Environmental Solutions

Valdez Marine Terminal
Air Quality Oversight Project Phase I

Report to:
Prince William Sound Regional Citizens Advisory Council

PWS RCAC Contract No: 500.02.1

Prepared by: Environmental Solutions

May 7, 2002

Email: sharvey@mtaonline.net Phone/Fax: (907) 694-7994
4929 Birdsong Drive
Eagle River, Alaska 99577

Executive Summary

The purpose of this paper is to summarize the year 2002 "Phase I – Valdez Marine Terminal Air Quality Oversight Project" conducted for the Prince William Sound Regional Citizens Advisory Council (RCAC). The Phase I Project was designed by the RCAC to research the current status of air quality permitting and air quality issues for the Valdez Marine Terminal (VMT) and to identify key issues, studies, and permitting oversight that may warrant a more in-depth "Phase II" effort.

The RCAC's guiding principle is that citizens with the most at risk from the Valdez Marine Terminal and the tankers that carry crude oil from the terminal should have a say in decisions that could affect them. While all VMT air quality issues are of concern to RCAC, a key area of concern for the RCAC includes options for controlling emissions from the Ballast Water Treatment Facility (BWTF), one of the largest remaining sources of hazardous air pollutant emissions from the VMT.

The VMT is listed by the Alaska Department of Environmental Conservation (ADEC), and the Environmental Protection Agency (EPA), as a major source of criteria air pollutants, and as a major source of hazardous air pollutants. The VMT facility currently operates under two air quality control permits. One permit was issued in 1996, which covers all the combustion sources at the facility (power boilers, incinerators and emergency power generation equipment) and non-combustion sources that vent hazardous air pollutants directly to atmosphere (Ballast Water Treatment Facility, leaking valves, vents, uncontrolled loading). A second permit was issued in 2000 to add the tank bottom processing system and the soil vapor extraction system.

The VMT has a total permitted potential to emit of over 8,600 tons of air pollutants per year. The VMT actually emits less than that approved level on an annual basis, since the power needs at the facility are running only 9MW (roughly a fourth of the original design capacity) and the facility throughput of both crude oil and ballast water treatment is well under design capacity. Actual total annual air emissions, as reported by Alyeska are estimated at 22% of the permitted limit of 8,600 tons. Although few actual source tests have ever been conducted to validate these numbers.

The major remaining sources of air emissions include hazardous air emissions resulting from uncontrolled loading and the Ballast Water Treatment Facility (BWTF). Most recent estimates show that the VMT still has the potential to emit over 100 tons of hazardous air emissions into the Valdez air shed on an annual basis. The EPA defines a major hazardous air emission source as a facility that emits more than 25 tons of total combined hazardous air pollutants. The VMT still remains the largest and most significant air emission source in the Valdez area. Further control of hazardous air emissions should be the target of any further emission reduction programs at the VMT.

The ADEC and EPA both have regulatory roles in controlling VMT air emissions. The ADEC is currently delegated authority to implement the air permitting program for the State of Alaska. The

EPA has taken the lead in developing specific national emission standards for hazardous air pollutant control. These national standards are then implemented at a state level.

The 1996 and 2000 air quality control permits for the VMT describe the emission limitations, operating, reporting and monitoring requirements for the VMT. The focus of these permits is control of criteria air pollutants such as Sulfur Dioxide (SO_2), Nitrogen Oxides, (NO_x), Particulate Matter (PM_{10}) and the general category of Volatile Organic Compounds (VOCs). ADEC reviewed and approved the 1996 and 2000 permits. Alyeska has requested two amendments to the 1996 permit. These amendments seek to remove boiler fuel limits, operational and particulate matter limits on incinerators, some reporting requirements and opacity and sulfur monitoring requirements. These amendments are currently pending with ADEC.

Prior to the 1995 the total VOC emitted from the VMT was estimated between 38,000-43,000 tons year. The total VOC's contained approximately 900 tons of hazardous air pollutants (Benzene, Ethylbenzene, Toluene, and Xylene (BETX)). In 1995 EPA issued a nationwide standard to control hazardous air pollutants marine vessel loading facilities. This resulted in a 74% reduction in the total estimated potential VOC's emitted from the facility in 1999. As a result of reduced uncontrolled loading allowances in 2002, the total estimated potential VOC emission reduction is now over 86%. However, it is estimated at over 100 tons of hazardous air pollutants continue to be emitted from the VMT each year.

Further control of hazardous air pollutants at the VMT is currently under consideration by the EPA. The EPA has issued a proposed National Emission Standard for Hazardous Air Pollutants (NESHAP) for Organic Liquid Distribution (OLD) Facilities. This standard seeks to further control hazardous air pollutants from the portion of the VMT facility that was not covered by the marine vessel loading rule. Public comment on this rule is due on June 3, 2002. EPA expects to finalize this rule in year 2002.

The EPA and ADEC are also seeking to improve the regulation of air emission sources. The Title V Air Quality Operating Permit Program streamlines the way federal and state authorities regulate air pollution control requirements into a single, comprehensive operating permit that covers all aspects of a facility's air pollution activities. In 1997 Alyeska applied for a Title V permit, which will consolidate all the existing air quality permit requirements into a single VMT air quality control permit. This application is currently pending with ADEC.

To further RCAC's goal of providing citizen oversight of the VMT and to minimize the amount of hazardous air pollutants emitted from the VMT into the Valdez air shed, the following recommendations are made for consideration in developing a Phase II Air Quality Oversight Program for the VMT.

1. The RCAC should consider submitting public comment to ADEC requesting that the 1996 opacity and sulfur monitoring requirements are retained in the VMT air quality permit to ensure that opacity violations are reported and sulfur dioxide pollution is minimized. The RCAC should also consider completing a technical and regulatory review of Alyeska's request to remove boiler fuel limits, operational and particulate matter limits and some reporting requirements, to determine if comments are warranted. These applications are currently pending with ADEC.

2. The RCAC should continue to monitor control of hazardous air pollutants at the VMT through active involvement in the design and implementation of two National Emission Standard for Hazardous Air Pollutants. The RCAC should consider submitting comments on the April 2, 2002, EPA NESHAP for Organic Liquid Distribution (Non-Gasoline) Proposed Rule. Comments are due to EPA on June 3, 2002. The RCAC also should also continue monitoring compliance with the Marine Vessel Loading Operations MACT Subpart Y standard by conducting an annual compliance audit of the VMT Marine Vessel Loading Vapor Recovery System.

3. The RCAC should consider providing comment on the VMT Title V permit to ensure that the permit provides specific installation, maintenance, operating, testing and monitoring procedures to ensure that each air emission source and each pollution control device is operated (at all times, including start-up, shutdown, and malfunctions) in a manner consistent with good air pollution control practices for minimizing emissions. Air emission source tests and sampling should be used as a tool to validate the actual air emissions inventory and to ensure that valid calculation estimating techniques are used in the future. This permit is expected to be out for public comment in year 2003.

4. The RCAC should consider developing a "Phase III" Ambient Air Quality Monitoring Program, by completing the task of scoping, siting and planning the program. As a result of permitting actions (conditions, stipulations, operating limits) and new federal rules to control HAPs at the VMT, further emission reductions may be achieved. Once the outcome of these permitting and rule making actions is known, the incremental cost benefit of the air monitoring program should be evaluated. This may be a useful tool in evaluating the "health" of the entire Valdez air shed and all emission sources in it.

Table of Contents

Table of Figures and Tables

Introduction

The purpose of this paper is to document the 2002 "Phase I – Valdez Marine Terminal Air Quality Oversight Project" conducted for the Prince William Sound Regional Citizens Advisory Council (RCAC). The Phase I Project was designed by the RCAC to research the current status of air quality permitting and air quality issues for the Valdez Marine Terminal (VMT) and to identify key issues, studies, and permitting oversight that may warrant a more in-depth "Phase II" effort.

The RCAC's guiding principle is that citizens with the most at risk from the Valdez Marine Terminal and the tankers that carry crude oil from the terminal ought to have a say in decisions that could affect them. While all VMT air quality issues are of concern to RCAC, a key area of concern for the RCAC includes options for controlling emissions from the Ballast Water Treatment Facility (BWTF), one of the largest remaining sources of hazardous air pollutant emissions from the VMT.

This paper will describe the types and quantities of air emissions from the VMT and the current air permit and compliance status. The human health hazards for the various types of emissions emitted from the VMT will be described, and existing and future regulations for control of those emissions will be outlined. Recommendations are made for the RCAC to consider in developing a Phase II Air Quality Oversight Program for the VMT.

Overview of VMT Air Emission Sources

Valdez Marine Terminal (VMT) is the terminus of the Trans-Alaska Pipeline System (TAPS). The terminal is operated by the Alyeska Pipeline Service Company ("Alyeska"). At the VMT crude oil is loaded on to tankers. Incoming tankers carry ballast water to improve tanker stability in rough seas. Ballast water is pumped from the incoming tankers into the Ballast Water Treatment Facility (BWTF) for removal of hydrocarbons prior to disposal into Port Valdez. As cargo tanks are emptied of ballast, they are filled with flue gas from the tanker's boilers for pressure equalization and to provide an inert atmosphere within the tank. The tankers are then loaded with crude oil, which generates hydrocarbon vapors[1] and displaces inert gas from the cargo tanks. Berths 4 and 5 have a vapor recovery system installed to collect and treat the tanker vapors (controlled loading). Berths 1 and 3 do not have a vapor recovery system; vapors generated by uncontrolled loading are vented directly to the atmosphere. Alyeska is currently preparing to permanently decommission Berth 1. Berth 2 was never installed.

[1] The introduction of Natural Gas Liquids (NGL's) into the TAPS crude oil stream has also increased the crude oil volatility.

Figure 1: Aerial View of Valdez Marine Terminal

Figure 2: Tanker Loading at VMT Berth

Eighteen 510,000 barrel crude oil storage tanks are located at the terminal to provide temporary storage for approximately nine million barrels of crude oil prior to loading it on the tankers.

Three power boilers and a series of emergency and portable generators generate power required for VMT operations.

Stationary air contaminant sources at the VMT include: vapor recovery piping, three waste gas incinerators, one solid waste incinerator, eighteen storage tanks, the Ballast Water Treatment Facility (BWTF) system, uncontrolled loading at the berths, three power boilers, two emergency generators, miscellaneous portable generators, seven firewater pumps, as well as twenty diesel and fuel oil storage tanks.

There are also a number of mobile and marine sources of air pollution operating at the VMT operations including: vehicles, trucks, heavy equipment, and marine tankers.

Vapor Recovery System

The Valdez Marine Tanker Vapor Control System is used to collect vapors displaced from tankers as they are loaded at Berths 4 and 5. Vapors that are collected in this system include crude oil vapors, which result from the process of loading the tanker and the inert gas generated by the tanker's boilers. Collected vapors are routed to the crude oil storage tanks and are used as a pressure equalization blanket gas (vapor balancing system) as crude oil is withdrawn from the tanks for loading. Collected tanker vapors are also used as a fuel source in the VMT power boilers, or are destroyed in the waste gas incinerators.

The Valdez Marine Tanker Vapor Control System was installed in 1998 as a result of a federal national emission standard for control of hazardous air pollutants.[2] This system reduced the potential emissions of Volatile Organic Compounds (VOC's) by an estimated 27,500 tons in 1998[3] and by about 32,000 tons by further reductions in uncontrolled loading by year 2002.[4] VOC's contain air pollutants that are hazardous to human health, such as Benzene, Ethylbenzene, Toluene, and Xylene (BETX).

The 18 large oil storage tanks are also connected to the vapor recovery system to capture VOC emissions. Hydrocarbon vapors are generated in the storage tanks when they are filled with warm crude oil. The tank farm vapor control system prevents emissions of tank vapors to the atmosphere (under normal conditions) by using an inert blanket gas on the tanks. When the tank is loaded with crude oil, excess hydrocarbon vapors are displaced. Displaced vapors are either used as a fuel source in the VMT power boilers, or are destroyed in the waste gas incinerators. The tanks are also equipped with a series of Pressure Relief Valves (PRV's). The PRV's are designed to open and vent tank vapors directly to the atmosphere to prevent catastrophic failure of the tank in the event that the vapor collection system fails to handle the pressure swings in the crude oil storage tank.

Figure 3: 510,000 barrel crude oil storage tanks

Figure 4: closer view of oil storage tank vents

Boilers

Power is generated for use at the VMT by three power boiler/steam turbine generator sets. Each boiler is rated at 242 million BTU's/hr. All three of the three boilers are equipped to co-fire oil and vapor recovery system waste gas.

[2] National Emission Standards for Hazardous Air Pollutants (NESHAP), Marine Vessel Loading Operations, 40 CFR 63, Subpart Y, September 19, 1995 60 FR 48388.
[3] Alyeska Pipeline Service Company, Prevention of Significant Deterioration Application for the Valdez Marine Terminal Vapor Control Project, submitted to ADEC on October 24, 1995.
[4] 40 CFR 63, Subpart Y

Incinerators

Three waste gas incinerators are used at the VMT. These incinerators are used to destroy waste gas recovered by the vapor recovery system. The incinerators are used to destroy excess, or lower heat content tank farm gas, which cannot be used in the power boilers as fuel. These incinerators are rated at a peak capacity of 400 million BTU's/hr. Waste gas is co-fired in the incinerator with fuel oil to ensure complete combustion of the waste. There is also one solid waste incinerator used to destroy oily and solid waste at the facility.

Figure 5: power boiler stack (left), three incinerator stacks (right)

Figure 6: power boiler stack and boiler facility (right), view from hill top[5]

Ballast Water Treatment Facility

Incoming tankers carry ballast water to improve tanker stability, trimming and sea keeping capability in rough seas. Ballast water is pumped from the incoming tankers into the Ballast Water Treatment Facility (BWTF) for removal of hydrocarbon vapors prior to disposal. Recovered oil is pumped back into the tankers. Treated water is discharged into Port Valdez. Currently 25,000-30,000 barrels of oil are recovered from the BWTF per month. Future ballast water treatment volumes are expected to decrease due to the increase in segregated ballast tanks[6] in the newly built PWS double hull fleet.

[5] Photo courtesy of Alyeska Pipeline Service Company (Brad Thomas)

[6] Currently seawater is pumped into the crude oil tanks after they are unloaded. The seawater becomes contaminated with oil in the crude oil tanks, and needs to be treated prior to disposal. Segregated ballast tanks will prevent mixing of seawater ballast and residual crude oil in the tanks.

Ballast water is pumped from the tankers to the ballast water storage tanks #92, #93 and #94; these tanks are commonly referred to as the BWTF 90's tanks. Oil is separated from the water in the 90's tanks by the simple process of gravity separation. The recovered oil is skimmed and sent to the two BWTF 80's tanks to be pumped back into the tankers. The 90's tanks do not have vapor controls and emit VOC's directly to the atmosphere.

Separated water from the BWTF 90's tanks is then piped to the Dissolved Air Flotation (DAF) cells for further hydrocarbon removal. Air and polymers are added to the ballast water in the DAF cells to accelerate the process of separating the remaining oil from the water. The polymer binds the oil together, while the air bubbles float the oil to the surface. Recovered oil is then sent to the two BWTF 80's tanks to be pumped back into the tankers. The DAF cells do not have vapor controls and emit VOC's directly to the atmosphere.

Figure 7: BWTF Storage Tank (90 series)

Figure 8: BWTF Dissolved Air Floatation (DAF)

Water from Dissolved Air Flotation (DAF) cells is then sent to the Biological Treatment Tanks (BTT) for further hydrocarbon removal. The major goal of biological treatment is to remove aromatic hydrocarbons know as BETX (benzene, ethylbenzene, toluene, and xylene). Oil-eating microbes, nutrients and oxygen are used in the biological treatment process. The efficiency of the biological treatment process is critical to the removal of BETX from both the air and water phases. It was estimated that at lower biological treatment efficiencies, the amount of BETX emitted into the air phase could roughly triple in volume[7]. The BTT's do not have vapor controls and emit VOC's directly to the atmosphere. After this point, treated ballast water is discharged into Port Valdez.

[7] "Multimedia Fate and Effects of Airborne Petroleum Hydrocarbons in the Port Valdez Region", Yoram Cohen, Report for RCAC by Multimedia Envirosoft Corp., March 14, 1992.

Figure 9: BWTF Dissolved Air Floatation (DAF) cells

Figure 10: BWTF Biological Treatment Tank (BTT)

The two BWTF 80's tanks, which collect oil recovered from the BWTF treatment process, do not have vapor recovery and vent VOC's directly to the atmosphere.

The large oil storage tanks at the VMT also produce water, which is treated at the BWTF. Crude oil contains minor amounts of water contaminants. With time, the water will settle to the bottom of the tanks due to gravity. This water is routinely drawn from the tanks and routed to the BWTF for treatment.

Other water sources are pumped to the BWTF as part of the VMT industrial wastewater sewer system (e.g. spills, oily water, contaminated storm water, or process wastewater).

Minor Air Emission Sources

The VMT contains a number of minor air emission sources: emergency generators, miscellaneous portable generators, seven firewater pumps, and twenty diesel and fuel oil storage tanks. Many of these sources are only run a few hours a year for maintenance, training or testing. The total emissions from these combined sources are typically less than 1% of the total VMT emissions.

Two other minor emission sources were added to the VMT in 2000: a new tank bottom processing system and a soil vapor extraction system.

Mobile and Marine Sources

There are a number of mobile and marine sources of air pollution operating at the VMT operations including: vehicles, trucks, heavy equipment, and marine tankers. When air dispersion models are run to look at the total impact of the VMT operations on the Valdez air shed, these sources are evaluated a contributors to the total VMT air pollution.

Current VMT Air Permit Status

Since the VMT is considered a major source of air pollution, it is required to obtain an air quality permit to operate The VMT is also required to submit permit applications for any additional modifications that are made to the facility. The VMT currently operates under two air quality control permits.

1. In 1995 the installation of the Tanker Vapor Recovery Project required a revised air quality permit and modeling analysis for the entire VMT facility. This permit, Air Quality Control Permit to Operate No. 9671-AA001, includes all VMT air emission sources as of 1996.

2. Another permit, Air Quality Control Permit to Operate No. 0071-AC005, was issued in year 2000 to allow for the installation of a new tank bottom processing system and a soil vapor extraction system.

In 1997 Alyeska requested amendments to the 1996 permit to remove boiler fuel limits, operational and particulate matter limits on incinerators, and modifications to some reporting requirements[8]. These amendments are currently pending with ADEC. The RCAC should consider completing a technical and regulatory review of these requirements to determine if they warrant removal. This amendment will be issued for public comment, although a date has not been set by ADEC.

Alyeska is also seeking an amendment to the 1996 permit to remove tanker opacity and sulfur monitoring requirements. In a March 13, 2002, application,[9] Alyeska requested that its existing permit be amended to remove Conditions 14, 15, 25, and 27. Condition 14 requires Alyeska to cease loading or unloading operations of a tanker berthed at the Valdez Marine Terminal (VMT) when tanker visible emissions exceed permitted levels; Condition 15 requires Alyeska to monitor the visible emissions of vessels berthed at the VMT; Condition 25 requires Alyeska to perform a sulfur-content analysis on the fuel being used by a berthed vessel; and, Condition 27 requires Alyeska to notify ADEC whenever an opacity violation by a berthed vessel occurs. All four conditions of approval have been an integral part of the VMT Air Quality Permit since 1989, and have been very effective in minimizing opacity violations in Port Valdez. Alyeska should be commended for its responsible management and implementation of these permit requirements. The RCAC should consider submitting public comments to ADEC requesting that these requirements continue to be included in Alyeska's permit to ensure that opacity violations are reported and that sulfur dioxide pollution is minimized. This amendment will be issued for public comment, although a date has not been set by ADEC.

[8] Alyeska Pipeline Service Company Application to ADEC for a Request to Revise and/or Rescind Permit Conditions Issued Under Permit No. 9671-AA001, October 7, 1997

[9] Alyeska air quality permit application "Request for Revision or Revocation of Permit Terms: Valdez Marine Terminal, Former 18 AAC 50.400 Permit No. 9671-AA001", March 13, 2002.

In compliance with the new Title V Operating Permit requirements of 18 AAC 50, Alyeska submitted an initial air quality operating permit application for the VMT in October 1997. On November 3, 1997, the Alaska Department of Environmental Conservation (ADEC) determined that the October 7, 1997 VMT application was complete. Although ADEC was required to issue or deny an operating permit within 12 months after receipt of a complete application, this permit application still remains under review by ADEC over four years later. The two 1996 air permit amendments described above will need to be processed prior to processing of the Title V permit application.

The National Emissions Standards for Marine Tank Vessel Loading Operations are governed by 40 CFR 63, Subpart Y, to control hazardous air pollutants at the VMT. The specific requirements of the rule cannot be found in the 1996 VMT permit; rather ADEC only referenced the rule. A copy of the rule is provided in Appendix I.

Current VMT Air Compliance Status

On March 22, 2002, a records request was sent by the RCAC to ADEC to request any information on compliance matters associated with the VMT Air Quality Operating Permit since the Title V Air Quality Permit application was filed in November 1997. The RCAC requested copies of all inspection reports, enforcement actions, air emission source tests conducted at the VMT (either voluntarily by Alyeska or ordered by ADEC), and a copy of all actual test results for the source tests conducted. On April 11, 2002, ADEC responded to the RCAC's request for information, and the following information was provided.

Inspections

Since November 1997, the VMT received two air quality inspections: one on July 8-10, 1998, and a second on July 24-25, 2001. To date, ADEC has not developed a written report for either inspection. ADEC stated in their April 11, 2002, letter that "no compliance issues have been substantiated" as a result of the inspections.

The last documented ADEC air quality inspection of the VMT facility was over five years ago, on December 17-19, 1996. The 1996 inspection resulted in a determination of non-compliance with Conditions 3, 11, 22 and 30 of the 1996 VMT Air Quality Permit.[10] ADEC also found evidence to suspect non-compliance with conditions 2 and 12. In summary the ADEC inspector found:

- maintenance deficiencies on tank vents and several of the vapor recovery system components (Condition 3);
- corrosion penetrations in the Vapor Recovery System and leaking tank vent seals (Condition 11);
- failure to obtain approval of the siting, operation, and maintenance procedures for the duel consumption and auxiliary fuel/waste gas meters, opacity monitor, waste gas heat content monitor and crude oil storage tank pressure monitors (Condition 22);

[10] Air Quality Control Permit to Operate No. 9671-AA001.

- failure to produce certain records (Condition 30); and
- failure to repair cracks and leaks in the crude oil storage tank vent seals (Condition 2 & 12).

According to Alyeska and ADEC records these non-compliant issues have been addressed. However, these issues should be re-examined during the Title V permit review process to ensure that the permit specifies practices for maintenance, corrosion control, permitting, record keeping and repair, consistent with good air pollution control practices for minimizing air emissions to ensure future compliance.

Air Quality Complaints

The ADEC maintains a Compliance Automated Tracking System (CATS), which logs all environmental complaints received on a facility. Since 1997 there have been two complaints officially logged for the VMT by the ADEC staff. In April 1999, Alyeska loaded a tanker without vapor controls at Berth 5. This incident was repeated again at Berth 4 in March 1999. These two incidents prompted a warning letter from ADEC[11] in May 1999, clearly stating that it was ADEC's interpretation that the Marine Vessel Loading Rule prohibited uncontrolled loading at berths equipped with controls.[12] In July 2001, the Polar Endeavor was sent an "informal" NOV (Notice of Violation) documenting the opacity exceedance that occurred on July 2001, while loading/unloading at the VMT.

Air Emission Source Tests

Only the incinerators have received a source test to validate the actual amount of air emissions emitted since 1997. In August 1998, three waste gas incinerators were tested for VOC's, and one waste gas incinerator was tested for nitrogen oxide (NO_x), particulate matter (PM_{10}) and opacity. Since 1997, no source tests have been conducted on the power boilers, or any other air emission source at the VMT, to verify the actual emissions.

Enforcement Actions

Since November 1997, ADEC reports that no Compliance Orders or formal Notices of Violation (NOV) have been issued to the VMT. Only one "informal"[13] NOV was issued to Polar Tankers for an opacity violation.

[11] May 12, 1999 Letter, ADEC (Mr. Stone) to Alyeska (Mr. Jacobsen), "Loading Uncontrolled at berths with Controls".
[12] 40 CFR 63, Subpart Y.
[13] There does not appear to be any regulatory basis for ADEC issuing an "informal" NOV. The operator either violates a requirement or not.

Major Types of Air Pollutants Emitted from the VMT

Volatile Organic Compounds (VOC's)

Volatile Organic Compounds (VOC's), in a liquid state, readily produce vapors at room temperature and normal atmospheric pressure. Significant sources of VOC emissions at the VMT include uncontrolled loading, waste gas incinerators and the Ballast Water Treatment Facility (BWTF).

VOC's are a contributor to smog and can cause serious health effects such as cancer.[14] Many VOC's are also hazardous air pollutants (e.g. Benzene, Ethylbenzene, Toluene, and Xylene (BETX). Hazardous Air Pollutants (HAP's) are a sub-set of total VOC. Typically total VOC's are estimated for a facility and a fraction of that total is attributed to HAP's. Benzene has been classified by the EPA as a Group A known human carcinogen.[15] Benzene may cause headaches, drowsiness, dizziness as well as eye, skin and respiratory tract irritation. Chronic inhalation exposure has caused various disorders of the blood, including reduced numbers of red blood cells and aplastic anemia, as well as increased incidents of leukemia. Ethylbenzene may result in respiratory effects such as chest constriction and throat irritation, irritation of the eyes and dizziness in humans. Toluene may result in irregular heartbeats, fatigue, sleepiness, headaches, and nausea. Repeated exposure to high concentrations may result in loss of coordination, decreased brain size, and may impair speech, hearing and vision. Xylenes often result in irritation of the nose and throat, nausea, vomiting, and other neurological effects. Chronic inhalation may result in headaches, dizziness, fatigue and loss of coordination.

Ozone

Ground-level ozone is the principal component of smog. While ozone in the upper atmosphere is beneficial to life by shielding the earth from the sun's harmful ultraviolet radiation, high concentrations of ground-level ozone are a major environmental and health concern.[16] It is formed by the chemical reaction of NO_x and VOC's.[17] While ozone is not directly emitted from the VMT, it is produced in the atmosphere, in the presence of sunlight, by the combination of these two pollutants. Ground-level ozone damages lung tissue, reduces lung function and sensitizes the lungs to other irritants.

Nitrogen Oxides (NO_x)

Nitrogen oxides (NO_x) are a combustion product and are emitted from incinerators, boilers, and tankers, vehicles and other miscellaneous engines at the VMT. NO_x can irritate the lungs, cause

[14] Air Quality Index – A Guide to Air Quality and Your Health 2000, EPA-454/R-00-005, June, 2000.
[15] Federal Register, April 2, 2002 (63 FR 15674).
[16] EPA GreenBook at http://www.epa.gov/oar/oaqps/greenbk.
[17] Air Quality Guide for Ozone, EPA-456/F-99-002, July, 1999.

pneumonia and bronchitis, and lower resistance to other respiratory infections. Nitrogen oxides react with Volatile Organic Compounds (VOC's) to form smog. NO_x forms a brownish gas in the atmosphere and together with VOC's can form smog which impairs visibility.

Sulfur Dioxide (SO_2)

Sulfur Dioxide (SO_2) is a combustion product that is emitted from incinerators, boilers, and tankers, vehicles and other miscellaneous engines at the VMT. High concentrations of SO_2 affect breathing and may aggravate existing respiratory and cardiovascular diseases. Sensitive populations include asthmatics, individuals with bronchitis or emphysema, the elderly and children. Sulfur dioxide is closely related to sulfuric acid, a strong acid that plays an important role in the production of acid rain, causing acidification of lakes and streams. It can cause damage to forests and buildings. SO_2 also contributes to visibility impairment.

Carbon Monoxide (CO)

Carbon Monoxide (CO) is a combustion product that is emitted from incinerators, boilers, and tankers, vehicles and other miscellaneous engines at the VMT. High concentrations of CO reduce the ability of the blood to deliver oxygen to vital tissues, affecting cardiovascular and nervous systems. CO is produced by incomplete combustion of carbon in fuels.

Particulate Matter (PM_{10})

Air pollutants such as dust, dirt, soot, and smoke are more generally labeled "particulate matter". In combustion source stack emissions, particulate matter is emitted as a result of incomplete combustion. Particles can also be formed in the atmosphere by condensation of gases such SO_2 and VOC's that are emitted from the stacks. The EPA specifically regulates particulate matter with aerodynamic diameters smaller than 10 micrometers in size, since these small particles seem to be responsible for most of the adverse heath effects from particulate matter. Particulate matter affects the respiratory tract; sensitive populations include individuals with chronic obstructive pulmonary or cardiovascular disease or influenza, asthmatics, the elderly and children.[18] PM_{10} also contributes to visibility impairment.

Current VMT Air Emission Inventory

The most comprehensive potential air emission inventory for the Valdez Marine Terminal can be found in the 1995 Air Quality Permit Application that was submitted by Alyeska to ADEC to permit the addition of the tanker vapor recovery system. Potential emissions were estimated in detail both prior to and after the installation of the tanker vapor recovery project. The post tanker vapor recovery project potential emissions estimate is listed in the 1995 application is listed in Table 1 below. Both ADEC and EPA reviewed this application in great detail.

[18] EPA GreenBook at http://www.epa.gov/oar/oaqps/greenbk.

Table 1: Total Allowable VMT Emissions Post Tanker Vapor Recovery Project						
Combustion Equipment	**SO_2**	**NO_x**	**CO**	**PM_{10}**	**VOC**	**Total**
Power Boilers	1,195	529	3	54	457	2,238
Waste Gas Incinerators	465	647	49	197	2,170	3,528
Solid Waste Incinerator	12	5	17	15	5	54
Emergency Equipment (1)	3	37	6	3	2	51
Combustion Equipment Subtotal	**1,675**	**1,218**	**75**	**269**	**2,634**	**5,871**
Ship Vent Gas	45	113			5,940	6,098
East/West Tank Farm					165	165
Fuel Oil Tanks					1	1
BWTF/90's Tanks					727	727
BWTF/80's Tanks					9	9
BWTF Dissolved Air Flotation (DAF) cells					87	87
BWTF Biological Treatment Tanks (BTT)					12	12
Leaking Valves and Fittings on VRS Pipes					166	166
Non-Combustion Equipment Subtotal	**45**	**113**	**0**	**0**	**7,107**	**7,265**
Total	**1,720**	**1,331**	**75**	**269**	**9,742**	**13,137**

The Marine Vessel Loading Rule sets specific loading allowance limits for loading at berths that are not equipped with control devices. The EPA requires all uncontrolled loading to cease at the VMT by year 2002,[19] with the exception of small maintenance allowance[20] (Table 2). By 2002, the maintenance allowance is capped at 40 calendar days per calendar year, or 40,210 barrels a day[21]. This is roughly equivalent to 1400 tons of VOC per year. Once crude oil throughput decreases below 550,000 barrels of oil a day the maintenance allowance is eliminated.[22] If the maintenance allowance is exceeded at an uncontrolled berth, Alyeska must install vapor control on that berth within 2 years.

[19] 40 CFR 63.562 (d)(2)(ii)(A)(e).
[20] 40 CFR 63.562 (d)(2)(ii)(B).
[21] There is a formula in the Marine Vessel Loading Rule to calculate the maintenance allowance. It must be recalculated on an annual basis. Qm = ((916,914-550,000)x40)/365)
[22] 40 CFR 63.562 (d)(2)(ii)(B)(c).

Table 2: Total Allowable VMT Emissions as of 2002						
	SO_2	**NO_x**	**CO**	**PM_{10}**	**VOC**	**Total**
Total Emissions Post Tanker Vapor Recovery	1,720	1,331	75	269	9,742	13,137
Reduction in Uncontrolled Loading Required[23]					4,540	4,540
Increase Due to 2000 Permit[24]	21	10	1	1	24	57
Revised Allowable Permit Limits as of 2002	**1,741**	**1,341**	**76**	**270**	**5,226**	**8,654**

The tanker vapor recovery project reduced the total VMT emissions from approximately 37,000 tons/yr to approximately 5,200 tons/yr. While Volatile Organic Compounds (VOC's) were reduced by over 86%, substantial increases in boiler and incinerator Sulfur Dioxide (SO_2), and Nitrogen Oxides (NO_x), and Particulate Matter (PM_{10}) emissions were estimated in the 1995 permit application, as shown in Table 3 below. Boiler and incinerator emissions substantially increased, since this equipment was now required to burn all the collected vapors either as fuel or as waste. SO_2 was projected to increase by over 700%, NO_x was projected to increase by approximately 150%, and PM_{10} was projected to increase by approximately 140%. The trade-off in emissions was required to significantly reduce the most hazardous pollutants to human health.

Table 3: Total Allowable VMT Emissions Comparison (Pre vs. Post Tanker Vapor Recovery)						
	SO_2	**NO_x**	**CO**	**PM_{10}**	**VOC**	**Total**
Total Emissions Post Tanker Vapor Recovery	1,741	1,341	76	270	5,226	8,654
Total Emissions Pre Tanker Vapor Recovery	200	535	50	114	37,332	38,231
Reduction/Increase in Emissions	**1,541**	**806**	**26**	**156**	**(32,106)**	**(29,577)**
% Reduction/Increase in Emissions	**773%**	**150%**	**51%**	**137%**	**-86%**	**-77%**

In year 2000 Alyeska added two emission sources that contributed to the total VOC emissions at the VMT: a new tank bottom processing system and a soil vapor extraction system. Alyeska voluntarily agreed to control the level of VOC's emitted from these new sources to avoid the complexity of a major permit review. The maximum permitted VOC emissions from these new sources adds a total of 23.5 tons per year[25]. These sources also increase the emission limits in Table 1 above by 21 tons of SO_2, 10 tons NO_x, 1 ton PM_{10} and 1 ton of CO per year[26] (Table 2).

[23] VOC reductions were required as a result of the phase out of uncontrolled loading under the Marine Vessel Loading Rule (40 CFR 63, Subpart Y)
[24] 2000 Permit Sources included tank bottom processing and soil vapor extraction emissions.
[25] Permit No. 0071-AC005, Condition 22.
[26] Permit No. 0071-AC005, April 13, 2000 Public Notice Valdez Star

Prior to the tanker vapor recovery project installation, 98% of the VMT total estimated emissions were attributed to VOC's. Even after installation of the tanker vapor recovery project the estimated emissions of VOC's are still the largest target for emission reduction, amounting to 61% of all remaining emissions at the VMT (Table 2). With the phase out of uncontrolled loading at the terminal the VOC's have been further reduced.

Today, the largest sources of VOC emissions are uncontrolled loading and the Ballast Water Treatment Facility (BWTF). It is estimated the current VOC emissions contribute over 100 tons of hazardous air pollutants into the Valdez air shed on an annual basis[27]. Thus, the RCAC has identified the BWTF as an area for emission control improvement. The RCAC has requested that Alyeska install vapor recovery on Berth 3 and on the BWTF. To date, Alyeska has not installed controls on either Berth 3 or the BWTF. VOC and HAPs estimates are also currently underway by Argonne National Labs, as part of the TAP Right of Way Renewal EIS project for the BLM, revised estimated should be issued in draft EIS form the summer of 2002.

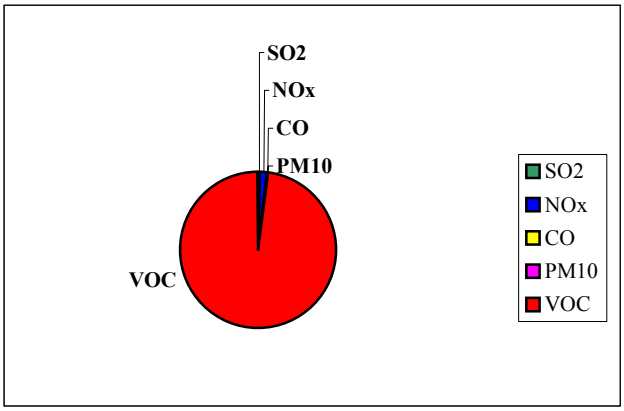

Figure 11: VMT Emissions Pre-Tanker Vapor Recovery

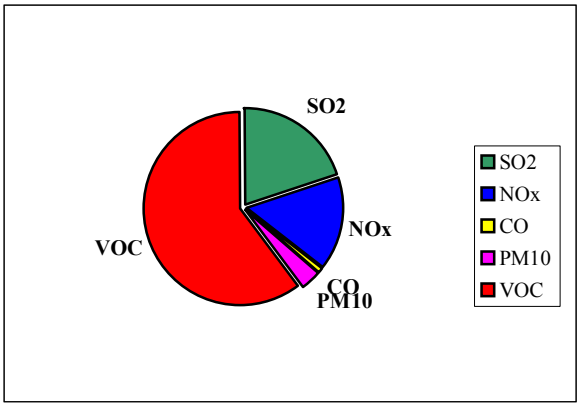

Figure 12: VMT Emissions Post-Tanker Vapor Recovery

Alyeska's Fiscal Year 2002 (FY02) actual emissions are provided in Table 4 below. The FY02 VOC emissions still comprise over 75% of the total emissions from the VMT.

Table 4: Total VMT Emissions Comparison (Allowable Emissions vs. FY02 Actuals)

	SO_2	NO_x	CO	PM_{10}	VOC	Total
Total Allowable Emissions for 2002	1,741	1,341	76	270	5,226	8,654
Total Emissions Reported for FY02[28]	22	313	126	17	1,402	1,880
FY02 as a % of Permitted Emissions	**1%**	**23%**	**166%**	**6%**	**27%**	**22%**

[27] "Multimedia Fate and Effects of Airborne Petroleum Hydrocarbons in the Port Valdez Region", Yoram Cohen, Report for RCAC by Multimedia Envirosoft Corp., March 14, 1992.
[28] FY02 Actuals = Actuals emissions as reported by Alyeska, based on actual equipment usage

The total permitted emission levels are based on the facility's maximum Potential To Emit (PTE). The PTE is based on full operation of the entire facility at its maximum year-round operating limits. The VMT is currently operating it's 36MW power plant at approximately one fourth of it's operating limit. The throughput of oil is down from 1.8 million barrels to less than 1.0 million barrels per day. The BWTF throughput currently treats at approximately 11 million barrels of water per day; operating at roughly one-third of its design capacity.

The actual emissions of SO_2, NO_x, and PM_{10}, as reported by Alyeska, are only a fraction of the total potential emissions estimated when the permit was obtained in 1996. However, the VMT still remains the largest emission source in Valdez. For example, Alyeska reports actual emissions of only 22 tons/yr SO_2, less than 1% of the 1996 permitted maximum[29]. Alyeska also reports NO_x at less than 23%, and PM_{10} at less than 6% of the 1996 permitted maximum. The actual FY02 Carbon Monoxide (CO) emission estimate exceeds the 1996 estimates, and appears to be as a result of a change in the EPA emission estimating techniques since 1995.

As a comparison, the actual emissions estimated by Alyeska are compared against another local air emission source, the Copper Valley Electric, Valdez Diesel Plant in Table 5 below. Copper Valley Electric, Valdez Diesel Plant is a small plant comprised of 6 diesel fired engine generator sets and one diesel fired turbine generator set. The plant has approximately 10MW of total power generating capacity and only a portion is currently in use.

Table 5: Total VMT Actual Emission vs. Copper Valley Actual Emissions

	SO_2	NO_x	CO	PM_{10}	VOC	Total
Valdez Marine Terminal[30]	22	313	126	17	1,402	1,880
Copper Valley Electric, Valdez Diesel Plant[31]	22	168	44	0	0	234
Difference	**0**	**145**	**82**	**17**	**1402**	**1646**

A comparison was also made between the reported actual VMT emissions and the emissions estimated by another local air emission source, Petro Star Valdez Refinery, in Table 6 below. The Petro Star Valdez Refinery is a petroleum refinery permitted to process up to 50,000 barrels of crude oil from the Trans Alaska Pipeline System (TAPS) per day. The refinery separates diesel and kerosene fractions from crude oil by distillation. The plant is comprised of a direct-fired crude charge heater, 2 utility boilers, emergency generators, and 270,000 barrels of storage. The Petro Star Refinery is not considered a major source of air pollution, because its total potential to emit any one pollutant is less than 100 tons of pollutant per year.

[29] Alyeska attributes these low actual levels of sulfur to use of Tesoro's low sulfur fuel (0.03-0.06% sulfur) versus the permitted approved sulfur fuel content level of 0.5%. Alyeska reports that actual sulfur emissions will be substantially higher in FY03 due to use of Petro Star's high sulfur content fuel.
[30] VMT Estimated Emissions = FY02 Actuals emissions as reported by Alyeska, based on actual equipment usage
[31] Copper Valley Actual Emissions for 1996, as provided in ADEC 9-8-00 Title V Permit No. 286TVP01

Table 6: Total VMT Actual Emission vs. Petro Star Valdez Refinery Actual Emissions

	SO_2	NO_x	CO	PM_{10}	VOC	Total
Valdez Marine Terminal[32]	22	313	126	17	1,402	1,880
Petro Star Valdez Refinery[33]	20	84	27	0	55	186
Difference	**2**	**229**	**99**	**17**	**1347**	**1694**

Actual emission calculations must be submitted by Alyeska to ADEC on an annual basis. ADEC questioned the both the FY00 and FY02[34] emission calculations. For FY02 ADEC was specifically concerned about underestimation of actual VOC emissions. An emission inventory technical audit may be warranted to investigate these differences. Air emission source tests and sampling should be used as a tool to validate the actual air emissions inventory and to ensure that valid calculation estimating techniques are used in the future.

Tanker emissions coming from the ship's combustion equipment while docked (deballasting, and loading) were estimated at an additional 940 tons/year of SO_2, 215 tons/yr of NO_x and 55 tons/yr of PM_{10}. These emissions are not included in the VMT annual emission estimates reported to ADEC.

Overall, the Valdez Marine Terminal is the largest and most significant permitted emission source in the Valdez air shed, both from an actual air emissions standpoint, (Figure 11) and from a permitted maximum emissions standpoint (Table 7).

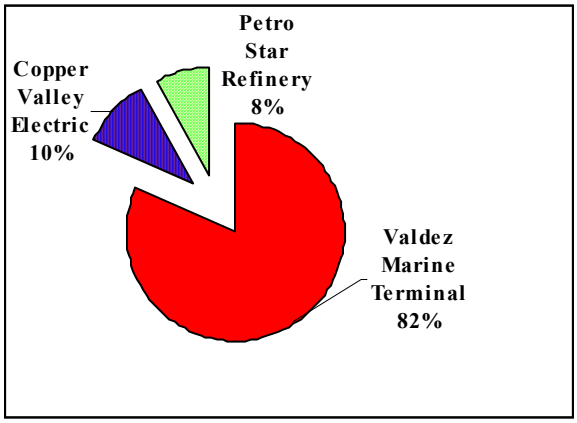

Figure 13: Valdez Emission Sources as a % of Total

[32] VMT Estimated Emissions = FY02 Actuals emissions as reported by Alyeska, based on actual equipment usage
[33] Petro Star Assessable Emissions, as provided in ADEC April 2002 Public Notice Draft, Title V Permit No. 311TVP01
[34] Alyeska Letter to ADEC, "The Department's Inquiry into the Valdez Marine Terminal Assessable Emissions Estimates for Fiscal Year 2002", March 13, 2002.

Table 7: VMT, Copper Valley Electric, and Petro Star Valdez Refinery Permitted Emissions						
	SO_2	NO_x	CO	PM_{10}	VOC	Total
Valdez Marine Terminal	1,741	1,341	76	270	5,226	8,654
Copper Valley Electric	1,068	236	31	154	29	1,518
Petro Star Valdez Refinery	20	84	27	0	55	186

VMT Air Emissions Modeling

Due to the predicted potential increases in SO_2, NO_x, and PM_{10}, as a result of the installation of the tanker vapor recovery project, air dispersion modeling was required to ensure that these additional levels of pollutants did not exceed national ambient air quality limits in the Valdez air shed. Modeling was completed using, conservative worst-case equipment operating conditions and worst-case meteorological conditions. Petro Star Valdez Refinery was included in Alyeska's modeling analysis. All predicted emissions were below the air emission limits set by EPA to prevent further significant deterioration of the Valdez air shed.[35] The modeling also showed that the increased emissions were below the National Ambient Air Quality Standards (NAAQS) set by EPA; however, the Sulfur Dioxide (SO_2), levels were predicted to be very high, at 74-91% of the standard.

