test procedures.

(a) The performance test for affected facilities complying with § 60.442 without the use of add-on controls shall be identical to the procedures specified in § 60.443(a).

(b) The performance test for affected facilities controlled by a solvent recovery device shall be conducted as follows:

(1) The performance test shall be a one calendar month test and not the average of three runs as specified in § 60.8(f).

(2) The weighted average mass of VOC per mass of coating solids applied for a one calendar month period shall be determined as specified in § 60.443(a)(1) and § 60.443(a)(2).

(3) Calculate the required percent overall VOC emission reduction as specified in § 60.443(b).

(4) Inventory VOC usage and VOC recovery for a one calendar month period.

(5) Determine the percent overall VOC emission reduction as specified in § 60.443(c).

(c) The performance test for affected facilities controlled by a solvent destruction device shall be conducted as follows:

(1) The performance of the solvent destruction device shall be determined by averaging the results of three test runs as specified in § 60.8(f).

(2) Determine for each affected facility prior to each test run the weighted average mass of VOC per mass of coating solids applied being used at the facility. The weighted average shall be determined as specified in § 60.443(a). In this application the quantities of W_{oi} , W_{di} , and M_{ci} shall be determined for the time period of each test run and not a calendar month as specified in § 60.441.

(3) Calculate the required percent overall VOC emission reduction as specified in § 60.443(b).

(4) Determine the percent overall VOC emission reduction of the solvent destruction device by the following equation and procedures:

$$R = \frac{\sum_{i=1}^n Q_{oi}C_{oi} - \sum_{j=1}^m Q_{oj}C_{oj}}{\sum_{i=1}^n Q_{oi}C_{oi} + \sum_{k=1}^p Q_{ok}C_{ok}} \times 100$$

(ii) The owner or operator of an affected facility shall construct a temporary total enclosure around the coating line applicator and flashoff area during the performance test for the purpose of capturing fugitive VOC emissions. If a permanent total enclosure exists in the affected facility prior to the performance test and the Administrator is satisfied that the enclosure is totally capturing fugitive VOC emissions, then no additional total enclosure will be required for the performance test.

(iii) For each affected facility where the value of R is greater than or equal to the value of R_0 calculated in § 60.443(b), compliance with § 60.442(a)(2) is demonstrated.

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

(Approved by the Office of Management and Budget under control number 2060-0004)

§ 60.445 Monitoring of operations and recordkeeping.

(a) The owner or operator of an affected facility subject to this subpart shall maintain a calendar month record of all coatings used and the results of the reference test method specified in § 60.446(a) or the manufacturer's formulation data used for determining the VOC content of those coatings.

(b) The owner or operator of an affected facility controlled by a solvent recovery device shall maintain a calendar month record of the amount of solvent applied in the coating at each affected facility.

(c) The owner or operator of an affected facility controlled by a solvent recovery device shall install, calibrate, maintain, and operate a monitoring device for indicating the cumulative amount of solvent recovered by the device over a calendar month period. The monitoring device shall be accurate within ± 2.0 percent. The owner or operator shall maintain a calendar month record of the amount of solvent recovered by the device.

(d) The owner or operator of an affected facility operating at the conditions specified in § 60.440(b) shall maintain a 12 month record of the amount of solvent applied in the coating at the facility.

(e) The owner or operator of an affected facility controlled by a thermal incineration solvent destruction device shall install, calibrate, maintain, and operate a monitoring device which continuously indicates and records the temperature of the solvent destruction device's exhaust gases. The monitoring device shall have an accuracy of the greater of ± 0.75 percent of the

temperature being measured expressed in degrees Celsius or $\pm 2.5^\circ$ C.

(f) The owner or operator of an affected facility controlled by a catalytic incineration solvent destruction device shall install, calibrate, maintain, and operate a monitoring device which continuously indicates and records the gas temperature both upstream and downstream of the catalyst bed.

(g) The owner or operator of an affected facility controlled by a solvent destruction device which uses a hood or enclosure to capture fugitive VOC emissions shall install, calibrate, maintain, and operate a monitoring device which continuously indicates that the hood or enclosure is operating. No continuous monitor shall be required if the owner or operator can demonstrate that the hood or enclosure system is interlocked with the affected facility's oven recirculation air system.

(h) Records of the measurements required in §§ 60.443 and 60.445 must be retained for at least two years following the date of the measurements.

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

(Approved by the Office of Management and Budget under control number 2060-0004)

§ 60.446 Test methods and procedures.

(a) The VOC content per unit of coating solids applied and compliance with § 60.422(a)(1) shall be determined by either Reference Method 24 and the equations specified in § 60.443 or by manufacturers' formulation data. In the event of any inconsistency between a Method 24 test and manufacturers' formulation data, the Method 24 test will govern. The Administrator may require an owner or operator to perform Method 24 tests during such months as he deems appropriate. For Reference Method 24, the coating sample must be a one liter sample taken into a one liter container at a point where the sample will be representative of the coating applied to the web substrate.

(b) Reference Method 25 shall be used to determine the VOC concentration, in parts per million by volume, of each effluent gas stream entering and exiting the solvent destruction device or its equivalent, and each effluent gas stream emitted directly to the atmosphere. Reference Methods 1, 2, 3, and 4 shall be used to determine the sampling location, volumetric flowrate, molecular weight, and moisture of all sampled gas streams. For Reference Method 25, the sampling time for each of three runs must be at least 1 hour. The minimum sampling volume must be 0.003 dscm except that shorter sampling times or smaller volumes, when necessitated by process

(i) The owner or operator of the affected facility shall construct the overall VOC emission reduction system so that all volumetric flow rates and total VOC emissions can be accurately determined by the applicable test methods and procedures specified in § 60.446(b).

variables or other factors, may be approved by the Administrator.

(c) If the owner or operator can demonstrate to the Administrator's satisfaction that testing of representative stacks yields results comparable to those that would be obtained by testing all stacks, the Administrator will approve testing of representative stacks on a case-by-case basis.

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

§ 60.447 Reporting requirements.

(a) For all affected facilities subject to compliance with § 60.442, the performance test data and results from

the performance test shall be submitted to the Administrator as specified in § 60.8(a) of the General Provisions (40 CFR Part 60 Subpart A).

(b) The owner or operator of each affected facility shall submit semiannual reports to the Administrator of exceedances of the following.

(1) The VOC emission limits specified in § 60.442; and

(2) The incinerator temperature drops as defined under § 60.443(e). The reports required under paragraph (b) shall be postmarked within 30 days following the end of the second and fourth calendar quarters.

(c) The requirements of this subsection remain in force until and

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

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

(Approved by the Office of Management and Budget under control number 2080-0004)

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