Visibility modeling was also completed to examine potential visibility impacts on protected Class I air sheds such as protected national parks and preserves. The Tuxedni National Wildlife Preserve, located approximately 200 miles to the west of Valdez, was evaluated. Visibility impacts did not exceed the EPA's standards for a National Wildlife Preserve. Visibility modeling was also assessed at the nearest national park, Wrangell- St. Elias National Park and Preserve, located approximately 55 miles to the east and in Valdez. No conclusions were drawn relative to the Wrangell- St. Elias National Park and Valdez visibility impacts.

Although the tanker vapor recovery project significantly reduced the total VOC, total NO_x and SO_2 were significantly increased, contributing to the source of the yellow haze effect observed in the Valdez Port area. The source of this yellow haze is also attribute to NO_x and SO_2 emissions from the tanker stack emissions.

Although the RCAC was very active in commenting on the Marine Vessel Loading Rule, the records do not reflect RCAC review or analysis of the modeling work that was submitted in 1996 by Alyeska. Further analysis of the modeling data may be warranted. An update to the 1996 modeling analysis should be considered, in light of air dispersion modeling tool improvements made in the last 8 years. This will be a useful tool in evaluating the "health" of the entire Valdez air shed.

[35] PSD, Class II allowable increments.

VMT Air Emissions Monitoring

In the late 1980's and early 1990's substantial work was completed to install, collect, and analyze air emission monitoring data in the Valdez Region. In 1992 the "Valdez Air Health Study[36]" was issued by Alyeska to summarize their findings. RCAC hired a series of experts to review[37] the Valdez Air Health Study and to draw their own conclusions[38] from the air quality monitoring data obtained. As a result of this air monitoring data, human health impacts of hazardous air pollutants emitted at the VMT were elevated to a state and national level. Federal standards were developed and implemented to control the emissions of benzene, a known human carcinogen, and other hazardous vapors through the Marine Vessel Loading Rule.

The RCAC Scientific Advisory Committee (SAC) and the Terminal Operations and Environmental Monitoring (TOEM) committees are considering re-establishing air quality monitoring sites equivalent to those installed in Valdez for the Valdez Air Health Study. They would like to examine the improvement in air quality and quantitatively assess the remaining pollutant levels existing in the Valdez air shed. This quantitative assessment would provide the basis for further emission reduction strategies if air quality levels continue to put the Valdez population at an unacceptable health risk.

To develop an "Ambient Air Quality Monitoring Program" takes careful design and planning. It is recommended that the Phase II scope of work focus on commenting on permits and emission reduction standards available for public comment. As a result of permitting actions (conditions, stipulations, operating limits) and new federal rules to control HAPs at the VMT, further emission reductions may be achieved. Once the outcome of these permitting and rule making actions is known, the incremental cost benefit of the air monitoring program should be evaluated.

It is recommended that during Phase II, the RCAC evaluate the cost and benefits of this monitoring program for potential implementation in a Phase III program, once funding is approved by the council. Development of a "Phase III" Ambient Air Quality Monitoring Program, would include the task of scoping, siting and planning the program. The Committees recommended that the Phase II air monitoring network task be focused on developing a plan to duplicate the Valdez Air Health Study ambient air quality monitoring sites, for comparative value. Additional sites may also be considered.

The State of Alaska has a longstanding program of monitoring air quality. Air quality monitoring stations are operated by ADEC in Anchorage, Fairbanks, Juneau, the Matanuska-Susitna Valley, Denali State Park, and Ketchikan[39]. These sites currently monitor particulate matter and carbon

[36] "Valdez Air Health Study: Technical Report", Bernard D. Goldstein, Report for Alyeska Pipeline Service Co., June 15, 1992.
[37] "Valdez Air Health Study and Review: A Look Back: Report and Recommendation for RCAC", RCAC Terminal Operations and Environmental Committee", July 12, 1993.
[38] "Multimedia Fate and Effects of Airborne Petroleum Hydrocarbons in the Port Valdez Region", Yoram Cohen, Report for RCAC by Multimedia Envirosoft Corp., March 14, 1992.
[39] 2001 ADEC Annual Report, Alaska' SLAMS/NAMS Monitoring Network Assessment.

monoxide. Prior to initiating the Phase III monitoring program, the RCAC should evaluate partnering opportunities (state, federal, private) to share the cost of the program.

Overview of Applicable Federal and State Environmental Laws & Regulations

The Federal Clean Air Act[40] is the corner stone of our nation's air quality control law. Facilities such as the VMT are required to meet both State and Federal laws and regulations pertaining to air quality. The Federal Clean Air Act sets the national standard, from which each state has developed state specific air quality programs. EPA sets limits on how much of a pollutant can be in the air anywhere in the United States. This ensures that all Americans have the same basic health and environmental protections. The federal law allows individual states to set more stringent air pollution controls, but not weaker ones. Each state was required to develop a State Implementation Plan (SIP) that explains how the state will implement the Federal Law. The EPA is ultimately responsible for ensuring that each state is properly implementing and enforcing their air quality program.

Alaska has developed a State Implementation Plan (SIP) that has been approved by EPA. The Alaska Department of Environmental Conservation (ADEC) administers the Alaska SIP. The Alaska State Implementation Plan includes Title 18, Alaska Administrative Code; Chapter 50 (18 AAC 50) "Air Quality Control"; 18 AAC 52 "Emission Inspection and Maintenance Requirements; and 18 AAC 53 "Fuel Requirements for Motor Vehicles". EPA has delegated authority to the ADEC for administering the SIP, but retains the right to approve or deny any changes to the SIP and the authority to develop national standards, which are later implemented by the states.

A summary of the key environmental laws and regulations that apply to the VMT are listed below. While not intended to be exhaustive, it supplies the reader with a brief summary of the environmental laws and regulations needed to better understand the basic air quality control requirements and the basis for the recommendations made in this paper.

Clean Air Act of 1970

The Clean Air Act was passed into law in 1970. This law allowed EPA to set National Ambient Air Quality Standards (NAAQS) to protect public health and welfare. EPA's National Ambient Air Quality Standards were established to control six major pollutants. EPA termed these major pollutant types "criteria pollutants":[41] (1) Total Suspended Particulates (PM_{10}), (2) Sulfur Dioxide (SO_2), (3) Nitrogen Oxides (NO_x), (4) Carbon Monoxide (CO) and (5) Ozone (O_3), and (6) Lead (Pb).

[40] Clean Air Act of 1972 and the Clean Air Act Amendments of 1990.
[41] Clean Air Act Amendments Section 108 and 109. The name "criteria" was used since the emission standards were set by developing health-based criteria.

The EPA was also given authority to require permits for new, significant air emission sources. EPA set up a New Source Review (NSR) Process[42] to ensure that major stationary sources of air pollution, and major modification to those sources, obtain an air pollution permit before commencing construction to control the amount of criteria air pollutants emitted from their facility. The NSR program is comprised of two types of permits: (1) for areas with air pollution levels in compliance with the National Ambient Air Quality Standards "attainment areas" and (2) for areas with air pollution levels not in compliance with the National Ambient Air Quality Standards "nonattainment areas".

The Valdez air shed is currently listed by EPA as an "attainment area". Permits for sources in attainment areas are referred to as Prevention of Significant Deterioration (PSD) permits. The goal of the PSD program is to prevent any further significant deterioration of that air shed, within allowable limits set by EPA. Since the VMT is considered a major stationary source of air pollution, it was required to obtain a PSD air permit in 1995 when it modified its facility to include the marine vessel vapor recovery system. The VMT currently operates under two air quality control permits. One PSD permit includes all VMT air emission sources as of 1996.[43] A second permit was issued in year 2000 to allow for the installation of a new tank bottom processing system and a soil vapor extraction system.[44]

Clean Air Act Amendments of 1990

While the original Clean Air Act was effective in controlling air pollution to some degree, there were still major national air quality concerns that remained unaddressed. In June of 1989, President Bush proposed sweeping revisions to the Clean Air Act. These revisions are now commonly referred to as the Clean Air Act Amendments of 1990 (CAAA90). The President's goal was to curb three major threats to the nation's environment and to the health of millions of Americans: acid rain, urban air pollution and toxic air emissions. The new law also required an improved operating permits program and an improved enforcement program to ensure better compliance with the Act.

The main elements of the Clean Air Act, such as NAAQS, PSD, and NSR remained intact. Construction and operating permits continued to be issued to control criteria pollutants such as SO_2, NO_x, and PM_{10} at the VMT. The 1996 and 2000 VMT air permits issued by ADEC ensured that the NAAQS, PSD, and NSR requirements were met.

The Clean Air Act Amendments of 1990 contained seven new titles to tackle acid rain, urban air pollution and toxic air emissions. Three of the titles apply to control of emissions sources at the VMT (Title III, Title V, and Title VII), and provide for enhanced emission control and monitoring requirements at the VMT.

[42] Specific New Source Performance Standards (NSPS) were also established for specific source categories (e.g. incinerators, storage vessels, etc.) to control criteria air pollutants.
[43] Air Quality Control Permit to Operate No. 9671-AA001.
[44] Air Quality Control Permit to Operate No. 0071-AC005.

Title III – Control of Hazardous Air Pollutants

Title III of the Clean Air Act Amendments of 1990 sought to control the emissions of 189 toxic air pollutants, which posed a risk to the American public. The 189 listed pollutants consist of carcinogens, mutagens, and reproductive toxins. Prior to 1990, the original Clean Air Act of 1977 had done little to reduce the emissions of these very threatening substances and had only regulated 7 toxic air pollutants.

As a priority, the EPA was required to identify source categories of air emission sources that emitted 10 tons/year of any one, or 25 tons/year of any combination of the 189 listed hazardous air pollutants. For each source category identified, the EPA was required to issue a National Emission Standard for Hazardous Air Pollutants (NESHAP's)[45] to control these large sources of air toxic emissions. When developing the NESHAP's, the EPA requires operators to install the Maximum Achievable Control Technology (MACT).[46] The MACT defines the level of control required. For new sources, the MACT cannot be less stringent than the emission control that is achieved in practice by the best controlled similar source. The MACT for existing sources, like the VMT, can be less stringent than standards for new sources, but they cannot be less stringent than the average emission limitations achieved by the best performing 12% of the existing sources in that source category.[47]

Since 1992, the EPA has listed 174 major source[48] categories that require control. For each major source category, EPA is required to issue Maximum Achievable Control Technology (MACT) standards on a prescribed schedule.[49] Two of the of the 174 major NESHAP source categories listed are relevant to the VMT: (1) Marine Loading Facilities (40 CFR Part 63, Subpart Y), and (2) Organic Liquid Distribution Facilities (40 CFR Part 63, Subpart EEEE).

The Marine Loading Facility National Emission Standards for Hazardous Air Pollutants (NESHAP's) has significantly reduced the amount of Hazardous Air Pollutants (HAP's) from the VMT. Emission control options may also be required for the VMT under the Organic Liquid Distribution Facilities NESHAP. Both rules seek to reduce Hazardous Air Pollutants (HAP's), such as benzene, toluene, ethylbenzene, and xylene, which have been a longstanding human health hazard of concern for RCAC. While the NESHAP's specifically target HAP's reductions they also are effective in reducing the total amount of Volatile Organic Compounds (VOC's) at the VMT, as HAP's are a sub-set of the total VOC's. Many VOC's react photochemically with Nitrogen Oxides

[45] 1990 Clean Air Act, Title III, Section 112.
[46] NESHAP is the standard. MACT is the level of control within the NESHAP standard. MACT is based on the best demonstrated control technology or practices within the regulated industry.
[47] Federal Register, April 2, 2002, (63 FR 15674).
[48] Major hazardous air pollutant source is defined as a source, which emits 10 tons/year of any one, or 25 tons/year of any combination of the 189 listed hazardous air pollutants. (CAAA 90 Section 112(a)(1)).
[49] Forty MACT standards were to be issued in the first two years, with a schedule that required EPA to have all the standards in place within 10 years. (CAAA 90 Section 112(e)(1) and (3)).

(NO_x) to produce ground-level ozone, the principal component of smog. Reducing VOC's will reduce the potential for smog in the Port of Valdez.

NESHAP for Marine Vessel Loading Operations

In 1995, the EPA issued a National Emission Standard for Hazardous Air Pollutants (NESHAP) that applied to VOC control of the "Marine Vessel Loading Operations" of the VMT.[50] Alyeska complied with the Marine Vessel Loading Operations Rule (40 CFR 63, Subpart Y), by installing vapor control on Berths 4 and 5 at the VMT. Vapor recovery was installed at the Berths in 1998.

Based on the expected declining North Slope crude oil throughput, Alyeska did not install vapor recovery on Berths 1 and 3. Alyeska is currently preparing to decommission Berth #1. It was estimated that only two berths would be required to load crude oil in a controlled fashion in the future. The RCAC has expressed concern that the North Slope crude oil throughput has not declined as quickly as predicted by Alyeska back in 1995, and has requested that Alyeska consider the installation of vapor recovery on Berth 3.

ADEC's April 11, 2002, letter to the RCAC also identified uncontrolled loading at the VMT as a priority issue for ADEC. ADEC is concerned about two issues. First they do not want any uncontrolled loading at Berths 4 and 5. In April, 1999, Alyeska loaded a tanker without vapor controls at Berth 5. This incident was repeated again at Berth 4 in March 1999. These two incidents prompted a warning letter from ADEC[51] in May 1999, clearly stating that it was ADEC's interpretation that the Marine Vessel Loading Rule prohibited uncontrolled loading at berths equipped with controls.[52] ADEC noted that the only time that uncontrolled loading should occur at Berths 4 and 5 is when a tanker is in the process of loading and an unplanned malfunction of the vapor recovery system occurs. In this case, ADEC found that it would be reasonable to continue loading the tanker uncontrolled. ADEC stressed that tankers should not be loaded uncontrolled if Berths 4 and 5 are known to be in a state of malfunction. Secondly, ADEC notes in their April 11, 2002, correspondence that they are also concerned about future oil throughput projections and the VMT's ability to load all the crude oil controlled. ADEC stated: "(t)he State may not be able to require Alyeska to install controls on the basis of this knowledge, but we have informed them that we share RCAC's concern. Uncontrolled loading is being closely monitored by the State. To date, no exceedances have occurred."

The Marine Vessel Loading Rule requires that "the VMT equip <u>at least two</u> loading berths with a vapor collection system and air pollution control device and shall load marine tank vessels over loading berths equipped with a vapor collection system and control device to the maximum extent practicable."[53] As a result of this rule, controls were installed on berths 4 and 5.

[50] National Emission Standards for Hazardous Air Pollutants (NESHAP), Marine Vessel Loading Operations, 40 CFR 63, Subpart Y, September 19, 1995, 60 FR 48388.
[51] May 12, 1999, Letter, ADEC (Mr. Stone) to Alyeska (Mr. Jacobsen), "Loading Uncontrolled at berths with Controls."
[52] 40 CFR 63, Subpart Y.
[53] 40 CFR 63.562 (d)(2)(i).

The Marine Vessel Loading Rule sets specific loading allowance limits for loading at berths that are not equipped with control devices. The EPA requires all uncontrolled loading to cease at the VMT by year 2002,[54] with the exception of small maintenance allowance[55]. By 2002, the maintenance allowance is capped at 40 calendar days per calendar year, or 40,210 barrels a day[56]. This is roughly equivalent to 1400 tons of VOC per year. Once crude oil throughput decreases below 550,000 barrels of oil a day the maintenance allowance is eliminated.[57] If the maintenance allowance is exceeded at an uncontrolled berth, Alyeska must install vapor control on that berth within 2 years.

Eight years after MACT is installed on a source, EPA must examine the risk levels remaining at the regulated facilities and determine whether additional controls are necessary to reduce unacceptable residual risk. This analysis would not be required until 2006, but should be included in PWS RCAC's long-range plan.

NESHAP for Organic Liquid Distribution (OLD) Facilities

On June 9, 1998, a Presumptive Organic Liquids Distribution Maximum Achievable Control Technology (OLD MACT) Standard (draft standard) was issued by EPA. The 1998 Presumptive MACT standard for Organic Liquid Distribution Facilities, as proposed, applied to major sources of Hazardous Air Pollutants (HAP's) associated with the storage and distribution of non-gasoline liquids, at sites that serve as distribution points from which organic liquids may be obtained for further use and processing. Facilities considered for this standard included liquid distribution terminals and pipeline facilities. The Standard Industrial Classification (SIC) Code for Marine Cargo Handling Facilities (SIC 4491) was specifically listed. The Valdez Marine Terminal is a SIC 4491 facility. The types of emissions proposed to be controlled included sources relevant to the VMT, such as leaks from equipment components (pumps, valves, etc), and wastewater collection and treatment. Even after Marine Vessel Loading vapor control, the VMT is still a HAP Major source, in large part due to emissions from the Ballast Water Treatment Facility (BWTF). This MACT standard originally proposed installation of vapor control at wastewater facilities, in particular, facilities that treat ballast water.

On April 29, 1998, the EPA conducted an Industry Specific Information Collection Request (ICR) for the development of this rule. On August 17, 1998, Alyeska provided EPA with a detailed response[58] listing the BWTF as a significant source of VOC's, and the facility as a major source of HAP's.

On April 2, 2002, the EPA issued the National Emission Standard for Hazardous Air Pollutants (NESHAP's), Organic Liquid Distribution (Non-Gasoline) Proposed Rule (40 CFR 63, Part

[54] 40 CFR 63.562 (d)(2)(ii)(A)(e).
[55] 40 CFR 63.562 (d)(2)(ii)(B).
[56] Qm = ((916,914-550,000)x40)/365)
[57] 40 CFR 63.562 (d)(2)(ii)(B)(c).
[58] Alyeska Letter 98-13437, Mr. Jacobsen to Mr. Jordan of the EPA, "Industry-Specific Information Collection Request (ICR) for the Development of an Organic Liquid Distribution Maximum Achievable Control Technology (MACT) Standard, August 17, 1998."

EEEE)[59] for a 60-day public comment period. The proposed rule is provided in Appendix II. Comments are due by June 3, 2002. This revised proposed rule seeks to control additional Hazardous Air Pollutants (HAP's) from storage terminal, refineries, crude oil pipeline stations, and various manufacturing facilities.

The Organic Liquid Distribution (OLD) standard was required to be developed and promulgated by year 2000.[60] To date, this standard not been completed. EPA's website targets 2002 for finalizing the rule. Since EPA has failed to meet the year 2000 deadline by more than 18 months, Section 112(j) includes a "hammer" provision requiring that operating permits for major sources contain HAP emission limitations determined to be equivalent to MACT. The equivalency determinations will be made on a case-by-case basis for individual sources.[61]

In the next 24 months, either the EPA will issue an OLD Subpart EEEE rule, or the State of Alaska will need to address this MACT standard for the VMT via the Title V operating permit approval process. Since EPA has now issued the OLD MACT for public comment, the State will likely defer to the EPA to finalize this standard in 2002.

ADEC Air Toxics Assessment

In 2000, the Alaska Department of Environmental Conservation (ADEC) initiated an Air Toxics Assessment for the State of Alaska. The scope of this assessment is provided in Appendix III. The goals of this project include identification of toxic air pollutants in Alaska, prioritization of these pollutants based upon health risks and public input, development of an implementation plan based on public health priorities, implementation of planned projects with the help and input of interested Alaskans, and evaluation of the success of plans and projects. Currently the ADEC reports that the toxics emission inventory was scoped to include Anchorage, Fairbanks and Juneau. This inventory includes mobile sources (on-road & non-road), area sources, and point sources for these communities. ADEC stated that Anchorage and Fairbanks were included as the two largest communities in Alaska, and Juneau was selected as a smaller community, which had a variety of emission sources (marine, incineration, wood-burning). A state contract has been issued to Hoeffler Consulting Inc., and the work is scheduled for 2002, with a series of stakeholder outreach workshops scheduled for July –December 2002.

The RCAC should also consider the ADEC Air Toxics Survey as another potential avenue for evaluating air toxics in Valdez. Although Valdez is not currently included in Phase I of this Air Toxics Assessment, ADEC is soliciting public input on developing priorities and projects for the assessment.

[59] Federal Register, April 2, 2002, (67 FR 15674).
[60] Presumptive MACT for Organic Liquids (Non-Gasoline) Distribution Facilities, EPA Office of Air Quality Planning and Standards, Waste and Chemical Processes Group, June 9, 1998.
[61] Federal Register, December 27, 1996, (61 FR 68384).

Title V

Title V of the Clean Air Act Amendments of 1990 sought to ensure compliance with all Clean Air Act requirements and to enhance the EPA's ability to enforce the act. Prior to 1990, air quality pollution control obligations for a large facility, such as the VMT, were scattered throughout numerous hard-to-find provisions of the state and federal regulations and in many various construction and operating permitting documents.[62]

The Title V Air Quality Operating Permit Program ensures that all of a source's obligations will be contained in one permit. The facilities are also required to file periodic reports identifying the extent to which it has complied with the Title V Air Quality Operating Permit obligations.

Typically, EPA delegates the Title V Operating Permit Program to the states. However, if a state fails to properly develop or implement their program, EPA can take over. In Alaska, the EPA has delegated the authority to implement the Title V Operating Permit Program Alaska Department of Environmental Conservation (ADEC).

Conversion of all existing VMT air quality permits to a single Title V permit will provide the following benefits to the RCAC and the community of Valdez:

- All VMT air pollution control requirements will now be recorded in one place. This gives members of the public, regulators, and the source a clear picture of what the facility is required to do to keep its air pollution under the legal limits.
- The VMT will be required to make regular reports on how it is tracking its emissions of pollution and the controls it is using to limit its emissions. These reports are public information.
- Monitoring, testing, and record keeping requirements, will be added to the VMT permit to assure that it complies with its emission limits or other pollution control requirements.
- The VMT will be required to certify each year whether or not it has met the air pollution requirements in its Title V permit. These certifications are public information.

In compliance with Title V ("Permits") of the Clean Air Act (CAA) Amendments of 1990, and Alaska Statute AS 46.14, the State of Alaska developed substantial revisions to its air quality Construction Permit and Operating Permit Program Regulations in 1996. On December 5, 1996, the Environmental Protection Agency (EPA) approved the State of Alaska Operating Permits Program ("Title V" Permit Program) under 18 AAC 50.[63] All existing regulated facilities in the State of Alaska were required to submit a revised air quality operating permit on, or before, December 6, 1997.

[62] Air Pollution Operating Permit Program Update, Key Feature and Benefit EPA/451/K-98/002, February 1998.
[63] Federal Register, December 5, 1996, (61 FR 64463).

On October 7, 1997, Alyeska submitted an initial 18 AAC 50 Operating Permit application for the VMT, in compliance with the new Operating Permit requirements of 18 AAC 50. On November 3, 1997, the Alaska Department of Environmental Conservation (ADEC) determined that the October 7, 1997, VMT application was complete. Under AS 46.14.170(a)(2) ADEC is required to issue or deny an operating permit within 12 months after receipt of the complete application by the Department. Thus, a VMT air quality operating permit approval should have been issued on, or before, November 3, 1998.

The Alaska Statutes also recognized the difficulty that ADEC would have in reviewing and approving all the revised operating permits within one year. The Statutes at AS 46.14.170(b) provided a contingency for approving permits on a three year phased schedule.[64] This phased schedule required that all operating permits be approved by no later than December 6, 2000.

It is now over 4 years since the VMT Title V Operating Permit was deemed complete and ADEC still has not taken action on this permit. ADEC's current proposal to defer the VMT permit review and approval until calendar year 2003, will result in the continued operation of one of the State's largest sources of air emissions for over 5 years without completion of a thorough review and approval process. Air Quality Operating Permits are only approved for a 5 year period. Based on ADEC's proposed schedule, the initial Air Quality Operating Permit for the VMT may not be issued before the second renewal application is due.

Due to ADEC's inability to issue Title V Permits in a timely manner, ADEC's Title V delegation from EPA is in jeopardy. ADEC is required to have all Title V permits reviewed and approved by no later than December 2003.[65] To avoid a notice of deficiency, ADEC has agreed to a strict schedule for processing Title V permits.[66] ADEC is also required to provide to EPA, and the public, a report that will examine the cost of implementing the Alaska air permits program, and the ability of ADEC's current fee rates and structure to generate the necessary revenue to process permits in a timely manner.[67] This report was required prior to March 2002, and, to date has not been prepared by ADEC.

The VMT Title V permitting action is a significant permitting action that will result in a very detailed air quality control permit. This permit will consolidate all the previous air quality control permits issued for the VMT facility into one manageable permit. Once issued, the VMT permit will be valid for a 5 year period. RCAC's oversight of the VMT Title V permit application and review process will ensure that Federal and State air quality control requirements are documented in one permit and that monitoring and record keeping requirements are in place to ensure compliance.

[64] AS 46.14.170(b) "A phased schedule must ensure that at least one-third of the applications submitted during the first 12 months of the state's operation of its permit program after federal approval will be acted on by the department during each of the first three 12-month periods following federal approval of the program."
[65] U.S.EPA Letter, Alaska's Title V Program, from McAllister to Ms. Brown, December 14, 2001.
[66] ADEC Letter from Ms. Brown to Mr. Iani EPA Region 10, November 1, 2001.
[67] ADEC Letter from Ms. Brown to Mr. Iani EPA Region 10, November 15, 2001.

Title VII

Title VII of the Clean Air Act Amendments of 1990 provided EPA with enhanced enforcement authority. The EPA can now issue administrative penalty orders up to $200,000 and field citations up to $5000 for lesser infractions. Maximum civil judicial penalties were increased and criminal penalties for knowing violations were upgraded from misdemeanors to felonies.

Title VII also revised the citizen suit provisions to all citizens to seek penalties against violators with the penalties going to the U.S. Treasury for use by EPA for compliance and enforcement.

Recommendations

The purpose of this paper was to research the current status of air quality permitting and air quality issues for the Valdez Marine Terminal (VMT) and identify key issues, studies, and permitting oversight that may warrant a more in-depth "Phase II" effort. Recommendations for the Phase II Valdez Marine Terminal Air Quality Oversight Project are listed below:

1. **Existing Air Quality Permit Modifications.** Alyeska has requested an amendment to the 1996 permit to remove boiler fuel limits, operational and particulate matter limits on incinerators, and some reporting requirements[68]. These amendments are currently pending with ADEC. The RCAC should consider completing a technical and regulatory review of these requirements to determine if they warrant removal. This amendment will be issued for public comment, although a date has not been set by ADEC.

   Alyeska is also seeking an amendment to the 1996 permit to remove tanker opacity and sulfur monitoring requirements prior to the Title V Permit process. The RCAC should consider submitting public comment to ADEC requesting that the 1996 opacity and sulfur monitoring requirements are retained in the VMT air quality permit to ensure that opacity violations are reported and sulfur dioxide pollution is minimized. This amendment will be issued for public comment, although a date has not been set by ADEC.

2. **Hazardous Air Pollutant Control.** The RCAC should monitor control of hazardous air pollutants at the VMT through active involvement in the design and implementation of two National Emission Standard for Hazardous Air Pollutants. The RCAC should also consider the ADEC Air Toxics Survey as another potential avenue for evaluating air toxics in Valdez. Although Valdez is not currently included in Phase I of this Air Toxics Assessment, ADEC is soliciting public input on developing priorities and projects for the assessment.

[68] Alyeska Pipeline Service Company Application to ADEC for a Request to Revise and/or Rescind Permit Conditions Issued Under Permit No. 9671-AA001, October 7, 1997

a. NESHAP Standard for Organic Liquid Distribution Facilities (40 CFR 63, Subpart EEEE): The RCAC should consider submitting comments on the April 2, 2002, EPA National Emission Standard for Hazardous Air Pollutants (NESHAP's), Organic Liquid Distribution (Non-Gasoline) Proposed Rule during the 60 day public comment period. Comments are due to EPA on June 3, 2002. Comments should focus on an analysis of the proposed emission standards to determine the extent to which operations at the VMT are covered by it, development of recommendations for changes to the rule such that the VMT would be fully covered by it, and development of recommendations for changes to the rules such that emissions from operations at the VMT would be significantly reduced.

b. NESHAP Standard for Marine Loading Facilities (40 CFR 63, Subpart Y): The RCAC should consider monitoring compliance with the Marine Vessel Loading Operations MACT Subpart Y standard by conducting an annual compliance audit of the VMT Marine Vessel Loading Vapor Recovery System. The compliance audit would include a technical review of all data and monitoring reports that were submitted to the state, to verify compliance with the MACT standard. The final work product should include an audit report that either validates Alyeska's compliance or highlights areas of concern. This audit should ensure that there is no uncontrolled loading, as has occurred at Berths 4 and 5, and that the maintenance allowance has not been exceeded at Berths 1 and 3. The RCAC should also include the eight year EPA MACT standard review required for the VMT Marine Vapor Control System in the PWS RCAC long-range plan for year 2006.

3. **Title V Air Quality Operating Permit Oversight.** The RCAC should consider providing comment on the VMT Title V permit to ensure that the permit provides specific installation, maintenance, operating, testing and monitoring procedures to ensure that each air emission source and each pollution control device is operated (at all times, including start-up, shutdown, and malfunctions) in a manner consistent with good air pollution control practices for minimizing emissions. This permit is expected to be out for public comment in year 2003.

   a. **Title V Operating Permit Oversight Acceleration:** RCAC should consider sending a letter to ADEC requesting acceleration of the VMT Title V Air Quality Operating Permit review schedule from 2003 to 2002. It is now over 4 years since the VMT Title V Operating Permit was deemed complete and ADEC still has not taken action on this permit. ADEC's current proposal to defer the VMT permit review and approval until calendar year 2003, will result in the continued operation of one of the State's largest sources of air emissions for over 5 years, without completion of a thorough review and approval process.

b. **VMT Emission Inventory Technical Review:** Prior to the VMT Title V Air Quality Operating Permit public comment period, the RCAC should consider a technical review of all emission standards, emission factors, permit limits and emissions calculations used by Alyeska in their Title V permit application and Fiscal Year 2003 (FY03) Emission Fee Inventory. Special attention should be paid to VOC emission estimates. This task should also include a comparison of the total permitted emission source inventory in Valdez versus a similarly situated coastal community (e.g., Seward, Alaska). This analysis will be used to communicate the relative magnitude of emissions in these communities. The final work product should include a technical emission inventory report, which either validates Alyeska's calculations or highlights errors that need to be addressed as part of the final permit. Air emission source tests and sampling should be used as a tool to validate the actual air emissions inventory and to ensure that valid calculation estimating techniques are used in the future.

c. **On-site VMT Monitoring Program Review:** The RCAC should consider completing a technical review of Alyeska's proposed Title V emission monitoring program. This technical analysis would include a review of all monitoring, testing, and record keeping requirements that have been proposed by Alyeska to assure that the source complies with its emission limits, or other pollution control requirements. This monitoring program, on-site at the VMT, would typically include stack testing, fuel monitoring, gas metering, etc. The final work product should be a technical report which either validates Alyeska's proposed Title V monitoring program elements or proposes alternative monitoring, testing, and record keeping requirements that should be incorporated as part of the final Title V permit.

d. **Permit Consolidation Review:** The Title V permit consolidates all previous AQ permits, and requirements issued for the VMT into a single permit. The RCAC should consider completing a thorough record review, and an historical analysis is required to ensure that all previously issued permit requirements are included in the Title V permit. The historical data was compiled in Phase I of this project. This work scope should include a review of all previously issued VMT permits and amendments, the Title V application and any amendments to that application. Particular attention should be paid to Alyeska's March 13, 2002, proposal for "Revision or Revocation of Permit Terms" for the VMT, in which Alyeska seeks relief from some marine tank vessel opacity monitoring, fuel sulfur monitoring, de-ballasting, and crude oil loading requirements. This review should include an examination of the April 1997, ADEC inspection report, and any subsequent inspections that are documented by ADEC. Recommendations should be made to ensure that the permit specifies practices for maintenance, corrosion control, permitting, record keeping and repair, consistent with good air pollution control practices for minimizing air emissions. A final report should be written which identifies any State or Federally enforceable

requirements that were not incorporated in Alyeska's Title V permit application that should be retained as part of the final permit.

e. **AQ Modeling Review:** The RCAC should consider completing a technical review of the most current AQ model used by Alyeska to demonstrate compliance with the National Ambient Air Quality Standards (NAAQS), the State of Ambient Air Standards and the Allowable Prevention of Significant Deterioration (PSD) ambient concentration increments. The "Emission Inventory Technical Review", outlined in Recommendation 3(b) above, should be completed first, and then the model review should be completed. Modeling input requires an accurate emission inventory. An update to the 1996 modeling analysis should be considered, in light of updated emission estimates, and air dispersion modeling tool improvements made in the last 8 years. The model should include all the emissions sources in Valdez including significant stationary sources, mobile sources and marine sources. This will be a useful tool in evaluating the "health" of the entire Valdez air shed.

f. **Title V Permit, prepare comments and monitor permit approval:** The RCAC should consider providing comment on the VMT Title V permit. There are opportunities for public comment prior to the issuance of a Title V permit. There is a 30-day ADEC public comment period. After ADEC has completed a State review, EPA has an additional 45 days to review each permit and to object to permits that violate the Clean Air Act. If EPA fails to object to a permit that violates the Act or the implementation plan, any person may petition EPA to object within 60 days following EPA's 45-day review period. Comments would be prepared on behalf of PWS RCAC for the State, and potentially Federal, review process. The final work product would be a letter prepared for Council approval. The RCAC comments should focus on ensuring that the Title V permit provide specific installation, maintenance, operating, testing and monitoring procedures to ensure that each air emission source and each pollution control device is operated (at all times, including start-up, shutdown, and malfunctions) in a manner consistent with good air pollution control practices for minimizing emissions.

g. **Phase III Ambient Air Quality Monitoring Program.** The RCAC should consider developing a "Phase III" Ambient Air Quality Monitoring Program, by completing the task of scoping, siting and planning the program. The RCAC Scientific Advisory Committee (SAC) and the Terminal Operations and Environmental Monitoring (TOEM) committees are considering re-establishing air quality monitoring sites equivalent to those installed in Valdez for the Valdez Air Health Study. However, the committees recognize that it would be prudent to complete a scoping, siting and planning review prior to funding the installation of a new air monitoring network. It was recommended that the Phase III air monitoring network task be focused on developing a plan to duplicate the Valdez Air Health Study ambient air quality monitoring sites, for comparative value, and also evaluate additional sites. This task

would include developing a technical plan, cost estimate, and evaluation of potential partnering opportunities (state, federal, private). As a result of permitting actions (conditions, stipulations, operating limits) and new federal rules to control HAPs at the VMT, further emission reductions may be achieved. Once the outcome of these permitting and rule making actions is known, the incremental cost benefit of the air monitoring program should be evaluated. This will be a useful tool in evaluating the "health" of the entire Valdez air shed. The plan would be submitted to the Council for funding approval.

List of Acronyms

ADEC	Alaska Department of Environmental Conservation
AQ	Air Quality
BETX	Benzene, Ethylbenzene, Tolulene, Xylene
BTT	Biological Treatment Tanks
BWTF	Ballast Water Treatment Facility
CAAA90	Clean Air Act Amendments of 1990
CATS	Compliance Automated Tracking System
CO	Carbon Monoxide
DAF	Dissolved Air Floatation
EPA	Environmental Protection Agency
HAP's	Hazardous Air Pollutants
ICR	Information Collection Request
MACT	Maximum Achievable Control Technology
NAAQS	National Air Ambient Air Quality Standards
NESHAP	National Emission Standard for Hazardous Air Pollutants
NGL's	Natural Gas Liquids
NOV	Notice of Violation
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards
NSR	New Source Review
O_3	Ozone
OLD	Organic Liquid Distribution
Pb	Lead
PM_{10}	Particulates Matter
PRV	Pressure Relief Valve
PSD	Prevention of Significant Deterioration
PWS RCAC	Prince William Sound Regional Citizens Advisory Council
SAC	Scientific Advisory Committee
SIC	Standard Industrial Classification
SO_2	Sulfur Dioxide
TAPS	Trans Alaska Pipeline System
TOEM	Terminal Operations & Environmental Monitoring Committee
VMT	Valdez Marine Terminal
VOC's	Volatile Organic Compounds

APPENDIX I

(Authority: 39 U.S.C. 3220(a)(2), 5 U.S.C. 301)

3. Section 1.701 is revised to read as follows:

§ 1.701 Contact person for missing children official mail program.

The Department of Veterans Affairs contact person for the Missing Children Official Mail Program is: Mrs. Roslynd R. Stewart, Information Management Service (045A4), Office of Policy and Program Assistance, Office of Information Resources Management, Office of Management, Department of Veterans Affairs, 810 Vermont Avenue, NW., Washington, DC 20420–0001. Telephone: (202) 565–8949.

(Authority: 39 U.S.C. 3220(a)(2), 5 U.S.C. 301)

§ 1.702 [Amended]

4. In § 1.702, paragraph (b) is amended by removing ''If doing so would be cost effective, the Department of Veterans Affairs shall insert via automated insertion equipment'' and adding, in its place, ''The Department of Veterans Affairs will insert''; by removing ''types of''; by removing ''data processing'' and adding, in its place, ''automation''; and by removing ''may be'' and adding, in its place, ''are''.

5. In § 1.702, paragraph (c) is amended by removing ''will be'' in both places and adding, in its place in both places, ''is''; and by removing ''the Mail and Travel Policy Division'' and adding, in its place, ''Information Management Service''.

6. In § 1.702, paragraph (d) is amended by removing ''(i.e. use or destroy)''; by removing ''will be'' and adding, in its place, ''is''; by removing ''contract'' and adding, in its place, ''contact''; by removing ''envelopes''; and by removing ''as to'' and adding, in its place, ''as of''.

7. In § 1.702, paragraph (h) is amended by removing ''reguations'' and adding, in its place, ''regulations''.

8. Section 1.703 is revised to read as follows:

§ 1.703 Percentage estimate.

It is the Department of Veterans Affairs objective that 20 percent of its first class official mail addressed to the public contain missing children photographs and information.

(Authority: 39 U.S.C. 3220(a)(2), 5 U.S.C. 301)

§ 1.705 [Amended]

9. In § 1.705, paragraph (a) is amended by removing ''which are ordered and/or stocked in quantities which'' and adding, in its place, ''ordered and stocked in quantities that''.

10. In § 1.705, paragraph (c) is amended by removing ''and/or'' and adding, in its place, ''or''.

11. In § 1.705, paragraph (e) is amended by removing ''return, address areas'' and adding, in its place, ''return address area''; and by removing ''OJJDP'' and adding, in its place, ''Office of Juvenile Justice and Delinquency Prevention''.

[FR Doc. 95–23146 Filed 9–18–95; 8:45 am]

BILLING CODE 8320–01–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 9 and 63

[AD-FRL–5272–8]

RIN 2060–AD02

Federal Standards for Marine Tank Vessel Loading Operations and National Emission Standards for Hazardous Air Pollutants for Marine Tank Vessel Loading Operations

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates standards under section 183(f) of the Clean Air Act (the Act) and requires reasonably available control technology (RACT) to limit air emissions of volatile organic compounds (VOC) and hazardous air pollutants (HAP) from new and existing marine tank vessel loading operations. VOC emissions, together with nitrogen oxides are precursors to the formation of tropospheric ozone, which can impair lung capacity, cause eye, nose and throat irritation, timber and other valuable crops such as soybeans and cotton. The health effects of exposure to HAPs can include cancer, respiratory irritation and damage to the nervous system. An additional set of standards promulgate national emission standards for hazardous air pollutants (NESHAP) under section 112 of the Act for marine tank vessel loading operations and require existing and new major sources to control emissions using maximum achievable control technology (MACT) to control HAP.

EFFECTIVE DATE: This regulation is effective September 19, 1995. See **SUPPLEMENTARY INFORMATION** section concerning judicial review.

ADDRESSES: *Technical Support Document.* The Technical Support Document (TSD) for the promulgated standards may be obtained from the U.S. Department of Commerce, National Technical Information Service (NTIS), Springfield, Virginia 22161, telephone number (703) 487–4650. Please refer to ''Federal Standards for Marine Tank Vessel Loading Operations and National Emission Standards For Hazardous Air Pollutants For Marine Tank Vessel Loading Operations—Technical Support Document for Final Standards,'' Document Number PB95–234514. The TSD contains, (1) a summary of 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 standards since proposal.

Electronic versions of the promulgation TSD as well as this final rule are available for download from the EPA's Technology Transfer Network (TTN), a network of electronic bulletin boards developed and operated by the Office of Air Quality Planning and Standards (select ''CAAA'' ''Title III''). The TTN provides information and technology exchange in various areas of air pollution control. The service is free, except for the cost of a phone call. Dial (919) 541–5742 for data transfer of up to a 14,400 bits per second (bps). If more information on TTN is needed, contact the systems operator at (919) 541–5384. A copy of the TSD has also been placed in the Docket at the address given below.

Docket. Docket No. A–90–44, containing supporting information used in developing the promulgated standards, is available for public inspection and copying from 8 a.m. to 4 p.m., Monday through Friday, at the EPA's Air and Radiation Docket and Information Center, Waterside Mall, Room M–1500, Ground Floor, 401 M Street SW., Washington, DC 20460. A reasonable fee may be charged for copying.

FOR FURTHER INFORMATION CONTACT: For information concerning the standards or technical aspects, contact Mr. David Markwordt at (919) 541–0837, Emission Standards Division (MD–13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711.

SUPPLEMENTARY INFORMATION: Under section 307(b)(1) of the Act, judicial review of NESHAP 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 Act, the requirements that are the subject of today's notice may not be challenged later in civil or criminal proceedings

brought by the EPA to enforce these requirements.

The information presented in this preamble is organized as follows:

I. The Standards

A summary of today's final standards is listed in Table 1. Included in this table are applicability cutoffs based on annual throughput (under section 183(f)) and HAP emissions (under section 112), separation of marine tank vessel loading operations at petroleum refineries (which are now included under the petroleum refineries source category), and emission standards based on subcategory determinations for offshore terminals and the Alyeska Pipeline Service Company's (APSC's) Valdez Marine Terminal (VMT). The promulgated regulations allow for several alternative compliance technologies to allow owners or operators maximum compliance flexibility.

TABLE 1.—FINAL STANDARDS, NATIONAL COSTS, AND EMISSION REDUCTIONS

Section of act	Subcategory	Standard	Emission reduction, Mg/yr	Annual cost, $MM
183(f)	New and existing terminals having throughput of ≥1.6 billion liters per year (10 million barrels per year) of gasoline or ≥32 billion liters per year (200 million barrels per year) of crude oil.	98 percent reduction in emissions if using combustion techniques; 95 percent reduction in emissions if using recovery techniques.	13,000 (VOC), 900 (HAP).	20–40.
112	Existing major source terminals having emissions of hazardous air pollutants (HAP) of 10/25 tons per year or more from loading of marine tank vessels.	97 percent reduction in HAP emissions	7,000 (VOC), 750 (HAP).	20–40.
112	Existing major source terminals collocated at petroleum refineries having HAP emissions of 10/25 tons per year or more from loading of marine tank vessels; new major source terminals regardless of HAP emissions from marine tank vessel loading (both existing and new sources are regulated under the Gasoline Refineries NESHAP).	97 percent reduction in HAP emissions for existing sources, 98 percent reduction in HAP emissions for new sources; emissions averaging with petroleum refinery emissions points is allowed.	Impacts included in previous subcategory data.	Impacts included in previous subcategory data.
112	Existing major source terminals having HAP emissions of less than 10/25 tons per year from loading of marine tank vessels.	No control	None	None.
112	New major source terminals regardless of HAP emissions from marine tank vessel loading.	98 percent reduction in HAP emissions	None	None.
112 and 183(f)	Existing major source terminals located more than 0.8 kilometers (0.5 miles) offshore.	No control	None	None.
112	New major source terminals located more than 0.8 kilometers (0.5 miles) offshore.	95 percent reduction in HAP emissions	None	None.
112 and 183(f)	Alyeska Pipeline Service Company's Valdez Marine Terminal.	98 percent reduction in emissions with maximum throughput limits.	19,000 (VOC), 2,500 (HAP).	20.

Sources required to reduce emissions are also required to monitor the performance of control technology installed to achieve the required emissions reductions. Baseline parameters may be established by owners or operators during initial performance tests, or continuous emissions monitoring devices may be used to provide indicators of performance. The baseline parameters may be based on manufacturer's recommended operating parameters or other parameters selected by the source and approved by the Administrator. Sources are also required to develop and implement an operation and maintenance plan that describes a program of corrective action for varying (i.e., exceeding baseline parameters) air pollution control equipment and monitoring equipment used to comply with these emissions standards. This plan includes operating parameters that shall be monitored and recorded as indicators of proper operation of the air pollution control devices.

In developing these final monitoring requirements and compliance provisions, the Agency has provided significant flexibility to owners or operators of sources required to reduce emissions in regard to selecting monitoring protocols, yet has assured compliance with the standards. Compliance is assured through reporting and recordkeeping requirements that specify annual reports of system performance. This reporting interval is compressed to semi-annual for sources that experience excess emissions.

Owners or operators of all marine tank vessel loading operations subject to the federal standards promulgated

under section 183(f) of the Act (RACT sources) are required to commence construction of its vapor collection system and air pollution control device(s) within 2 years from September 19, 1995. These RACT sources are required to complete the installation of the control technology needed to comply with the standards within 3 years from September 19, 1995. Owners or operators of new RACT sources with an initial startup after September 21, 1998 are required to comply with all requirements upon startup. A RACT source may request a waiver of final compliance for up to 1 year if it can prove that the additional time is necessary for the installation of controls.

Owners or operators of marine tank vessel loading operations subject only to the requirements promulgated under section 112(d) of the Act (MACT standards) are required to install the control technology needed to comply with the standards within 4 years from September 19, 1995. Owners or operators of new MACT-only sources with initial startup after September 20, 1999 are required to comply with all requirements upon startup.

The VMT owners or operators are required to install the control technology needed to comply with the standards within 30 months from September 19, 1995.

II. Summary of Impacts

These standards will reduce nationwide emissions of hazardous air pollutants (HAP) from marine tank vessel loading operations by approximately 4,150 Mg (4,565 tons) after 1999 compared to the emissions that would result in the absence of the standards. These standards will reduce emissions of volatile organic compounds (VOC) from marine tank vessel loading operations by approximately 39,000 Mg (42,900 tons) after 1999 compared to the emissions that would result in the absence of the standards. No significant adverse secondary air, water, solid waste, or energy impacts are anticipated from the promulgation of these standards.

The implementation of this regulation is expected to result in nationwide annualized costs for existing marine tank vessel loading operations of $60 million to $100 million beyond baseline based on an analysis of applying controls to all existing facilities not currently controlled to the level of the standards. Nationwide capital costs expected to result from these regulations are approximately $266 million to $440 million.

As discussed in this preamble under Regulatory Flexibility Act Compliance, the economic impact analysis performed for this rulemaking showed that the estimated maximum price increases for the affected products varied, but were not large (less than 1%). These price-increase estimates reflect the control cost increases for transporting crude and products. Because these increases are small and because the elasticities of demand for petroleum products are small, estimated percent output reductions were minimal. Correspondingly, estimated employment reductions were also relatively small.

Potentially significant economic impacts on some of the smaller affected terminal operations were identified, although the decision not to require emission controls for existing smaller operations greatly reduces the potential for adverse economic impacts on small terminal operations. These potential impacts would result from the high per barrel control cost differential between the smaller and larger terminal operations that would need to control emissions. Some of these smaller terminal operations, to the extent that they are competing with nearby larger or unaffected terminal operations, could have had difficulty raising prices to cover cost increases and could have been significantly adversely impacted by this rule.

The potential economic impact on marine tank vessel owners was substantially reduced because of the decision not to require emission controls on small existing terminals in this rulemaking. Because only a small percentage of U.S. marine transported volume of products will be impacted by the standard, only a relatively small percentage of U.S. marine tank vessels will need to retrofit. Thus, only the vessels that will need the least cost to retrofit (most likely the larger, newer, double-skin vessels) will do so, leading to some degree of dedicated service. It is expected that vessel owners that do retrofit will be able to pass most retrofit costs forward in terms of higher prices.

III. Significant Changes to the Proposed Standards

Proposed standards for marine tank vessel loading operations were published in the Federal Register on May 13, 1994 (59 FR 25004). Under section 183(f) of the Act, the proposed rule would have required a 98 percent reduction in emissions (or a 95 percent reduction, if recovery techniques were used) from marine tank vessel loading and unloading operations that load either 100 million barrels per year of crude oil or 5 million barrels per year of gasoline. Sources would have had 2 years to comply with these RACT standards. Under section 112(d) of the Act, the proposed rule also would have required owners or operators of major sources that emit 1 ton per year or more of HAP from marine tank vessel loading and unloading operations to reduce total HAP emissions by at least 93 percent. Sources would have had 3 years to comply with these MACT standards. The control devices used to meet these standards were required to be operated at 98 and 95 percent efficiencies for combustion and recovery control technologies respectively. The EPA also proposed to regulate emissions from ballasting.

Three alternatives were proposed to ensure vessel tightness: (1) Pressure test the vessel, (2) perform a leak test on all components using Method 21 of appendix A of 40 CFR part 60, or (3) load the vessel at less than atmospheric pressure.

Proposed monitoring requirements required owners or operators to monitor any valves that could divert flow from a control device if those bypass valves could not be secured. Monitoring criteria were also proposed for combustion devices, carbon adsorbers, condensers, absorbers, and flares. Owners or operators were generally required to establish operating parameters during an initial performance test and then monitor combustion temperature for combustion devices, VOC concentration in the exhaust stream for carbon adsorbers, exhaust stream temperature for condensers, VOC outlet concentration for absorbers, and continuous presence of a flame and the vent stream flow for flares. Criteria to apply for and obtain approval for alternative monitoring criteria (and for alternative monitoring devices) were also specified in the proposed rule.

Under the proposed rule, owners or operators of sources required to install controls would have had to fulfill the reporting and recordkeeping requirements of the part 63 General Provisions, including submittal of the following reports: (1) Initial notification that the source is subject to the standards, (2) notification of initial performance test, (3) initial notification of compliance status, (4) annual excess emissions and monitoring system performance report and/or summary report, and (5) an annual emissions estimation report. These sources would also have been required to maintain documentation that vessels loaded at the facility were vapor tight. All information was to have been made readily available to the Administrator or

delegated State authority for a minimum of 5 years.

In addition, the Agency requested comment on several issues, including the subcategorization of certain types of terminals. On August 31, 1994, the Agency published a notice reopening the comment period to request comment on amending the Marine Tank Vessel Loading and the Petroleum Refinery source categories to move marine terminals collocated at petroleum refineries to the Petroleum Refineries source category (59 FR 44955). On March 8, 1995, the Agency reopened the comment period to request comment on extending the proposed compliance dates (60 FR 12703).

A. Public Participation

Prior to proposal of the standards, interested parties were advised by public notice in the Federal Register (56 FR 1186) of a meeting of the National Air Pollution Control Techniques Advisory Committee to discuss the regulation of this source category. This meeting was held on January 31, 1991. The meeting was open to the public, and each attendee was given an opportunity to comment on the standards recommended for proposal.

The standards were proposed, and the preamble was published in the Federal Register on May 13, 1994 (59 FR 25004). The preamble to the proposed standards discussed the availability of the regulatory text and proposal TSD, which described the regulatory alternatives considered and the impacts of those alternatives. Public comments were solicited at the time of proposal, and copies of the regulatory text and TSD were distributed to interested parties. Electronic versions of the preamble, regulation, and TSD were made available to interested parties via the TTN (see **ADDRESSES** section of this preamble).

To provide interested persons the opportunity for oral presentation of data, views, or arguments concerning the proposed standards, a public hearing was held on June 15, 1994 in Research Triangle Park, North Carolina. The public comment period was from May 13 to July 18, 1994. The Agency also reopened the public comment period for specific comments on two occasions—August 31, 1994 (59 FR 44955) and March 8, 1995 (60 FR 12723). In all, over 150 comment letters were received (including seven duplicates). Additional information received from interested parties but not submitted directly to the docket was included in the docket as additional comments on the proposed regulation. Information submitted after the close of the comment period is also included in the docket and may appear on the docket index as public comments in docket category IV–D. The comments have been carefully considered, and changes have been made to the proposed standards when determined by the Administrator to be appropriate.

B. Comments on the Proposed Standards

Comments on the proposed standards were received from 143 commenters composed mainly of States, environmental groups, private citizens, control device vendors, industry, and trade associations. A detailed discussion of these comments and responses can be found in the promulgation TSD, which is referred to in the **ADDRESSES** section of this preamble. The summary of comments and responses in the TSD serves as the basis for the revisions that have been made to the regulations between proposal and promulgation. Most of the comment letters contained multiple comments. A summary of the revisions to the regulations along with discussion of the comments on the major issues is provided below. In the TSD, the comments have been divided into the following areas:

(1) Applicability of standards.
(2) Inclusion of certain terminals with the petroleum refinery source category.
(3) Subcategorization issues.
(4) RACT/MACT.
(5) Compliance schedule for Titles I and III standards.
(6) Compliance, performance testing, and monitoring requirements.
(7) Vapor tightness requirements.
(8) Leak detection and repair.
(9) Reporting and recordkeeping requirements.
(10) General provisions interaction.
(11) Wording of regulation.
(12) Administrative record/sources of information.
(13) Cost effectiveness/impacts.
(14) Miscellaneous.
(15) Comments on proposed appendices to 40 CFR part 64.

C. Significant Changes

Several changes have been made since the proposal of these standards. The majority of the changes have been made to clarify portions of the rule that were unclear to the commenters. A summary of the major changes is presented below.

(1) *Removal of unloading operations (ballasting) from the source category.* In the proposed rule, the Agency included regulations proscribing emissions from ballasting of vessels following unloading of vessels. Comments asserted that ballasting operations are performed by vessel operators, not by the regulated terminal sources. The Agency agrees with this interpretation of the affected source. The Agency also agrees that regulating ballasting operations would be difficult to enforce. The Agency's intent in prohibiting ballasting emissions in the proposed regulation was to provide a cross-reference with existing Coast Guard regulations addressing ballasting in vessels. The Coast Guard rules require vessels to have segregated ballast tanks for crude oil loadings. The Agency sees no benefit to restating Coast Guard requirements for ballasting. Moreover, EPA agrees that the relatively low amount of actual emissions associated with ballasting does not justify dual regulation of ballasting. As discussed in the proposal TSD, the total VOC emissions from crude oil tankship ballasting were estimated to be approximately 950 Mg/yr. Based on the portion of HAP in crude oil vapor, total HAP emissions from ballasting are less than 120 Mg/yr. Ballasting emissions will diminish in the future because tankships built since 1980 are required by domestic law and international agreement to use segregated ballast tanks that do not emit vapors during ballasting. Therefore, in order to prevent confusion in the regulated community, the Agency does not address ballasting or bunkering emissions in the final regulation. The Agency defers to the U.S. Coast Guard's existing standards (33 CFR parts 155 and 157; and 46 CFR parts 30 et al.).

(2) *Extension of the compliance schedule for section 183(f) (''Title I'') and section 112 (''Title III'') standards.* In the proposed rule, EPA proposed to establish compliance deadlines of 2 years for the section 183(f) standards, and 3 years for the section 112 standards. The Agency received numerous comments regarding these schedules that stated the length of the compliance periods was insufficient to comply with the standards. Commenters noted that facilities' abilities to install pollution control devices are constrained by several factors, including the following: (1) The limited number of contractors experienced in installing control equipment in marine loading facilities; (2) the numerous facilities that will need to meet the standards at the same time; and (3) the lead time needed to meet permitting and safety requirements from permitting authorities and the U.S. Coast Guard.

Commenters stated that EPA had discretion to extend the compliance period under section 183(f), noting the ambiguity of the term ''effective date'' and that the evidence indicated that the proposed emission control technologies

would not be ''reasonably available, considering costs, nonair-quality benefits, environmental impacts, energy requirements, and safety factors'' within 2 years. Commenters also noted that EPA had the authority to provide for a waiver of compliance with MACT standards under section 112 for up to 1 year if certain findings were made.

On March 8, 1995, EPA reopened the comment period to receive more comments on the issue of whether the compliance periods for the RACT and MACT regulations should be extended. Numerous commenters indicated support for extending the compliance periods, generally reiterating the views expressed in earlier comments. Some commenters also pointed out that greater environmental benefits can sometimes be obtained by granting longer compliance periods, which can allow for better designed, more robust, safer and more advanced technologies, and in this instance, could result in greater use of recovery technologies (rather than incineration). Commenters also noted that previous attempts by States to regulate tank vessel loading in less than 3 years resulted in the need for numerous waivers as it became clear that the deadlines could not be met. One commenter provided a list of several marine loading terminals in California that had installed emission control equipment and indicated that almost all of these installation projects took at least 3 years to complete.

The Agency agrees with the commenters that permitting and safety approvals from permitting authorities and the Coast Guard, the dearth of skilled engineering and construction firms, and the history of facilities being unable to comply with existing regulations compels the Agency to extend the date for full compliance with the RACT and MACT rules. In these final standards, EPA allows sources regulated under section 183(f) 3 years to be in full compliance with the emission control requirements promulgated under section 183(f). In addition, RACT sources may request a waiver of up to 1 year to achieve full compliance with the requirements if they can show that the additional period is necessary for the installation of controls. The Agency believes that this result is consistent with section 183(f). Section 183(f) requires the application of ''reasonably available'' control technology, considering costs, any non-air quality benefits, environmental impacts, energy requirements, and safety factors. The overwhelming evidence received by the Agency indicates that most, if not all, sources that must install emission control devices cannot do so within 2 years. States that have attempted to enforce such a requirement have been forced to provide waivers to the regulated sources. Given the relative scarcity of qualified contractors and the permitting and other requirements necessary for such construction, it is clear that the emission control technologies required by this rule will not be ''reasonably available'' within 2 years of the promulgation of this rule. Moreover, the information provided to the Agency indicates that a 2-year deadline may force regulated sources to install equipment that is less reliable and that may cause safety concerns. Given the emphasis that Congress put on safety in these regulations and the fact that the Coast Guard will need to review such installations prior to operation, a 2-year deadline seems contrary to Congress' broad intent and may result in conflicts with Coast Guard requirements. The Agency has in the past provided sources with reasonable time to complete actions required by the Clean Air Act. *See* EPA rulemaking on fuel/fuel additives published on June 27, 1994 (59 FR 33042).

Moreover, EPA believes that the imprecision of the term ''effective date'' could also provide EPA with the ability to allow compliance after 2 years. The distinction between ''effective dates'' of regulations and ''compliance dates'' is important and has been a clear part of administrative procedure for many years. *See, e.g.,* section 112(i)(3); *Natural Resources Defense Council* v. *Environmental Protection Agency,* 22 F. 3d 1125, 1138 (D.C. Cir. 1994).

The Agency is requiring regulated RACT sources to provide proof that they have commenced construction of vapor collection systems and air pollution control devices within 2 years after promulgation of the final standards. The Agency believes that these actions can reasonably be achieved within 2 years of promulgation.

The Agency believes that most RACT terminals will be able to meet the emissions reduction requirements contained in the final standards within the 3 years following the promulgation date. The Agency estimates that only 8 terminals subject to the RACT requirements are not presently controlling emissions to the level specified in the standards. These terminals are among the largest terminals in the U.S., and can reasonably be expected to have in-house staff capable of assisting in the design and installation of control technology. Furthermore, the Agency is aware that some of these terminals are already designing control equipment in anticipation of these final RACT requirements.

The EPA shall allow existing sources regulated solely under section 112 four years to be in full compliance with the emission control requirements promulgated under section 112. Sources must generally comply with MACT standards under section 112 within 3 years of promulgation. However, section 112(i) of the Act specifically allows EPA to provide sources with a waiver of up to 1 year to achieve full compliance with the requirements if they can show that the additional period is necessary for installing the controls. Commenters stated that standards containing similar compliance dates for a large number of sources would result in numerous facilities competing for a limited number of experienced contractors in order to meet the standards at the same time. Commenters suggested a staggered compliance schedule for the sources affected by the standards. Commenters also stated that many sources would require more than 3 years to install the required control equipment given the limited number of contractors experienced in installing control equipment in marine loading facilities and the lead time needed to meet permitting and safety requirements from permitting authorities and the U.S. Coast Guard.

The Agency agrees with the commenters that many MACT sources would probably require 1-year waivers if there was a 3-year compliance date for MACT sources in the final rule. The Agency notes that these sources are typically smaller than the sources regulated under RACT, and would not be as likely to have in-house staff capable of assisting in the design and installation of control technology. Therefore, the Agency believes that the sources controlled under section 112 that are not controlled under section 183(f) should automatically receive a waiver of 1 year that will allow a total of four years from September 19, 1995 to comply with the MACT emission reduction requirements. The Agency believes that this total of 4 years is sufficient time for the estimated 20 sources presently uncontrolled to design and install control technologies sufficient to meet the MACT standards. The Agency believes that the staggered compliance schedule (i.e., 3 years for RACT terminals and 4 years for MACT terminals) coupled with the reduced number of terminals required to control emissions under the final rule should alleviate commenters' concerns about the scarcity of qualified installation consultants and vendors. This extended

schedule is also expected to address concerns regarding permitting delays.

The Agency is providing the VMT with 30 months to be in full compliance with these regulations. The Agency believes, per its discussions with APSC, that this extension provides sufficient time to comply with the promulgated rule.

(3) *Addition of new subcategories under the section 112 regulations for offshore terminals and for the Alyeska Pipeline Service Corporation's Valdez Marine Terminal.* In the proposed rule, the Agency established two subcategories based on size for the section 112 MACT regulations. The Agency also solicited comments on whether additional subcategories should be established under the MACT regulations for specific types of terminals based on particular characteristics of those types of terminals of which the Agency had no information at that time. Based on information received in the public comments, the Agency has determined that two additional subcategories exist within the marine tank vessel loading operation source category.

(a) Subcategory for offshore terminals. As stated in the solicitation of comments in the proposed rule, the Agency does not believe that a facility at least one-half mile offshore is part of a land-based contiguous site. The Agency also stated that such offshore terminals present unique regulatory challenges such as costs, environmental impacts, and/or size constraints. The Agency requested information regarding the feasibility and costs of controlling emissions from offshore terminals. The Agency also requested comments on whether offshore terminals should be grouped into a separate subcategory and what the control status of terminals in such a subcategory should be. Comments in response to this request indicated that these types of vessel loading operations face significant challenges in controlling emissions that were different from land-based, contiguous loading operations. These challenges include high costs, technical complications, and permitting requirements that would result from requirements to construct new platforms to locate control equipment adjacent to the offshore terminal or additional subsea or surface lines to route loading vapors to onshore control equipment. Commenters noted that these challenges are either non-existent or not as pronounced for onshore, contiguous terminals. The Agency has therefore determined that a subcategory for these types of terminals is justified and has based its definition for offshore terminals on a minimum distance of one-half mile from the terminal's furthest loading point to the shore, regardless of the existence of subsea lines. [See the discussion in section 2.3.2 of the TSD for the rationale supporting the one-half mile limit].

Once the Agency determined that offshore terminals should be placed in a subcategory for the MACT standards, the MACT floor was determined (see Docket A–90–44, Item Number IV–B–2). Based on information received from commenters, (see Docket A–90–44, Item Number IV–D–136) the Agency estimates that there are fewer than 20 offshore terminals having subsea lines. None of these terminals presently control emissions from marine tank vessel loading. The Agency is also aware of additional offshore terminals that do not have subsea lines. Two of these terminals are known to presently control emissions (see Docket A–90–44, Item Number IV–D–80). Based on the information available to the Agency, the MACT floor for this subcategory is no control of HAP emissions (see MACT floor memorandum in Docket A–90–44, Item Number IV–B–2). Data submitted by commenters showed that the costs associated with the control of offshore terminals are between two and five times more expensive than comparable onshore control techniques (see Docket A–90–44, Item numbers IV–D–108 and IV–D–136). Because of the poor cost effectiveness resulting from these significantly higher costs, as well as the environmental, safety, and technical challenges associated with requiring control more efficient than the MACT floor, the Agency has selected the MACT floor level of no control for offshore marine tank vessel loading operations.

The Agency also determined that offshore terminals loading 10 million barrels or more per year of gasoline or 200 million barrels or more of crude oil should not be required to control VOC or HAP emissions under section 183(f) RACT requirements. Although one commenter (see Docket A–90–44, Item Number IV–D–80) noted two controlled offshore terminals, no information was submitted regarding the specific control techniques used at these two terminals. Since most of the other comments noted that the significantly higher costs and poor cost effectiveness shown by these sources (see previous paragraph) would make control requirements unreasonable for these offshore terminals, the Agency determined that requirement for controls at offshore RACT terminals would not be consistent with the requirements for the technology to be ''reasonable.''

(b) Subcategory for Alyeska Pipeline Service Company's Valdez Marine Terminal. In the proposed rule, the Agency solicited comment on the possibility of placing the VMT in a separate subcategory. Comments from APSC and several other commenters representing State and local governments, industry, private citizens, and environmental groups were considered by the Agency in developing this final rule.

The Agency has determined that the VMT should be placed in a separate subcategory for the following reasons: (1) The VMT is the largest (by a significant amount) crude oil loading operation in the U.S.; (2) special circumstances, including climatic and economic conditions, require keeping the oil moving through the pipeline; (3) severe meteorological conditions result in increased loading irregularity; (4) the VMT throughput projections show declining throughput over the next several years. Several comments from environmental groups, State and local agencies, and private citizens in the Valdez area did not object to placing VMT in a separate subcategory provided that emissions were controlled. Based on all of these factors, the Agency determined that APSC's VMT should be placed in a separate subcategory.

Once the subcategory for VMT was established, the Agency determined the MACT floor for the subcategory (see Docket A–90–44, Item Number IV–B–2). The VMT presently does not control emissions, therefore the MACT floor is no control. However, the Agency noted that in all of the comments received concerning the establishment of this subcategory, the cost effectiveness associated with requiring controls more stringent than the MACT floor is not prohibitive. The annual emissions reductions anticipated from controlling VMT are expected to be approximately 19,000 Mg (20,900 tons) of VOC and approximately 2,500 Mg (2,750 tons) of HAP. The annual costs anticipated with today's regulation of VMT are expected to be $20 million. The resulting cost effectiveness is approximately $1,050 per megagram based on VOC or approximately $8,000 per megagram based on HAP. The Agency therefore selected a strategy for both MACT and RACT standards for VMT that requires a reduction in emissions by 98 percent efficiency of all throughput loaded from at least two of the terminal's loading berths. Maximum limits for total throughput and throughput at uncontrolled berths (above which all VMT loading berths would be required to reduce emissions by 98 percent) are included as part of these standards.

These throughput limits address the projected decreasing throughput that would necessitate the use of only two berths for routine loading after 2001. Provisions to allow for scheduled maintenance of the controlled berths are also established in the VMT standards.

Some commenters initially noted that the cost of controlling VOC may be high relative to the benefits of controlling VOC at a remote site in an Arctic ozone attainment area. Additionally, some commenters initially stated that the benefits of controlling HAP would not appear to justify the costs. However, the Agency has also considered later comments from the APSC, the State of Alaska, the Prince William Sound Regional Citizens Advisory Committee (a local citizens group) and private citizens in determining MACT/RACT for the VMT. These commenters agreed that a Federal rule mandating control of primary emissions at the APSC was acceptable. After careful consideration of the costs, the environmental impacts and the comments, the Agency decided that MACT for this subcategory was control beyond the level of the MACT floor (see Docket A–44–90, Item Number IV–B–2).

(4) *Expansion of the petroleum refineries source category to include marine tank vessel loading operations collocated at petroleum refinery operations.* The preamble to the proposed petroleum refinery NESHAP published in the Federal Register on July 15, 1994 (59 FR 36130) requested comments on whether marine tank vessel loading operations at refineries should be included in emissions averaging. On August 31, 1994, the EPA also reopened the comment period for the proposed NESHAP for Marine Tank Vessel Loading Operations (59 FR 44955) to request comment on whether marine terminals collocated at refineries should be moved to the petroleum refinery source category. During the comment period for the gasoline distribution NESHAP, commenters requested that bulk gasoline terminals contiguous to a refinery be regulated by the petroleum refinery NESHAP.

Several commenters responding to the marine tank vessel loading operations proposed NESHAP supported averaging of refinery process unit emissions with emissions from marine terminals and gasoline distribution operations that are located at refineries. The commenters cited more cost effective emission reduction as the advantage of including these emission points in emissions averaging and specifically commented that the costs per Mg emission reduction of the marine tank vessel loading emission controls are high. These commenters also claimed that emission calculation procedures for loading are well established and that adding marine loading to the averaging provisions will not appreciably increase the complexity of enforcement. Other commenters opposed including marine tank vessel loading and gasoline distribution in emissions averaging. Some commenters claimed that these are separate source categories, and the Act does not permit averaging across source categories. Others were concerned that including marine loading in averages could result in uncontrolled peak emissions.

In the final rules, emissions from marine tank vessel loading operations, bulk gasoline terminal or pipeline breakout station storage vessels, and bulk gasoline terminal loading racks at petroleum refineries are allowed to be included in emissions averages. The petroleum refinery source category and source definitions have been changed to include marine tank vessel loading operations, bulk gasoline terminal and pipeline breakout station storage vessels, equipment leaks, and bulk gasoline terminal loading racks classified under SIC codes 5171 (Petroleum Bulk Stations and Terminals) and 4613 (Refined Petroleum Pipelines) that are located at refinery plant sites. Note that these operations are closely connected with refinery process unit operations since they transfer products of the refinery process units.

A marine tank vessel loading operation or gasoline terminal or pipeline breakout station that is collocated at a petroleum refinery can be considered part of the same source as the refinery subject to this rule. Because these operations are redefined to be part of the source subject to the rule, the prohibition against intersource averaging is not violated. However, all terminals subject to section 183(f) regardless of location will not be allowed to average emissions with petroleum refinery sources.

In keeping with EPA's stated goal of increasing flexibility in rulemakings, this decision has been made to provide more opportunities to average. This decision optimizes the opportunities for refiners to find cost-effective emission reductions from overall facility operations on-site. Costs and cost effectiveness of controlling a particular kind of emission point, such as marine tank vessel loading, will vary depending on many site-specific factors. Emissions averaging allows the owner and operator to find the optimal control strategy for their particular situation.

Including emissions from marine tank vessel loading operations, bulk gasoline terminal or pipeline breakout station storage vessels, and bulk gasoline terminal loading racks in emissions averages will result in equivalent or greater overall HAP emission reduction at each refinery. The averaging provisions are structured such that ''debits'' generated by not controlling an emission point that otherwise would require control must be balanced by achieving extra control at other refinery emission points covered by the NESHAP.

With regard to commenter's concerns about peak emissions, the quarterly cap on the ratio of debits to credits is intended to limit the possibility of exposure peaks. Furthermore, because loading operations occur fairly frequently and emissions from an individual vessel filling or loading event are relatively small, such emissions are not expected to cause significant exposure peaks. Moreover, no evidence has been presented that emissions averaging would permit a very different mix of emissions to occur than would point-by-point compliance. That is, peaks of exposures from batch streams, storage, and loading operations should be equally likely under point-by-point compliance as under emissions averaging; therefore, emissions averaging does not represent a less effective control strategy. Furthermore, in order to receive approval for an emissions average, the owner or operator is required to demonstrate that the emissions average does not increase the risk or hazard relative to compliance without averaging.

(5) *Revision to the subcategories established based on annual HAP emissions from 1 ton per year to 10 tons per year of any single HAP or 25 tons per year of total HAP.* The proposed standards grouped major source terminals into two subcategories based on HAP emissions: Terminals with HAP emissions of 1 ton per year or more and terminals having HAP emissions of less than 1 ton per year. In the preamble of the proposed rule, the Agency requested comment on establishing these subcategories based on size (i.e., HAP emissions). In the public comments, the Agency found general, though not universal, agreement on establishing subcategories based on size for this source category. However, some of the comments encouraged the Agency to raise the HAP emissions level of the controlled subcategory. The final standards continue to group major source terminals into subcategories based on HAP emissions; however, these subcategories were changed to terminals with emissions of 10 tons per year or more of any single HAP or 25

tons per year or more of total HAP and terminals having HAP emissions of less than 10 tons per year of all single HAP or less than 25 tons per year of total HAP. The Agency based this decision on information found in the comments received. Commenters noted that prior state regulations generally (though not invariably) distinguished between large tank vessel loading facilities that are responsible for the vast majority of emissions and small tank vessel loading facilities that are substantially less cost effective to regulate. (As discussed below, the incremental cost effectiveness of moving from the 10/25 ton per year distinction to the 1-ton delineation is between $80,000 and $112,000 per megagram, while the cost effectiveness of the 10/25 ton delineation is between $14,500 and $24,000 per megagram.)

Though section 112 does not provide any language indicating the criteria for subcategorization, section 112(d)(1) of the Act states that EPA may distinguish among classes, types, and sizes of sources in establishing standards. EPA believes that division of this source category into two subcategories based on size is appropriate in this instance. (See section 2.3.1 of the promulgation TSD for additional discussion of the subcategories based on size.)

(6) *Incorporation of minimum vapor pressure limit.* The Agency received several comments regarding HAP having low vapor pressures. Most of these commenters stated that these low vapor pressure HAPs are not presently controlled under existing State regulations and that the control of these low vapor pressure compounds presents technical challenges and imposes significantly greater costs to the affected industry. The proposed rule enabled individual facilities to determine which products to control to achieve the 93 percent mass limit. Therefore, facilities would not have had to control low vapor pressure liquids under the proposed rule if higher vapor pressure liquids were available for control. Based on the comments received, the Agency altered the format of the MACT standards to explicitly exempt low vapor pressure liquids consistent with State requirements and recalculated the control requirement for liquids above the vapor pressure limit. Therefore, the MACT floor for existing sources is no control for liquids having a vapor pressure below 1.5 psia and 97 percent control for liquids having a vapor pressure 1.5 psia or greater. Because no low vapor pressure liquids are required to be controlled at any of the known existing sources, the MACT floor for new sources is also no control for liquids having a vapor pressure below 1.5 psia and 98 percent control for liquids having a vapor pressure 1.5 psia or greater. The format of the standard was changed to an efficiency format to reflect the new approach.

The issue of cost effectiveness to control emission streams from the loading of these low vapor pressure materials was also a realistic concern of the commenters. As the MACT floor for regulation of such activities is no control, EPA has discretion, based on section 112(d)'s criteria used for going beyond the floor, to institute a vapor pressure limit. Because of the high costs cited by commenters, the Agency elected not to require controls more stringent than the MACT floor for these low vapor pressure HAP. The Agency therefore selected a vapor pressure limit of 1.5 psia for determining the HAP emissions reduction for the final standards. Control of HAP having vapor pressures below this limit is not required to meet the standards.

(7) *Recalculation of the MACT floors.* The MACT floors determined for this final rulemaking are different than those in the proposed rule. These final rule MACT floors reflect changes in the Agency's regulation of marine tank vessel loading including: (1) The establishment of subcategories for offshore terminals and the VMT terminal; (2) the incorporation of a 1.5 psia minimum vapor pressure limit instead of the weighted average as was proposed; and (3) the increase of the levels of the subcategories based on size (i.e., HAP emissions) from 1 ton per year to 10/25 tons per year. The MACT floors for the final rule also reflect comments on the proposed rule. However, the Agency has not changed the way in which the MACT floors for the final rule have been calculated. With the exception of the MACT floor for VMT, the MACT floors for existing and new sources in the marine tank vessel loading source category are shown in Table 1.

Using the criteria established in section 112(d)(3) of the Act, and after inclusion of information supplied in the public comments, the MACT floors for existing source marine terminal subcategories subject to regulation under Title III of the Clean Air Act were determined. Additional information on the determination of these MACT floors is in the docket (Docket Number A–90–44, Item Number IV-A–2). There are approximately 44 major source terminals (not including the VMT) that emit 10 tons per year or more of any one hazardous air pollutant (HAP) or 25 tons per year or more of any combination of HAP. Twenty-three of these terminals are controlled. The resulting MACT floor level of control is a 97 percent reduction of HAP emissions. There are approximately 1,435 terminals that emit less than 10 tons per year of all individual HAP and less than 25 tons per year of combined HAP. Seventy-nine of these terminals reduce emissions from marine tank vessel loading. The resulting MACT floor level of control is no reduction in HAP emissions. The Agency estimated that there are less than 30 offshore terminals (i.e., loading terminals located 0.5 miles or more from shore). The Agency is aware of only 2 controlled offshore terminals. Therefore the resulting MACT floor level of control is no reduction in HAP emissions. The VMT is presently uncontrolled. Since this is the only terminal in the VMT source category, the MACT floor level of control is no control.

The MACT floors for new source marine terminal subcategories subject to regulation under Title III of the Act were also calculated following the criteria in section 112(d)(3) of the Act. For new major source onshore terminals (not including the VMT) regardless of the marine tank vessel loading HAP emissions, the best performing source achieves a 98 percent reduction of controlled emissions. Therefore, the resulting MACT floor for these sources is 98 percent reduction of HAP emissions. For new major source offshore terminals whose marine tank vessel loading HAP emissions exceed the limits for a major source (i.e., 10 tons of any one HAP, or 25 tons of total HAP), the best controlled similar source achieves a 95 percent reduction of controlled emissions. The resulting MACT floor for new offshore major sources is therefore a 95 percent reduction in HAP emissions. Since the VMT subcategory only contains a single source, and it is not possible for an additional source to be added to this subcategory, no new source MACT floor was calculated for the VMT subcategory.

(8) *Incorporation of additional flexibility to the monitoring requirements and compliance provisions.* The proposed rule required parametric monitoring or continuous emissions monitoring (CEM) as a means of showing compliance with the standards. Any exceedance of the parameters or concentration limits established during a performance test would have resulted in a violation of the standard. Comments indicated that this approach was too severe and warranted additional flexibility. Although the Agency continues to believe that parametric monitoring can be used to determine compliance given availability

of sufficient test data to establish the relationship between control performance and associated parameters, in consideration of the lack of test data establishing the relationship between marine tank vessel loading emissions control efficiency and parametric monitoring and because of the batch nature of marine tank vessel loading operations, the Agency has thoroughly revised the monitoring requirements and compliance provisions of the final rule. A requirement for an operation and maintenance (O & M) plan has been added to the final regulation to ensure proper operation of the air pollution control and monitoring equipment. The O & M plan contains an inspection schedule for each component of the control and monitoring equipment. The ''compliance'' language that appeared in § 63.563 of the proposed rule has been removed. In its place, the final rule contains provisions that require an unscheduled inspection and corrective actions when operating parameters exceed the applicable baseline parameters.

Flexibility has also been added to the methods for determining baseline parameters. Owners or operators of a source required to reduce emissions may establish baseline parameters during a performance test or may choose to set the applicable baseline based on a manufacturer's recommended baseline operating parameter.

Commenters on the proposed rule also requested that additional operating parameters be added to the regulation and that sources be allowed to apply for alternatives to the Administrator. Additional operating parameters have been added to the final regulation for several control devices. A cross reference to the general provisions found in 40 CFR part 63 (containing requirements for establishing alternative monitoring procedures) has been provided to assist sources seeking approval of alternative monitoring procedures. Commenters also requested that time intervals of the monitoring requirements be made consistent for each of the operating parameters. In the final rule, sources are required to monitor and record data points every 15 minutes for each operating parameter.

D. Minor Changes

(1) Revisions to definitions and phrasing have been made to clarify the regulation.

(2) Based on comments received and on changes to the monitoring and compliance provision requirements, the reporting requirements have been changed. Under today's final rule, the Agency is requiring the following one-time reports as specified in the general provisions found in 40 CFR part 63, subpart A: report of startup, construction or modification; notification and report of emissions tests and results and/or initial notification of compliance status; notification and report of physical/operational changes; notification and report of waiver applications; and an engineering report describing the vent system used to vent each vent stream to a control device.

The final rule also requires owners or operators to submit yearly summary reports and yearly reports of excess emissions and monitoring system performance reports. However, in order to provide relief from the reporting requirements to well-controlled sources while assuring compliance with the standards, the Agency has provided that sources whose exceedances have durations that total less than 5 percent of the total reporting time for that reporting period and whose CMS downtime for the reporting period is less than 10 percent of the total operating time for that reporting period may submit only the summary report found in 40 CFR part 63 subpart A instead of both the summary report and the full excess emissions and continuous monitoring system performance report found in § 63.567(d)(2).

The final rule does not require quarterly reports of excess emissions or monitoring parameter exceedances. The Agency agreed with commenters that quarterly reporting did not add sufficient compliance assurance to warrant the high costs associated with the quarterly reporting. Quarterly reporting also did not agree with the revised monitoring and compliance determination requirements found in the final rule (see section 3(c)(5) of this preamble and section 2.6 of the promulgation TSD for additional discussion of the revised monitoring requirements contained in the final rule).

(3) Several commenters requested clarification of the general provisions found in 40 CFR part 63 as they relate to this rule. A table identifying the relationship of the final General Provisions requirements has been added to the final regulation. Language similar to that in the General Provisions has been added to subpart Y in cases where a direct reference to the General Provisions was not appropriate.

(4) References to the proposed Performance Specifications 101 and 102 have been updated to incorporate the Agency's promulgation of Performance Specifications 8 and 9.

E. Other Significant Issues

(1) Regulation Under Sections 183(f) and 112

The EPA proposed to regulate tank vessel loading operations under both sections 183(f) and 112 of the Act. Some commenters suggested that regulation under section 112 was inappropriate because section 183(f) specifically provides for regulation of tank vessel loading operations, whereas section 112 is a more general standard. On the other hand, one commenter believed that regulation was more appropriate, at least for certain facilities, under section 112.

The Agency believes that the best interpretation of the Clean Air Act requires that standards be issued under both sections 183(f) and 112. The language of section 112 of the Act is clear. ''[T]he Administrator shall publish * * * a list of *all* categories and subcategories of major sources and area sources of [HAP].'' Clean Air Act section 112(c)(1), 42 U.S.C. § 7412(c)(1) [emphasis added]. Further, the Administrator ''shall promulgate regulations establishing emission standards for each category or subcategory of major sources and area sources of hazardous air pollutants listed for regulation pursuant to subsection (c).'' Clean Air Act section 112(d)(1), 42 U.S.C. § 7412(d)(1). The marine tank vessel loading operations source category is clearly a category of major sources, as defined in the Act. The Act is thus clear on its face that this source category should be regulated under section 112.

The fact that two separate sections of the Act regulate the same source category does not necessitate that one of the sections should be ignored. In fact, unless the regulations promulgated under one section would create an inescapable conflict with regulations promulgated under the other section, both must be followed. The regulations promulgated under section 112 are not in conflict with those promulgated under section 183(f). EPA believes that any source regulated under both sections would have no problem meeting the requirements of both standards at the same time.

Congress often provides for regulation of sources under two separate sections. The legislative history indicates that Congress was well aware that sources could be subject to dual regulation under section 112 and other sections of the Act. *See* page 167 of the Senate Committee Report (Report 101–228). In addition, where Congress wanted one section of the Clean Air Act to be exclusive of further regulation under

section 112(d), they said so explicitly; *see* sections 129(h)(2), 112(d)(9). Thus, Congress could have added specific language to section 183(f) preventing the Agency from regulating this source category under section 112; however, it did not do so.

In addition, neither the statute nor the legislative history indicates that Congress intended EPA regulations under section 183(f) to be the exclusive regulation of these sources. In fact, section 183(f) explicitly provides that states may regulate tank vessel loading processes and, in fact, *requires* that any such regulations be as stringent or *more* stringent than the Agency's regulations under section 183(f).

IV. Administrative Requirements

A. Docket

The Docket is an organized and complete file of all the information considered by the EPA in the development of this rulemaking. The Docket is a dynamic file, since material is added throughout the rulemaking development. The docketing system allows members of the public and industries to readily identify and locate documents so that they can effectively participate in the rulemaking process. Along with the statement of basis and purpose of the proposed and promulgated standards and the 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)].

B. Paperwork Reduction Act

The information collection requirements in this rule have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.*, and have been assigned OMB control number (2060–0289). An Information Collection Request (ICR) document has been prepared by the EPA (ICR No. 1679.02) to reflect the changed information requirements of the final rule.

This collection of information has an estimated burden per affected facility of about 685 hours for the first year. In subsequent years, the burden is approximately 280 hours per affected facility. These burden estimates include time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Director, Regulatory Information Division, EPA, 401 M St., S.W. (Mail Code 2136), Washington, DC 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503, marked ''Attention: Desk Officer for EPA.''

C. Administrative Designation and Regulatory Analysis

Under Executive Order 12866 [58 FR 51735 (October 4, 1993)], the EPA is required to judge whether a regulation is ''significant'' and therefore subject to Office of Management and Budget (OMB) review and the requirements of this Executive Order to prepare a regulatory impact analysis (RIA). The Order defines ''significant regulatory action'' as one that is likely to result in a rule that may: (1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities; (2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency; (3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs, or the rights and obligations of recipients thereof; or (4) raise novel legal or policy issues arising from legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, it has been determined that this rule is a ''significant regulatory action'' because it will have an annual effect on the economy of $100 million or more. As such, this action was submitted to OMB for review. Changes made in response to OMB suggestions or recommendations are documented in the public record (see Docket A–90–44, Item Number IV–H–2).

D. Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires the EPA to consider potential impacts of proposed regulations on small business ''entities,'' which are small businesses, small organizations, and small governments. It is EPA's current policy to perform a regulatory flexibility analysis whenever a regulation is anticipated to adversely affect any small entities. An economic impact and regulatory flexibility analysis for this regulation was performed and included within the regulatory impact analysis that has been submitted to the public docket (Docket Number A–90–44, Item Number IV–A–2).

The regulatory flexibility analysis identified two types of businesses that could incur adverse economic impacts from this standard, marine terminal operations and marine vessel operations. With regard to marine terminal operations, only the very largest terminal operations are expected to be affected by this standard. The decision not to require controls at existing smaller operations greatly reduces the potential for adverse economic impacts on small terminal operations. Nevertheless, some of the smaller terminal operations that will be affected by this regulation could be put under increased competitive pressure as a result of this rule. Of these terminals, however, it is expected that few or none are independently owned. The rest are part of large integrated petroleum operations. The number of small business terminal operations affected by this regulation is expected to be minimal.

With regard to marine vessel operations, the economic impact analysis considered the majority of these operations to be small businesses. However, the number of vessel operations significantly impacted from the proposed standard is not expected to be substantial. Only a relatively small percentage of U.S. marine transported throughput will be impacted by the standard. Excluding crude oil volume shipped by large tankers from the VMT, no more than one-third of the remaining U.S. marine transported throughput is expected be impacted by the standard. It is expected that an even smaller percentage of U.S. vessels will need to be retrofitted to accommodate the volume of affected products. Only the largest and newest vessels (i.e., those that will cost least to retrofit) will therefore need to be retrofitted. Moreover, it is expected that vessel owners will be able to pass forward most retrofit costs in the form of higher prices. Vessels that cannot retrofit cost effectively and that cannot pass through costs can be dedicated to transporting unregulated products.

Economic Impacts

The EPA performed an economic impact analysis of the regulatory requirements in this regulation. Potential price, output, and employment impacts for affected products and for the marine transport industry were examined. Detailed results from the analysis are included in the regulatory impact analysis for this rule that has been submitted to the public docket.

Estimated maximum price increases for the affected products varied but were not large (less than 1%). These price-increase estimates reflect the control cost increases for transporting crude and products. Because these increases are small and because the elasticities of demand for petroleum products are small, estimated percent output reductions were minimal. Correspondingly, estimated employment reductions were also relatively small.

Potentially significant economic impacts on some of the smaller affected terminal operations were identified, although the decision not to require emission controls for existing smaller operations greatly reduces the potential for adverse impacts on small terminal operations. These potential impacts would result from the high per barrel control cost differential between the smaller and larger terminal operations that would need to control emissions. Some of these smaller terminal operations, to the extent that they are competing with nearby larger or unaffected terminal operations, could have had difficulty raising prices sufficiently to cover cost increases and could have been significantly and adversely impacted by this rule if the rule were applicable to such operations.

The potential economic impact on marine vessel owners was substantially reduced because of the decision not to require emission controls for small terminals in this rulemaking. Because only a relatively small percentage of U.S. marine transported volume of products will be impacted by the standard, only a relatively small percentage of U.S. marine vessels will need to retrofit. Thus only the vessels that will cost least to retrofit (most likely the larger, newer, double-skin vessels) will do so, leading to some degree of dedicated service. Vessel owners that do retrofit probably will be able to pass most retrofit costs forward in terms of higher prices.

E. Unfunded Mandates Act

Under section 202 of the Unfunded Mandates Reform Act of 1995 (Unfunded Mandates Act), signed into law on March 22, 1995, the EPA must prepare a budgetary impact statement to accompany any proposed or final rule that includes a Federal mandate that may result in estimated costs to State, local, or tribal governments in the aggregate; or to the private sector of $100 million or more. The budgetary impact statement must include: (1) An identification of the Federal law under which the rule is promulgated; (2) a qualitative and quantitative assessment of anticipated costs and benefits of the Federal mandate and an analysis of the extent to which such costs to State, local, and tribal governments may be paid with Federal financial assistance; (3) if feasible, estimates of the future compliance costs and any disproportionate budgetary effects of the mandate; (4) if feasible, estimates of the effect on the national economy; and (5) a description of the Agency's prior consultation with elected representatives of State, local, and tribal governments and a summary and evaluation of the comments and concerns presented. Section 203 provides that if any small governments may be significantly or uniquely impacted by the rule, the Agency must establish a plan for obtaining input from and informing, educating, and advising any such potentially affected small governments.

Under section 205 of the Unfunded Mandates Act, the Agency must identify and consider a reasonable number of regulatory alternatives before promulgating a rule for which a budgetary impact statement must be prepared. The Agency must select from those alternatives the least costly, most cost-effective, or least burdensome alternative for State, local, and tribal governments and the private sector, that achieves the objectives of the rule, unless the Agency explains why this alternative is not selected or unless the selection of this alternative is inconsistent with law.

Because this final rule is estimated to result in the expenditure by State, local, and tribal governments in aggregate or by the private sector of $60 million to $100 million per year starting in 2000, EPA has prepared a supplement to the Regulatory Impact Analysis (RIA) in compliance with the Unfunded Mandates Act. The EPA summarizes that supplement as follows:

This final rule is promulgated under section 112 and section 183(f) of the Clean Air Act. The analysis in the RIA developed in preparation of the proposed rule and revised in preparation of the final rule contains the information to be considered in response to the requirements of the Unfunded Mandates Act.

Total expenditures resulting from the final rule are estimated at between $60 million and $100 million (of which less than $75,000 is by State, local, and tribal governments) per year in 1997–2000; and $550,000 (of which $38,000 is by State, local, and tribal governments) per year starting in 2001. There are no federal funds available to assist State, local, and tribal governments in meeting these costs. There are important benefits from VOC and HAP emission reductions because these compounds have significant, adverse impacts on human health and welfare and on the environment. The rule does not have any disproportionate budgetary effects on any particular region of the nation, any State, local, or tribal government, or urban or rural or other type of community. On the contrary, the rule will result in only a minimal increase in the average product rates (less than 1 percent). Moreover, the rule will not have a material effect on the national economy.

Prior to issuing this rule, the EPA provided numerous opportunities (e.g., National Air Pollution Control Techniques Advisory Committee proceedings; public comment period; public hearing; meetings with industry, trade associations, state and local air pollution representatives; State, local, and tribal governments; and concerned citizens) for consultation with interested parties. In general, State and local environmental agencies advocated that EPA adopt more stringent environmental controls. The Agency evaluated the comments and concerns expressed, and the final rule reflects, to the extent consistent with sections 112 and 183(f) of the Act, those comments and concerns. While small governments are not significantly or uniquely affected by the rule, these procedures, as well as additional public conferences and meetings, gave small governments an opportunity to give meaningful and timely input and obtain information, education, and advice on compliance.

The Agency considered several regulatory options in developing the rule. As discussed above, the Agency has found that regulation solely under section 183(f) of the Act would not be consistent with the law. The options selected in the final rule for all subcategories of sources except the VMT subcategory are the least costly and least burdensome alternatives currently available for achieving the objectives of sections 112 and 183(f) of the Act. Regarding regulation of the VMT, the Agency notes that the cost effectiveness of controlling VOC at this terminal is approximately $1,050 per Mg and the cost effectiveness of controlling HAP is approximately $8,000 per Mg. The Agency initially received comments stating that the cost of controlling VOC at this terminal is high relative to the benefits of controlling VOC at a remote site in an Arctic ozone attainment area. Additionally, some commenters initially stated that the benefits of controlling HAP would not appear to justify the costs. However, the Agency has also considered later comments from the

APSC, the State of Alaska, the Prince William Sound Regional Citizens Advisory Committee (a local citizens group) and private citizens in determining MACT/RACT for the VMT. These commenters agreed that a Federal rule mandating control of the primary emissions at the APSC was acceptable. After careful consideration of the costs, the environmental impacts and the comments, the Agency decided that MACT for this subcategory was control beyond the level of the MACT floor (see Docket A–44–90, Item Number IV–B–2).

List of Subjects in 40 CFR Parts 9 and 63

Environmental protection, Air pollution control, Intergovernmental relations, Reporting and recordkeeping requirements, Tank vessel standards.

Dated: July 28, 1995.

Carol M. Browner,

Administrator.

For reasons set out in the preamble, title 40, chapter I of the Code of Federal Regulations is amended as follows:

PART 9—[AMENDED]

1. The authority citation for part 9 continues to read as follows:

Authority: 7 U.S.C. 135 *et seq.*, 135–136y; 15 U.S.C. 2001, 2003, 2005, 2006, 2601–2671; 21 U.S.C. 331j, 346a, 348; 31 U.S.C. 9701; 33 U.S.C. 1251 *et seq.*, 1311, 1313d, 1314, 1321, 1326, 1330, 1344, 1345(d) and (e), 1361; E.O. 11735, 38 FR 21243, 3 CFR, 1971–1975 Comp. p. 973; 42 U.S.C. 241, 242b, 243, 246, 300f, 300g, 300g-1, 300g-2, 300g-3, 300g-4, 300g-5, 300g-6, 300j-1, 300j-2, 300j-3, 300j-4, 300j-9, 1857 *et seq.*, 6901–6992k, 7401–7671q, 7542, 9601–9657, 11023, 11048.

2. Section 9.1 is amended by adding a new entry to the table under the indicated heading in numerical order to read as follows:

§ 9.1 OMB approvals under the Paperwork Reduction Act.

* * * * *

40 CFR citation	OMB control No.
* * * * * * *	
National Emissions Standards for Hazardous Air Pollutants for Source Categories.	
* * * * * * *	
63.563–63.567	2060–0289
* * * * * * *	

PART 63—[AMENDED]

1. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401 et seq.

2. By adding a new subpart Y consisting of §§ 63.560 through 63.567 to read as follows:

Subpart Y—National Emission Standards for Marine Tank Vessel Loading Operations

Sec.

Subpart Y—National Emission Standards for Marine Tank Vessel Tank Loading Operations

§ 63.560 Applicability and designation of affected source.

(a) *Maximum achievable control technology (MACT) standards.*

(1) The provisions of this subpart pertaining to the MACT standards in § 63.562(b) and (d) of this subpart are applicable to existing and new sources with emissions of 10 or 25 tons, as that term is defined in § 63.561, except as specified in paragraph (d) of this section, and are applicable to new sources with emissions less than 10 and 25 tons, as that term is defined in § 63.561, except as specified in paragraph (d) of this section.

(2) Existing sources with emissions less than 10 and 25 tons are not subject to the emissions standards in § 63.562(b) and (d).

(3) The recordkeeping requirements of § 63.567(j)(4) and the emission estimation requirements of § 63.565(l) apply to existing sources with emissions less than 10 and 25 tons.

(b) *Reasonably available control technology (RACT) standards.*

(1) The provisions of this subpart pertaining to RACT standards in § 63.562(c) and (d) of this subpart are applicable to sources with throughput of 10 M barrels or 200 M barrels, as that term is defined in § 63.561, except as specified in paragraph (d) of this section.

(2) Sources with throughput less than 10 M barrels and 200 M barrels, as that term is defined in § 63.561, are not subject to the emissions standards in § 63.562(c) and (d).

(c) *General Provisions applicability.* Owners or operators of affected sources, as that term is defined in § 63.561, of this subpart must comply with the requirements of subpart A of this part in accordance with the provisions for applicability of subpart A to this subpart in Table 1 of this section.

(d) *Exemptions from MACT and RACT standards.*

(1) This subpart does not apply to emissions resulting from marine tank vessel loading operations, as that term is defined in § 63.561, of commodities with vapor pressures less than 10.3 kilopascals (kPa) (1.5 pounds per square inch, absolute) (psia) at standard conditions, 20°C and 760 millimeters Hg (mm Hg).

(2) The provisions of this subpart pertaining to the MACT standards in § 63.562(b)(2), (3) and (4) and to the RACT standards in § 63.562(c)(3) and (4) do not apply to marine tank vessel loading operations where emissions are reduced by using a vapor balancing system, as that term is defined in § 63.561. The provisions pertaining to the vapor collection system, ship-to-shore compatibility, and vapor tightness of marine tank vessels in § 63.562(b)(1) and (c)(2) do apply.

(3) The provisions of this subpart pertaining to the MACT standards in § 63.562(b)(2), (3), and (4) do not apply to marine tank vessel loading operations that are contiguous with refinery operations at sources subject to and complying with subpart CC of this part, National Emissions Standards for Organic Hazardous Air Pollutants from Petroleum Refineries, except to the extent that any such provisions of this subpart are made applicable by subpart CC of this part.

(4) The provisions of this subpart pertaining to the MACT standards in § 63.562(b) and (d) do not apply to benzene emissions from marine tank vessel loading operations that are subject to and complying with 40 CFR part 61, subpart BB, National Emissions Standards for Benzene Emissions from Benzene Transfer Operations, except that benzene emissions or other HAP emissions (i.e., nonbenzene HAP emissions) from marine tank vessel loading operations that are not subject to subpart BB are subject to the provisions of this subpart.

(5) The provisions of this subpart pertaining to the MACT standards in § 63.562(b) and (d) do not apply to marine tank vessel loading operations at loading berths that only transfer liquids containing organic HAP as impurities, as that term is defined in § 63.561.

(6) The provisions of this subpart do not apply to marine tank vessel loading operations at existing offshore loading terminals, as that term is defined in § 63.561.

(7) The provisions of this subpart do not apply to ballasting operations, as that term is defined in § 63.561.

(e) *Compliance dates.*

(1) *MACT standards compliance dates, except the Valdez Marine Terminal (VMT) source.*

(i) A new or existing source with emissions of 10 or 25 tons, except the VMT source, and a new source with emissions less than 10 and 25 tons, except the VMT source, that has an initial startup date on or before September 20, 1999 shall comply with the provisions of this subpart pertaining to the MACT standards in § 63.562(b) no later than 4 years after the effective date.

(ii) A new source with emissions of 10 or 25 tons, except the VMT source, and a new source with emissions less than 10 and 25 tons, except the VMT source, that has an initial startup date after September 20, 1999 shall comply with provisions of this subpart pertaining to the MACT standards in § 63.562(b) immediately upon startup.

(iii) A source with emissions less than 10 and 25 tons that increases its emissions subsequent to September 20, 1999 such that it becomes a source with emissions of 10 or 25 tons shall comply with the provisions of this subpart pertaining to the MACT standards in § 63.562(b) within 3 years following the exceedance of the threshold level.

(2) *RACT standards compliance dates, except the VMT source.*

(i) A source with throughput of 10 M barrels or 200 M barrels, except the VMT source, with an initial startup date on or before September 21, 1998 shall comply with § 63.562(c)(1) no later than 2 years after the effective date.

(ii) A source with throughput of 10 M barrels or 200 M barrels, except the VMT source, with an initial startup date on or before September 21, 1998 shall comply with the provisions of this subpart pertaining to the RACT standards in § 63.562(c) other than § 63.562(c)(1), no later than 3 years after the effective date.

(iii) A source with throughput of 10 M barrels or 200 M barrels, except the VMT source, with an initial startup date after September 21, 1998 shall comply with the provisions of this subpart pertaining to the RACT standards in § 63.562(c) immediately upon startup.

(iv) A source with throughput less than 10 M barrels and 200 M barrels that increases its throughput subsequent to September 21, 1998 such that it becomes a source with throughput of 10 M barrels or 200 M barrels shall comply with the provisions of this subpart pertaining to the RACT standards in § 63.562(c) within 3 years following the exceedance of the threshold levels.

(v) A source with throughput of 10 M barrels or 200 M barrels may apply for approval from the Administrator for an extension of the compliance date of up to 1 year if it can demonstrate that the additional time is necessary for installation of the control device.

(3) *MACT and RACT compliance dates for the VMT source.*

The VMT source, as that term is defined in § 63.561, shall comply with the provisions of this subpart pertaining to the MACT and RACT standards in § 63.562(d) no later than 30 months after the effective date.

TABLE 1 OF § 63.560.—GENERAL PROVISIONS APPLICABILITY TO SUBPART Y

Reference	Applies to affected sources in subpart Y	Comment
63.1(a)(1)	Yes	Additional terms are defined in § 63.561; when overlap between subparts A and Y occurs, subpart Y takes precedence.
63.1(a)(2)	Yes	
63.1(a)(3)	Yes	
63.1(a)(4)	Yes	Subpart Y clarifies the applicability of each paragraph in subpart A to sources subject to subpart Y in this table.
.63.1(a)(5)	No	Reserved.
63.1(a)(6)	Yes	
63.1(a)(7)	Yes	
63.1(a)(8)	Yes	
63.1(a)(9)	No	Reserved.
63.1(a)(10)	Yes	
63.1(a)(11)	Yes	§ 63.567(a) also allows report submissions via facsimile and on electronic media.
63.1(a)(12)	Yes	
63.1(a)(13)	Yes	
63.1(a)(14)	Yes	
63.1(b)(1)	Yes	
63.1(b)(2)	Yes	
63.1(b)(3)	No	§ 63.560 specifies applicability.
63.1(c)(1)	Yes	Subpart Y clarifies the applicability of each paragraph in subpart A to sources subject to subpart Y in this table.
63.1(c)(2)	Yes	Subpart Y is not applicable to area sources.
63.1(c)(3)	No	Reserved.
63.1(c)(4)	Yes	

TABLE 1 OF § 63.560.—GENERAL PROVISIONS APPLICABILITY TO SUBPART Y—Continued

Reference	Applies to affected sources in subpart Y	Comment
63.1(c)(5)	No	§ 63.560 specifies applicability.
63.1(d)	No	Reserved.
63.1(e)	Yes	
63.2	Yes	Additional terms are defined in § 63.561; when overlap between subparts A and Y occurs, subpart Y takes precedence.
63.3	Yes	Other units used in subpart Y are defined in the text of subpart Y.
63.4(a)(1)	Yes	
63.4(a)(2)	Yes	
63.4(a)(3)	Yes	
63.4(a)(4)	No	Reserved.
63.4(a)(5)	Yes	
63.4(b)	Yes	
63.4(c)	Yes	
63.5(a)	Yes	
63.5(b)(1)(i)	Yes	
63.5(b)(1)(ii)	No	
63.5(b)(2)	No	Reserved.
63.5(b)(3)	Yes	
63.5(b)(4)–(5)	No	
63.5(b)(6)	Yes	
63.5(c)	No	Reserved.
63.5(d)(1)(i)	No	See § 63.566(b)(2).
63.5(d)(1)(ii)(A)(H)	Yes	
63.5(d)(1)(ii)(I)	No	Reserved.
63.5(d)(1)(ii)(J)	Yes	
63.5(d)(1)(iii)	Yes	
63.5(d)(2)–(4)	Yes	
63.5(e)	Yes	
63.5(f)(1)(i) and (ii)	Yes	
63.5(f)(1)(iii) and (iv)	No	
63.5(f)(2)	No	See § 63.566(c).
63.6(a)(1)	Yes	
63.6(a)(2)	No	§ 63.560 specifies applicability.
63.6(b)(1)–(5)	No	§ 63.560(e) specifies compliance dates for sources.
63.6(b)(6)	No	Reserved.
63.6(b)(7)	No	§ 63.560(e) specifies compliance dates for sources.
63.6(c)(1)	No	§ 63.560(e) specifies compliance dates for sources.
63.6(c)(2)	No	
63.6(c)(3)–(4)	No	Reserved.
63.6(c)(5)	No	§ 63.560(e) specifies compliance dates for sources.
63.6(d)	No	Reserved.
63.6(e)	No	See § 63.562(e).
63.6(f)(1)	Yes	
63.6(f)(2)(i)	Yes	
63.6(f)(2)(ii)	No	
63.6(f)(2)(iii)	Yes	
63.6(f)(2)(iv)	Yes	
63.6(f)(2)(v)	No	See § 63.562(e)(1).
63.6(f)(3)	Yes	
63.6(g)	Yes	
63.6(h)	No	No opacity monitoring is required under subpart Y.
63.6(i)(1)–(3)	Yes	
63.6(i)(4)(i)(A)	No	
63.6(i)(4)(i)(B)	Yes	
63.6(i)(4)(ii)	No	
63.6(i)(5)–(12)	Yes	
63.6(i)(13)	No	
63.6(i)(14)	Yes	
63.6(i)(15)	No	Reserved.
63.6(i)(16)	Yes	
63.6(j)	Yes	
63.7(a)(1)	Yes	
63.7(a)(2)(i)–(iv)	No	See § 63.563(b)(1).
63.7(a)(2)(v)	Yes	
63.7(a)(2)(vi)	No	
63.7(a)(2)(vii)–(viii)	No	Reserved.
63.7(a)(2)(ix)	No	
63.7(a)(3)	Yes	

TABLE 1 OF § 63.560.—GENERAL PROVISIONS APPLICABILITY TO SUBPART Y—Continued

Reference	Applies to affected sources in subpart Y	Comment
63.7(b)	Yes	
63.7(c)(1)–(2)	Yes	The site-specific test plan must be submitted only if requested by the Administrator.
63.7(c)(3)(i)–(ii)(A)	Yes	
63.7(c)(3)(ii)(B)	No	See § 63.565(m)(2).
63.7(c)(3)(iii)	Yes	
63.7(c)(4)	Yes	
63.7(d)	Yes	
63.7(e)	Yes	
63.7(f)	Yes	
63.7(g)(1)	Yes	
63.7(g)(2)	No	Reserved.
63.7(g)(3)	Yes	
63.7(h)	Yes	
63.8(a)(1)–(2)	Yes	
63.8(a)(3)	No	Reserved.
63.8(a)(4)	Yes	
63.8(b)(1)	Yes	
63.8(b)(2)	No	
63.8(b)(3)	Yes	
63.8(c)(1)(i)	Yes	
63.8(c)(1)(ii)	No	
63.8(c)(1)(iii)	Yes	
63.8(c)(2)	Yes	
63.8(c)(3)	Yes	
63.8(c)(4)	No	See § 63.564(a)(3).
63.8(c)(5)	No	
63.8(c)(6)	Yes	See also performance specifications for continuous monitoring systems § 63.564(a)(4).
63.8(c)(7)(i)(A)–(B)	Yes	See also § 63.564(a)(5).
63.8(c)(7)(i)(C)	No	
63.8(c)(7)(ii)	Yes	
63.8(c)(8)	No	See § 63.564(a)(5).
63.8(d)	No	See § 63.562(e)(2)(iv).
63.8(e)(1)–(4)	Yes	
63.8(e)(5)(i)	Yes	
63.8(e)(5)(ii)	No	
63.8(f)(1)	Yes	
63.8(f)(2)(i)–(vii)	Yes	
63.8(f)(2)(viii)	No	
63.8(f)(2)(ix)	Yes	
63.8(f)(3)–(6)	Yes	
63.8(g)	Yes	
63.9(a)(1)	Yes	
63.9(a)(2)	Yes	
63.9(a)(3)	Yes	
63.9(a)(4)	Yes	
63.9(b)(1)(i)	Yes	
63.9(b)(1)(ii)	No	See § 63.567(b)(1)
63.9(b)(1)(iii)	Yes	
63.9(b)(2)	No	See § 63.567(b)(2).
63.9(b)(3)	No	See § 63.567(b)(3).
63.9(b)(4)	No	See § 63.567(b)(4).
63.9(b)(5)	No	See § 63.567(b)(4).
63.9(c)	No	See § 63.567(c).
63.9(d)	No	
63.9(e)	Yes	
63.9(f)	No	
63.9(g)(1)	Yes	
63.9(g)(2)	No	
63.9(g)(3)	Yes	
63.9(h)(1)–(3)	Yes	
63.9(h)(4)	No	Reserved.
63.9(h)(5)–(6)	Yes	
63.9(i)	Yes	
63.9(j)	Yes	
63.10(a)	Yes	
63.10(b)(1)	Yes	
63.10(b)(2)(i)	No	
63.10(b)(2) (ii)–(iii)	Yes	

TABLE 1 OF § 63.560.—GENERAL PROVISIONS APPLICABILITY TO SUBPART Y—Continued

Reference	Applies to affected sources in subpart Y	Comment
63.10(b)(2)(iv)	No	
63.10(b)(2)(v)	No	
63.10(b)(2)(vi)–(xiv)	Yes	
63.10(b)(3)	No	See § 63.567(j)(4).
63.10(c)(1)	Yes	
63.10(c)(2)–(4)	No	Reserved.
63.10(c)(5)	Yes	
63.10(c)(6)	No	See § 63.564(a)(5).
63.10(c)(7)	No	
63.10(c)(8)	Yes	
63.10(c)(9)	No	Reserved.
63.10(c)(10)–(13)	Yes	
63.10(c)(14)	No	See § 63.562(d)(2)(iv).
63.10(c)(15)	No	
63.10(d)(1)–(2)	Yes	
63.10(d)(3)	No	See § 63.567(d).
63.10(d)(4)	Yes	
63.10(d)(5)	No	
63.(10)(e)(1)	Yes	
63.10(e)(2)(i)	Yes	
63.10(e)(2)(ii)	No	
63.10(e)(3)(i)–(v)	No	See § 63.567(e)
63.10(e)(3)(vi).	Yes	
63.10(e)(3)(vii)–(viii)	No	See § 63.567(e)
63.10(e)(4)	No	
63.10(f)	Yes	
63.11	Yes	
63.12–63.15	Yes	

§ 63.561 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act or in subpart A of this part.

Affected source means a source with emissions of 10 or 25 tons, a new source with emissions less than 10 and 25 tons, a new major source offshore loading terminal, a source with throughput of 10 M barrels or 200 M barrels, or the VMT source, that is subject to the emissions standards in § 63.562.

Air pollution control device or *control device* means a combustion device or vapor recovery device.

Ballasting operations means the introduction of ballast water into a cargo tank of a tankship or oceangoing barge.

Baseline operating parameter means a minimum or maximum value of a process parameter, established for a control device during a performance test where the control device is meeting the required emissions reduction or established as the manufacturer recommended operating parameter, that, if achieved by itself or in combination with one or more other operating parameters, determines if a control device is operating properly.

Boiler means a device that combusts any fuel and produces steam or heats water or any other heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system.

Car-seal means a seal that is placed on a device used to change the position of a valve (e.g., from open to closed) in such a way that the position of the valve cannot be changed without breaking the seal.

Combustion device means all equipment, including, but not limited to, thermal incinerators, catalytic incinerators, flares, boilers, and process heaters used for combustion or destruction of organic vapors.

Commenced means, with respect to construction of an air pollution control device, that an owner or operator has undertaken a continuous program of construction or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction.

Commodity means a distinct product that a source loads onto marine tank vessels.

Continuous means, with respect to monitoring, reading and recording (either in hard copy or computer readable form) of data values measured at least once every 15 minutes.

Crude oil means a naturally occurring mixture consisting predominantly of hydrocarbons and/or sulfur, nitrogen, and oxygen derivatives of hydrocarbons that is removed from the earth in a liquid state or is capable of being so removed.

Exceedance or *Variance* means, with respect to parametric monitoring, the operating parameter of the air pollution control device that is monitored as an indication of proper operation of the control device is outside the acceptable range or limits for the baseline parameter given in § 63.563(b)(4) through (9).

Excess emissions means, with respect to emissions monitoring, the concentration of the outlet stream of the air pollution control device is outside the acceptable range or limits for the baseline concentration given in § 63.563(b)(4) through (9).

Flow indicator means a device that indicates whether gas flow is present in a line or vent system.

Gasoline means any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 27.6 kPa (4.0 psia) or greater, that is used as a fuel for internal combustion engines.

Impurity means HAP substances that are present in a commodity or that are produced in a process coincidentally with the primary product or commodity and that are 0.5 percent total HAP by weight or less. An impurity does not serve a useful purpose in the production

or use of the primary product or commodity and is not isolated.

Leak means a reading of 10,000 parts per million volume (ppmv) or greater as methane that is determined using the test methods in Method 21, appendix A of part 60 of this chapter.

Lightering or *Lightering operation* means the offshore transfer of a bulk liquid cargo from one marine tank vessel to another vessel.

Loading berth means the loading arms, pumps, meters, shutoff valves, relief valves, and other piping and valves necessary to fill marine tank vessels. The loading berth includes those items necessary for an offshore loading terminal.

Loading cycle means the time period from the beginning of filling a single marine tank vessel until commodity flow to the marine tank vessel ceases.

Maintenance allowance means a period of time that an affected source is allowed to perform maintenance on the loading berth without controlling emissions from marine tank vessel loading operations.

Marine tank vessel loading operation means any operation under which a commodity is bulk loaded onto a marine tank vessel from a terminal, which may include the loading of multiple marine tank vessels during one loading operation. Marine tank vessel loading operations do not include refueling of marine tank vessels.

Marine vessel or *Marine tank vessel* means any tank ship or tank barge that transports liquid product such as gasoline or crude oil in bulk.

Nonvapor-tight means any marine tank vessel that does not pass the required vapor-tightness test.

Offshore loading terminal means a location that has at least one loading berth that is 0.81 km (0.5 miles) or more from the shore that is used for mooring a marine tank vessel and loading liquids from shore.

Primary fuel means the fuel that provides the principal heat input to the device. To be considered primary, the fuel must be able to sustain operation of the device without the addition of other fuels.

Process heater means a device that transfers heat liberated by burning fuel to fluids contained in tubes, including all fluids except water that are heated to produce steam.

Recovery device means an individual unit of equipment, including, but not limited to, a carbon adsorber, condenser/refrigeration unit, or absorber that is capable of and used for the purpose of removing vapors and recovering liquids or chemicals.

Routine loading means, with respect to the VMT source, marine tank vessel loading operations that occur as part of normal facility operation over a loading berth when no loading berths are inoperable due to maintenance.

Secondary fuel means any fuel other than the primary fuel. The secondary fuel provides supplementary heat in addition to the heat provided by the primary fuel and is generally fired through a burner other than the primary burner.

Source(s) means any location where at least one dock or loading berth is bulk loading onto marine tank vessels, except offshore drilling platforms and lightering operations.

Source(s) with emissions less than 10 and 25 tons means major source(s) having aggregate actual HAP emissions from marine tank vessel loading operations at all loading berths as follows:

(1) Prior to the compliance date, of less than 9.1 Mg (10 tons) of each individual HAP calculated on a 24-month annual average basis after September 19, 1997 and less than 22.7 Mg (25 tons) of all HAP combined calculated on a 24-month annual average basis after September 19, 1997, as determined by emission estimation in § 63.565(l) of this subpart; and

(2) After the compliance date, of less than 9.1 Mg (10 tons) of each individual HAP calculated annually after September 20, 1999 and less than 22.7 Mg (25 tons) of all HAP combined calculated annually after September 20, 1999, as determined by emission estimation in § 63.565(l) of this subpart.

Source(s) with emissions of 10 or 25 tons means major source(s) having aggregate actual HAP emissions from marine tank vessels loading operations at all loading berths as follows:

(1) Prior to the compliance date, emissions of 9.1 Mg (10 tons) or more of each individual HAP calculated on a 24-month annual average basis after September 19, 1997 or of 22.7 Mg (25 tons) or more of all HAP combined calculated on a 24-month annual average basis after September 19, 1997, as determined by emission estimation in § 63.565(l); or

(2) After the compliance date, emissions of 9.1 Mg (10 tons) or more of each individual HAP calculated annually after September 20, 1999 or of 22.7 Mg (25 tons) or more of all HAP combined calculated annually after September 20, 1999, as determined by emission estimation in § 63.565(l).

Source(s) with throughput less than 10 M barrels and 200 M barrels means source(s) having aggregate loading from marine tank vessel loading operations at all loading berths as follows:

(1) Prior to the compliance date, of less than 1.6 billion liters (10 million (M) barrels) of gasoline on a 24-month annual average basis and of less than 32 billion liters (200 M barrels) of crude oil on a 24-month annual average basis after September 19, 1996; and

(2) After the compliance date, of less than 1.6 billion liters (10 M barrels) of gasoline annually and of less than 32 billion liters (200 M barrels) of crude oil annually after September 21, 1998.

Source(s) with throughput of 10 M barrels or 200 M barrels means source(s) having aggregate loading from marine tank vessel loading operations at all loading berths as follows:

(1) Prior to the compliance date, of 1.6 billion liters (10 M barrels) or more of gasoline on a 24-month annual average basis or of 32 billion liters (200 M barrels) or more of crude oil on a 24-month annual average basis after September 19, 1996; or

(2) After the compliance date, of 1.6 billion liters (10 M barrels) or more of gasoline annually or of 32 billion liters (200 M barrels) or more of crude oil annually after September 21, 1998.

Terminal means all loading berths at any land or sea based structure(s) that loads liquids in bulk onto marine tank vessels.

Twenty-four-month (24-month) annual average basis means annual HAP emissions, with respect to MACT standards, or annual loading throughput, with respect to RACT standards, from marine tank vessel loading operations averaged over a 24-month period.

Valdez Marine Terminal (VMT) source means the major source that is permitted under the Trans-Alaska Pipeline Authorization Act (TAPAA) (43 U.S.C. § 1651 *et seq.*). The source is located in Valdez, Alaska in Prince William Sound.

Vapor balancing system means a vapor collection system or piping system that is designed to collect organic HAP vapors displaced from marine tank vessels during marine tank vessel loading operations and that is designed to route the collected organic HAP vapors to the storage vessel from which the liquid being loaded originated or to compress collected organic HAP vapors and commingle with the raw feed of a process unit.

Vapor collection system means any equipment located at the source, i.e., at the terminal, that is not open to the atmosphere, that is composed of piping, connections, and flow inducing devices, and that is used for containing and transporting vapors displaced during

the loading of marine tank vessels to a control device or for vapor balancing. This does not include the vapor collection system that is part of any marine vessel vapor collection manifold system.

Vapor-tight marine vessel means a marine tank vessel that has demonstrated within the preceding 12 months to have no leaks. A marine tank vessel loaded at less than atmospheric pressure is assumed to be vapor tight for the purpose of this standard.

Volatile organic compounds or *VOC* is as defined in 40 CFR 51.100(s) of this chapter.

§ 63.562 Standards.

(a) The emissions limitations in paragraphs (b), (c), and (d) of this section apply during marine tank vessel loading operations.

(b) *MACT standards, except for the VMT source.*

(1)(i) *Vapor collection system of the terminal.* The owner or operator of a new source with emissions less than 10 and 25 tons and an existing or new source with emissions of 10 or 25 tons shall equip each terminal with a vapor collection system that is designed to collect HAP vapors displaced from marine tank vessels during marine tank vessel loading operations and to prevent HAP vapors collected at one loading berth from passing through another loading berth to the atmosphere, except for those commodities exempted under § 63.560(d).

(ii) *Ship-to-shore compatibility.* The owner or operator of a new source with emissions less than 10 and 25 tons and an existing or new source with emissions of 10 or 25 tons shall limit marine tank vessel loading operations to those vessels that are equipped with vapor collection equipment that is compatible with the terminal's vapor collection system, except for those commodities exempted under § 63.560(d).

(iii) *Vapor tightness of marine vessels.* The owner or operator of a new source with emissions less than 10 and 25 tons and an existing or new source with emissions of 10 or 25 tons shall limit marine tank vessel loading operations to those vessels that are vapor tight and to those vessels that are connected to the vapor collection system, except for those commodities exempted under § 63.560(d).

(2) *MACT standards for existing sources with emissions of 10 or 25 tons.* The owner or operator of an existing source with emissions of 10 or 25 tons, except offshore loading terminals and the VMT source, shall reduce captured HAP emissions from marine tank vessel loading operations by 97 weight-percent, as determined using methods in § 63.565 (d) and (l).

(3) *MACT standards for new sources.* The owner or operator of a new source with emissions less than 10 and 25 tons or a new source with emissions of 10 or 25 tons, except offshore loading terminals and the VMT source, shall reduce HAP emissions from marine tank vessel loading operations by 98 weight-percent, as determined using methods in § 63.565 (d) and (l).

(4) *MACT standards for new major source offshore loading terminals.* The owner or operator of a new major source offshore loading terminal shall reduce HAP emissions from marine tank vessel loading operations by 95 weight-percent, as determined using methods in § 63.565 (d) and (l).

(5) *Prevention of carbon adsorber emissions during regeneration.* The owner or operator of a source subject to paragraph (b)(2), (3), or (4) shall prevent HAP emissions from escaping to the atmosphere from the regeneration of the carbon bed when using a carbon adsorber to control HAP emissions from marine tank vessel loading operations.

(6) *Maintenance allowance for loading berths.* The owner or operator of a source subject to paragraph (b)(2), (3) or (4), may apply for approval to the Administrator for a maintenance allowance for loading berths based on a percent of annual throughput or annual marine tank vessel loading operation time for commodities not exempted in § 63.560(d). The owner or operator shall maintain records for all maintenance performed on the air pollution control equipment. The Administrator will consider the following in approving the maintenance allowance:

(i) The owner or operator expects to be in violation of the emissions standards due to maintenance;

(ii) Due to conditions beyond the reasonable control of the owner or operator, compliance with the emissions standards during maintenance would result in unreasonable economic hardship;

(iii) The economic hardship cannot be justified by the resulting air quality benefit;

(iv) The owner or operator has given due consideration to curtailing marine vessel loading operations during maintenance;

(v) During the maintenance allowance, the owner or operator will endeavor to reduce emissions from other loading berths that are controlled as well as from the loading berth the owner or operator is seeking the maintenance allowance; and

(vi) During the maintenance allowance, the owner or operator will monitor and report emissions from the loading berth to which the maintenance allowance applies.

(c) *RACT standards, except the VMT source.*

(1) *Commencement of construction.* The owner or operator of a source with throughput of 10 M barrels or 200 M barrels, except the VMT source, with an initial startup date on or before September 21, 1998 shall provide the Agency no later than 2 years after the effective date with proof that it has commenced construction of its vapor collection system and air pollution control device.

(2) (i) *Vapor collection system of the terminal.* The owner or operator of a source with throughput of 10 M barrels or 200 M barrels shall equip each terminal with a vapor collection system that is designed to collect VOC vapors displaced from marine tank vessels during loading and to prevent VOC vapors collected at one loading berth from passing through another loading berth to the atmosphere, except for those commodities exempted under § 63.560(d).

(ii) *Ship-to-shore compatibility.* The owner or operator of a source with throughput of 10 M barrels or 200 M barrels shall limit marine tank vessel loading operations to those vessels that are equipped with vapor collection equipment that is compatible with the terminal's vapor collection system, except for those commodities exempted under § 63.560(d).

(iii) *Vapor tightness of marine vessels.* The owner or operator of a source with throughput of 10 M barrels or 200 M barrels shall limit marine tank vessel loading operations to those vessels that are vapor-tight and to those vessels that are connected to the vapor collection system, except for those commodities exempted under § 63.560(d).

(3) *RACT standard for sources with throughput of 10 M or 200 M barrels, except the VMT source.* The owner or operator of a source with throughput of 10 M barrels or 200 M barrels, except the VMT source, shall reduce captured VOC emissions from marine tank vessel loading operations by 98 weight-percent when using a combustion device or reduce captured VOC emissions by 95 weight-percent when using a recovery device, as determined using methods in § 63.565(d) and (l).

(4) The owner or operator of a source with throughput of 10 M barrels or 200 M barrels, except the VMT source, may meet the requirements of paragraph (c)(3) by reducing gasoline loading

emissions to, at most, 1,000 ppmv outlet VOC concentration.

(5) *Prevention of carbon adsorber emissions during regeneration.* The owner or operator of a source with throughput of 10 M barrels or 200 M barrels shall prevent HAP emissions from escaping to the atmosphere from the regeneration of the carbon bed when using a carbon adsorber to control HAP emissions from marine tank vessel loading operations.

(6) *Maintenance allowance for loading berths.* The owner or operator of a source with throughput of 10 M barrels or 200 M barrels may apply for approval to the Administrator for a maintenance allowance for loading berths based on a percent of annual throughput or annual marine tank vessel loading operation time for commodities not exempted in § 63.560(d). The owner or operator shall maintain records for all maintenance performed on the air pollution control equipment. The Administrator will consider the following in approving the maintenance allowance:

(i) The owner or operator expects to be in violation of the emissions standards due to maintenance;

(ii) Due to conditions beyond the reasonable control of the owner or operator, compliance with the emissions standards during maintenance would result in unreasonable economic hardship;

(iii) The economic hardship cannot be justified by the resulting air quality benefit;

(iv) The owner or operator has given due consideration to curtailing marine vessel loading operations during maintenance;

(v) During the maintenance allowance, the owner or operator will endeavor to reduce emissions from other loading berths that are controlled as well as from the loading berth the owner or operator is seeking the maintenance allowance; and

(vi) During the maintenance allowance, the owner or operator will monitor and report emissions from the loading berth to which the maintenance allowance applies.

(d) *MACT and RACT standards for the VMT source.*

(1) (i) *Vapor collection system of the terminal.* The owner or operator of the VMT source shall equip each terminal subject under paragraph (d)(2) with a vapor collection system that is designed to collect HAP vapors displaced from marine tank vessels during marine tank vessel loading operations and to prevent HAP vapors collected at one loading berth from passing through another loading berth to the atmosphere, except for those commodities exempted under § 63.560(d).

(ii) *Ship-to-shore compatibility.* The owner or operator of the VMT source shall limit marine tank vessel loading operations at berths subject under paragraph (d)(2) of this section to those vessels that are equipped with vapor collection equipment that is compatible with the terminal's vapor collection system, except for those commodities exempted under § 63.560(d).

(iii) *Vapor tightness of marine vessels.* The owner or operator of the VMT source shall limit marine tank vessel loading operations at berths subject under paragraph (d)(2) of this section to those vessels that are vapor-tight and to those vessels that are connected to the vapor collection system, except for those commodities exempted under § 63.560(d).

(2) The owner or operator of the VMT source shall reduce captured HAP and VOC emissions by 98 weight-percent, as determined using methods in § 63.565(d) and (l) for loading berths subject under this paragraph according to paragraphs (d)(2)(i), (ii), (iii), and (iv):

(i) The owner or operator of the VMT source shall equip at least two loading berths and any additional berths indicated pursuant to paragraph (d)(2)(iii) with a vapor collection system and air pollution control device and shall load marine tank vessels over loading berths equipped with a vapor collection system and control device to the maximum extent practicable. The owner or operator shall equip all loading berths that will be used for routine loading after March 19, 1998 with a vapor collection system and control device if the annual average daily loading rate for all loading berths exceeds the limits in paragraphs (d)(2)(i)(A), (B), and (C) of this section.

(A) For 1995, 1,630,000 barrels per day; and

(B) For 1996, 1,546,000 barrels per day; and

(C) For 1997, 1,445,000 barrels per day.

(ii) Maximum extent practicable means that the total annual average daily loading over all loading berths not equipped with a vapor collection system and control device shall not exceed the totals in paragraphs (d)(2)(ii)(A) and (B):

(A) *Loading allowances for marine tank vessel loading operations at loading berths not equipped with control devices.* The following maximum annual average daily loading rate for routine loading at loading berths not equipped with control devices in any of the following years shall not exceed:

(*a*) For 1998, 275,000 barrels per day;

(*b*) For 1999, 205,000 barrels per day;

(*c*) For 2000, 118,000 barrels per day;

(*d*) For 2001, 39,000 barrels per day; and

(*e*) For 2002 and subsequent years, no marine tank vessel loading operations shall be performed at berths not equipped with a vapor collection system and control device, except as allowed for maintenance under paragraph (B).

(B) *Maintenance allowances for loading berths subject under paragraph (d)(2)(i).* Beginning in the year 2000, the owner or operator of the VMT source may have a maximum of 40 calendar days per calendar year use of loading berths not equipped with a vapor collection system and control device, in accordance with the limits in paragraph (d)(2)(ii)(B)(*a*), (*b*), or (*c*), to allow for maintenance of loading berths subject to paragraph (d)(2)(i). Beginning in the year 2002, the total annual average daily loading of crude oil over all loading berths not equipped with a vapor collection system and control device shall not exceed the amount stated in paragraph (d)(2)(ii)(B)(*b*). The 40 days allowed for maintenance shall be converted into a compliance measure of annual average daily loading over the loading berths not equipped with a vapor collection system and control device as follows:

(*a*) If the total annual average daily volume of crude oil loaded at the facility was greater than or equal to 1,100,000 barrels per day in the prior calendar year, the maintenance allowance shall not exceed an annual average daily loading of 60,000 barrels per day.

(*b*) If the total annual average daily volume of crude oil loaded at the facility was less than 1,100,000 barrels per day and greater than or equal to 550,000 barrels per day in the prior calendar year, the maintenance allowance for the calendar year shall not exceed Q_m:

$$Q_m = \frac{(P - 550{,}000) \times 40}{365}$$

Where:

Q_m = maintenance allowance, barrels per day

P = prior calendar year's average daily volume of crude oil loaded at the facility, barrels per day.

(*c*) If the total annual average daily volume of crude oil loaded at the facility was less than 550,000 barrels per day in the prior calendar year, there shall be no maintenance allowance.

(iii) If the average daily loading rate for the loading berths not equipped with a vapor collection system and control device is greater than the combined

amounts in any year listed in paragraphs (d)(2)(i)(A), (B), and (C) and (d)(2)(ii)(A) and (B), then the owner or operator of the VMT source shall equip all loading berths used for routine loading with a vapor collection system and control device within 2 years of the exceedance except that in an emergency situation the Administrator may, instead of requiring controls, approve an alternative plan to reduce loading over the unequipped berth(s) to a level which will ensure compliance with the applicable limit. Beginning in the year 2002, the owner or operator of the VMT source shall equip all uncontrolled loading berths used for marine tank vessel loading operations beyond the maintenance allowance in paragraph (d)(2)(ii)(B) with a vapor collection system and control device.

(iv) The owner or operator of the VMT source shall develop a program to communicate to relevant facility operations and marine transportation personnel and engage their active and consistent participation in honoring the intent and goal of minimizing loaded volumes over the unequipped berths and maximizing the loaded volumes at the berths equipped with a vapor collection system and control device to prevent exceedance of the load volume limits in paragraphs (d)(2)(ii)(A) and (B). This program is to be presented semi-annually during the first year of compliance and annually thereafter until the use of unequipped berths for routine loading is no longer required.

(3) The owner or operator of the VMT source shall submit annual reports on or before January 31 of each year to the Administrator certifying the annual average daily loading rate for the previous calendar year. Beginning on January 31, 1996, for the reported year 1995, the annual report shall specify the annual average daily loading rate over all loading berths. Beginning on January 31, 1999, for the reported year 1998, the annual report shall specify the annual average daily loading rate over all loading berths, over each loading berth equipped with a vapor collection system and control device, and over each loading berth not equipped with a vapor collection system and control device. The annual average daily loading rate under this section is calculated as the total amount of crude oil loaded during the calendar year divided by 365 days or 366 days, as appropriate.

(e) *Operation and maintenance requirements for air pollution control equipment and monitoring equipment for affected sources.* At all times, including periods of startup, shutdown, and malfunction, owners or operators of affected sources shall operate and maintain a source, including associated air pollution control equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(1) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards by evaluating an owner or operator's conformance with operation and maintenance requirements.

(2) The owner or operator of an affected source shall develop and implement a written operation and maintenance plan that describes in detail a program of corrective action for varying (i.e., exceeding baseline parameters) air pollution control equipment and monitoring equipment, based on monitoring requirements in § 63.564, used to comply with these emissions standards. The plan shall also identify all routine or otherwise predictable continuous monitoring system (thermocouples, pressure transducers, continuous emissions monitors (CEMS), etc.) variances.

(i) The plan shall specify procedures (preventive maintenance) to be followed to ensure that pollution control equipment and monitoring equipment functions properly and variances of the control equipment and monitoring equipment are minimal.

(ii) The plan shall identify all operating parameters to be monitored and recorded for the air pollution control device as indicators of proper operation and shall establish the frequency at which the parameters will be monitored (see § 63.564).

(iii) Owners or operators of affected sources shall incorporate a standardized inspection schedule for each component of the control device used to comply with the emissions standards in § 63.562(b), (c), and (d). To satisfy the requirements of this paragraph, the owner or operator may use the inspection schedule recommended by the vendor of the control system or any other technical publication regarding the operation of the control system.

(iv) Owners or operators shall develop and implement a continuous monitoring system (CMS) quality control program. The owner or operator shall develop and submit to the Administrator for approval upon request a site-specific performance evaluation test plan for the CMS performance evaluation required in § 63.8(e) of subpart A of this part. Each quality control program shall include, at a minimum, a written protocol that describes procedures for initial and any subsequent calibration of the CMS; determination and adjustment of the calibration drift of the CMS; preventive maintenance of the CMS, including spare parts inventory; data recording, calculations, and reporting; and accuracy audit procedures, including sampling and analysis methods. The owner or operation shall maintain records of the procedures that are part of the quality control program developed and implemented for CMS.

(3) Based on the results of the determination made under paragraph (e)(2), the Administrator may require that an owner or operator of an affected source make changes to the operation and maintenance plan for that source. Revisions may be required if the plan:

(i) Does not address a variance of the air pollution control equipment or monitoring equipment that has occurred that increases emissions;

(ii) Fails to provide for operation during a variance of the air pollution control equipment or the monitoring equipment in a manner consistent with safety and good air pollution control practices; or

(iii) Does not provide adequate procedures for correcting a variance of the air pollution control equipment or monitoring equipment as soon as reasonable.

(4) If the operation and maintenance plan fails to address or inadequately addresses a variance event at the time the plan was initially developed, the owner or operator shall revise the operation and maintenance plan within 45 working days after such an event occurs. The revised plan shall include procedures for operating and maintaining the air pollution control equipment or monitoring equipment during similar variance events and a program for corrective action for such events.

(5) The operation and maintenance plan shall be developed by the source's compliance date. The owner or operator shall keep the written operation and maintenance plan on record to be made available for inspection, upon request, by the Administrator for the life of the source. In addition, if the operation and maintenance plan is revised, the owner or operator shall keep previous (i.e., superseded) versions of the plan on record to be made available for inspection upon request by the Administrator for a period of 5 years after each revision to the plan.

(6) To satisfy the requirements of the operation and maintenance plan, the owner or operator may use the source's standard operating procedures (SOP) manual, an Occupational Safety and Health Administration (OSHA) plan, or other existing plans provided the alternative plans meet the requirements of this section and are made available for inspection when requested by the Administrator.

§ 63.563 Compliance and performance testing.

(a) The following procedures shall be used to determine compliance with the emissions limits under § 63.562(b)(1), (c)(2), and (d)(1):

(1) *Vent stream by-pass requirements for the terminal's vapor collection system.*

(i) In accordance with § 63.562(b)(1)(i), (c)(2)(i), and (d)(1)(i), each valve in the terminal's vapor collection system that would route displaced vapors to the atmosphere, either directly or indirectly, shall be secured closed during marine tank vessel loading operations either by using a car-seal or a lock-and-key type configuration, or the by-pass line from the valve shall be equipped with a flow indicator, except for those valves used for pressure/vacuum relief, analyzers, instrumentation devices, sampling, and venting for maintenance. Marine tank vessel loading operations shall not be performed with open by-pass lines.

(ii) Repairs shall be made to valves, car-seals, or closure mechanisms no later than 15 days after a change in the position of the valve or a break in the car-seal or closure mechanism is detected or no later than prior to the next marine tank vessel loading operation, whichever is later.

(2) *Ship-to-shore compatibility of vapor collection systems.* Following the date on which the initial performance test is completed, marine tank vessel loading operations must be performed only if the marine tank vessel's vapor collection equipment is compatible to the terminal's vapor collection system; marine tank vessel loading operations must be performed only when the marine tank vessel's vapor collection equipment is connected to the terminal's vapor collection system, as required in § 63.562(b)(1)(ii), (c)(2)(ii), and (d)(1)(ii).

(3) *Pressure/vacuum settings for the marine tank vessel's vapor collection equipment.* During the initial performance test required in paragraph (b)(1) of this section, the owner or operator of an affected source shall demonstrate compliance with operating pressure requirements of 33 CFR 154.814 using the procedures in § 63.565(b).

(4) *Vapor-tightness requirements of the marine vessel.* The owner or operator of an affected source shall use the procedures in paragraph (a)(4)(i), (ii), (iii), or (iv) of this section to ensure that marine tank vessels are vapor tight, as required in § 63.562(b)(1)(iii), (c)(2)(iii), and (d)(1)(iii).

(i) *Pressure test documentation for determining vapor tightness of the marine vessel.* The owner or operator of a marine tank vessel, who loads commodities containing HAP not determined to be exempt under § 63.560(d) at an affected source, shall provide a copy of the vapor-tightness pressure test documentation described in § 63.567(i) for each marine tank vessel prior to loading. The date of the test listed in the documentation must be within the preceding 12 months, and the test must be conducted in accordance with the procedures in § 63.565(c)(1). Following the date on which the initial performance test is completed, the affected source must check vapor-tightness pressure test documentation for marine tank vessels loaded at positive pressure.

(ii) *Leak test documentation for determining vapor tightness of the marine vessel.* If no documentation of the vapor tightness pressure test as described in paragraph (a)(4)(i) of this section is available, the owner or operator of a marine tank vessel, who loads commodities containing HAP not determined to be exempt under § 63.560(d) at an affected source, shall provide the leak test documentation described in § 63.567(i) for each marine tank vessel prior to loading. The date of the test listed in the documentation must be within the preceding 12 months, and the test must be conducted in accordance with the procedures in § 63.565(c)(2). If the marine tank vessel has failed its most recent vapor-tightness leak test at that terminal, the owner or operator of the non-vapor-tight marine tank vessel shall provide documentation that the leaks detected during the previous vapor-tightness test have been repaired and documented with a successful vapor-tightness leak test described in § 63.565(c)(2) conducted during loading. If the owner or operator of the marine tank vessel can document that repair is technically infeasible without cleaning and gas freeing or dry-docking the vessel, the owner or operator of the affected source may load the marine tank vessel. Following the date on which the initial performance test is completed, an affected source must check the vapor-tightness leak test documentation for marine tank vessels loaded at positive pressure.

(iii) *Leak test performed during loading using Method 21 for determining vapor tightness of the marine vessel.* If no documentation of vapor tightness as described in paragraphs (a)(4)(i) or (ii) of this section is available, the owner or operator of a marine tank vessel, who loads commodities containing HAP not determined to be exempt under § 63.560(d) at an affected source, shall perform a leak test of the marine tank vessel during marine tank vessel loading operation using the procedures described in § 63.565(c)(2).

(A) If no leak is detected, the owner or operator of a marine tank vessel shall complete the documentation described in § 63.567(i) prior to departure of the vessel.

(B) If a leak is detected, the owner or operator of the marine tank vessel shall document the vapor-tightness failure for the marine tank vessel prior to departure of the vessel. The leaking component shall be repaired prior to the next marine tank vessel loading operation at a controlled terminal unless the repair is technically infeasible without cleaning and gas freeing or dry-docking the vessel. If the owner or operator of the vessel provides documentation that repair of such equipment is technically infeasible without cleaning and gas freeing or dry-docking the vessel, the equipment responsible for the leak will be excluded from future Method 21 tests until repairs are effected. A copy of this documentation shall be maintained by the owner or operator of the affected source. Repair of the equipment responsible for the leak shall occur the next time the vessel is cleaned and gas freed or dry-docked. For repairs that are technically feasible without dry-docking the vessel, the owner or operator of the affected source shall not load the vessel again unless the marine tank vessel owner or operator can document that the equipment responsible for the leak has been repaired.

(iv) *Negative pressure loading.* The owner or operator of an affected source shall ensure that a marine tank vessel is loaded with the product tank below atmospheric pressure (i.e., at negative gauge pressure). The pressure shall be measured between the facility's vapor connection and its manual isolation valve, and the measured pressure must be below atmospheric pressure. Following the date on which the initial performance test is completed, marine tank vessel loading operations for nonvapor-tight vessels must be performed below atmospheric pressure

(i.e., at negative gauge pressure) in the product tank.

(b) *Compliance determination for affected sources.* The following procedures shall be used to determine compliance with the emissions limits under § 63.562(b), (c), and (d).

(1) *Initial performance test.* An initial performance test shall be conducted using the procedures listed in § 63.7 of subpart A of this part according to the applicability in Table 1 of § 63.560, the procedures listed in this section, and the test methods listed in § 63.565. The initial performance test shall be conducted within 180 days after the compliance date for the specific affected source. During this performance test, sources subject to MACT standards under § 63.562(b)(2), (3), (4), and (5) and (d)(2) shall determine the reduction of HAP emissions, as VOC, for all combustion or recovery devices other than flares. Sources subject to RACT standards under § 63.562(c)(3), (4), and (5) and (d)(2) shall determine the reduction of VOC emissions for all combustion or recovery devices other than flares.

(2) *Performance test exemptions.* An initial performance test required in this section and in § 63.565(d) and the continuous monitoring in § 63.564(e) is not required in the following cases:

(i) When a boiler or process heater with a design heat input capacity of 44 Megawatts or less is used to comply with § 63.562(b)(2), (3), or (4), (c)(3) or (4), or (d)(2) and the vent stream is used as the primary fuel or with the primary fuel;

(ii) When a boiler or process heater with a design heat input capacity of 44 Megawatts or greater is used to comply with § 63.562(b)(2), (3) or (4), (c)(3) or (4), or (d)(2); or

(iii) When a boiler subject to 40 CFR part 266, subpart H, ''Hazardous Waste Burned in Industrial Furnaces,'' that has demonstrated 99.99 percent destruction or recovery efficiency is used to comply with § 63.562(b)(2), (3), or (4), (c)(3) or (4), or (d)(2).

(3) *Operation and maintenance inspections.* If the 3-hour or 3-cycle block average operating parameters in paragraphs (b)(4) through (9) of this section, outside the acceptable operating ranges, are measured and recorded, i.e., variances of the pollution control device or monitoring equipment, the owner or operator of the affected source shall perform an unscheduled inspection of the control device and monitoring equipment and review of the parameter monitoring data. The owner or operator of the affected source shall perform an inspection and review when total parameter variance time for the control device is greater than 10 percent of the operating time for marine tank vessel loading operations on a 30-day, rolling-average basis. The inspection and review shall be conducted within 24 hours after passing the allowable variance time of 10 percent. The inspection checklist from the requirements of § 63.562(e)(2)(iii) and the monitoring data from requirements in §§ 63.562(e)(2)(ii) and 63.564 should be used to identify any maintenance problems that may be associated with the variance. The unscheduled inspection should encompass all components of the control device and monitoring equipment that can be inspected while in operation. If any maintenance problem is identified during the inspection, the owner or operator of the affected source must take corrective action (e.g., adjustments to operating controls, etc.) as soon as practicable. If no immediate maintenance problems are identified from the inspection performed while the equipment is operating, a complete inspection in accordance with § 63.562(e)(2) must be conducted prior to the next marine tank vessel loading operation and corrective action (e.g., replacement of defective parts) must be taken as soon as practicable for any maintenance problem identified during the complete inspection.

(4) *Combustion device, except flare.* During the initial performance test required in paragraph (b)(1) of this section, the owner or operator shall determine the efficiency of and/or the outlet VOC concentration from the combustion device used to comply with § 63.562(b)(2), (3), and (4), (c)(3) and (4), and (d)(2) using the test methods in § 63.565(d). The owner or operator shall comply with paragraph (b)(4)(i) or (ii) of this section.

(i) *Outlet VOC concentration limit for required percent combustion efficiency.* The owner or operator shall establish as an operating parameter the baseline VOC concentration using the procedures described in § 63.565(g). Following the date on which the initial performance test is completed, the facility shall be operated with a block average outlet VOC concentration as determined in § 63.564(e)(1) no more than 20 percent above the baseline VOC concentration.

(ii) *Baseline temperature for required percent combustion efficiency.* The owner or operator shall establish as an operating parameter the baseline temperature using the procedures described in § 63.565(f). Following the date on which the initial performance test is completed, the facility shall be operated with the block average temperature as determined in § 63.564(e)(2) or (3) no more than 28°C (50°F) below the baseline temperature.

(5) *Flare.* During the initial performance test required in paragraph (b)(1) of this section, the owner or operator shall establish that the flare used to comply with the emissions standards in § 63.562(b)(2), (3), and (4), (c)(3) and (4), and (d)(2) is in compliance with the design requirements for flares cited in § 63.565(e). Following the date on which the initial determination of compliance is established, the facility shall operate with the presence of a pilot flame in the flare, as determined in § 63.564(f).

(6) *Carbon adsorber.* During the initial performance test required in paragraph (b)(1) of this section, the owner or operator shall determine the efficiency of and/or the outlet VOC concentration from the recovery device used to comply with § 63.562(b)(2), (3), (4), and (5), (c)(3), (4), and (5), and (d)(2) using the test methods in § 63.565(d). The owner or operator shall comply with paragraph (b)(6)(i) as well as either paragraph (b)(6)(ii) or (iii) of this section. The owner or operator of affected sources complying with paragraph (b)(6)(ii)(B) or (C) of this section shall conduct a performance test once each year.

(i) *Compliance determination for carbon bed regeneration.* Desorbed hydrocarbons from regeneration of the off-line carbon bed shall be vented to the on-line carbon bed.

(ii) *Baseline parameters for required percent recovery efficiency.* The owner or operator shall comply with paragraph (b)(6)(ii)(A), (B), or (C) of this section.

(A) *Outlet VOC concentration limit for required percent recovery efficiency.* The owner or operator shall establish as an operating parameter the baseline VOC concentration using the procedures described in § 63.565(g). Following the date on which the initial performance test is completed, the facility shall be operated with a block average outlet VOC concentration as determined in § 63.564(g)(1) no more than 20 percent above the baseline VOC concentration.

(B) *Carbon adsorbers with vacuum regeneration.* The owner or operator shall establish as operating parameters the baseline regeneration time for the vacuum stage of carbon bed regeneration using the procedures described in § 63.565(h) and shall establish the baseline vacuum pressure (negative gauge pressure) using the procedures described in § 63.565(i). Following the date on which the initial performance test is completed, the facility shall be operated with block average regeneration time of the vacuum

stage of carbon bed regeneration as determined in § 63.564(g)(2) no more than 20 percent below the baseline regeneration time, and the facility shall be operated with the block average vacuum pressure (negative gauge pressure) as determined in § 63.564(g)(2) no more than 20 percent above the baseline vacuum pressure.

(C) *Carbon adsorbers with steam regeneration.* The owner or operator shall establish as operating parameters the baseline total stream flow using the procedures described in § 63.565(j) and a baseline carbon bed temperature after cooling of the bed using the procedures in § 63.565(f)(2). Following the date on which the initial performance test is completed, the facility shall be operated with the total stream flow, as determined in § 63.564(g)(3), no more than 20 percent below the baseline stream flow and with the carbon bed temperature (measured within 15 minutes after completion of the cooling cycle), as determined in § 63.564(g)(3), no more than 10 percent or 5.6°C (10°F) above the baseline carbon bed temperature, whichever is less stringent.

(iii) *Outlet VOC concentration of 1,000 ppmv for gasoline loading.* Following the date on which the initial performance test is completed, the facility shall operate with a block average outlet VOC concentration as determined in § 63.564(g)(1) of no more than 1,200 ppmv VOC.

(7) *Condenser/refrigeration unit.* During the initial performance test required in paragraph (b)(1) of this section, the owner or operator shall determine the efficiency of and/or the outlet VOC concentration from the recovery device used to comply with § 63.562(b)(2), (3), and (4), (c)(3) and (4), and (d)(2) using the test methods in § 63.565(d). The owner or operator shall comply with either paragraph (b)(7)(i), (ii), or (iii) of this section.

(i) *VOC outlet concentration limit for required percent recovery efficiency.* The owner or operator shall establish as an operating parameter the baseline VOC concentration using the procedures described in § 63.565(g). Following the date on which the initial performance test is completed, the facility shall be operated with a block average outlet VOC concentration as determined in § 63.564(h)(2) no more than 20 percent above the baseline VOC concentration.

(ii) *Baseline temperature for required percent recovery efficiency.* The owner or operator shall establish as an operating parameter the baseline temperature using the procedures described in § 63.565(f). Following the date on which the initial performance test is completed, the facility shall operate with a block average temperature, as determined in § 63.564(h)(1), no more than 28°C (50°F) above the baseline temperature.

(iii) *Baseline parameters for 1,000 ppmv VOC concentration limit for gasoline loading.* The owner or operator shall monitor either the outlet VOC concentration or the outlet temperature of the unit. For sources monitoring temperature, the owner or operator shall establish as an operating parameter the baseline temperature using the procedures described in § 63.565(f). Following the date on which the initial performance test is completed, the facility shall operate with a block average outlet VOC concentration, as determined in § 63.564(h)(2), of no more than 1,200 ppmv VOC or with a block average temperature, as determined in § 63.564(h)(1), no more than 28°C (50°F) above the baseline temperature.

(8) *Absorber.* During the initial performance test required in paragraph (b)(1) of this section, the owner or operator shall determine the efficiency of the absorber and/or the outlet VOC concentration from the recovery device used to comply with § 63.562(b)(2), (3), and (4), (c)(3) and (4), and (d)(2) using the test methods in § 63.565(d). The owner or operator shall comply with either paragraph (b)(8)(i) or (ii) of this section.

(i) *VOC outlet concentration limit for required percent recovery efficiency.* The owner or operator shall establish as an operating parameter the baseline VOC concentration using the procedures described in § 63.565(g). Following the date on which the initial performance test is completed, the facility shall be operated with a block average outlet VOC concentration as determined in § 63.564(i)(1) no more than 20 percent above the baseline VOC concentration.

(ii) *Baseline liquid-to-vapor ratio for required percent recovery efficiency.* The owner or operator shall establish as an operating parameter the baseline liquid flow to vapor flow (L/V) ratio using the procedures described in § 63.565(k). Following the date on which the initial performance test is completed, the facility shall operate with a block average L/V ratio, as determined in § 63.564(i)(2), no more than 20 percent below the baseline L/V ratio.

(9) *Alternative control devices.* For sources complying with § 63.562(b)(2), (3), and (4), (c)(3) and (4), and (d)(2) with the use of a control technology other than the devices discussed in paragraphs (b)(4) through (8) of this section, the owner or operator of an affected source shall provide to the Administrator information describing the design and operation of the air pollution control system, including recommendations for the operating parameter(s) to be monitored to indicate proper operation and maintenance of the air pollution control system. Based on this information, the Administrator shall determine the operating parameter(s) to be established during the performance test. During the initial performance test required in paragraph (b)(1) of this section, the owner or operator shall determine the efficiency of the air pollution control system using the test methods in § 63.565(d). The device shall achieve at least the percent destruction efficiency or recovery efficiency required under § 63.562(b)(2), (3), and (4), (c)(3) and (4), and (d)(2). The owner or operator shall establish the operating parameter(s) approved by the Administrator. Following the date on which the initial performance test is complete, the facility shall operate either above or below a maximum or minimum operating parameter, as appropriate.

(10) *Emission estimation.* The owner or operator of a source subject to § 63.562(b)(2), (3), and (4) shall use the emission estimation procedures in § 63.565(l) to calculate HAP emissions.

(c) *Leak detection and repair for vapor collection systems and control devices.* The following procedures are required for all sources subject to § 63.562(b), (c), or (d).

(1) *Annual leak detection and repair for vapor collection systems and control devices.* The owner or operator of an affected source shall inspect and monitor all ductwork and piping and connections to vapor collection systems and control devices once each calendar year using Method 21.

(2) *Ongoing leak detection and repair for vapor collection systems and control devices.* If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method, all ductwork and piping and connections to vapor collection systems and control devices shall be inspected to the extent necessary to positively identify the potential leak and any potential leaks shall be monitored within 5 days by Method 21. Each detection of a leak shall be recorded, and the leak shall be tagged until repaired.

(3) When a leak is detected, a first effort to repair the vapor collection system and control device shall be made within 15 days or prior to the next marine tank vessel loading operation, whichever is later.

§ 63.564 Monitoring requirements.

(a) (1) The owner or operator of an affected source shall comply with the

monitoring requirements in § 63.8 of subpart A of this part in accordance with the provisions for applicability of subpart A to this subpart in Table 1 of § 63.560 and the monitoring requirements in this section.

(2) Each owner or operator of an affected source shall monitor the parameters specified in this section. All monitoring equipment shall be installed such that representative measurements of emissions or process parameters from the source are obtained. For monitoring equipment purchased from a vendor, verification of the operational status of the monitoring equipment shall include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system.

(3) Except for system breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level calibration drift adjustments, all continuous parametric monitoring systems (CPMS) and CEMS shall be in continuous operation while marine tank vessel loading operations are occuring and shall meet minimum frequency of operation requirements. Sources monitoring by use of CEMS and CPMS shall complete a minimum of one cycle of operation (sampling, analyzing, and/or data recording) for each successive 15-minute period.

(4) The owner or operator of a CMS installed in accordance with these emissions standards shall comply with the performance specifications either in performance specification (PS) 8 in 40 CFR part 60, appendix B for CEMS or in § 63.7(c)(6) of subpart A of this part for CPMS.

(5) A CEMS is out of control when the measured values (i.e., daily calibrations, multipoint calibrations, and performance audits) exceed the limits specified in either PS 8 or in § 63.8(c)(7) of subpart A of this part. The owner or operator of a CEMS that is out of control shall submit all information concerning out of control periods, including start and end dates and hours and descriptions of corrective actions taken, in the excess emissions and continuous monitoring system performance report required in § 63.567(e).

(b) *Vapor collection system of terminal.* Owners or operators of a source complying with § 63.563(a)(1) that uses a vapor collection system that contains valves that could divert a vent stream from a control device used to comply with the provisions of this subpart shall comply with paragraph (b)(1), (2), or (3) of this section.

(1) Measure and record the vent stream flowrate of each by-pass line once every 15 minutes. The owner or operator shall install, calibrate, maintain, and operate a flow indicator and data recorder. The flow indicator shall be installed immediately downstream of any valve (i.e., entrance to by-pass line) that could divert the vent stream from the control device to the atmosphere.

(2) Measure the vent stream flowrate of each by-pass line once every 15 minutes. The owner or operator shall install, calibrate, maintain, and operate a flow indicator with either an audio or visual alarm. The flow indicator and alarm shall be installed immediately downstream of any valve (i.e., entrance to by-pass line) that could divert the vent stream from the control device to the atmosphere. The alarm shall be checked every 6 months to demonstrate that it is functioning properly.

(3) Visually inspect the seal or closure mechanism once during each marine tank vessel loading operation and at least once every month to ensure that the valve is maintained in the closed position and that the vent stream is not diverted through the by-pass line; record all times when the car seals have been broken and the valve position has been changed. Each by-pass line valve shall be secured in the closed position with a car-seal or a lock-and-key type configuration.

(c) *Pressure/vacuum settings for the marine tank vessel's vapor collection equipment.* Owners or operators of a source complying with § 63.563(a)(3) shall measure continuously the operating pressure of the marine tank vessel during loading.

(d) *Loading at negative pressure.* Owners or operators of a source complying with § 63.563(a)(4)(iv) that load vessels at less than atmospheric pressure (i.e., negative gauge pressure) shall measure and record the loading pressure. The owner or operator shall install, calibrate, maintain, and operate a recording pressure measurement device (magnehelic gauge or equivalent device) and an audible and visible alarm system that is activated when the pressure vacuum specified in § 63.563(a)(4)(iv) is not attained. The owner or operator shall place the alarm system so that it can be seen and heard where cargo transfer is controlled. The owner or operator shall verify the accuracy of the pressure device once each calendar year with a reference pressure monitor (traceable to National Institute of Standards and Technology (NIST) standards or an independent pressure measurement device dedicated for this purpose).

(e) *Combustion device, except flare.* For sources complying with § 63.563(b)(4), use of a combustion device except a flare, the owner or operator shall comply with paragraph (e)(1), (2), or (3) of this section. Owners or operators complying with paragraphs (e)(2) or (3) shall also comply with paragraph (e)(4) of this section.

(1) *Outlet VOC concentration.* Monitor the VOC concentrations at the exhaust point of the combustion device and record the output from the system. For sources monitoring the outlet VOC concentration established during the performance test, a data acquisition system shall record a concentration every 15 minutes and shall compute and record an average concentration each cycle (same time period or cycle as the performance test) and a 3-cycle block average concentration every third cycle. For sources monitoring the 1,000 ppmv VOC concentration for gasoline loading, a data acquisition system shall record a concentration every 15 minutes and shall compute and record an average concentration each hour and a 3-hour block average concentration every third hour. The owner or operator will install, calibrate, operate, and maintain a CEMS consistent with the requirements of PS 8 to measure the VOC concentration. The daily calibration requirements are required only on days when marine tank vessel loading operations occur.

(2) *Operating temperature determined during performance testing.* If the baseline temperature was established during the performance test, the data acquisition system shall record the temperature every 15 minutes and shall compute and record an average temperature each cycle (same time period or cycle of the performance test) and a 3-cycle block average every third cycle.

(3) *Manufacturer's recommended operating temperature.* If the baseline temperature is based on the manufacturer recommended operating temperature, the data acquisition system shall record the temperature every 15 minutes and shall compute and record an average temperature each hour and a 3-hour block average every third hour.

(4) *Temperature monitor.* The owner or operator shall install, calibrate, operate, and maintain a temperature monitor accurate to within ±5.6°C (±10°F) or within 1 percent of the baseline temperature, whichever is less stringent, to measure the temperature. The monitor shall be installed at the exhaust point of the combustion device but not within the combustion zone. The owner or operator shall verify the accuracy of the temperature monitor once each calendar year with a reference temperature monitor (traceable to National Institute of Standards and

Technology (NIST) standards or an independent temperature measurement device dedicated for this purpose). During accuracy checking, the probe of the reference device shall be at the same location as that of the temperature monitor being tested.

(f) *Flare.* For sources complying with § 63.563(b)(5), use of a flare, the owner or operator shall monitor and record continuously the presence of the flare pilot flame. The owner or operator shall install, calibrate, maintain, and operate a heat sensing device (an ultraviolet beam sensor or thermocouple) at the pilot light to indicate the presence of a flame during the entire loading cycle.

(g) *Carbon adsorber.* For sources complying with § 63.563(b)(6), use of a carbon adsorber, the owner or operator shall comply with paragraph (g)(1), (2), or (3) of this section.

(1) *Outlet VOC concentration.* Monitor the VOC concentrations at the exhaust point of each carbon adsorber unit and record the output from the system. For sources monitoring the outlet VOC concentration established during the performance test, a data acquisition system shall record a concentration every 15 minutes and shall compute and record an average concentration each cycle (same time period or cycle as the performance test) and a 3-cycle block average concentration every third cycle. For sources monitoring the 1,000 ppmv VOC concentration for gasoline loading, a data acquisition system shall record a concentration every 15 minutes and shall compute and record an average concentration each hour and a 3-hour block average concentration every third hour. The owner or operator will install, calibrate, operate, and maintain a CEMS consistent with the requirements of PS 8 to measure the VOC concentration. The daily calibration requirements are required only on days when marine tank vessel loading operations occur.

(2) *Carbon adsorbers with vacuum regeneration.* Monitor and record the regeneration time for carbon bed regeneration and monitor and record continuously the vacuum pressure of the carbon bed regeneration cycle. The owner or operator will record the time when the carbon bed regeneration cycle begins and when the cycle ends for a single carbon bed and will calculate a 3-cycle block average every third cycle. The owner or operator shall install, calibrate, maintain, and operate a recording pressure measurement device (magnehelic gauge or equivalent device). A data acquisition system shall record and compute a 3-cycle (carbon bed regeneration cycle) block average vacuum pressure every third cycle. The owner or operator shall verify the accuracy of the pressure device once each calendar year with a reference pressure monitor (traceable to National Institute of Standards and Technology (NIST) standards or an independent pressure measurement device dedicated for this purpose). During accuracy checking, the probe of the reference device shall be at the same location as that of the pressure monitor being tested.

(3) *Carbon adsorbers with steam regeneration.* Monitor and record the total stream mass flow and monitor and record the carbon bed temperature after regeneration (but within 15 minutes of completion of the cooling cycle). The owner or operator will install, calibrate, maintain, and operate an integrating stream flow monitoring device that is accurate within ±10 percent and that is capable of recording the total stream mass flow for each regeneration cycle. The owner or operator will install, calibrate, maintain, and operate a temperature monitor accurate to within ±5.6°C (10°F) or within 1 percent of the baseline carbon bed temperature, whichever is less stringent, to measure the carbon bed temperature. The monitor shall be installed at the exhaust point of the carbon bed. The data acquisition system shall record the carbon bed temperature after each cooling cycle (measured within 15 minutes of completion of the cooling cycle). The owner or operator shall verify the accuracy of the temperature monitor once each calendar year with a reference temperature monitor (traceable to National Institute of Standards and Technology (NIST) standards or an independent temperature measurement device dedicated for this purpose). During accuracy checking, the probe of the reference device shall be at the same location as that of the temperature monitor being tested.

(h) *Condenser/refrigeration unit.* For sources complying with § 63.563(b)(7), use of a condenser/refrigeration unit, the owner or operator shall comply with either paragraph (h)(1) or (2) of this section.

(1) *Baseline temperature.* Monitor and record the temperature at the outlet of the unit. The owner or operator shall install, calibrate, operate, and maintain a temperature monitor accurate to within ±5.6°C (±10°F) or within 1 percent of the baseline temperature, whichever is less stringent, to measure the temperature. The monitor shall be installed at the exhaust point of the condenser/refrigeration unit. For sources monitoring the temperature established during the performance test, the data acquisition system shall record the temperature every 15 minutes and shall compute and record an average temperature each cycle (same time period or cycle of the performance test) and a 3-hour block average every third cycle. For sources monitoring the manufacturer recommended temperature, the data acquisition system shall record the temperature every 15 minutes and shall compute and record an average temperature each hour and a 3-hour block average every third hour. The owner or operator shall verify the accuracy of the temperature monitor once each calendar year with a reference temperature monitor (traceable to National Institute of Standards and Technology (NIST) standards or an independent temperature measurement device dedicated for this purpose). During accuracy checking, the probe of the reference device shall be at the same location as that of the temperature monitor being tested.

(2) *Outlet VOC concentration.* Monitor the VOC concentrations at the outlet of the unit and record the output from the system. For sources monitoring the outlet VOC concentration established during the performance test, a data acquisition system shall record a concentration every 15 minutes and shall compute and record an average concentration each cycle (same time period or cycle as the performance test) and a 3-cycle block average concentration every third cycle. For sources monitoring the 1,000 ppmv VOC concentration for gasoline loading, a data acquisition system shall record a concentration every 15 minutes and shall compute and record an average concentration each hour and a 3-hour block average concentration every third hour. The owner or operator will install, calibrate, operate, and maintain a VOC CEMS consistent with the requirements of PS 8 to measure the VOC concentration. The daily calibration requirements are required only on days when marine tank vessel loading operations occur.

(i) *Absorber.* For sources complying with § 63.563(b)(8), use of an absorber, the owner or operator shall comply with either paragraph (i)(1) or (2) of this section.

(1) *Outlet VOC concentration.* Monitor the VOC concentrations at the outlet of the absorber and record the output from the system. For sources monitoring the outlet VOC concentration established during the performance test, a data acquisition system shall record a concentration every 15 minutes and shall compute and record an average concentration each cycle (same time period or cycle as the

performance test) and a 3-cycle block average concentration every third cycle. For sources monitoring the 1,000 ppmv VOC concentration for gasoline loading, a data acquisition system shall record a concentration every 15 minutes and shall compute and record an average concentration each hour and a 3-hour block average concentration every third hour. The owner or operator will install, calibrate, operate, and maintain a VOC CEMS consistent with the requirements of PS 8. The daily calibration requirements are required only on days when marine tank vessel loading operations occur.

(2) *L/V ratio.* Monitor and record the inlet liquid flowrate and the inlet gas flowrate to the absorber and record the calculated L/V ratio. The owner or operator shall install, calibrate, maintain, and operate liquid and gas flow indicators. For sources monitoring the L/V ratio established during the performance test, a data acquisition system shall record the flowrates and calculated ratio every 15 minutes and shall compute and record an average ratio each cycle (same time period or cycle as the performance test) and a 3-cycle block average ratio every third cycle. For sources monitoring the manufacturer recommended L/V ratio, a data acquisition system shall record the flowrates and calculated ratio every 15 minutes and shall compute and record an average ratio each hour and a 3-hour average ratio every third hour. The liquid and gas flow indicators shall be installed immediately upstream of the respective inlet lines to the absorber.

(j) *Alternate monitoring procedures.* Alternate procedures to those described in this section may be used upon application to, and approval by, the Administrator. The owner or operator shall comply with the procedures for use of an alternative monitoring method in § 63.8(f).

§ 63.565 Test methods and procedures.

(a) *Performance testing.* The owner or operator of an affected source in § 63.562 shall comply with the performance testing requirements in § 63.7 of subpart A of this part in accordance with the provisions for applicability of subpart A to this subpart in Table 1 of § 63.560 and the performance testing requirements in this section.

(b) *Pressure/vacuum settings of marine tank vessel's vapor collection equipment.* For the purpose of determining compliance with § 63.563(a)(3), the following procedures shall be used:

(1) Calibrate and install a pressure measurement device (liquid manometer, magnehelic gauge, or equivalent instrument) capable of measuring up to the maximum relief set pressure of the pressure-vacuum vents;

(2) Connect the pressure measurement device to a pressure tap in the terminal's vapor collection system, located as close as possible to the connection with the marine tank vessel; and

(3) During the performance test required in § 63.563(b)(1), record the pressure every 5 minutes while a marine tank vessel is being loaded and record the highest instantaneous pressure and vacuum that occurs during each loading cycle.

(c) *Vapor-tightness test procedures for the marine tank vessel.* When testing a vessel for vapor tightness to comply with the marine vessel vapor-tightness requirements of § 63.563(a)(4)(i), the owner or operator of a source shall use the methods in either paragraph (c)(1) or (2) in this section.

(1) *Pressure test for the marine tank vessel.*

(i) Each product tank shall be pressurized with dry air or inert gas to no more than the pressure of the lowest pressure relief valve setting.

(ii) Once the pressure is obtained, the dry air or inert gas source shall be shut off.

(iii) At the end of one-half hour, the pressure in the product tank and piping shall be measured. The change in pressure shall be calculated using the following formula:

$$P = P_i - P_f$$

Where:

P=change in pressure, inches of water.

P_i=pressure in tank when air/gas source is shut off, inches of water.

P_f=pressure in tank at the end of one-half hour after air/gas source is shut off, inches of water.

(iv) The change in pressure, P, shall be compared to the pressure drop calculated using the following formula:

$$PM = 0.861\ P_{ia}\ L/V$$

Where:

PM=maximum allowable pressure change, inches of water.

P_{ia}=pressure in tank when air/gas source is shut off, psia.

L=maximum permitted loading rate of vessel, barrels per hour.

V=total volume of product tank, barrels.

(v) If P≤PM, the vessel is vapor tight.

(vi) If P>PM, the vessel is not vapor tight and the source of the leak must be identified and repaired prior to retesting.

(2) *Leak test for the marine tank vessel.* Each owner or operator of a source complying with §§ 63.563(a)(4)(ii) or (iii) shall use Method 21 as the vapor-tightness leak test for marine tank vessels. The test shall be conducted during the final 20 percent of loading of each product tank of the marine vessel, and it shall be applied to any potential sources of vapor leaks on the vessel.

(d) *Combustion (except flare) and recovery control device performance test procedures.*

(1) All testing equipment shall be prepared and installed as specified in the appropriate test methods.

(2) All testing shall be performed during the last 20 percent of loading of a tank or compartment.

(3) All emission testing intervals shall consist of each 5 minute period during the performance test. For each interval, the following shall be performed:

(i) *Readings.* The reading from each measurement instrument shall be recorded.

(ii) *Sampling Sites.* Method 1 or 1A of appendix A of part 60 of this chapter, as appropriate, shall be used for selection of sampling sites. Sampling sites shall be located at the inlet and outlet of the combustion device or recovery device except for owners or operators complying with the 1,000 ppmv VOC emissions limit for gasoline vapors under § 63.563(b)(6) or (7), where the sampling site shall be located at the outlet of the recovery device.

(iii) *Volume exhausted.* The volume exhausted shall be determined using Method 2, 2A, 2C, or 2D of appendix A of part 60 of this chapter, as appropriate.

(4) *Combustion devices, except flares.* The average VOC concentration in the vent upstream and downstream of the control device shall be determined using Method 25 of appendix A of part 60 of this chapter for combustion devices, except flares. The average VOC concentration shall correspond to the volume measurement by taking into account the sampling system response time.

(5) *Recovery devices.* The average VOC concentration in the vent upstream and downstream of the control device shall be determined using Method 25A of appendix A of part 60 of this chapter for recovery devices. The average VOC concentration shall correspond to the volume measurement by taking into account the sampling system response time.

(6) The VOC mass at the inlet and outlet of the combustion or recovery device during each testing interval shall be calculated as follows:

$$M_j = FKV_sC_{VOC}$$

Where:

M_j=mass of VOC at the inlet and outlet of the combustion or recovery

device during testing interval j, kilograms (kg).

$F=10^{-6}$=conversion factor, (cubic meters VOC/cubic meters air)(1/ppmv) (m^3 VOC/m^3 air)(1/ppmv).

K=density, kilograms per cubic meter (kg/m^3 VOC), standard conditions, 20 °C and 760 mm Hg.

V_s=volume of air-vapor mixture at the inlet and outlet of the combustion or recovery device, cubic meters (m^3) at standard conditions, 20 °C and 760 mm Hg.

C_{VOC}=VOC concentration (as measured) at the inlet and outlet of the combustion or recovery device, ppmv, dry basis.

s=standard conditions, 20 °C and 760 mm Hg.

(7) The VOC mass emission rates at the inlet and outlet of the recovery or combustion device shall be calculated as follows:

$$E_i = \frac{\sum_{j=1}^{n} M_{ij}}{T}$$

$$E_o = \frac{\sum_{j=1}^{n} M_{oj}}{T}$$

Where:

E_i, E_o=mass flow rate of VOC at the inlet (i) and outlet (o) of the recovery or combustion device, kilogram per hour (kg/hr).

M_{ij}, M_{oj}=mass of VOC at the inlet (i) or outlet (o) during testing interval j, kg.

T=Total time of all testing intervals, hour.

n=number of testing intervals.

(8) Where Method 25 or 25A is used to measure the percent reduction in VOC, the percent reduction across the combustion or recovery device shall be calculated as follows:

$$R = \frac{E_i - E_o}{E_i}(100\%)$$

Where:

R=control efficiency of control device, percent.

E_i=mass flow rate of VOC at the inlet to the combustion or recovery device as calculated under paragraph (c)(7) of this section, kg/hr.

E_o=mass flow rate of VOC at the outlet of the combustion or recovery device, as calculated under paragraph (c)(7) of this section, kg/hr.

(9) Repeat the procedures in paragraph (d)(1) through (d)(8) of this section 3 times. The arithmetic average percent efficiency of the three runs shall determine the overall efficiency of the control device.

(10) Use of methods other than Method 25 or Method 25A shall be validated pursuant to Method 301 of appendix A of part 63 of this chapter.

(e) *Performance test for flares.* When a flare is used to comply with § 63.562(b)(2), (3), and (4), (c)(3) and (4), and (d)(2), the source must demonstrate that the flare meets the requirements of § 63.11 of subpart A of this part. In addition, a performance test according to Method 22 of appendix A of part 63 shall be performed to determine visible emissions. The observation period shall be at least 2 hours and shall be conducted according to Method 22. Performance testing shall be conducted during three complete loading cycles with a separate test run for each loading cycle. The observation period for detecting visible emissions shall encompass each loading cycle. Integrated sampling to measure process vent stream flow rate shall be performed continuously during each loading cycle. The owner or operator shall record all visible emission readings, heat content determinations, flow rate measurements, maximum permitted velocity calculations, and exit velocity determinations made during the performance test.

(f) *Baseline temperature.* The procedures in this paragraph shall be used to determine the baseline temperature required in § 63.563(b)(4), (6), and (7) for combustion devices, carbon adsorber beds, and condenser/refrigeration units, respectively, and to monitor the temperature as required in § 63.564(e), (g), and (h). The owner or operator shall comply with either paragraph (f)(1) or (2) of this section.

(1) *Baseline temperature from performance testing.* The owner or operator shall establish the baseline temperature as the temperature at the outlet point of the unit averaged over three test runs from paragraph (d) of this section. Temperature shall be measured every 15 minutes.

(2) *Baseline temperature from manufacturer.* The owner or operator shall establish the baseline temperature as the manufacturer recommended minimum operating temperature for combustion devices, maximum operating temperature for condenser units, and maximum operating temperature for carbon beds of carbon adsorbers.

(g) *Baseline outlet VOC concentration.* The procedures in this paragraph shall be used to determine the outlet VOC concentration required in § 63.563(b)(4), (6), (7), and (8) for combustion devices except flare, carbon adsorbers, condenser/refrigeration units, and absorbers, respectively, and to monitor the VOC concentration as required in § 63.564(e), (g), (h), and (i). The owner or operator shall use the procedures outlined in Method 25A. For the baseline VOC concentration, the arithmetic average of the outlet VOC concentration from three test runs from paragraph (d) of this section shall be calculated for the control device. The VOC concentration shall be measured at least every 15 minutes. Compliance testing of VOC CEMS shall be performed using PS 8.

(h) *Baseline regeneration time for carbon bed regeneration.* The procedures in this paragraph shall be used to demonstrate the baseline regeneration time for the vacuum stage of carbon bed regeneration required in § 63.563(b)(6) for a carbon adsorber and to monitor the regeneration time for the vacuum regeneration as required in § 63.564(g). The owner or operator shall comply with paragraph (h)(1) or (2).

(1) *Baseline regeneration time from performance testing.* The owner or operator shall establish the baseline regeneration time as the length of time for the vacuum stage of carbon bed regeneration averaged over three test runs from paragraph (d) of this section.

(2) *Baseline regeneration time from manufacturer recommendation.* The owner or operator shall establish the baseline regeneration time as the manufacturer recommended minimum regeneration time for the vacuum stage of carbon bed regeneration.

(i) *Baseline vacuum pressure for carbon bed regeneration.* The procedures in this paragraph shall be used to demonstrate the baseline vacuum pressure for the vacuum stage of carbon bed regeneration required in § 63.563(b)(6) for a carbon adsorber and to monitor the vacuum pressure as required in § 63.564(g). The owner or operator shall establish the baseline vacuum pressure as the manufacturer recommended minimum vacuum for carbon bed regeneration.

(j) *Baseline total stream flow.* The procedures in this paragraph shall be used to demonstrate the baseline total stream flow for steam regeneration required in § 63.563(b)(6) for a carbon adsorber and to monitor the total stream flow as required in § 63.564(g). The owner or operator shall establish the baseline stream flow as the manufacturer recommended minimum total stream flow for carbon bed regeneration.

(k) *Baseline L/V ratio.* The procedures in this paragraph shall be used to

determine the baseline L/V ratio required in § 63.563(b)(8) for an absorber and to monitor the L/V ratio as required in § 63.564(i). The owner or operator shall comply with either paragraph (k)(1) or (2) of this section.

(1) *Baseline L/V ratio from performance test.* The owner or operator shall establish the baseline L/V ratio as the calculated value of the inlet liquid flow divided by the inlet gas flow to the absorber averaged over three test runs using the procedures in paragraph (d) of this section.

(2) *Baseline L/V ratio from manufacturer.* The owner or operator shall establish the baseline L/V ratio as the manufacturer recommended minimum L/V ratio for absorber operation.

(l) *Emission estimation procedures.* For sources with emissions less than 10 or 25 tons and sources with emissions of 10 or 25 tons, the owner or operator shall calculate an annual estimate of HAP emissions, excluding commodities exempted by § 63.560(d), from marine tank vessel loading operations. Emission estimates and emission factors shall be based on test data, or if test data is not available, shall be based on measurement or estimating techniques generally accepted in industry practice for operating conditions at the source.

(m) *Alternate test procedures.*

(1) Alternate test procedures to those described in this section may be used upon application to, and approval by, the Administrator.

(2) If the owner or operator intends to demonstrate compliance by using an alternative to any test method specified, the owner or operator shall refrain from conducting the performance test until the Administrator approves the use of the alternative method when the Administrator approves the site-specific test plan (if review of the site-specific test plan is requested) or until after the alternative method is approved (see § 63.7(f) of subpart A of this part). If the Administrator does not approve the site-specific test plan (if review is requested) or the use of the alternative method within 30 days before the test is scheduled to begin, the performance test dates specified in § 63.563(b)(1) shall be extended such that the owner or operator shall conduct the performance test within 60 calendar days after the Administrator approves the site-specific test plan or after use of the alternative method is approved. Notwithstanding the requirements in the preceding two sentences, the owner or operator may proceed to conduct the performance test as required in this section (without the Administrator's prior approval of the site-specific test plan) if he/she subsequently chooses to use the specified testing and monitoring methods instead of an alternative.

§ 63.566 Construction and reconstruction.

(a) The owner or operator of an affected source shall fulfill all requirements for construction or reconstruction of a source in § 63.5 of subpart A of this part in accordance with the provisions for applicability of subpart A to this subpart in Table 1 of § 63.560 and construction or reconstruction requirements in this section.

(b) (1) *Application for approval of construction or reconstruction.* The provisions of this paragraph and § 63.5(d)(1)(ii) and (iii), (2), (3), and (4) of subpart A implement section 112(i)(1) of the Act.

(2) *General application requirements.* An owner or operator who is subject to the requirements of § 63.5(b)(3) of subpart A shall submit to the Administrator an application for approval of the construction of a new source, the reconstruction of a source, or the reconstruction of a source not subject to the emissions standards in § 63.562 such that the source becomes an affected source. The application shall be submitted as soon as practicable before the construction or reconstruction is planned to commence. The application for approval of construction or reconstruction may be used to fulfill the initial notification requirements of § 63.567(b)(3). The owner or operator may submit the application for approval well in advance of the date construction or reconstruction is planned to commence in order to ensure a timely review by the Administrator and that the planned commencement date will not be delayed.

(c) *Approval of construction or reconstruction based on prior State preconstruction review.* The owner or operator shall submit to the Administrator the request for approval of construction or reconstruction under this paragraph and § 63.5(f)(1) of subpart A of this part no later than the application deadline specified in paragraph (b)(2) of this section. The owner or operator shall include in the request information sufficient for the Administrator's determination. The Administrator will evaluate the owner or operator's request in accordance with the procedures specified in § 63.5(e) of subpart A of this part. The Administrator may request additional relevant information after the submittal of a request for approval of construction or reconstruction.

§ 63.567 Recordkeeping and reporting requirements.

(a) The owner or operator of an affected source shall fulfill all reporting and recordkeeping requirements in §§ 63.9 and 63.10 of subpart A of this part in accordance with the provisions for applicability of subpart A to this subpart in Table 1 of § 63.560 and fulfill all reporting and recordkeeping requirements in this section. These reports will be made to the Administrator at the appropriate address identified in § 63.13 of subpart A of this part.

(1) Reports required by subpart A and this section may be sent by U.S. mail, facsimile (fax), or by another courier.

(i) Submittals sent by U.S. mail shall be postmarked on or before the specified date.

(ii) Submittals sent by other methods shall be received by the Administrator on or before the specified date.

(2) If acceptable to both the Administrator and the owner or operator of a source, reports may be submitted on electronic media.

(b) *Notification requirements.* The owner or operator of an affected source shall fulfill all notification requirements in § 63.9 of subpart A of this part in accordance with the provisions for applicability of that section to this subpart in Table 1 of § 63.560 and the notification requirements in this paragraph.

(1) *Applicability.* If a source that otherwise would not be subject to the emissions standards subsequently increases its HAP emissions calculated on a 24-month annual average basis after September 19, 1997 or increases its annual HAP emissions after September 20, 1999 or subsequently increases its gasoline or crude loading throughput calculated on a 24-month annual average basis after September 19, 1996 or increases its gasoline or crude loading annual throughput after September 21, 1998 such that the source becomes subject to the emissions standards, such source shall be subject to the notification requirements of § 63.9 of subpart A of this part and the notification requirements of this paragraph.

(2) *Initial notification for sources with startup before the effective date.* The owner or operator of a source with initial startup before the effective date shall notify the Administrator in writing that the source is subject to the relevant standard. The notification shall be submitted not later than 365 days after the effective date of the emissions standards and shall provide the following information:

(i) The name and address of the owner or operator;

(ii) The address (i.e., physical location) of the source;

(iii) An identification of this emissions standard that is the basis of the notification and the source's compliance date;

(iv) A brief description of the nature, size, design, and method of operation of the source;

(v) A statement that the source is a major source.

(3) *Initial notification for sources with startup after the effective date.* The owner or operator of a new or reconstructed source or a source that has been reconstructed such that it is subject to the emissions standards that has an initial startup after the effective date but before the compliance date, and for which an application for approval of construction or reconstruction is not required under § 63.5(d) of subpart A of this part and § 63.566 of this subpart, shall notify the Administrator in writing that the source is subject to the standard no later than 365 days or 120 days after initial startup, whichever occurs before notification of the initial performance test in § 63.9(e) of subpart A of this part. The notification shall provide all the information required in paragraph (b)(2) of this section, delivered or postmarked with the notification required in paragraph (b)(4) of this section.

(4) *Initial notification requirements for constructed/reconstructed sources.* After the effective date of these standards, whether or not an approved permit program is effective in the State in which a source subject to these standards is (or would be) located, an owner or operator subject to the notification requirements of § 63.5 of subpart A of this part and § 63.566 of this subpart who intends to construct a new source subject to these standards, reconstruct a source subject to these standards, or reconstruct a source such that it becomes subject to these standards, shall comply with paragraphs (b)(4)(i), (ii), (iii), and (iv) of this section.

(i) *Notify the Administrator in writing of the intended construction or reconstruction.* The notification shall be submitted as soon as practicable before the construction or reconstruction is planned to commence. The notification shall include all the information required for an application for approval of construction or reconstruction as specified in § 63.5 of subpart A of this part. The application for approval of construction or reconstruction may be used to fulfill the requirements of this paragraph.

(ii) Submit a notification of the date when construction or reconstruction was commenced, delivered or postmarked not later than 30 days after such date, if construction was commenced after the effective date.

(iii) Submit a notification of the anticipated date of startup of the source, delivered or postmarked not more than 60 days nor less than 30 days before such date;

(iv) Submit a notification of the actual date of startup of the source, delivered or postmarked within 15 calendar days after that date.

(5) *Additional initial notification requirements.* The owner or operator of sources subject to § 63.562(b)(2), (3), and (4), MACT standards, shall also include in the initial notification report required by paragraph (b)(2) and (3) the 24-month annual average or the annual actual HAP emissions from marine tank vessel loading operations, as appropriate, at all loading berths, as calculated according to the procedures in § 63.565(l). Emissions will be reported by commodity and type of marine tank vessel (barge or tanker) loaded.

(ii) As an alternative to reporting the information in paragraph (b)(5)(i) of this section, the source may submit documentation showing that all HAP-containing marine tank vessel loading operations, not exempt by § 63.560(d), occurred using vapor tight vessels that comply with the procedures of § 63.563(a) and that the emissions were routed to control devices meeting the requirements specified in § 63.563(b).

(c) *Request for extension of compliance.* If the owner or operator has installed BACT or technology to meet LAER consistent with § 63.6(i)(5) of subpart A of this part, he/she may submit to the Administrator (or State with an approved permit program) a request for an extension of compliance as specified in § 63.6(i)(4)(i)(B), (i)(5), and (i)(6) of subpart A of this part.

(d) *Reporting for performance testing of flares.* The owner or operator of a source required to conduct an opacity performance test shall report the opacity results and other information required by § 63.565(e) and § 63.11 of subpart A of this part with the notification of compliance status.

(e) *Summary reports and excess emissions and monitoring system performance reports.*

(1) *Schedule for summary report and excess emissions and monitoring system performance reports.* Excess emissions and parameter monitoring exceedances are defined in § 63.563(b). The owner or operator of a source subject to these emissions standards that is required to install a CMS shall submit an excess emissions and continuous monitoring system performance report and/or a summary report to the Administrator once each year, except, when the source experiences excess emissions, the source shall comply with a semi-annual reporting format until a request to reduce reporting frequency under paragraph (e)(2) of this section is approved.

(2) *Request to reduce frequency of excess emissions and continuous monitoring system performance reports.* An owner or operator who is required to submit excess emissions and continuous monitoring system performance and summary reports on a semi-annual basis may reduce the frequency of reporting to annual if the following conditions are met:

(i) For 1 full year the sources's excess emissions and continuous monitoring system performance reports continually demonstrate that the source is in compliance; and

(ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in this subpart and subpart A of this part.

(3) The frequency of reporting of excess emissions and continuous monitoring system performance and summary reports required may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the 5-year recordkeeping prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation maintenance requirements. Such information may be used by the Administrator to make a judgement about the source's potential for noncompliance in the future. If the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(4) *Content and submittal dates for excess emissions and monitoring system performance reports.* All excess emissions and monitoring system performance reports and all summary reports, if required per paragraph (e)(5) and (6) of this section, shall be delivered or postmarked within 30 days following

the end of each calendar year, or within 30 days following the end of each six month period, if appropriate. Written reports of excess emissions or exceedances of process or control system parameters shall include all information required in § 63.10(c)(5) through (13) of subpart A of this part as applicable in Table 1 of § 63.560 and information from any calibration tests in which the monitoring equipment is not in compliance with PS 8 or other methods used for accuracy testing of temperature, pressure, or flow monitoring devices. The written report shall also include the name, title, and signature of the responsible official who is certifying the accuracy of the report. When no excess emissions or exceedances have occurred or monitoring equipment has not been inoperative, repaired, or adjusted, such information shall be stated in the report. This information will be kept for a minimum of 5 years and made readily available to the Administrator or delegated State authority upon request.

(5) If the total duration of excess emissions or control system parameter exceedances for the reporting period is less than 5 percent of the total operating time for the reporting period, and CMS downtime for the reporting period is less than 10 percent of the total operating time for the reporting period, only the summary report of § 63.10(e)(3)(vi) of subpart A of this part shall be submitted, and the full excess emissions and continuous monitoring system performance report of paragraph (e)(4) of this section need not be submitted unless required by the Administrator.

(6) If the total duration of excess emissions or process or control system parameter exceedances for the reporting period is 5 percent or greater of the total operating time for the reporting period, or the total CMS downtime for the reporting period is 10 percent or greater of the total operating time for the reporting period, both the summary report of § 63.10(e)(3)(vi) of subpart A of this part and the excess emissions and continuous monitoring system performance report of paragraph (e)(4) of this section shall be submitted.

(f) *Vapor collection system of the terminal.* Each owner or operator of an affected source shall submit with the initial performance test and maintain in an accessible location on site an engineering report describing in detail the vent system, or vapor collection system, used to vent each vent stream to a control device. This report shall include all valves and vent pipes that could vent the stream to the atmosphere, thereby bypassing the control device, and identify which valves are car-sealed opened and which valves are car-sealed closed.

(g) If a vent system, or vapor collection system, containing valves that could divert the emission stream away from the control device is used, each owner or operator of an affected source shall keep for at least 5 years up-to-date, readily accessible continuous records of:

(1) All periods when flow bypassing the control device is indicated if flow indicators are installed under § 63.563(a)(1) and § 63.564(b), and

(2) All times when maintenance is performed on car-sealed valves, when the car-seal is broken, and when the valve position is changed (i.e., from open to closed for valves in the vent piping to the control device and from closed to open for valves that vent the stream directly or indirectly to the atmosphere bypassing the control device) if valves are monitored under § 63.564(b).

(h) The owner or operator of an affected source shall keep the vapor-tightness documentation required under § 63.563(a)(4) on file at the source in a permanent form available for inspection.

(i) *Vapor tightness test documentation for marine tank vessels.* The owner or operator of an affected source shall maintain a documentation file for each marine tank vessel loaded at that source to reflect current test results as determined by the appropriate method in § 63.565(c)(1) and (2). Updates to this documentation file shall be made at least once per year. The owner or operator shall include, as a minimum, the following information in this documentation:

(1) Test title;

(2) Marine vessel owner and address;

(3) Marine vessel identification number;

(4) Loading time, according to § 63.563(a)(4)(ii) or (iii), if appropriate;

(5) Testing location;

(6) Date of test;

(7) Tester name and signature;

(8) Test results from § 63.565(c)(1) or (2), as appropriate;

(9) Documentation provided under § 63.563(a)(4)(ii) and (iii)(B) showing that the repair of leaking components attributed to a failure of a vapor-tightness test is technically infeasible without dry-docking the vessel; and

(10) Documentation that a marine tank vessel failing a pressure test or leak test has been repaired.

(j) *Emission estimation reporting and recordkeeping procedures.* The owner or operator of each source complying with the emission limits specified in § 63.562(b)(2), (3), and (4) shall comply with the following provisions:

(1) Maintain records of all measurements, calculations, and other documentation used to identify commodities exempted under § 63.560(d);

(2) Keep readily accessible records of the emission estimation calculations performed in § 63.565(l) for 5 years; and

(3) Submit an annual report of the source's HAP control efficiency calculated using the procedures specified in § 63.565(l), based on the source's actual throughput.

(4) Owners or operators of marine tank vessel loading operations specified in § 63.560(a)(3) shall retain records of the emissions estimates determined in § 65.565(l) and records of their actual throughputs by commodity, for 5 years.

(k) *Leak detection and repair of vapor collection systems and control devices.* When each leak of the vapor collection system, or vapor collection system, and control device is detected and repaired as specified in § 63.563(c) the following information required shall be maintained for 5 years:

(1) Date of inspection;

(2) Findings (location, nature, and severity of each leak);

(3) Leak determination method;

(4) Corrective action (date each leak repaired, reasons for repair interval); and

(5) Inspector name and signature.

[FR Doc. 95–22725 Filed 9–18–95; 8:45 am]

BILLING CODE 6560–50–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Health Care Financing Administration

42 CFR Parts 405 and 411

[BPD–841–FC]

RIN 0938–AH21

Medicare Program; Criteria and Procedures for Extending Coverage to Certain Devices and Related Services

AGENCY: Health Care Financing Administration (HCFA), HHS.

ACTION: Final rule with comment period.

SUMMARY: This final rule establishes in regulations that certain devices with an investigational device exemption (IDE) approved by the Food and Drug Administration (FDA) and certain services related to those devices may be covered under Medicare. Specifically, it sets forth the process by which the FDA will assist HCFA in identifying non-experimental investigational devices that are potentially covered under Medicare.

APPENDIX II

Federal Register

Tuesday,
April 2, 2002

Part II

Environmental Protection Agency

40 CFR Part 63

National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline); Proposed Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[FRL–7163–4]

RIN 2060–AH41

National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: This action proposes national emission standards for hazardous air pollutants (NESHAP) for organic liquids distribution (OLD) (non-gasoline) operations, which are carried out at storage terminals, refineries, crude oil pipeline stations, and various manufacturing facilities. These proposed standards would implement section 112(d) of the Clean Air Act (CAA) by requiring all OLD operations at plant sites that are major sources to meet hazardous air pollutant (HAP) emission standards reflecting the application of the maximum achievable control technology (MACT).

The EPA estimates that approximately 70,200 megagrams per year (Mg/yr) (77,300 tons per year (tpy)) of HAP are emitted from facilities in this source category. Although a large number of organic HAP are emitted nationwide from these operations, benzene, ethylbenzene, toluene, vinyl chloride, and xylenes are among the most prevalent. These HAP have been shown to have a variety of carcinogenic and noncancer adverse health effects.

The EPA estimates that these proposed standards would result in the reduction of HAP emissions from major sources in the OLD source category by 28 percent. The emissions reductions achieved by these proposed standards, when combined with the emissions reductions achieved by other similar standards, would provide protection to the public and achieve a primary goal of the CAA.

DATES: *Comments.* Submit comments on or before June 3, 2002.

Public Hearing. If anyone contacts the EPA requesting to speak at a public hearing by April 22, 2002, a public hearing will be held on May 2, 2002.

ADDRESSES: *Comments.* By U.S. Postal Service, send comments (in duplicate if possible) to: Air and Radiation Docket and Information Center (6102), Attention Docket Number A–98–13, U.S. EPA, 1200 Pennsylvania Avenue, NW, Washington, DC 20460. In person or by courier, deliver comments (in duplicate if possible) to: Air and Radiation Docket and Information Center (6102), Attention Docket Number A–98–13, U.S. EPA, 401 M Street, SW, Washington DC 20460. The EPA requests that a separate copy also be sent to the contact person listed below (*see* **FOR FURTHER INFORMATION CONTACT**).

Public Hearing. If a public hearing is held, it will be held at 10 a.m. in the EPA's Office of Administration Auditorium, Research Triangle Park, North Carolina, or at an alternate site nearby.

Docket. Docket No. A–98–13 contains supporting information used in developing the standards. The docket is located at the U.S. EPA, 401 M Street, SW, Washington, DC 20460, in Room M–1500, Waterside Mall (ground floor), and may be inspected from 8:30 a.m. to 5:30 p.m., Monday through Friday, except for legal holidays.

FOR FURTHER INFORMATION CONTACT: Ms. Martha Smith, Waste and Chemical Processes Group, Emission Standards Division (MD–13), U.S. EPA, Research Triangle Park, NC 27711; phone (919) 541–2421, e-mail *''smith.martha@epa.gov.''*

SUPPLEMENTARY INFORMATION:

Comments. Comments and data may be submitted by electronic mail (e-mail) to: *a-and-r-docket@epa.gov.* Electronic comments must be submitted as an ASCII file to avoid the use of special characters and encryption problems. Comments will also be accepted on disks in WordPerfect® Corel 8 file format. All comments and data submitted in electronic form must note the docket number: A–98–13. No confidential business information (CBI) should be submitted by e-mail. Electronic comments may be filed online at many Federal Depository libraries.

Commenters wishing to submit proprietary information for consideration must clearly distinguish such information from other comments and clearly label it as CBI. Send submissions containing such proprietary information directly to the following address, and not to the public docket, to ensure that proprietary information is not inadvertently placed in the docket: Attention: OAQPS Document Control Officer, Attn: Ms. Martha Smith, U.S. EPA, 411 W. Chapel Hill Street, Room 740B, Durham, NC 27701. The EPA will disclose information identified as CBI only to the extent allowed by the procedures set forth in 40 CFR part 2. If no claim of confidentiality accompanies a submission when it is received by the EPA, the information may be made available to the public without further notice to the commenter.

Public Hearing. Persons interested in presenting oral testimony or inquiring as to whether a hearing is to be held should contact Ms. JoLynn Collins of the EPA at (919) 541–5671 at least 2 days in advance of the public hearing. Persons interested in attending the public hearing must also call Ms. Collins to verify the time, date, and location of the hearing. The public hearing will provide interested parties the opportunity to present data, views, or arguments concerning these proposed emission standards.

Docket. The docket is an organized and complete file of all the information considered by the EPA in the development of this rulemaking. The docket is a dynamic file because material is added throughout the rulemaking process. The docketing system is intended to allow members of the public and industries involved to readily identify and locate documents so that they can effectively participate in the rulemaking process. Along with the proposed and promulgated standards and their preambles, the contents of the docket will serve as the record in the case of judicial review. (See section 307(d)(7)(A) of the CAA.) The regulatory text and other materials related to this rulemaking are available for review in the docket, or copies may be mailed on request from the Air Docket by calling (202) 260–7548. A reasonable fee may be charged for copying docket materials.

World Wide Web (WWW). In addition to being available in the docket, an electronic copy of this proposed rule is also available on the WWW through the Technology Transfer Network (TTN). The TTN provides information and technology exchange in various areas of air pollution control. Following signature, a copy of the rule will be posted on the TTN's policy and guidance page for newly proposed or promulgated rules: *http://www.epa.gov/ttn/oarpg.* If more information regarding the TTN is needed, call the TTN HELP line at (919) 541–5384.

Title Change. For purposes of this proposed rule, the title has been changed to ''National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (non-Gasoline)'' to better describe the affected population. The source category list and regulatory agenda will be amended to reflect this name change in a separate action.

Background Information. The background information for the proposed standards is not contained in a formal background information

document (BID). Instead, we have prepared technical memoranda covering the following topic areas:

- Industry description.
- Model OLD plants.
- Industry baseline emissions.
- Emission control options.
- MACT floor determination.
- Environmental, energy, and cost impacts.
- Economic impacts.

These memos have been combined into a technical support document (TSD), which is included in Docket No. A–98–13.

In addition, there are several other memos that discuss individual issues, such as selection of the affected organic HAP and the minimum HAP cutoff defining the affected organic liquids. Each of these technical memos has also been placed in Docket No. A–98–13.

Regulated Entities. Categories and entities potentially regulated by this action include:

Category	SIC*	NAICS*	Examples of regulated entities
Industry	2821 2865 2869 2911 4226 4612 5169 5171	325211 325192 325188 32411 49311 49319 48611 42269 42271	Operations at major sources that transfer organic liquids into or out of the plant site, including: liquid storage terminals, crude oil pipeline stations, petroleum refineries, chemical manufacturing facilities, and other manufacturing facilities with collocated OLD operations.
Federal Government			Federal agency facilities that operate any of the types of entities listed under the ''industry'' category in this table.

*Considered to be the primary industrial codes for the plant sites with OLD operations, but the list is not necessarily exhaustive.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. To determine whether your facility would be regulated by this action, you should examine the applicability criteria in § 63.2334 of the proposed rule. If you have any questions regarding the applicability of this proposed action to a particular entity, consult the person listed in the preceding FOR FURTHER INFORMATION CONTACT section or your EPA regional representative as listed in § 63.13 of 40 CFR part 63, subpart A (General Provisions).

Outline. The following outline is provided to assist you in reading this preamble.

I. Background

A. How Would This Rule Relate to Other EPA Regulatory Actions?

Owners and operators of plant sites which contain organic liquids distribution activities that are potentially subject to these proposed standards for OLD operations may also be subject to other NESHAP because of other activities that take place on the same plant site. Some tank farms are used to store and transfer organic liquids onto or off a synthetic organic chemical manufacturing industry (SOCMI) plant site that is subject to 40 CFR part 63, subparts F, G, and H—National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry (commonly referred to as the hazardous organic NESHAP, or ''HON''). Distribution of crude oil or other organic liquids at a petroleum refinery subject to 40 CFR part 63, subpart CC—National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries (the Refinery NESHAP), may also come under OLD NESHAP coverage. Finally, bulk gasoline terminals subject to 40 CFR part 63, subpart R—National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations) may distribute non-gasoline organic liquids through dedicated equipment which would fall under these proposed OLD standards. At plant sites subject to both the proposed OLD standards and another NESHAP, the OLD NESHAP, when finalized, would apply only to the specific equipment and activities that are related directly to the distribution of

affected non-gasoline organic liquids (which includes liquids moved either onto or off the site).

Some existing NESHAP may already regulate, and some NESHAP under development may intend to regulate, equipment used to distribute organic liquids (*e.g.,* certain storage tanks or transfer racks at chemical production facilities subject to the HON). To avoid overlap of requirements in these cases, the OLD NESHAP would not apply to any OLD emission source already complying with control provisions under another part 63 NESHAP. For other applicable NESHAP that are not yet final and which potentially would apply to OLD equipment, the NESHAP that have the earliest compliance date would apply. One NESHAP, 40 CFR part 63, subpart FFFF, the Miscellaneous Organic Chemical Production and Processes NESHAP (MON), is being developed concurrently with the OLD NESHAP, and potentially will regulate certain organic liquid distribution sources (*i.e.,* storage tanks, transfer racks, and equipment leaks) located at MON facility plant sites. For all such distribution sources at MON facilities, the OLD NESHAP would defer to the MON and would not apply to any of those sources.

The Pollution Prevention Act of 1990 (42 U.S.C. 13101 *et seq.*, Public Law 101–508, November 5, 1990) establishes the national policy of the United States for pollution prevention. This Act declares that: (1) Pollution should be prevented or reduced whenever feasible; (2) pollution that cannot be prevented or reduced should be recycled or reused in an environmentally-safe manner wherever feasible; (3) pollution that cannot be recycled or reused should be treated; and (4) disposal or release into the atmosphere should be chosen only as a last resort.

The OLD operations covered by these proposed standards distribute organic liquids that are often manufactured and consumed by other parties. Thus, two of the most common approaches for preventing pollution (product reformulation or substituting less polluting products) are not available to these facilities. Similarly, these facilities cannot use recycling or reuse as a way of limiting the amount of these liquids that they handle. However, the proposed equipment and work practice standards would prevent pollution from two of the principal emission sources in OLD operations. For storage tanks, we expect floating roofs to be used as a common alternative to add-on control technologies. For leaks from equipment such as pumps or valves, the required leak detection and repair program also would prevent pollution at the source without the need for add-on control equipment. The EPA is considering whether there are any pollution prevention measures that could be specified as alternatives to the control approaches in the proposed standards. We are specifically requesting comments from the public on ways that additional pollution prevention measures could be applied at OLD operations facilities.

B. What Is the Source of Authority for Development of NESHAP?

Section 112 of the CAA requires us to list categories and subcategories of major sources and area sources of HAP, and to establish NESHAP for the listed source categories and subcategories. The category of major sources covered by today's proposed NESHAP was on our initial list of HAP emission source categories as published in the **Federal Register** on July 16, 1992 (57 FR 31576). Major sources of HAP are those that have the potential to emit 10 tons/yr or more of any one HAP or 25 tons/yr or more of any combination of HAP.

C. What Criteria Are Used in the Development of NESHAP?

Section 112 of the CAA requires that we establish NESHAP for the control of HAP from both new and existing major sources. The CAA requires the NESHAP to reflect the maximum degree of reduction in emissions of HAP that is achievable. This level of control is commonly referred to as the maximum achievable control technology (MACT).

The MACT floor is the minimum control level allowed for NESHAP and is defined under section 112(d)(3) of the CAA. In essence, the MACT floor ensures that the standard is set at a level that assures that all major sources achieve the level of control at least as stringent as that already achieved by the better-controlled and lower-emitting sources in each source category or subcategory. For new sources, the MACT floor cannot be less stringent than the emission control that is achieved in practice by the best-controlled similar source. The MACT standards for existing sources can be less stringent than standards for new sources, but they cannot be less stringent than the average emission limitation achieved by the best-performing 12 percent of existing sources in the category or subcategory (or the best-performing 5 sources for categories or subcategories with fewer than 30 sources).

In developing MACT, we also consider control options that are more stringent than the floor. We may establish standards more stringent than the floor based on consideration of the cost of achieving the emissions reductions, any health and environmental impacts, and energy requirements.

D. What Are the Potential Health Effects Associated With HAP Emitted From OLD Operations?

The type of adverse health effects associated with HAP emitted by this source category can range from mild to severe. The extent and degree to which health effects may be experienced is dependent upon: (1) The ambient concentrations observed in the area; (2) duration and frequency of exposures; and (3) characteristics of exposed individuals (*e.g.*, genetics, age, preexisting health conditions, and lifestyle) which vary greatly within the population. Some of these factors are also influenced by source-specific characteristics (*e.g.*, emission rates, release heights, and local weather conditions) as well as pollutant-specific characteristics such as toxicity. The following is a summary of the potential health effects associated with exposure to some of the primary HAP emitted from OLD operations.

Benzene. Acute (short-term) inhalation exposure of humans to benzene may cause drowsiness, dizziness, and headaches, as well as eye, skin, and respiratory tract irritation, and, at high levels, unconsciousness. Chronic (long-term) inhalation exposure has caused various disorders in the blood, including reduced numbers of red blood cells and aplastic anemia, in occupational settings. Reproductive effects have been reported for women exposed by inhalation to high levels, and adverse effects on the developing fetus have been observed in animal tests. Increased incidence of leukemia (cancer of the tissues that form white blood cells) has been observed in humans occupationally exposed to benzene. The EPA has classified benzene as a Group A, known human carcinogen.

Ethylbenzene. Acute exposure to ethylbenzene in humans results in respiratory effects such as throat irritation and chest constriction, irritation of the eyes, and neurological effects such as dizziness. Chronic exposure to ethylbenzene by inhalation in humans has shown conflicting results regarding its effects on the blood. Animal studies have reported effects on the blood, liver, and kidneys from chronic inhalation exposures. No information is available on the developmental or reproductive effects of ethylbenzene in humans, but animal

studies have reported developmental effects, including birth defects in animals exposed via inhalation. The EPA has classified ethylbenzene in Group D, not classifiable as to human carcinogenicity.

Toluene. Humans exposed to toluene for short periods may experience irregular heartbeat and effects on the central nervous system (CNS) such as fatigue, sleepiness, headaches, and nausea. Repeated exposure to high concentrations may induce loss of coordination, tremors, decreased brain size, and involuntary eye movements, and may impair speech, hearing, and vision. Chronic exposure to toluene in humans has also been indicated to irritate the skin, eyes, and respiratory tract, and to cause dizziness, headaches, and difficulty with sleep. Children exposed to toluene before birth may suffer CNS dysfunction, attention deficits, and minor face and limb defects. Inhalation of toluene by pregnant women may increase the risk of spontaneous abortion. The EPA has developed a reference concentration of 0.4 milligrams per cubic meters (mg/m^3) for toluene. Inhalation of this concentration or less over a lifetime would be unlikely to result in adverse noncancer effects. No data exist that suggest toluene is carcinogenic. The EPA has classified toluene in Group D, not classifiable as to human carcinogenicity.

Vinyl chloride. Acute exposure to high levels of vinyl chloride in air has resulted in CNS effects such as dizziness, drowsiness, and headaches in humans. Chronic exposure to vinyl chloride through inhalation and oral exposure in humans has resulted in liver damage. Human and animal studies show adverse effects which raise a concern about potential reproductive and developmental hazards to humans from exposure to vinyl chloride. Cancer is a major concern from exposure to vinyl chloride via inhalation, as vinyl chloride exposure has been shown to increase the risk of a rare form of liver cancer in humans. The EPA has classified vinyl chloride as a Group A, known human carcinogen.

Xylenes. Short-term inhalation of mixed xylenes (a mixture of three closely related compounds) in humans may cause irritation of the nose and throat, nausea, vomiting, gastric irritation, mild transient eye irritation, and neurological effects. Long-term inhalation of xylenes in humans may result in CNS effects such as headaches, dizziness, fatigue, tremors, and incoordination. Other reported effects include labored breathing, heart palpitation, severe chest pain, abnormal electrocardiograms, and possible effects on the blood and kidneys. Developmental effects have been indicated from xylene exposure via inhalation in animals. Not enough information exists to determine the carcinogenic potential of mixed xylenes. The EPA has classified xylenes in Group D, not classifiable as to human carcinogenicity.

Implementation of the OLD NESHAP would reduce nationwide organic HAP emissions significantly from current levels. Thus, the proposed standards have the potential for providing both cancer and noncancer related health benefits.

By requiring facilities to reduce organic HAP emitted from OLD operations, the proposed standards would also reduce emissions of volatile organic compounds (VOC). Many VOC react photochemically with nitrogen oxides in the atmosphere to form tropospheric (low-level) ozone. A number of factors affect the degree to which VOC emission reductions will reduce ambient ozone concentrations.

Human laboratory and community studies have shown that exposure to ozone levels that exceed the national ambient air quality standards (NAAQS) can result in various adverse health impacts such as alterations in lung capacity and aggravation of existing respiratory disease. Animal studies have shown increased susceptibility to respiratory infection and lung structure changes. The VOC emissions reductions resulting from these proposed NESHAP will reduce low-level ozone and have a positive impact toward minimizing these health effects.

Among the welfare impacts from exposure to air that exceeds the ozone NAAQS are damage to some types of commercial timber and economic losses for commercially valuable crops such as soybeans and cotton. Studies have shown that exposure to excessive ozone can disrupt carbohydrate production and distribution in plants. This can lead in turn to reduced root growth, reduced biomass or yield, reduced plant vigor (which can cause increased susceptibility to attack from insects and disease and damage from cold), and diminished ability to successfully compete with more tolerant species. In addition, excessive ozone levels may disrupt the structure and function of forested ecosystems.

II. Summary of the Proposed Rule

A. What Source Category Would Be Affected by the Proposed NESHAP?

The proposed NESHAP would affect organic liquids distribution activities which, taken together, are considered to be a facility, or OLD operations. The regulated liquids consist of organic liquids that contain 5 percent by weight or more of the organic HAP compounds in Table 1 of the proposed subpart EEEE, and all crude oil except black oil. The activities in this category occur either at individual distribution facilities or on manufacturing plant sites that consume or produce the organic liquids regulated by the proposed standards. Only those OLD operations at major source facilities or plant sites would be regulated.

B. What Are the Primary Sources of Emissions and What Are the Emissions?

The emission of organic HAP vapors results from storing and transferring HAP-containing liquids. Fixed-roof tanks undergo losses due to atmospheric changes and changes in the liquid level in the tank. Floating roof tanks experience standing storage and liquid withdrawal losses and also losses from fittings on the floating deck.

As organic liquids are loaded into cargo tanks (tank trucks and railcars) at transfer racks, vapors are emitted to the atmosphere as the rising liquid displaces vapors formed above the liquid. To control these vapor emissions, the parked cargo tank may be connected to a closed vent vapor collection system and control device. Even in these controlled transfer systems, vapors may leak to the atmosphere from hatch covers, relief valves, or other parts of the system.

The equipment components used to convey organic liquids between tanks or pipelines can also be a source of vapor leakage. At OLD operations, the equipment of concern are pumps, valves, and sampling connection systems.

The volatile constituents of organic liquids, many of which are HAP, escape in the vapors emitted from these sources. Our 1998 survey of the OLD industry indicates that essentially all of the organic HAP listed in the CAA are present in the liquids distributed in these operations. Based on that survey and other information, we have estimated the total current HAP emissions from OLD operations to be 70,200 Mg/yr (77,300 tons/yr).

C. What Would Be the Affected Source?

The affected source would be the combination of all regulated OLD activities and equipment at a single OLD operation. The following regulated activities are typically performed within OLD operations and are part of the affected source:

- Transfer of organic liquids into, and storage in, fixed-roof or floating roof storage tanks;
- Transfer of organic liquids into cargo tanks (tank trucks or railcars) at transfer racks; and
- Transfer of organic liquids through pumps, piping, valves, and other equipment that may potentially leak.

Only those OLD operations facilities with an organic liquids throughput greater than 27.6 million liters (7.29 million gallons) per year (either into or out of the facility) would be subject to the proposed standards. Also, only those transfer rack loading positions with an organic liquids throughput of 11.8 million liters (3.12 million gallons) per year or greater would be required to install the specified emission controls on those activities.

D. What Would Be the Emission Limits, Operating Limits, and Other Standards?

The proposed NESHAP have various formats for the different activities and equipment being regulated. For affected storage tanks, you would have two options for control. First, you could install a closed vent system and control device with at least a 95 percent control efficiency for organic HAP or total organic compounds (TOC). As an option, combustion devices may meet an exhaust concentration limit of 20 parts per million by volume (ppmv) of organic HAP or TOC. An operating parameter of the control device would have to be continuously monitored and maintained within the established operating limits. Second, you could meet a work practice standard by installing a properly constructed floating roof in the affected tank. The tank size and vapor pressure cutoffs defining affected tanks would be different for existing and new tanks.

For affected organic liquids transfer racks, you would have to install a vapor collection system and a control device that achieves 95 percent control efficiency or 20 ppmv exhaust concentration for combustion devices, and you would have to continuously monitor the device. A work practice standard would apply to cargo tanks loading at these controlled racks. Each tank equipped with vapor collection equipment would have to be tested annually for vapor tightness using EPA Method 27. Cargo tanks not equipped with vapor collection equipment would have to be tested using the Department of Transportation (DOT) standard test procedures at DOT's required frequency. For cargo tanks that you do not own, you would have to ensure that each tank loading at affected loading positions is certified for vapor tightness. These proposed standards would be the same for existing or new transfer racks.

A work practice standard would also apply to equipment (pumps, valves, and sampling connection systems) that is in organic liquids service for at least 300 hours per year. This form of control involves regular instrument monitoring for leaks, and repair of leaking equipment. Owners and operators would have the option of applying the provisions of either subpart TT or UU of 40 CFR part 63. This leak detection and repair (LDAR) standard is being proposed for both existing and new equipment.

E. What Would Be the Testing and Initial Compliance Requirements?

Affected OLD operations would need to determine which of their distributed liquids qualify as an organic liquid as defined in the proposed standards. The specified test method for this is EPA Method 18 in 40 CFR part 60, appendix A, and you would have the option of suggesting alternative approaches for the Administrator's approval.

Control devices used for storage tanks or transfer racks would be subject to performance testing using EPA Method 18, 25, or 25A of 40 CFR part 60, appendix A, or Method 316 of 40 CFR part 63, appendix A, depending on the constituents of the gas stream being controlled and the format of the standard (organic HAP or TOC) the facility selects for its compliance demonstration. Floating roof tanks would be subject to visual and seal gap inspections to determine initial compliance with the tank work practice standards. The EPA Method 21 of 40 CFR part 60, appendix A, is specified for the equipment LDAR program.y

All cargo tanks equipped with vapor collection equipment that are used to distribute organic liquids from affected transfer rack loading positions would have to be tested annually for vapor tightness using EPA Method 27 of 40 CFR part 60, appendix A. For cargo tanks that are not so equipped, the current approved DOT methods would continue to be used.

Initial compliance with the emission limits for storage tanks and transfer racks would consist of demonstrating that the control device achieves 95 percent control efficiency for organic HAP or TOC, or 20 ppmv exhaust concentration for combustion devices. Note that all organic HAP are considered in this emission limit, not just the HAP listed in Table 1 of this proposed subpart. During the same initial performance test (or during a design evaluation of the device), you would establish the reference value or range for the appropriate operating parameter of the control device.

Work practice standards are being proposed for storage tanks, transfer racks, and equipment. For floating roof storage tanks, you would have to visually inspect each internal floating roof tank before the initial filling. For external floating roof tanks, you must perform a seal gap inspection of the primary and secondary deck seals within 90 days after filling.

For affected transfer rack loading positions, you would have to maintain documentation showing that cargo tanks that will load at those positions are certified as vapor-tight.

If you implement an LDAR program for your OLD equipment, you would have to provide us with written specifications of the program as part of your initial compliance demonstration.

F. What Would Be the Continuous Compliance Provisions?

To demonstrate continuous compliance with the emission limitation for control devices controlling storage tanks or transfer racks, you would have to continuously monitor the appropriate operating parameter and keep a record of the monitoring data. Compliance would be demonstrated by maintaining the parameter value within the limits established during the initial compliance demonstration.

There are different proposed means of demonstrating continuous compliance with the work practice standards, depending on the emission source. For floating roof storage tanks, you would have to visually inspect the tanks on a periodic basis and keep records of the inspections. For external floating roof tanks, seal gap measurements must be performed on the secondary seal once per year and on the primary seal every 5 years. Any conditions causing inspection failures would need to be repaired and records of the repairs kept.

The owner or operator would need to perform vapor tightness testing on cargo tanks and keep vapor tightness records of all cargo tanks loading at regulated rack loading positions, and also would have to take steps to ensure that only cargo tanks with vapor tightness certification are loaded at these positions. Examples of these steps are contacting cargo tank owners to explain the vapor tightness requirements and posting reminder signs summarizing the requirements at the affected loading positions.

G. What Would Be the Notification, Recordkeeping, and Reporting Requirements?

The proposed OLD NESHAP would require you to keep records and file reports consistent with the notification, recordkeeping, and reporting requirements of the General Provisions of 40 CFR part 63, subpart A. Two basic types of reports would be required: initial notification and semiannual compliance reports. The initial notification report would apprise the regulatory authority of applicability for existing sources or of construction for new sources.

The initial compliance report would demonstrate that compliance had been achieved. This report would contain the results of the initial performance test, which include the determination of the reference operating parameter value or range and a list of the organic liquids and equipment subject to the standards. Subsequent compliance reports would describe any deviations of monitored parameters from reference values; failures to comply with the startup, shutdown, and malfunction plan (SSMP) for control devices; and results of LDAR monitoring and storage tank inspections. These reports are also used to notify the regulatory authority of any changes in the organic liquids handled or changes in the OLD equipment or operations.

Records required under the proposed standards would have to be kept for 5 years, with at least 2 of these years being on the facility premises. These records would include copies of all reports that you have submitted; an up-to-date record of your organic liquids and affected equipment; and a listing of all cargo tanks that transfer organic liquids at affected rack loading positions, including their vapor tightness certification. Monitoring data from control devices would have to be kept to ensure that operating limits are being maintained. Records from the LDAR program and storage vessel inspections, and records of startups, shutdowns, and malfunctions of each control device are needed to ensure that the controls in place are continuing to be effective.

III. Rationale for Selecting the Proposed Standards

A. How Did We Select the Source Category?

Organic liquids distribution operations were included as a source category on our initial list of HAP source categories. Since liquid distribution is often carried out at SOCMI, refinery, or other manufacturing plant sites, there is the potential for overlapping control requirements in those cases where OLD activities are already regulated by other NESHAP. To avoid the situation where an emission source could be subject to multiple NESHAP, we are defining the OLD source category to exclude emission sources already covered by other NESHAP from control under these proposed standards.

The proposed Organic Liquids Distribution (non-Gasoline) NESHAP would apply to organic liquids distribution activities at sites that are determined to be ''major sources'' as defined in section 112(a)(1) of the CAA. This means those plants or facilities where the stationary sources located within a contiguous area and under common control emit or have the potential to emit, considering controls, a total of 10 tpy or more of any single HAP or 25 tpy or more of any combination of HAP.

Under the EPA's 1995 Potential to Emit Transition Policy, State and local air regulators have the option of treating the following types of sources as nonmajor under section 112 and permit programs under title V of the CAA: (1) sources that maintain adequate records to demonstrate that their actual emissions are less than 50 percent of the applicable major source threshold and have continued to operate at less than 50 percent of the threshold since January 1994; and (2) sources with actual emissions between 50 and 100 percent of the threshold, but which hold State-enforceable limits that are enforceable as a practical matter. During the EPA's rulemaking related to the potential to emit (PTE) requirements in the General Provisions (40 CFR part 63, subpart A) and the title V operating permits program, we have issued three extensions to the original transition policy, the latest memorandum dated December 20, 1999 and entitled, ''Third Extension of January 25, 1995 Potential to Emit Transition Policy.'' Sources that comply with either of the two criteria listed above will not be considered a major source under the OLD NESHAP. However, sources will be required to comply with the applicable provisions of the final PTE rule as of the effective date of that rule.

Organic liquids distribution operations that do not meet the criteria for a major source under the PTE transition policy are not being regulated at this time. We may consider area sources for regulation at a future date as part of the area source strategy authorized under section 112(k) of the CAA.

The source category covered by the proposed standards is not a single established ''industry'' in the usual sense, but involves a number of traditional industry segments. The purpose of the proposed standards is to enact controls on major source OLD operations wherever they occur, and this includes a variety of traditional industries. While these industry segments are distinct from one another (for example, they are described by several different SIC/NAICS codes), they are related to each other because they handle similar types of liquids which are inputs or outputs of the other segments. As an example, a particular organic liquids produced by a chemical manufacturing facility may be handled by a for-hire storage terminal, and then enter another manufacturing plant to be used in the making of a product.

We believe the OLD source category is best explained through a description of the organic liquids and distribution activities that are affected, and the types of facilities where the OLD activities occur.

The organic liquids affected by the proposed standards are those liquids that contain 5 percent by weight or more of the 69 organic HAP listed in Table 1 of the proposed subpart. These liquids include pure HAP chemicals (straight toluene, for example), petroleum liquids, and many blended mixtures and solutions of organic HAP chemicals that are stored and transported in bulk throughout the economy. The proposed rule would also affect all crude oil, with the exception of black oil, that has undergone custody transfer out of production facilities, even though individual crudes may have a total HAP content either above or below 5 percent by weight. Note that gasoline (including aviation gasoline) distribution is excluded from the proposed OLD NESHAP because these operations are already covered by the Gasoline Distribution NESHAP, 40 CFR part 63, subpart R.

The OLD activities and equipment that would be subject to the proposed control requirements are: (a) Storage of organic liquids in stationary storage tanks; (b) organic liquids transfer into cargo tanks (tank trucks or railcars) at transfer racks; and (c) the equipment components used in organic liquids transfer activities (pumps, valves, and sampling connection systems). Note that distribution under the proposed standards consists of those activities involved in storing organic liquids and transferring them either onto or off a major source plant site.

Organic liquids distribution is carried out at three primary categories of operations. First is the stand-alone bulk terminal, which typically receives,

stores, and sends out liquids owned by other companies (''for-hire'' facilities). These facilities are not collocated with a manufacturing site and will be affected if they meet the major source criteria based on their OLD activities. Some chemical companies own stand-alone terminals to distribute their own liquids, and they may also lease storage space at these terminals to other companies. The second category consists of OLD operations that are contiguous and under common control with a manufacturing (e.g., SOCMI facility or petroleum refinery) plant site. The OLD operations that satisfy the annual throughput cutoff at plant sites that constitute a major source of HAP will be subject to the proposed standards. There may also be additional types of manufacturing facilities that have affected OLD operations. The third facility type is pipeline stations, typically handling crude oil, that have breakout storage tanks used to absorb surges in the pipeline flow or to serve as distribution points for other modes (marine vessels, etc.) outside of the pipeline.

Section 112(d)(1) of the CAA requires us to promulgate NESHAP for ''each category or subcategory of major sources and area sources of hazardous air pollutants listed for regulation * * *'' Subcategorization of a source category is sometimes appropriate for NESHAP when industrial segments within the category have different types of processes or emission characteristics or require the use of different types of control techniques. As we developed the proposed OLD NESHAP, we considered whether we should develop different control requirements for the various OLD industry segments.

A review of the OLD data base and the information gathered during our site visits to OLD facilities showed that, despite the extreme operating conditions that occur in the process units at SOCMI facilities and refineries, the liquid distribution operations at the various types of facilities are carried out under conditions at or close to ambient. Furthermore, common organic HAP control technologies (such as thermal oxidizers and flares) are applicable to and in use for the activities performed at all of the facility types. Thus, based on these factors, we concluded that designation of separate subcategories for the purpose of developing different emission standards in the OLD NESHAP was not warranted.

B. How Did We Select the Proposed Pollutants To Be Regulated?

The data base of results from our 1998 survey of OLD operations indicates the presence of about 93 different HAP in all of the reported liquids, which is most of the organic compounds or groups of compounds listed as HAP under section 112(b) of the CAA. The variety of HAP is so large because the OLD industry represents the sum total of the chemical and petroleum liquids handled throughout industry (except gasoline). Yet, there may be additional organic HAP in liquids that are not in the EPA's OLD data base.

We considered whether it would be reasonable to select all organic HAP listed under section 112(b) for regulation in the OLD NESHAP. Some organic HAP have a very low potential to be emitted to the atmosphere from OLD operations because of their low volatilities (vapor pressure value). We do not consider it reasonable for facilities that may have a significant part of their OLD operations dedicated to handling low-volatility HAP liquids to apply controls representing MACT to those activities.

As a result, we decided it would be appropriate to develop a list of the specific organic HAP to be regulated by the proposed standards. We first made a listing of all of the HAP believed to exist in OLD operations, ranked in order of decreasing vapor pressure (at 25 degrees C). We then selected a vapor pressure cutoff of 0.1 pound per square inch absolute (psia) (about 0.7 kilopascal) to exclude the compounds with the lowest volatilities from the bottom of the table. This cutoff point was selected and was agreed to by industry reviewers as a reasonable level below which the emission potential would be minimal. The 0.7 kilopascal vapor pressure cutoff is recommended by the fact that the HON (in Table 6 of 40 CFR part 63, appendix to subpart G) requires the application of controls for new storage vessels with a capacity of 151 cubic meters or greater and storing liquids with a vapor pressure of 0.7 kilopascal or greater. The proposed applicability cutoffs for OLD storage tanks are similar to the cutoffs in the HON (for example, new OLD tanks larger than 151 cubic meters storing any liquid with a vapor pressure greater than 0.7 kilopascal would be covered). If we choose a cutoff higher than 0.7 kilopascal, which would leave even fewer HAP subject to control, there would be an inconsistency between the HAP table and the proposed storage tank applicability cutoffs. Therefore, on the basis of these considerations, we used a cutoff of 0.7 kilopascal to derive the specific organic HAP listed in Table 1 of the proposed standards.

The proposed standards would affect OLD activities involving two categories of organic liquids: (1) Those liquids containing at least 5 percent by weight of the HAP listed in Table 1 of the proposed subpart; and (2) all crude oils except black oil. As with the 0.7 kilopascal cutoff used to determine which HAP would be in Table 1, the intent of the 5 percent HAP cutoff is to exclude the lowest emitting organic liquids from the control requirements. The 5 percent HAP cutoff also has precedent in existing part 63 subparts. In the HON, 40 CFR part 63, subpart H and the NESHAP for Polycarbonate Production (40 CFR 63.1103(d), subpart YY), the equipment leak provisions affect only equipment containing or contacting a fluid that is at least 5 percent by weight of total organic HAP, on an annual average basis.

Our analysis of 17 different crude oil profiles indicated an average HAP weight percentage in the emitted vapors of about 6.0 percent. However, about half of these samples had a HAP percentage below 5 percent. Under the 5 percent HAP cutoff defining a regulated organic liquid, this would exempt from control a large amount of the crude oil as it enters and leaves distribution facilities.

Despite its relatively low HAP content, crude oil had a significant vapor pressure that was as high as 8 psia and averaged about 3.5 psia for all of the profile data we examined. Also, crude oil is estimated to make up approximately 68 percent of the volume of organic liquids in the distribution system, and 84 percent of the volume for liquids with a HAP content below 10 percent. Since the potential emissions from crude oil are a significant fraction of the total OLD emissions, we believe that the potential reductions from controlling crude oil would be significant and are a compelling reason to regulate all distributed crude oil except for the specific variety discussed below.

Black oil is a form of crude oil that we determined in the final NESHAP for Oil and Gas Production, 40 CFR part 63, subpart HH, to have a very low potential to produce flash emissions from storage tanks. Furthermore, tanks containing black oil are not considered to be affected sources under subpart HH. We are including a similar exemption for black oil in the OLD NESHAP because we do not consider storage or transfer of black oil to constitute a significant emission source. The definition of black oil is being altered from that used in subpart HH. In subpart HH it is the ''initial producing'' gas-to-oil ratio and API (American Petroleum Institute) gravity that are used to define some crude oils as black oil. For this proposed

subpart, we are using the gas-to-oil ratio and API gravity of the crude oil at the point of entry to the distribution system to define the crude oil as black oil.

C. How Did We Select the Proposed Affected Source?

The affected source would be the combination of all regulated emission sources at an OLD operations facility. The regulated emission sources at an OLD operations facility are:

- Storage tanks;
- Transfer racks; and
- Equipment in organic liquids service.

We have chosen a broad source definition which allows a storage tank, transfer rack, or single piece of equipment to be replaced or upgraded without its replacement being designated as a new source. The broad source definition was chosen for this source category because a more narrow source definition would mean that a change to an individual regulated emission source at a facility could cause that individual emission source to be designated as new. The designation as new would mean that the individual emission source (such as a single storage tank) would be required to observe the emission or operating limits in the proposed subpart for new sources. It also means that the emission source would need to be permitted separately, and its recordkeeping and reporting requirements could fall on intervals different from the rest of the facility. We looked at the emissions reductions that could possibly be gained through a narrow definition of affected source and decided that, on balance, a broad definition is the better choice.

D. How Did We Determine the Basis and Level of the Proposed Standards for Existing and New Sources?

1. MACT Floor Determination

We determined separate MACT floors for each of the emission sources that exist at OLD operations. We received data through questionnaire responses from 247 facilities owned or operated by 77 companies. These facilities reflected the various major industry segments involved in organic liquids distribution. However, due to the pervasive nature of distribution operations throughout the economy, we believe that our survey only captured about 40 percent of all of the large OLD operations in the country. Additional detailed information was obtained from site visits to nine OLD facilities. The data collected represent a complete range of the large facilities that would be affected by the proposed standard. Therefore, we believe the data are representative of OLD operations throughout the country.

We determined MACT floors for existing sources based on the arithmetic average of the lowest-emitting 12 percent where this approach made sense and produced a result that corresponded to use of a specific control technology. For the remaining cases, we used the median (middle) value to represent the MACT floor. For storage tanks and transfer racks, floors were determined for each subgroup (size and vapor pressure range for tanks, vapor pressure range for loading positions). For the several storage tank subgroups with fewer than 30 sources, we used the median of the five lowest-emitting tanks (the third tank).

Using the storage tank data collected from OLD operations, we determined the relative emissions from 1,175 reported tanks and listed these tanks from lowest to highest emitting within several tank size and liquid vapor pressure ranges. For transfer racks, we listed individual loading positions from lowest to highest emitting, starting with those with a control device, followed by those using bottom or submerged loading, and finally those using splash fill (considered the baseline, uncontrolled case). For equipment leaks, the facilities with a Federal LDAR program were listed first, followed by those with a State or local program, and then those with no program.

The best controlled storage tanks at OLD facilities in our data base use either a closed vent system and control device or a well-designed internal or external floating roof. These controls represent the maximum level of control available for storage tanks. The existing source MACT floor for tanks was determined to be a choice of control device or a floating roof with effective emission seals. The specific tank sizes and organic liquids to which the MACT floor applies are essentially the same as those in the HON.

The best controlled transfer racks at the OLD operations facilities in our survey data base are equipped with a vapor collection system and control device to reduce organic HAP emissions. Control efficiencies for these devices were reported as ranging from below 90 percent to over 99 percent, but no test data were provided to support these control efficiencies. The MACT floor for existing transfer racks was determined to be the use of a control device, without identifying any specific control efficiencies that constitute the floor. However, based on the types of devices in use and the liquids being controlled, we believe that a control efficiency of 95 percent is appropriate for this floor.

The best controlled OLD equipment is subject to an instrument-based LDAR program, and we found that an LDAR program similar to the HON program represents the existing source MACT floor.

For new sources, the CAA requires the MACT floor to be based on the degree of emissions reductions achieved in practice by the best-controlled similar source. The MACT floor for new sources and existing sources is the same in the case of transfer racks (use of a control device) and equipment leaks (an instrument LDAR program). For storage tanks, the control technologies in the MACT floors for existing and new sources are also the same. However, in the new source floor, these controls are applied to smaller tanks and to less volatile liquids when they are stored in larger tanks.

A more detailed summary of the MACT floor analysis, including the data and the considerations used to determine the MACT floors for OLD operations, can be found in the technical support document located in the docket.

2. Beyond-the-Floor Levels of Control

Using the MACT floor levels as a starting point, we investigated whether any applicable control approaches were available that were both more stringent than these floors and satisfied the criteria in section 112(d)(2) of the CAA.

The MACT floors for existing and new organic liquids storage tanks consist of a choice between the emission limitation in the HON (closed vent system and control device at 95 percent efficiency) and the floating roof requirements in 40 CFR part 63, subpart WW. These controls represent the maximum level of control available for storage tanks. The tank capacity and liquid vapor pressure cutoffs defining which tanks would be affected are the same as those in the HON. We believe that these cutoffs define all of the storage tanks that it is reasonable to regulate with MACT technology. Therefore, we were not able to identify any reasonable technologies that would create beyond-the-floor control levels for storage tanks.

The best controlled organic liquids transfer racks achieve emissions reductions of 95 percent or greater using a closed vent system and control device. Due to the diversity of liquids handled in the industry and the consequent use of a variety of control devices, we concluded that levels above 95 percent should not be considered as an alternative control level for transfer

racks. Therefore, no beyond-the-floor control levels were deemed achievable for this emission source.

The best controlled OLD equipment is subject to an instrument-based LDAR program, and we found that an LDAR program similar to the HON program represents both the existing and new source MACT floors. We have not identified any beyond-the-floor control approaches that provide better control of leakage emissions from equipment at a reasonable cost.

3. Selection of the Standards

Some OLD operations may involve very low organic liquids throughputs because they operate intermittently, but they would still be defined as a major source if they are on the same plant site as a major source manufacturing operation. We desired a small size cutoff to exempt OLD operations with a very small amount of distribution activity. The survey data did not indicate any specific organic liquids throughput into or out of a facility that would help us in identifying a lower size threshold for the size of OLD operations facility that should be affected by the proposed standards. Therefore, we turned to existing Federal and State organic liquids transfer rules. The cutoff value of 20,000 gallons per day is frequently used to identify affected transfer facilities. This value converts to 27.6 million liters per year, the smallest size facility we are proposing to affect by these standards. This is a reasonable approach as facilities below this size cutoff do not have the volume of organic liquids throughput that would yield emissions warranting control, as identified by other Federal and State rules. If the throughputs into and out of the facility during a calendar year are different, then the larger of the two values would be used to determine whether the operation is affected by these proposed standards.

The proposed standards were selected following the completion of the MACT floor and beyond-the-floor analyses. After we determined that there were no reasonable control measures more stringent than the MACT floors, we used the floors as the basis for the selection of the standards. While some of our survey responses appeared to indicate control levels beyond the levels normally associated with these devices (*i.e.,* many reports at or near 100 percent efficiency), we believed that these values did not represent the continuous performance of the control devices in use. Also, these high efficiency values were not supported by test data. Therefore, a control efficiency of 95 percent is being proposed for control devices used for storage tanks or transfer racks. To be consistent with the results from the test methods allowed for showing compliance, this control efficiency can be demonstrated in terms of either total organic HAP or TOC. In addition, combustion devices have an optional emission limit of 20 ppmv of organic HAP or TOC in the exhaust.

Some transfer racks at OLD facilities are used only on a periodic or intermittent basis and, therefore, have relatively low volume throughputs and low emissions. We do not believe it would be reasonable to install a control system on such low usage racks. However, the survey data did not indicate any specific throughput level below which transfer rack emission controls were not being used in OLD operations.

As the survey data could not provide direction on a throughput cutoff, we searched existing Federal and State air rules to evaluate the cutoffs in use. The provisions of 40 CFR 63.1101, subpart YY (Generic MACT Standards), define a low throughput transfer rack as a rack that transfers less than 11.8 million liters (3.12 million gallons) per year of liquid containing regulated HAP. This cutoff is equivalent to about one tank truck full of liquid per day. No additional cutoffs affecting individual transfer racks were identified. The cutoff used in subpart YY was considered reasonable for the OLD transfer rack control requirement, and, therefore, we are proposing to regulate only those transfer rack positions that load 11.8 million liters per year or more of organic liquid.

A transfer rack may have more than one loading position (i.e., ''parking spot'') for cargo tanks. Since each loading position may receive liquid from a specific storage tank independently of the other positions, each position can be considered an individual emission source during the time that a cargo tank is in place and loading liquid. Therefore, we are proposing to apply both the emission limit and throughput cutoff to each individual loading position. Under this approach, owners and operators would have maximum flexibility in determining the optimum configuration for their loading activities.

At controlled transfer racks (those equipped with a vapor collection system and a control device), fugitive emissions may occur from leaking truck transport tanks or railcars through dome covers, malfunctioning pressure relief vents, or other potential leak sources. Thus, a requirement to control liquid transfer operations using a vapor collection system and control device could be ineffective if the cargo tanks leak vapors to the atmosphere during the loading process. For cargo tanks equipped with vapor collection equipment (which typically includes an integrated vapor valve that is opened to release vapors to the control system during loading), EPA Method 27 in 40 CFR part 60, appendix A, is specified for ensuring the tank's vapor tightness. Tank trucks used for gasoline distribution are routinely equipped for vapor collection and undergo an annual Method 27 test under the NESHAP regulating gasoline distribution. However, tank trucks in organic chemical service typically are not equipped for vapor collection. For these tanks, Method 27 would not be applicable. Instead, the current DOT methods which require periodic leak testing of chemical tank trucks and railcars are in place and effective for organic liquids cargo tanks.

E. How Did We Select the Format of the Proposed Standards?

The format selected for the proposed standards was developed after a comprehensive review of Federal and State rules affecting the same emission sources that occur in similar industries. Our goal was to set an overall format that is compatible with the applicable test methods, reflects the performance of the MACT technologies, and is consistent with the formats used in other NESHAP for similar HAP sources.

The proposed standards for OLD operations consist of a combination of several formats: numerical emission limits and operating limits, equipment standards, and work practice standards. Section 112(h) of the CAA states that ''* * * if it is not feasible in the judgment of the Administrator to prescribe or enforce an emission standard for control of a hazardous air pollutant or pollutants, the Administrator may, in lieu thereof, promulgate a design, equipment, work practice, or operational standard, or combination thereof * * *.'' Section 112(h) further defines the phrase ''not feasible to prescribe or enforce an emission standard'' as any situation in which ''* * * a hazardous air pollutant or pollutants cannot be emitted through a conveyance designed and constructed to emit or capture such pollutant, * * * or the application of measurement methodology to a particular class of sources is not practicable * * *.''

Numerical emission limits are feasible for storage tanks and transfer racks outfitted with a closed vent system and a control device. For these control situations, we have proposed a percentage control efficiency for consistency with the HON and the

Refinery NESHAP, which taken together, regulate a great number of the organic liquids handled in OLD operations. To allow flexibility, we are proposing a 95 percent control efficiency limit in terms of either total organic HAP or TOC. For combustion devices, we are proposing an alternate emission limit of 20 ppmv of either organic HAP or TOC. Depending on the test methods chosen, the owner or operator would select the most suitable format.

The proposed 95 percent and 20 ppmv limits apply not to entire transfer racks but to each individual loading position at the racks. We felt that under this format, sources would have more freedom in choosing how to organize the transfer of affected organic liquids. For example, at a rack with two loading positions you might designate and configure one position to be an uncontrolled position, and another position to be a controlled position piped through a vapor collection system to a control device. You could then load affected organic liquids only at the controlled position but could still load unregulated liquids through the same rack at the uncontrolled position.

Equipment and work practice standards affect each of the emission sources being regulated. The following subparagraphs describe the selection of these formats.

Floating Roof Standard for Storage Tanks

You would have the option of installing floating roofs that meet the requirements of 40 CFR part 63, subpart WW, in your affected storage tanks. The floating roof option has been included in most Federal rules affecting storage tanks. Our goal was to be consistent with these other rules and to provide you with flexibility in controlling the storage tanks that contain affected organic liquids.

Vapor Tightness Testing for Cargo Tanks

For the closed vent (vapor collection) system on transfer racks to be effective in conveying all of the displaced HAP vapors to the control device, the cargo tanks must be maintained in a way that minimizes leakage. There is no means available for collecting or measuring these leakage emissions. Therefore, we have proposed a work practice standard consisting of an annual vapor tightness test which involves pressurizing the empty tank and measuring any loss of pressure. The same approach is used for cargo tanks in two of the Federal rules that affect gasoline distribution, the new source performance standards (NSPS) for bulk gasoline terminals (40 CFR part 60, subpart XX), and the Gasoline Distribution NESHAP (40 CFR part 63, subpart R).

Leak Detection and Repair Program for Equipment

The LDAR program has been used for many years as the principal means of locating leaking equipment for repairs to maintain low emission rates on equipment components. In surveying OLD operations nationwide, we found that about 35 percent of the facilities are under a Federal LDAR requirement. Therefore, we decided that this format would be the best approach for the equipment requirements. Owners and operators would have the choice between the LDAR requirements in 40 CFR part 63, subpart TT or UU.

F. How Did We Select the Proposed Testing and Initial Compliance Requirements?

These NESHAP propose to control three different emission points: Storage tanks, transfer racks, and equipment leaks. The control technologies and work practices used to control these emission points would have different testing and initial compliance requirements. The methods proposed for testing and for demonstrating initial compliance with the proposed standards are similar to those in other Federal NESHAP using these same control technologies and work practices. The HON (40 CFR part 63, subpart G) prescribes EPA Method 18 or 25A for determining the control efficiency of a control device. We have added EPA Method 25 to allow additional flexibility. In addition, if a principal component of the inlet gas stream to the control device is formaldehyde, EPA Method 316 of 40 CFR part 63, appendix A, may be used instead of Method 18 to measure the formaldehyde.

The HON also specifies EPA Method 21 for performing LDAR monitoring. The visual and seal gap inspections proposed for determining the initial compliance of floating roof tanks are the methods outlined in subpart WW of 40 CFR part 63. The EPA Method 27 is the method proposed for confirming the vapor tightness of tank trucks and railcars equipped with vapor collection equipment. This is the same approach required for testing cargo tanks in 40 CFR part 63, subpart R, the Gasoline Distribution NESHAP. We have determined while developing other part 63 rules that these methods are appropriate for fulfilling the testing and initial compliance requirements in standards for HAP emissions.

G. How Did We Select the Proposed Continuous Compliance Requirements?

Continuous monitoring is required by the proposed standards so that we can determine whether a source is in compliance on an ongoing basis. When determining appropriate monitoring options, we considered the availability and feasibility of a number of monitoring strategies.

In evaluating the use of continuous emission monitoring systems (CEMS) in these proposed standards, we determined that monitoring of HAP compounds emitted from control devices is feasible and has been implemented in other rules at certain types of facilities. However, the cost of applying monitors that provide a continuous measurement in the units of these proposed standards would be unacceptably high. Similarly, we found that continuous monitoring of a HAP surrogate (such as TOC) would not provide an accurate indication of compliance with the proposed HAP emission limitations because of the many non-HAP organic compounds.

Monitoring of control device operating parameters is considered appropriate for many other emission sources (such as gasoline distribution sources under 40 CFR part 63, subpart R) and, therefore, we have included this as the primary monitoring approach in these proposed standards. Based on information from OLD sources, we selected operating parameters for the following types of control devices that are reliable indicators of control device performance: Thermal and catalytic oxidizers, flares, adsorbers, and condensers. In general, we selected parameters and monitoring provisions that were included in both subpart R and the HON. Sources would monitor these parameters to demonstrate continuous compliance with the emission limits and operating limits.

The proposed NESHAP also requires monitoring for the storage tank work practice standards which consist of periodic inspections of the floating roof seals. We took this approach because there is no device available to continuously monitor the performance of the roof seals.

You may choose an alternative to the monitoring required by these proposed standards. If you do, you would have to request approval for alternative monitoring according to the procedures in § 63.8 of the General Provisions.

H. How Did We Select the Proposed Notification, Recordkeeping, and Reporting Requirements?

The required notifications and other reporting are based on the General

Provisions in subpart A of 40 CFR part 63. The initial notification and the semiannual compliance reports include information on organic liquids and affected OLD activities, and they would require any changes to this information to be reported in subsequent reports. Similarly, records would be required that will enable an inspector to verify the facility's compliance status. Due to the nature of control devices that would be installed on OLD operations and the emissions being controlled, we have determined that control device parameter monitoring is appropriate in this circumstance. The proposed records and reports are necessary to allow the regulatory authority to verify that the source is continuing to comply with the standards.

IV. Summary of Environmental, Energy, and Economic Impacts

As discussed earlier, organic liquids distribution activities are carried out at many different types of facilities. Most of these facilities can be grouped under three general categories: Stand-alone (usually for-hire) storage terminals dedicated to distribution activities; OLD operations collocated with a petroleum refinery, chemical manufacturing, or other manufacturing plant site; and crude oil pipeline pumping or breakout stations (containing crude oil tankage).

We estimate that in 1997, the baseline year for the proposed standards, there were approximately the following numbers of major source OLD facilities: 480 collocated OLD operations, 135 stand-alone terminals, and 35 crude oil pipeline stations, for a total of about 650 existing major source OLD plant sites.

A. What Are the Air Quality Impacts?

On a nationwide basis, the OLD operations at facilities that would be affected by the proposed NESHAP emit an estimated 70,200 Mg/yr (77,300 tons/yr) of HAP. Most of the organic HAP listed in section 112(b)(1) of the CAA are included in these emissions. After the promulgated standards are implemented, HAP emissions will be reduced by approximately 19,700 Mg/yr (21,700 tpy), or 28 percent, from the baseline. Such emissions impacts are likely to reduce the risk of adverse effects of HAP.

Although the proposed OLD NESHAP would not specifically require control of VOC emissions, the organic HAP emission control technologies upon which the proposed standards are based would also significantly reduce VOC emissions from the source category. We estimate that implementation of the promulgated NESHAP would reduce nationwide VOC emissions by about 33,700 Mg/yr (37,100 tpy), or 28 percent, from baseline levels. This will have the effect of reducing ozone-related health and welfare impacts.

B. What Are the Cost Impacts?

The cost of implementing the proposed standards for affected OLD operations would consist of the capital and annualized costs to control storage tanks, transfer racks, and equipment leaks, and the costs of complying with the monitoring, reporting, and recordkeeping requirements.

Approximately 1,740 storage tanks, or 23 percent of the 7,725 tanks used in OLD operations, would need to be controlled (or further controlled) to meet the proposed control requirements. Depending on the size and configuration of a particular tank, the capital cost would vary from $4,300 to $120,000 per tank. The total capital cost to control all 1,740 tanks is estimated at $84.3 million.

Transfer rack controls would consist of installing a flare or other control device at approximately 200 OLD operations, at an estimated total capital cost of $5.4 million. Since organic liquids cargo tanks are typically not equipped with vapor collection equipment, most of them would continue to undergo the DOT leak tightness testing and not the annual EPA Method 27 testing. The total annual cost for performing Method 27 on the small number of equipped cargo tanks is estimated at about $21,700 per year.

The establishment of an LDAR program for equipment leak control at about 430 existing operations nationwide would involve a capital cost of approximately $3.5 million.

The annual cost for industry to keep records and prepare and send the necessary reports is estimated at about $12.7 million per year.

We have estimated the total nationwide capital cost (in 1997 dollars) of implementing the proposed rule at $94.4 million, and the annual cost at $41.4 million per year. We are soliciting comment from the public on the accuracy of the cost impacts that are summarized above and presented in detail in the TSD.

C. What Are the Economic Impacts?

The economic impact analysis shows that the expected price increase for affected output would be less than 0.01 percent as a result of the proposed standard for petroleum producers, pipeline operators, and petroleum bulk terminals, and less than 0.02 percent for chemical manufacturers. The expected change in production of affected output is a reduction of less than 0.01 percent for petroleum producers, pipeline operators, and petroleum bulk terminals, and less than 0.02 percent for chemical manufacturers. None of the facilities out of the 651 affected are expected to close as a result of incurring costs of the proposed standard. Therefore, it is likely that there is no adverse impact expected to occur for those industries that produce output affected by this proposed rule, such as chemical manufacturers, petroleum refineries, pipeline operators, and petroleum bulk terminal operators.

D. What Are the Nonair Quality Health, Environmental, and Energy Impacts?

Water quality would not be significantly affected by implementation of the proposed standards. The proposed standards do not contain any requirements related to water discharges, wastewater collection, or spill containment, and no additional organic liquids are expected to enter these areas as a result of the proposed OLD NESHAP. A few facilities may select a scrubber (depending on the specific emissions they are controlling) to control emissions from transfer racks or fixed-roof storage tanks. The impact on water quality from the use of scrubbers is not expected to be significant.

We also project that there will be no significant solid waste or noise impact. Neither flares, thermal oxidizers, scrubbers, nor condensers generate any solid waste as a by-product of their operation. When adsorption systems are used, the spent activated carbon or other adsorbent that cannot be further regenerated may be disposed of in a landfill, which would contribute a small amount of solid waste.

We have tested the noise level from control devices and found these levels (usually due to pumps and blowers) to be moderate (less than 70 decibels at 7 meters). Thus, the noise impact would be small.

The control devices used for transfer rack and storage tank control use electric motor-driven blowers, dampers, or pumps, depending on the type of system, in addition to electronic control and monitoring systems. The installation of these devices would have a small negative energy impact. To the extent that some of the controlled organic liquids are non-gasoline fuels, the applied control measures would keep these liquids in the distribution system and thus have a positive impact on this form of energy.

V. Administrative Requirements

A. Executive Order 12866, Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), the EPA must determine whether the regulatory action is ''significant'' and, therefore, subject to review by the Office of Management and Budget (OMB) and the requirements of the Executive Order. The Executive Order defines ''significant regulatory action'' as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs, or the rights and obligations of recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, OMB has notified EPA that it considers this a ''significant regulatory action'' within the meaning of the Executive Order. EPA has submitted this action to OMB for review. Changes made in response to OMB suggestions or recommendations will be documented in the public record. Any written comments from OMB and written EPA responses are available in the docket (see **ADDRESSES** section of this preamble).

B. Executive Order 13132, Federalism

Executive Order 13132, entitled ''Federalism'' (64 FR 43255, August 10, 1999), requires the EPA to develop an accountable process to ensure ''meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications.'' ''Policies that have federalism implications'' is defined in the Executive Order to include regulations that have ''substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.''

Under Section 6 of Executive Order 13132, the EPA may not issue a regulation that has federalism implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by State and local governments, or the EPA consults with State and local officials early in the process of developing the proposed regulation. The EPA also may not issue a regulation that has federalism implications and that preempts State law unless the EPA consults with State and local officials early in the process of developing the proposed regulation.

This proposed rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. Thus, the requirements of section 6 of the Executive Order do not apply to this proposed rule.

C. Executive Order 13175, Consultation and Coordination With Indian Tribal Governments

Executive Order 13175, entitled ''Consultation and Coordination with Indian Tribal Governments'' (65 FR 67249, November 6, 2000), requires EPA to develop an accountable process to ensure ''meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications.'' ''Policies that have tribal implications'' is defined in the Executive Order to include regulations that have ''substantial direct effects on one or more Indian tribes, on the relationship between the Federal government and the Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes.''

This proposed rule does not have tribal implications. It will not have substantial direct effects on tribal governments, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes, as specified in Executive Order 13175. No tribal governments are believed to own or operate an affected source. Thus, Executive Order 13175 does not apply to this rule. In the spirit of Executive Order 13175, and consistent with EPA policy to promote communications between EPA and tribal governments, EPA specifically solicits additional comment on this proposed rule from tribal officials.

D. Executive Order 13045, Protection of Children From Environmental Health Risks and Safety Risks

Executive Order 13045 (62 FR 19885, April 23, 1997) applies to any rule that: (1) Is determined to be ''economically significant'' as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that the EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, the EPA must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the EPA.

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. This proposed rule is not subject to Executive Order 13045 because it is based on technology performance and not on health or safety risks. No children's risk analysis was performed because no alternative technologies exist that would provide greater stringency at a reasonable cost. Furthermore, this proposed rule has been determined not to be ''economically significant'' as defined under Executive Order 12866.

E. Executive Order 13211, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

Executive Order 13211, ''Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use'' (66 FR 28355, May 22, 2001), required EPA to prepare and submit a Statement of Energy Effects to the Administrator of the Office of Information and Regulatory Affairs, and the Office of Management and Budget, for certain actions identified as ''significant energy actions.'' Section 4(b) of Executive Order 13211 defines ''significant energy actions'' as ''any action by an agency (normally published in the **Federal Register**) that promulgates or is expected to lead to the promulgation of a final rule or regulation, including notices of inquiry, advance notices of proposed rulemaking, and notices of proposed rulemaking: (1) (i) That is a significant regulatory action under Executive Order 12866 or any successor order, and (ii) is likely to have a significant adverse effect on the supply, distribution, or use of energy; or (2) that is designated by the

Administrator of the Office of Information and Regulatory Affairs as a significant energy action.'' This proposed rule is not a ''significant energy action'' because it is not likely to have a significant adverse effect on the supply, distribution, and use of energy. The basis for this determination follows.

The reduction in petroleum product output, which includes reductions in fuel production, is estimated at only 0.003 percent, or about 137 barrels per day based on 2000 U.S. fuel production nationwide. The reduction in coal, natural gas, and electricity output is expected to be negligible compared to 2000 U.S. output of these products nationwide. The increase in price of petroleum products is estimated to be only 0.003 percent nationwide. While energy distribution services such as pipeline operations will be directly affected by this proposal, energy distribution costs are expected to increase by only 0.36 percent. We estimate that there will be a slight increase of only 0.002 percent of net imports (imports—exports), and no other adverse outcomes are expected to occur with regard to energy supplies. Given the minimal impacts on energy supply, distribution, and use as a whole nationally, no significant adverse energy effects are expected to occur. For more information on these estimated energy effects, please refer to the economic impact analysis for the proposed rule. This analysis is available in the public docket.

Therefore, we conclude that this proposed rule when implemented will not have a significant adverse effect on the supply, distribution, or use of energy.

F. Unfunded Mandates Reform Act of 1995

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, the EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with ''Federal mandates'' that may result in expenditures by State, local, and tribal governments, in aggregate, or by the private sector, of $100 million or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires the EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows the EPA to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative if the Administrator publishes with the final rule an explanation of why that alternative was not adopted. Before the EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

The EPA has determined that this proposed rule does not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any 1 year. The maximum total annual cost of this proposed rule for any year has been estimated to be about $41.4 million. Thus, today's proposed rule is not subject to the requirements of sections 202 and 205 of the UMRA. In addition, the EPA has determined that this proposed rule contains no regulatory requirements that might significantly or uniquely affect small governments because it contains no requirements that apply to such governments or impose obligations upon them. Therefore, today's proposed rule is not subject to the requirements of section 203 of the UMRA.

G. Regulatory Flexibility Act (RFA) as Amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 U.S.C. 601 et seq.

The RFA generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of today's proposed rule on small entities, small entity is defined as: (1) A small business whose parent company has fewer than 100 or 1,500 employees, depending on size definition for the affected North American Industry Classification System (NAICS) code, or a maximum of $5 million to $18.5 million in revenues; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field. It should be noted that companies in 42 NAICS codes are affected by this proposed rule, and the small business definition applied to each industry by NAICS code is that listed in the Small Business Administration (SBA) size standards (13 CFR 121). For more information on size standards for particular industries, please refer to the economic impact analysis in the docket.

After considering the economic impacts of today's proposed rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. We have determined that nineteen small firms in the industries affected by this rule may be affected. Out of the nineteen affected small firms, two firms are estimated to have compliance costs that exceed one percent of their revenues.

In addition, the rule is likely to also increase profits at the many small firms not affected by the rule due to the very slight increase in market prices. Finally, while there is a difference between the median compliance cost to sales estimates for the affected small and large firms (0.26 percent compared to 0.01 percent for the large firms), no small or large firms are expected to close in response to incurring the compliance costs associated with this rule.

Although this proposed rule will not have a significant economic impact on a substantial number of small entities, we nonetheless have tried to minimize the impact of this rule on small entities in several ways. First, we chose to set the control requirements at the MACT floor control level and not at a control level more stringent. Thus, the control level specified in the proposed OLD rule is the least stringent allowed by the CAA. Second, we have set facility size, transfer rack throughput, and tank size cutoffs in the rule to minimize the effects on small businesses. Third, we have identified a list of 69 HAP from the list of 188 in the CAA to be considered for regulation. Regulated liquids are organic liquids that contain at least 5

percent by weight of the 69 HAP listed. In addition, we worked with various trade associations during the development of the proposed rule. These actions have reduced the economic impact on small entities from this rule. We continue to be interested in the potential impacts of the proposed rule on small entities and welcome comments on issues related to such impacts.

H. Paperwork Reduction Act

We will submit the information collection requirements in this rule for approval to the Office of Management and Budget under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* We have prepared an Information Collection Request (ICR) document (ICR No. 1963.01) and you may obtain a copy from Sandy Farmer, Office of Environmental Information, Collection Strategies Division, U.S. Environmental Protection Agency (2822), 1200 Pennsylvania Avenue, NW, Washington, DC 20460, by e-mail at farmer.sandy@epa.gov, or by calling (202) 260–2740. A copy may also be downloaded off the internet (WWW) at *http://www.epa.gov/icr.* The information requirements are not effective until OMB approves them.

The information requirements are based on notification, recordkeeping, and reporting requirements in the NESHAP General Provisions (40 CFR part 63, subpart A), which are mandatory for all operators subject to national emission standards. These recordkeeping and reporting requirements are specifically authorized by section 114 of the CAA (42 U.S.C. 7414). All information submitted to the EPA pursuant to the recordkeeping and reporting requirements for which a claim of confidentiality is made is safeguarded according to EPA policies set forth in 40 CFR part 2, subpart B.

The proposed rule would require maintenance inspections of the control devices but would not require any notifications or reports beyond those required by the General Provisions. The recordkeeping requirements require only the specific information needed to determine compliance.

The annual monitoring, reporting, and recordkeeping burden to affected sources for this collection (averaged over the first 3 years after the effective date of the promulgated rule) is estimated to be 242,900 labor-hours per year, with a total annual cost of $12.7 million per year. These estimates include a one-time performance test and report (with repeat tests where needed), one-time submission of an SSMP with semiannual reports for any event when the procedures in the plan were not followed, semiannual compliance reports, maintenance inspections, notifications, and recordkeeping.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An Agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for the EPA's regulations are listed in 40 CFR part 9 and 48 CFR chapter 15.

I. National Technology Transfer and Advancement Act

Under section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Public Law 104–113, all Federal agencies are required to use voluntary consensus standards (VCS) in their regulatory and procurement activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. The NTTAA requires Federal agencies to provide Congress, through annual reports to OMB, with explanations when an agency does not use available and applicable VCS.

Consistent with the NTTAA, the EPA conducted searches to identify VCS for use in emissions monitoring. This search is described in a memorandum which is in the docket. The search for emissions monitoring procedures identified 19 VCS that appeared to have possible use in lieu of EPA standard reference methods. However, after reviewing the available VCS, the EPA determined that nine of the candidate VCS identified for measuring emissions of the HAP or surrogates subject to emission standards in the proposed rule would not be practical due to lack of equivalency, documentation, and validation data. Ten of the remaining candidate VCS are under development or under EPA review. The EPA plans to follow, review, and consider adopting these VCS after their development and further review by the EPA is completed.

Two VCS, ASTM D2879–83, Standard Test Method for Vapor Pressure—Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope; and API Publication 2517, Evaporative Loss from External Floating-Roof Tanks, Third Edition, February 1989, were already incorporated by reference in 40 CFR 63.14 and are also being used in this proposed rule.

The ASTM D6420–99 is currently under EPA review as an approved alternative to Method 18. The EPA will also compare this final ASTM standard to methods previously approved as alternatives to EPA Method 18 with specific applicability limitations. These methods, designated as ALT–017 and CTM–028, are available through the EPA's Emission Measurement Center internet site at *www.epa.gov/ttn/emc/tmethods.html.* The final ASTM D6420–99 standard is very similar to these approved alternative methods, which may be equally suitable for specific applications. We plan to continue our review of the final standard and will consider adopting the ASTM standard at a later date.

The EPA is requesting comment on the compliance demonstration requirements being proposed in this proposed rule and specifically invites the public to identify potentially-applicable VCS. Commenters should also explain why this proposed rule should adopt these VCS in lieu of the EPA's standards. Emission test methods and performance specifications submitted for evaluation should be accompanied by a basis for the recommendation, including method validation data and the procedure used to validate the candidate method (if a method other than Method 301, 40 CFR part 63, appendix A was used).

Section 63.2406 and Table 5 of the proposed subpart list the EPA testing methods and performance standards included in the proposed rule. Most of the standards have been used by States and industry for more than 10 years. Nevertheless, under § 63.7(f) of subpart A of 40 CFR part 63, the proposal also allows any State or source to apply to the EPA for permission to use an alternative method in place of any of the EPA testing methods or performance standards listed in proposed subpart EEEE.

List of Subjects in 40 CFR Part 63

Environmental protection, Administrative practice and procedure, Air pollution control, Hazardous substances, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: March 19, 2002.

Christine Todd Whitman,

Administrator.

For the reasons stated in the preamble, title 40, chapter I, part 63 of the Code of Federal Regulations is proposed to be amended as follows:

PART 63—[AMENDED]

1. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401, *et seq.*

2. Section 63.14 is amended by revising paragraphs (b)(3) and (c)(1) to read as follows:

§ 63.14 Incorporation by reference.

* * * * *

(b) * * *

(3) ASTM D2879–83, Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, IBR approved for § 63.111 of subpart G of this part and for § 63.2406 of subpart EEEE of this part.

(c) * * *

(1) API Publication 2517, Evaporative Loss from External Floating-Roof Tanks, Third Edition, February 1989, IBR approved for § 63.111 of subpart G of this part and for § 63.2406 of subpart EEEE of this part.

* * * * *

3. Part 63 is amended by adding subpart EEEE to read as follows:

Subpart EEEE—National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (non-Gasoline)

Sec.

What This Subpart Covers

§ 63.2330 What is the purpose of this subpart?

This subpart establishes national emission limitations and work practice standards for hazardous air pollutants (HAP) emitted from organic liquids distribution (OLD)(non-gasoline) operations. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and work practice standards.

§ 63.2334 Am I subject to this subpart?

(a) You are subject to this subpart if you own or operate an OLD operation that is located at or is part of a major source of hazardous air pollutant emissions.

(b) Your OLD operation must have a total organic liquids throughput of 27.6 million liters (7.29 million gallons) per year or more either into or out of the operation to be subject to the control provisions of this subpart. Organic liquids are all crude oils other than black oil, and those liquids or liquid mixtures, except gasoline, that contain a total of 5 percent by weight or more of the organic HAP listed in Table 1 of this subpart.

(1) An OLD operation is the combination of activities and equipment used to transfer organic liquids into or out of a plant site or to store organic liquids on the plant site. Gasoline, as well as any fuels that are consumed or dispensed on the plant site directly to users (such as fuels used for fleet refueling) are not considered organic liquids in this subpart.

(2) A major source of HAP is a plant site that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (10 tons) or more per year, or any combination of HAP at a rate of 22.68 megagrams (25 tons) or more per year.

(c) This subpart covers:

(1) Organic liquids distribution operations that occupy an entire plant site; and

(2) Organic liquids distribution operations that are collocated with other industrial (e.g., manufacturing) operations at the same plant site.

§ 63.2338 What parts of my plant does this subpart cover?

(a) This subpart applies to each new, reconstructed, or existing OLD operation affected source.

(b)(1) The affected source is each entire OLD operation at a plant site in any industrial category, except for those emission sources that are controlled under the provisions of another 40 CFR

part 63 national emission standards for hazardous air pollutants regulation. The main types of plant sites that either are in themselves an OLD operation or contain a collocated OLD operation are:

(i) Liquid terminal facilities that distribute either organic liquids that they own, or organic liquids owned by others on a for-hire basis, or a combination of both;

(ii) Organic chemical manufacturing facilities, petroleum refineries, and other industrial facilities that have a collocated OLD operation; and

(iii) Crude oil pipeline pumping stations and breakout stations.

(2) The following emission sources within OLD operations constitute the affected source: Storage tanks storing organic liquids and meeting the tank size and liquid vapor pressure cutoffs in Table 2 of this subpart; transfer rack loading positions at which organic liquids are loaded into cargo tanks (tank trucks or railcars) at or above the minimum throughput shown in Table 2 of this subpart; and equipment (pumps, valves, etc.) in organic liquids service for at least 300 hours per year. In addition, vapor leakage points on cargo tanks while loading organic liquids at affected transfer racks are considered part of the affected source.

(c) The provisions of this subpart do not apply to research and development facilities, consistent with section 112(b)(7) of the Clean Air Act (CAA).

(d) An affected source is a new affected source if you commenced construction of the affected source after April 2, 2002, and you meet the applicability criteria in § 63.2334 at the time you commenced operation.

(e) An affected source is reconstructed if you meet the criteria for reconstruction as defined in § 63.2.

(f) An affected source is existing if it is not new or reconstructed.

§ 63.2342 When do I have to comply with this subpart?

(a) If you have a new or reconstructed affected source, you must comply with this subpart according to the guidance in paragraphs (a)(1) and (2) of this section:

(1) If you startup your affected source before [the effective date of this subpart], you must comply with the emission limitations and work practice standards for new and reconstructed sources in this subpart no later than [the effective date of this subpart].

(2) If you startup your affected source after [the effective date of this subpart], you must comply with the emission limitations and work practice standards for new and reconstructed sources in this subpart upon startup of your affected source.

(b) If you have an existing affected source, you must comply with the emission limitations and work practice standards for existing sources no later than [3 years after the effective date of the final rule].

(c) If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the guidance in paragraphs (c)(1) and (2) of this section applies:

(1) Any portion of the existing facility that is a new affected source or a new reconstructed source must be in compliance with this subpart upon startup.

(2) All other parts of the source must be in compliance with this subpart no later than 3 years after it becomes a major source.

(d) You must meet the notification requirements in § 63.2382(a) according to the schedule in § 63.2382(b), (c), (d), and (e) and in subpart A of this part. Some of the notifications must be submitted before you are required to comply with the emission limitations and work practice standards in this subpart.

Emission Limitations and Work Practice Standards

§ 63.2346 What emission limitations and work practice standards must I meet?

(a) You must meet each emission limit in Table 2 of this subpart that applies to you.

(b) You must meet each operating limit in Table 3 of this subpart that applies to you.

(c) You must meet each work practice standard in Table 4 of this subpart that applies to you.

(d) As provided in § 63.6(g), you may request approval from the EPA to use an alternative to the work practice standards in this section. If you apply for permission to use an alternative to the work practice standards in this section, you must submit the information described in § 63.6(g)(2).

General Compliance Requirements

§ 63.2350 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations and work practice standards in this subpart at all times, except during periods of startup, shutdown, or malfunction.

(b) You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in § 63.6(e)(1)(i).

(c) You must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in § 63.6(e)(3).

Testing and Initial Compliance Requirements

§ 63.2354 By what date must I conduct performance tests or other initial compliance demonstrations?

(a) For existing sources, you must conduct initial performance tests and other initial compliance demonstrations no later than the compliance date specified in § 63.2342(b).

(b) For new sources, you must conduct initial performance tests and other initial compliance demonstrations according to the provisions in § 63.7(a)(2)(i) and (ii).

§ 63.2358 When must I conduct subsequent performance tests?

(a) For cargo tanks equipped with vapor collection equipment that load organic liquids at affected transfer rack loading positions, you must perform the vapor tightness testing required in Table 5 of this subpart on each cargo tank that you own or operate at least once per year.

(b) For nonflare control devices, you must conduct the performance testing required in Table 5 of this subpart at any time the EPA requests you to in accordance with section 114 of the CAA.

§ 63.2362 What performance tests, design evaluations, and performance evaluations must I conduct?

(a) You must conduct each performance test in Table 5 of this subpart that applies to you.

(b) You must conduct each performance test according to the requirements in § 63.7(e)(1), using the procedures specified in § 63.997(e).

(c) You must conduct three separate test runs for each performance test on a nonflare control device, as specified in § 63.7(e)(3). Each test run must last at least 1 hour.

(d) In addition to Method 25 or 25A of 40 CFR part 60, appendix A, to determine compliance with the organic HAP or total organic compounds (TOC) emission limit, you may use Method 18 of 40 CFR part 60, appendix A. If you use Method 18 to measure compliance with the percentage efficiency limit, you must first determine which HAP are present in the inlet gas stream (i.e., uncontrolled emissions) using knowledge of the organic liquids or the screening procedure described in Method 18. In conducting the performance test, you must analyze samples collected as specified in

Method 18, simultaneously at the inlet and outlet of the control device. Quantify the emissions for all HAP identified as present in the inlet gas stream for both the inlet and outlet gas streams of the control device.

(e) If you use Method 18 of 40 CFR part 60, appendix A, to measure compliance with the emission concentration limit, you must first determine which HAP are present in the inlet gas stream using knowledge of the organic liquids or the screening procedure described in Method 18. In conducting the performance test, analyze samples collected as specified in Method 18 at the outlet of the control device. Quantify the control device outlet emission concentration for the same HAP identified as present in the inlet or uncontrolled gas stream.

(f) If a principal component of the uncontrolled or inlet gas stream to the control device is formaldehyde, you may use Method 316 of appendix A of this part instead of Method 18 of 40 CFR part 60, appendix A, for measuring the formaldehyde. If formaldehyde is the predominant HAP in the inlet gas stream, you may use Method 316 alone to measure formaldehyde either at the inlet and outlet of the control device using the formaldehyde control efficiency as a surrogate for total organic HAP or TOC efficiency, or at the outlet of a combustion device for determining compliance with the emission concentration limit.

(g) You must conduct each design evaluation of a control device according to the requirements in § 63.985(b)(1)(i).

(h) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in § 63.7(e)(1).

(i) You must conduct each continuous monitoring system (CMS) performance evaluation according to the requirements in § 63.8(e).

§ 63.2366 What are my monitoring installation, operation, and maintenance requirements?

(a) You must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the requirements in § 63.996. In addition, you must collect and analyze temperature, flow, pressure, or pH data according to the requirements in paragraphs (a)(1) through (4) of this section:

(1) To calculate a valid hourly value, you must have at least four equally spaced data values (or at least two, if that condition is included to allow for periodic calibration checks) for that hour from a CMS that is not out of control according to the monitoring plan (e.g., one that incorporates elements of appendix F, procedure 1 of 40 CFR part 60, appendix F).

(2) To calculate the average emissions for each averaging period, you must have at least 75 percent of the hourly averages for that period using only block hourly average values that are based on valid data (i.e., not from out-of-control periods).

(3) Determine the hourly average of all recorded readings.

(4) Record the results of each inspection, calibration, and validation check.

(b) For each temperature monitoring device, you must meet the requirements in paragraphs (a)(1) through (4) and paragraphs (b)(1) through (8) of this section:

(1) Locate the temperature sensor in a position that provides a representative temperature.

(2) For a noncryogenic temperature range, use a temperature sensor with a minimum tolerance of 2.2 degrees Celsius or 0.75 percent of the temperature value, whichever is greater.

(3) For a cryogenic temperature range, use a temperature sensor with a minimum tolerance of 2.2 degrees Celsius or 2 percent of the temperature value, whichever is greater.

(4) Shield the temperature sensor system from electromagnetic interference and chemical contaminants.

(5) If a chart recorder is used, it must have a sensitivity in the minor division of at least 20 degrees Fahrenheit.

(6) Perform an electronic calibration at least semiannually according to the procedures in the manufacturer's owner's manual. Following the electronic calibration, you must conduct a temperature sensor validation check in which a second or redundant temperature sensor placed near the process temperature sensor must yield a reading within 16.7 degrees Celsius of the process temperature sensor's reading.

(7) Conduct calibration and validation checks any time the sensor exceeds the manufacturer's specified maximum operating temperature range, or install a new temperature sensor.

(8) At least monthly, inspect all components for integrity and all electrical connections for continuity, oxidation, and galvanic corrosion.

(c) For each flow measurement device, you must meet the requirements in paragraphs (a)(1) through (4) and paragraphs (c)(1) through (5) of this section:

(1) Locate the flow sensor and other necessary equipment such as straightening vanes in a position that provides a representative flow.

(2) Use a flow sensor with a minimum tolerance of 2 percent of the flow rate.

(3) Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(4) Conduct a flow sensor calibration check at least semiannually.

(5) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.

(d) For each pressure measurement device, you must meet the requirements in paragraphs (a)(1) through (4) and paragraphs (d)(1) through (7) of this section:

(1) Locate the pressure sensor(s) in a position that provides a representative measurement of the pressure.

(2) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

(3) Use a gauge with a minimum tolerance of 0.5 inch of water or a transducer with a minimum tolerance of 1 percent of the pressure range.

(4) Check for pressure tap pluggage daily.

(5) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.

(6) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range, or install a new pressure sensor.

(7) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.

(e) For each pH measurement device, you must meet the requirements in paragraphs (a)(1) through (4) and paragraphs (e)(1) through (4) of this section:

(1) Locate the pH sensor in a position that provides a representative measurement of pH.

(2) Ensure that the sample is properly mixed and representative of the fluid to be measured.

(3) Check the pH meter's calibration on at least two points every 8 hours of process operation.

(4) At least monthly, inspect all components for integrity and all electrical connections for continuity.

§ 63.2370 How do I demonstrate initial compliance with the emission limitations and work practice standards?

(a) You must demonstrate initial compliance with each emission limit and work practice standard that applies to you according to Tables 6 and 7 of this subpart.

(b) You must establish each site-specific operating limit in Table 3 of

this subpart that applies to you according to the requirements in § 63.2362 and Table 5 of this subpart.

(c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.2382(e).

Continuous Compliance Requirements

§ 63.2374 How do I monitor and collect data to demonstrate continuous compliance?

(a) You must monitor and collect data according to this section.

(b) Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must monitor continuously (or collect data at all required intervals) at all times that the affected source is operating.

(c) You may not use data recorded during monitoring malfunctions, associated repairs, or required quality assurance or control activities in data averages and calculations used to report emission or operating levels, nor may such data be used in fulfilling a minimum data availability requirement, if applicable. You must use all of the data collected during all other periods in assessing the operation of the control device and associated control system.

§ 63.2378 How do I demonstrate continuous compliance with the emission limitations and work practice standards?

(a) You must demonstrate continuous compliance with each emission limitation and work practice standard in Tables 2 through 4 of this subpart that applies to you according to the methods specified in Tables 8, 9, and 10 of this subpart.

(b) You must report each instance in which you did not meet any emission limit or operating limit in Tables 8 and 9 of this subpart that applies to you. This includes periods of startup, shutdown, or malfunction. You must also report each instance in which you did not meet the requirements in Table 10 of this subpart that apply to you. These instances are deviations from the emission limitations and work practice standards in this subpart. These deviations must be reported according to the requirements in § 63.2386.

(c) During periods of startup, shutdown, or malfunction, you must operate in accordance with your SSMP.

(d) Consistent with §§ 63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you make an adequate demonstration that you were operating in accordance with the SSMP. We will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations according to the provisions in § 63.6(e).

Notifications, Reports, and Records

§ 63.2382 What notifications must I submit and when?

(a) You must submit all of the notifications in §§ 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you.

(b) As specified in § 63.9(b)(2), if you startup your affected source before [the effective date of this subpart], you must submit an Initial Notification no later than 120 calendar days after [the effective date of this subpart].

(c) As specified in § 63.9(b)(3), if you startup your new or reconstructed affected source on or after [the effective date], you must submit an Initial Notification no later than 120 days after initial startup.

(d) If you are required to conduct a performance test, you must submit a notification of intent to conduct the test at least 60 calendar days before it is scheduled to begin as required in § 63.7(b)(1).

(e) If you are required to conduct a performance test or other initial compliance demonstration as specified in Table 5, 6, or 7 of this subpart, you must submit a Notification of Compliance Status according to § 63.9(h)(2)(ii).

(1) For each initial compliance demonstration required in Table 5, 6, or 7 of this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th calendar day following the completion of the initial compliance demonstration.

(2) For each initial compliance demonstration required in Table 5, 6, or 7 of this subpart that includes a performance test conducted according to the requirements in Table 5 of this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th calendar day following the completion of the performance test according to § 63.10(d)(2).

§ 63.2386 What reports must I submit and when?

(a) You must submit each report in Table 11 of this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under § 63.10(a), you must submit each report by the date in Table 11 of this subpart and according to the requirements in paragraphs (b)(1) through (5) of this section:

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.2342 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in § 63.2342.

(2) The first compliance report must be postmarked no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in § 63.2342.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(3)(iii)(A) or 71.6(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) The compliance report must contain the information in paragraphs (c)(1) through (7) of this section:

(1) Company name and address.

(2) Statement by a responsible official, including the official's name, title, and signature, certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

(3) Date of report and beginning and ending dates of the reporting period.

(4) Any changes to the information listed in paragraph (d) of this section that have occurred since the last report.

(5) If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your SSMP, the compliance report must include the information described in § 63.10(d)(5)(i).

(6) If there are no deviations from any emission limitation (emission limit or operating limit) that applies to you and there are no deviations from the requirements for work practice

standards in Table 10 of this subpart, a statement that there were no deviations from the emission limitations or work practice standards during the reporting period.

(7) If there were no periods during which the CMS was out of control as specified in § 63.8(c)(7), a statement that there were no periods during which the CMS was out of control during the reporting period.

(d) The first compliance report must contain the information in paragraphs (c)(1) through (7) of this section and also the information in paragraphs (d)(1) through (5) of this section:

(1) A listing of the organic liquids stored or transferred at the facility during the previous 6 months, including for each liquid the information in paragraphs (d)(1)(i) through (iv) of this section:

(i) Liquid name;

(ii) Total weight percentage of the organic HAP in Table 1 of this subpart;

(iii) Annual average true vapor pressure; and

(iv) Total throughput into and out of the facility.

(2) An inventory of all storage tanks at the facility that stored organic liquids during the previous 6 months, including for each tank the information in paragraphs (d)(2)(i) through (iv) of this section:

(i) Tank ID code and capacity;

(ii) Tank roof configuration, rim seal type(s), and description of floating deck fittings, as applicable;

(iii) Name of organic liquid(s) stored in the tank; and

(iv) Control device in use for each fixed-roof tank, where applicable.

(3) A listing of all transfer rack loading positions that transferred organic liquids into cargo tanks during the previous 6 months, including for each loading position the information in paragraphs (d)(3)(i) through (iii) of this section:

(i) ID code;

(ii) Organic liquids name(s) and throughput(s); and

(iii) Control device in use at each position, where applicable.

(4) A listing of all cargo tanks (tank trucks and railcars) that loaded organic liquids at affected transfer rack loading positions during the previous 6 months, including the type of cargo tank, owner, ID number, and date and test method for the most recent vapor tightness test.

(5) A listing of all equipment in organic liquids service during the previous 6 months, including for each component the information in paragraphs (d)(5)(i) through (iv) of this section:

(i) ID code;

(ii) Facility plan drawing showing the equipment location;

(iii) An estimate of the number of hours that the component operated in organic liquids service during the reporting period; and

(iv) Method of compliance with the standard (e.g., ''leak detection and repair monitoring'' or ''equipped with dual mechanical seals''), if applicable.

(e) For each deviation from an emission limitation (emission limit or operating limit) occurring at an affected source where you are using a CMS to comply with an emission limitation in this subpart, you must include the information in paragraphs (c)(1) through (4) and paragraphs (e)(1) through (12) of this section. This includes periods of startup, shutdown, or malfunction.

(1) The date and time that each malfunction started and stopped.

(2) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.

(3) The date, time, and duration that each CMS was out of control, including the information in § 63.8(c)(8).

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction, or during another period.

(5) A summary of the total duration of the deviations during the reporting period and the total duration as a percentage of the total source operating time during that reporting period.

(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of CMS downtime during the reporting period and the total duration of CMS downtime as a percentage of the total source operating time during that reporting period.

(8) An identification of each HAP that was potentially emitted during the deviation.

(9) A brief description of the process at which the CMS deviation occurred.

(10) A brief description of the CMS.

(11) The date of the latest CMS certification or audit.

(12) A description of any changes in CMS, processes, or controls since the last reporting period.

(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A). If an affected source submits a compliance report pursuant to Table 11 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limitation (including any operating limit or work practice standard) requirement in this subpart, we will consider submission of the compliance report as satisfying any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report will not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permitting authority.

§ 63.2390 What records must I keep?

(a) You must keep records as described in paragraphs (a)(1) through (3) of this section:

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirements in § 63.10(b)(1) and (2)(xiv).

(2) The records in §§ 63.6(e)(3)(iii) through (v) and 63.10(b)(2)(i)(v) related to startups, shutdowns, and malfunctions.

(3) Results of performance tests.

(b) For each CMS, you must keep records as described in paragraphs (b)(1) and (2) of this section:

(1) Records described in § 63.10(b)(2)(vi) through (xi) that apply to your CMS.

(2) Performance evaluation plans, including previous (i.e., superseded) versions of the plan as required in § 63.8(d)(3).

(c) You must keep the records required in Tables 8, 9, and 10 of this subpart to show continuous compliance with each emission limitation and work practice standard that applies to you.

§ 63.2394 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious inspection and review according to § 63.10(b)(1).

(b) As specified in § 63.10(b)(1), you must keep your files of all information (including all reports and notifications) for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on site for at least 2 years after the date of each

occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). You may keep the records offsite for the remaining 3 years.

Other Requirements and Information

§ 63.2398 What parts of the General Provisions apply to me?

Table 12 of this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you.

§ 63.2402 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by the EPA or a delegated authority such as your State, local, or tribal agency. If the EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency, as well as the EPA, has the authority to implement and enforce this subpart. You should contact your EPA Regional Office (see list in § 63.13) to find out if this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority for this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of the EPA and are not delegated to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are described in paragraphs (c)(1) through (4) of this section:

(1) Approval of alternatives to the nonopacity emission limitations and work practice standards in § 63.2346(a) through (c) under § 63.6(g).

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90.

(3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

§ 63.2406 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in § 63.2, and in this section. If the same term is defined in another subpart and in this section, it will have the meaning given in this section for purposes of this subpart.

Annual average true vapor pressure, as used in this subpart, means the total vapor pressure exerted by a stored or transferred organic liquid at the temperature equal to the annual average of the local (nearest) average monthly temperatures reported by the National Weather Service. This temperature is the arithmetic average of the 12 monthly average temperatures for each calendar year at each affected source and is recalculated at the end of each year. The vapor pressure value is determined:

(1) In accordance with methods described in American Petroleum Institute Publication 2517, Evaporative Loss from External Floating-Roof Tanks (incorporated by reference as specified in § 63.14);

(2) Using standard reference texts;

(3) By the American Society for Testing and Materials Method D2879–83 (incorporated by reference as specified in § 63.14); or

(4) Using any other method that the EPA approves.

API gravity means the weight per unit volume of hydrocarbon liquids as measured by a system recommended by the American Petroleum Institute (API) and is expressed in degrees.

Black oil means hydrocarbon (petroleum) liquid with a gas-to-oil ratio less than 0.31 cubic meters per liter (41.4 cubic feet per gallon) and an API gravity less than 40 degrees, measured at the point of entry to the distribution system.

Capacity means the volume of liquid that is capable of being stored in a storage tank, determined by multiplying the tank's internal cross-sectional area by the internal height of the shell.

Cargo tank means a tank truck or railcar into which organic liquids are loaded at an OLD operation transfer rack.

Closed vent system means a system that is not open to the atmosphere and is composed of piping, ductwork, connections, and, if necessary, flow-inducing devices that transport gas or vapors from an emission point to a control device. This system does not include the vapor collection system that is part of some tank trucks and railcars or the loading arm or hose that is used for vapor return. For transfer racks, the closed vent system begins at, and includes, the first block valve on the downstream side of the loading arm or hose used to convey displaced vapors.

Combustion device means an individual unit of equipment, such as a flare, incinerator, process heater, or boiler, used for the combustion of organic emissions.

Control device, as used in this subpart, means any combustion device, recovery device, recapture device, or any combination of these devices used to comply with this subpart. Such equipment or devices include, but are not limited to, absorbers, adsorbers, condensers, incinerators, flares, boilers, and process heaters. Primary condensers, steam strippers, or fuel gas systems are not considered control devices.

Crude oil, as used in this subpart, means any of the naturally occurring liquids commonly referred to as crude oil, other than black oil, regardless of specific physical properties.

Crude oil pipeline breakout station plant site means a facility along a pipeline containing storage tanks and equipment used to temporarily store crude oil from the pipeline. Breakout stations may also contain booster pumps used to move the crude oil along the pipeline. These facilities are downstream of the point of custody transfer.

Crude oil pipeline pumping station plant site means a facility along a pipeline containing equipment (i.e., booster pumps, etc.) used to sustain the movement of crude oil through the pipeline. Pumping stations may also contain crude oil breakout storage tanks. These facilities are downstream of the point of custody transfer.

Custody transfer means the transfer of hydrocarbon liquids, after processing and/or treatment in the producing operations, from storage tanks or automatic transfer facilities to pipelines or any other forms of transportation.

Design evaluation means a procedure for evaluating control devices that complies with the requirements in § 63.985(b)(1)(i).

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation (including any operating limit) or work practice standard;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart, and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation (including any operating limit) or work practice standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Emission limitation means an emission limit, opacity limit, operating limit, or visible emission limit.

Equipment means each pump, valve, and sampling connection system used in organic liquids service at an OLD operation.

Gasoline means any petroleum distillate or petroleum distillate/alcohol

blend having a Reid vapor pressure of 27.6 kilopascals (4.0 psia) or greater which is used as a fuel for internal combustion engines. Aviation gasoline is included in this definition.

Gas-to-oil ratio means the number of standard cubic meters of gas produced per liter of crude oil or other hydrocarbon liquid.

In organic liquids service means that a piece of equipment contains or contacts organic liquids having 5 percent by weight or greater of the organic HAP listed in Table 1 of this subpart.

Organic liquid, as used in this subpart, means:

(1) Crude oil; or

(2) Any liquid or liquid mixture that contains a total of 5 percent by weight or more of the organic HAP listed in Table 1 of this subpart, as determined using Method 18 of 40 CFR part 60, appendix A, or any other method approved by the Administrator. Any fuels consumed or dispensed directly to users on the plant site and all gasoline are excluded from the definition.

Organic liquids distribution (OLD) operation means the activities and equipment used to transfer organic liquids into or out of a plant site. It also includes storage of distributed organic liquids on the site. The OLD operation can be those activities performed at a dedicated distribution plant site, or it may be collocated in a plant site at which manufacturing operations are carried out.

Permitting authority means one of the following:

(1) The State air pollution control agency, local agency, or other agency authorized by the EPA Administrator to carry out a permit program under part 70 of this chapter; or

(2) The EPA Administrator, in the case of EPA-implemented permit programs under title V of the CAA (42 U.S.C. 7661) and part 71 of this chapter.

Plant site, as used in this subpart, means all contiguous or adjoining property that is under common control, including properties that are separated only by a road or other public right-of-way. Common control includes properties that are owned, leased, or operated by the same entity, parent entity, subsidiary, or any combination.

Research and development facility means laboratory and pilot plant operations whose primary purpose is to conduct research and development into new processes and products, where the operations are under the close supervision of technically trained personnel, and which are not engaged in the manufacture of products for commercial sale, except in a *de minimis* manner.

Responsible official means responsible official as defined in 40 CFR 70.2.

Shutdown means the cessation of operation of a regulated source and equipment required or used to comply with this subpart, or the emptying and degassing of a storage tank. Shutdown as defined in this section includes, but is not limited to, events that result from periodic maintenance, replacement of equipment, or repair.

Storage tank, as used in this subpart, means a stationary unit that is constructed primarily of nonearthen materials (such as wood, concrete, steel, or reinforced plastic) that provide structural support and is designed to hold a bulk quantity of liquid. Storage tanks do not include:

(1) Vessels permanently attached to conveyances such as trucks, railcars, barges, or ships;

(2) Bottoms receiver tanks;

(3) Surge control vessels;

(4) Vessels storing wastewater; or

(5) Reactor vessels associated with a manufacturing process unit.

Transfer rack means a single system used to load organic liquids into bulk cargo tanks mounted on or in a truck, truck trailer, or railcar. It includes all loading arms, pumps, meters, shutoff valves, relief valves, and other piping and equipment necessary for the transfer operation. Transfer equipment and operations that are physically separate (*i.e.,* do not share common piping, valves, and other equipment) are considered to be separate transfer racks.

Transfer rack loading position means an individual tank truck or railcar parking spot at a transfer rack. An affected loading position is one at which 11.8 million liters (3.12 million gallons) per year or more of organic liquids are transferred into a combination of tank trucks and railcars.

Vapor-tight cargo tank means a cargo tank liquid delivery tank that has been demonstrated to be vapor-tight. To be considered vapor-tight, a cargo tank equipped with vapor collection equipment must undergo a pressure change of no more than 250 pascals (1 inch of water) within 5 minutes after it is pressurized to 4,500 pascals (18 inches of water). This capability must be demonstrated annually using the procedures specified in Method 27 of 40 CFR part 60, appendix A. For all other cargo tanks, vapor tightness is demonstrated by performing the U.S. Department of Transportation pressure test procedures for tank cars and cargo tanks.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the CAA.

Tables to Subpart EEEE of Part 63

TABLE 1 TO SUBPART EEEE OF PART 63—ORGANIC HAZARDOUS AIR POLLUTANTS

[As stated in § 63.2334(b), you must use the information listed in the following table to determine if the liquids handled at your facility contain at least 5 percent by weight of these HAP]

Compound name	CAS No.[a]
Acetaldehyde	75–07–0
Acetonitrile	75–05–8
Acrolein	107–02–8
Acrylic acid	79–10–7
Acrylonitrile	107–13–1
Allyl chloride	107–05–1
Benzene	71–43–2
Bis (chloromethyl) ether	542–88–1
Bromoform	75–25–2
Butadiene (1,3-)	106–99–0
Carbon disulfide	75–15–0
Carbon tetrachloride	56–23–5
Chlorobenzene	108–90–7
2-Chloro-1,3-butadiene (Chloroprene)	126–99–8
Chloroform	67–66–3
Cumene	98–82–8

TABLE 1 TO SUBPART EEEE OF PART 63—ORGANIC HAZARDOUS AIR POLLUTANTS—Continued

[As stated in § 63.2334(b), you must use the information listed in the following table to determine if the liquids handled at your facility contain at least 5 percent by weight of these HAP]

Compound name	CAS No.[a]
Dichloroethane (1,2-) (Ethylene dichloride) (EDC)	107–06–2
Dichloroethylether (Bis(2-chloroethyl)ether)	111–44–4
Dichloropropene (1,3-)	542–75–6
Diethylene glycol monobutyl ether	112–34–5
Diethylene glycol monomethyl ether	111–77–3
Dimethylhydrazine (1,1-)	57–14–7
Dioxane (1,4-) (1,4-Diethyleneoxide)	123–91–1
Epichlorohydrin (1-Chloro-2,3-epoxypropane)	106–89–8
Epoxybutane (1,2-)	106–88–7
Ethyl acrylate	140–88–5
Ethylbenzene	100–41–4
Ethyl chloride (Chloroethane)	75–00–3
Ethylene dibromide (Dibromomethane)	106–93–4
Ethylene glycol dimethyl ether	110–71–4
Ethylene glycol monomethyl ether	109–86–4
Ethylene glycol monomethyl ether acetate	110–49–6
Ethylene glycol monophenyl ether	122–99–6
Ethylene oxide	75–21–8
Ethylidene dichloride (1,1-Dichloroethane)	75–34–3
Formaldehyde	50–00–0
Hexane	110–54–3
Hydrazine	302–01–2
Methanol	67–56–1
Methyl bromide (Bromomethane)	74–83–9
Methyl chloride (Chloromethane)	74–87–3
Methylene chloride (Dichloromethane)	75–09–2
Methyl ethyl ketone (2-Butanone) (MEK)	78–93–3
Methyl hydrazine	60–34–4
Methyl isobutyl ketone (Hexone) (MIBK)	108–10–1
Methyl isocyanate	624–83–9
Methyl methacrylate	80–62–6
Methyl tert-butyl ether (MTBE)	1634–04–4
Nitropropane (2-)	79–46–9
Phosgene	75–44–5
Propionaldehyde	123–38–6
Propylene dichloride (1,2-Dichloropropane)	78–87–5
Propylene oxide	75–56–9
Styrene	100–42–5
Tetrachloroethane (1,1,2,2-)	79–34–5
Tetrachloroethylene (Perchloroethylene)	127–18–4
Toluene	108–88–3
Trichloroethane (1,1,1-) (Methyl chloroform)	71–55–6
Trichloroethane (1,1,2-) (Vinyl trichloride)	79–00–5
Trichloroethylene	79–01–6
Triethylamine	121–44–8
Trimethylpentane (2,2,4-)	540–84–1
Vinyl acetate	108–05–4
Vinyl chloride (Chloroethylene)	75–01–4
Vinylidene chloride (1,1-Dichloroethylene)	75–35–4
Xylene (m-)	108–38–3
Xylene (o-)	95–47–6
Xylene (p-)	106–42–3
Xylenes (isomers and mixtures)	1330–20–7

[a] CAS numbers refer to the Chemical Abstracts Services registry number assigned to specific compounds, isomers, or mixtures of compounds.

TABLE 2 TO SUBPART EEEE OF PART 63—EMISSION LIMITS

[As stated in §§ 63.2338(b)(2) and 63.2346(a), you must comply with the emission limits for organic liquid distribution affected sources in the following table]

If you own or operate * * *	And if * * *	Then you must * * *
1. A storage tank at an existing affected source with a capacity ≥75 cubic meters (20,000 gallons) and <151 cubic meters (40,000 gallons).	a. The annual average true vapor pressure of the stored organic liquid is ≥13.1 kilopascals (1.9 psia) and <76.6 kilopascals (11.1 psia).	i. Reduce emissions of total organic HAP or TOC by 95 weight-percent (or, for combustion devices, to an exhaust concentration of 20 parts per million by volume, on a dry basis, corrected to 3% oxygen) by venting emissions through a closed vent system to any combination of control devices meeting the requirements of subpart SS of this part, as specified in §§ 63.982(a)(1) and (f), 63.983, 63.984, 63.985, 63.987, 63.988, 63.990, and 63.995; or ii. Comply with the work practice standards specified in Table 4, item 1 of this subpart.
2. A storage tank at an existing affected source with a capacity ≥151 cubic meters (40,000 gallons).	The annual average true vapor pressure of the stored organic liquid is ≥5.2 kilopascals (0.75 psia).	Same as item 1 of Table 2 of this subpart.
3. A storage tank at a new affected source with a capacity ≥38 cubic meters (10,000 gallons) and <151 cubic meters (40,000 gallons).	The annual average true vapor pressure of the stored organic liquid is ≥13.1 kilopascals (1.9 psia) and <76.6 kilopascals (11.1 psia).	Same as item 1 of Table 2 of this subpart.
4. A storage tank at a new affected source with a capacity ≥151 cubic meters (40,000 gallons).	The annual average true vapor pressure of the stored organic liquid is ≥0.7 kilopascals (0.1 psia).	Same as item 1 of Table 2 of this subpart.
5. A transfer rack	a. The transfer rack loads at any loading position ≥11.8 million liters (3.12 million gallons) per year of organic liquids into a combination of tank trucks and railcars.	i. Reduce emissions of total organic HAP or TOC at each affected loading position by 95 weight-percent (or, for combustion devices, to an exhaust concentration less than or equal to 20 parts per million by volume, on a dry basis, corrected to 3% oxygen) by venting emissions through a closed vent system to any combination of control devices meeting the requirements of subpart SS of this part, as specified in §§ 63.982(a)(3)(ii) and (f), 63.983, 63.984, 63.987, 63.988, 63.990, 63.995, and 63.997; and ii. Comply with the work practice standards specified in Table 4, item 2 of this subpart.

TABLE 3 TO SUBPART EEEE OF PART 63—OPERATING LIMITS

[As stated in §§ 63.2346(b) and 63.2370(b), you must comply with the operating limits for organic liquid distribution affected sources in the following table]

For * * *	You must * * *
1. Each existing and each new affected source using a thermal oxidizer to comply with an emission limit in Table 2 of this subpart.	Maintain the hourly average firebox temperature greater than or equal to the reference temperature established during the design evaluation or performance test.
2. Each existing and each new affected source using a catalytic oxidizer to comply with an emission limit in Table 2 of this subpart.	a. Replace the existing catalyst bed with a bed that meets the replacement specifications established during the design evaluation or performance test before the age of the bed exceeds the maximum allowable age established during the design evaluation or performance test; and b. Maintain the hourly average temperature at the inlet of the catalyst bed greater than or equal to the reference temperature established during the design evaluation or performance test; and c. Maintain the hourly average temperature difference across the catalyst bed greater than or equal to the minimum temperature difference established during the design evaluation or performance test.
3. Each existing and each new affected source using a condenser to comply with an emission limit in Table 2 of this subpart.	Maintain the hourly average condenser exit temperature less than or equal to the reference temperature established during the design evaluation or performance test.
4. Each existing and each new affected source using an adsorption system with adsorbent regeneration to comply with an emission limit in Table 2 of this subpart.	a. Replace the existing adsorbent in each segment of the bed with an adsorbent that meets the replacement specifications established during the design evaluation or performance test before the age of the adsorbent exceeds the maximum allowable age established during the design evaluation or performance test; and b. Maintain the frequency of regeneration greater than or equal to the reference frequency established during the design evaluation or performance test; and c. Maintain the total regeneration stream mass flow during the adsorption bed regeneration cycle greater than or equal to the reference stream mass flow established during the design evaluation or performance test; and d. Maintain the temperature of the adsorption bed during regeneration (except during the cooling cycle) greater than or equal to the reference temperature established during the design evaluation or performance test; and

TABLE 3 TO SUBPART EEEE OF PART 63—OPERATING LIMITS—Continued

[As stated in §§ 63.2346(b) and 63.2370(b), you must comply with the operating limits for organic liquid distribution affected sources in the following table]

For * * *	You must * * *
	e. Maintain the temperature of the adsorption bed after regeneration (and within 15 minutes after completing any cooling cycle) less than or equal to the reference temperature established during the design evaluation or performance test.
5. Each existing and each new affected source using an adsorption system without adsorbent regeneration to comply with an emission limit in Table 2 of this subpart.	a. Replace the existing adsorbent in each segment of the bed with an adsorbent that meets the replacement specifications established during the design evaluation or performance test before the age of the adsorbent exceeds the maximum allowable age established during the design evaluation or performance test; and b. Maintain the temperature of the adsorption bed less than or equal to the reference temperature established during the design evaluation or performance test.
6. Each existing and each new affected source using a flare to comply with an emission limit in Table 2 of this subpart.	a. Comply with the equipment and operating requirements in § 63.987(a); and b. Conduct an initial flare compliance assessment in accordance with § 63.987(b); and c. Install and operate monitoring equipment as specified in § 63.987(c).

TABLE 4 TO SUBPART EEEE OF PART 63—WORK PRACTICE STANDARDS

[As stated in § 63.2346(c), you must comply with the work practice standards for organic liquid distribution affected sources in the following table]

For each * * *	You must * * *
1. Storage tank at an existing or new affected source meeting any set of capacity and vapor pressure limits specified in Table 2, items 1–4 of this subpart.	As an alternative to the emission limit in Table 2 of this subpart, comply with the requirements of subpart WW (control level 2) of this part.
2. Transfer rack affected loading position at an existing or new affected source that meets the throughput cut-off specified in Table 2, item 5 of this subpart.	a. For cargo tanks equipped with vapor collection equipment, ensure that organic liquids are loaded only into cargo tanks that have been demonstrated, using EPA Method 27, 40 CFR part 60, appendix A within the last 12 months, to be vapor-tight (i.e., will undergo a pressure change of not more than 250 pascals (1 inch of water) within 5 minutes after being pressurized to 4,500 pascals (18 inches of water)). Follow the steps outlined in 40 CFR 60.502(e) for these equipped cargo tanks. The required vapor tightness documentation is described in 40 CFR 60.505(b); and b. For cargo tanks without vapor collection equipment, ensure that organic liquids are loaded only into cargo tanks that have a current certification in accordance with the U.S. DOT pressure test requirements; and c. Comply with the provisions in 40 CFR 60.502(d), (f), (g), (h), and (i) for the equipped cargo tanks described in item 2.a in Table 4 of this subpart.
3. Piece of equipment, as defined under 63.2406, of this subpart, that operates in organic liquids service ≥ 300 hours per year.	Comply with the requirement of subpart TT (control level 1) or subpart UU (control level 2) of this part.

TABLE 5 TO SUBPART EEEE OF PART 63—REQUIREMENTS FOR PERFORMANCE TESTS

[As stated in §§ 63.2358 and 63.2362(a), you must comply with the requirements for performance tests for existing or new affected sources in the following table]

For * * *	You must conduct a performance test * * *	Using * * *	To determine * * *	According to the following requirements * * *
1. Each existing and each new affected source using a nonflare control device to comply with an emission limit in Table 2 of this subpart.	a. To determine the organic HAP or TOC control efficiency of each nonflare control device, or the exhaust concentration of each combustion device.	i. Method 1 or 1A in appendix A of 40 CFR part 60, as appropriate.	(1) Sampling port locations and the required number of traverse points.	(A) Sampling sites must be located at the inlet and outlet of each control device and prior to any releases to the atmosphere; and (B) Sampling sites must be located at the outlet of each control device and prior to any releases to the atmosphere.
		ii. Method 2, 2A, 2C, 2D, 2F, or 2G in appendix A of 40 CFR part 60, as appropriate.	Stack gas velocity and volumetric flow rate..	See the requirement in item 1.a.i.(1)(A) and (B) of this table.
		iii. Method 3 or 3B in appendix A of 40 CFR part 60, as appropriate.	Concentration of CO_2 and O_2 and dry molecular weight of the stack gas.	See the requirement in item 1.a.i.(1)(A) and (B) of this table.
		iv. Method 4 in appendix A of 40 CFR part 60.	Moisture content of the stack gas.	See the requirement in item 1.a.i.(1)(A) and (B) of this table.

TABLE 5 TO SUBPART EEEE OF PART 63—REQUIREMENTS FOR PERFORMANCE TESTS—Continued

[As stated in §§ 63.2358 and 63.2362(a), you must comply with the requirements for performance tests for existing or new affected sources in the following table]

For * * *	You must conduct a performance test * * *	Using * * *	To determine * * *	According to the following requirements * * *
		v. Method 18, 25, or 25A in appendix A of 40 CFR part 60, as appropriate, or Method 316 in appendix A of 40 CFR part 63 for measuring formaldehyde.	(1) Total organic HAP or TOC, or formaldehyde emissions.	(A) The organic HAP used for the calibration gas for Method 25A must be the single organic HAP representing the largest percent by volume of emissions; and (B) during the performance test or a design evaluation, you must establish the operating parameter limits within which total organic HAP or TOC emissions are reduced by at least 95 weight-percent or to 20 ppmv exhaust concentration
2. Each cargo tank that you own that loads at an existing or new affected transfer rack loading position and equipped with vapor collection equipment.	To determine the vapor tightness of the tank and repair as needed until it passes the test.	Method 27 in appendix A of 40 CFR part 60.	Vapor tightness	The pressure change in the tank must be no more than 250 pascals (1 inch of water) in 5 minutes after it is pressurized to 4,500 pascals (18 inches of water).

TABLE 6 TO SUBPART EEEE OF PART 63—INITIAL COMPLIANCE WITH EMISSION LIMITS

[As stated in §§ 63.2370(a) and 63.2382(e), you must show initial compliance with the emission limits for existing or new affected sources according to the following table]

For each * * *	For the following emission limit * * *	You have demonstrated initial compliance if * * *	By * * *
1. Storage tank at an existing affected source meeting either set of capacity and vapor pressure limits specified in Table 2, items 1 and 2 of this subpart.	a. Reduce total organic HAP or TOC emissions by at least 95 weight-percent, or to an exhaust concentration of ≤20 ppmv.	i. Total organic HAP or TOC emissions, based on the results of the performance testing specified in Table 5 of this subpart, are reduced by at least 95 weight-percent or to an exhaust concentration of ≤20 ppmv.	3 years after [publication date of final rule in the FR].
2. Storage tank at a new affected source meeting either set of capacity and vapor pressure limits specified in Table 2, items 3 and 4 of this subpart.	See the emission limit in item 1.a. of this table.	See the compliance demonstration in item 1.a.i. of this table.	The initial startup date for the affected source.
3. Transfer rack loading position at an existing affected source meeting the throughput level for organic liquids specified in Table 2, item 5 of this subpart.	See the emission limit in item 1.a.i.(1)(A) and (B) of this table.	See the compliance demonstration in item 1.a.i.(1)(A) and (B) of this table.	3 years after [publication date of final rule in the FR].
4. Transfer rack loading position at a new affected source meeting the throughput level for organic liquids specified in Table 2, item 5 of this subpart.	See the emission limit in item 1.a.i.(1)(A) and (B) of this table.	See the compliance demonstration item 1.a.i.(1)(A) and (B) of this table.	The initial startup date for the affected source.

TABLE 7 TO SUBPART EEEE OF PART 63—INITIAL COMPLIANCE WITH WORK PRACTICE STANDARDS

[As stated in §§ 63.2370(a) and 63.2382(e), you must show initial compliance with the work practice standards for existing or new affected sources according to the following table]

For each * * *	For the following standard * * *	You have demonstrated initial compliance if * * *	By * * *
1. Storage tank at an existing affected source meeting either set of capacity and vapor pressure specified in Table 2, items 1 and 2 of this subpart.	Install a floating roof or equivalent control that meets the requirements in Table 4, item 1 of this subpart.	You visually inspect each internal floating roof before the initial filling of the storage tank, and perform seal gap inspections of the primary and secondary rim seals of each external floating roof within 90 days after the initial filling of the storage tank.	3 years after [publication date of final rule in the FR].
2. Storage tank at a new affected source meeting either set of capacity and vapor pressure limits specified in Table 2, items 3 and 4 of this subpart.	See the standard in item 1. of this table.	See the compliance demonstration in item 1. of this table.	The initial startup date for the affected source.
3. Transfer rack loading position at an existing affected source that meets the throughput cutoff in Table 2, item 5 of this subpart.	Load organic liquids only into cargo tanks having current vapor tightness certification as described in Table 4, item 2 of this subpart.	You take steps to ensure that only vapor-tight cargo tanks load at affected loading positions.	3 years after [publication date of final rule in the FR].
4. Transfer rack loading position at a new affected source that meets the throughput cutoff in Table 2, item 5 of this subpart.	See the standard in item 3. of this table.	See the compliance demonstration in item 3. of this table.	The initial startup date for the affected source.
5. Piece of equipment at an existing affected source, as defined under § 63.2410 that operates in organic liquids service ≥ 300 hours per year.	Carry out a leak detection and repair program or equivalent control according to one of the subparts listed in Table 4, item 3 of this subpart.	You make available written specifications for the leak detection and repair program or equivalent control approach.	3 years after [publication date of final rule in the FR].
6. Piece of equipment at a new affected source, as defined under § 63.2410 that operates in organic liquids service ≥ 300 hours per year.	See the standard in item 5. of this table.	See the compliance demonstration in item 5. of this table.	The initial startup date for the affected source.

TABLE 8 TO SUBPART EEEE OF PART 63—CONTINUOUS COMPLIANCE WITH EMISSION LIMITS

[As stated in §§ 63.2378(a) and (b) and 63.2390(c), you must show continuous compliance with the emission limits for existing or new affected sources according to the following table]

For * * *	For the following emission limit * * *	You must demonstrate continuous compliance by * * *
1. Each storage tank at an existing or new affected source meeting any set of capacity and vapor pressure limits specified in Table 2, items 1 through 4 of this subpart.	a. Reduction of total organic HAP or TOC emissions from the closed vent system and control device must be 95 weight-percent or greater, or 20 ppmv of organic HAP or TOC in the exhaust of combustion devices.	i. Performing CMS monitoring and collecting data according to §§ 63.2366, 63.2374, and 63.2378; and ii. Maintaining the site-specific operating limits within the ranges established during the design evaluation or performance test.
2. Each transfer rack loading position at an existing or new affected source meeting the throughput cutoff for organic liquids specified in Table 2, item 5 of this subpart.	See the emission limit in item 1.a. of this table	See the compliance demonstration in item 1.a.i. and ii. of this table.

TABLE 9 TO SUBPART EEEE OF PART 63—CONTINUOUS COMPLIANCE WITH OPERATING LIMITS

[As stated in §§ 63.2378(a) and (b) and 63.2390(c), you must show continuous compliance with the operating limits for existing or new affected sources according to the following table]

For each existing and each new * * *	For the following operating limit * * *	You must demonstrate continuous compliance by * * *
1. Affected source using a thermal oxidizer to comply with an emission limit in Table 2 of this subpart.	a. Maintain the hourly average firebox temperature greater than or equal to the reference temperature established during the design evaluation or performance test.	i. Continuously monitoring and recording firebox temperature every 15 minutes and maintaining the hourly average firebox temperature greater than or equal to the reference temperature established during the design evaluation or performance test; and ii. Keeping the applicable records required in § 63.998.

TABLE 9 TO SUBPART EEEE OF PART 63—CONTINUOUS COMPLIANCE WITH OPERATING LIMITS—Continued

[As stated in §§ 63.2378(a) and (b) and 63.2390(c), you must show continuous compliance with the operating limits for existing or new affected sources according to the following table]

For each existing and each new * * *	For the following operating limit * * *	You must demonstrate continuous compliance by * * *
2. Affected source using a catalytic oxidizer to comply with an emission limit in Table 2 of this subpart.	a. Replace the existing catalyst bed with a catalyst bed that meets the replacement specifications established during the design evaluation or performance test before the age of the bed exceeds the maximum allowable age established during the design evaluation or performance test.	i. Replacing the existing catalyst bed with a catalyst bed that meets the replacement specifications established during the design evaluation or performance test before the age of the bed exceeds the maximum allowable age established during the design evaluation or performance test; and ii. Keeping the applicable records required in § 63.998.
	b. Maintain the hourly average temperature at the inlet of the catalyst bed greater than or equal to the reference temperature established during the design evaluation or performance test.	i. Continuously monitoring and recording the temperature at the inlet of the catalyst bed at least every 15 minutes and maintaining the hourly average temperature at the inlet of the catalyst bed greater than or equal to the reference temperature established during the design evaluation or performance test; and ii. Keeping the applicable records required in § 63.998.
	c. Maintain the hourly average temperature difference across the catalyst bed greater than or equal to the minimum temperature difference established during the design evaluation or performance test.	i. Continuously monitoring and recording the temperature at the outlet of the catalyst bed every 15 minutes and maintaining the hourly average temperature difference across the catalyst bed greater than or equal to the minimum temperature difference established during the design evaluation or performance test; and ii. Keeping the applicable records required in § 63.998.
3. Affected source using a condenser to comply with an emission limit in Table 2 of this subpart.	a. Maintain the hourly average condenser exit temperature less than or equal to the reference temperature established during the design evaluation or performance test.	i. Continuously monitoring and recording the temperature at the exit of the condenser at least every 15 minutes and maintaining the hourly average condenser exit temperature less than or equal to the reference temperature established during the design evaluation or performance test; and ii. Keeping the applicable records required in § 63.998.
4. Affected source using an adsorption system with adsorbent regeneration to comply with an emission limit in Table 2 of this subpart.	a. Replace the existing adsorbent in each segment of the bed with an adsorbent that meets the replacement specifications established during the design evaluation or performance test before the age of the adsorbent exceeds the maximum allowable age established during the design evaluation or performance test.	i. Replacing the existing adsorbent in each segment of the bed with an adsorbent that meets the replacement specifications established during the design evaluation or performance test before the age of the adsorbent exceeds the maximum allowable age established during the design evaluation or performance test; and ii. Keeping the applicable records required in § 63.998.
	b. Maintain the frequency of regeneration greater than or equal to the reference frequency established during the design evaluation or performance test.	i. Maintaining the frequency of regeneration greater than or equal to the reference frequency established during the design evaluation or performance test; and ii. Keeping the applicable records required in § 63.998.
	c. Maintain the regeneration stream mass flow during the adsorption bed regeneration cycle greater than or equal to the reference stream mass flow established during the design evaluation or performance test.	i. Maintaining the total regeneration stream mass flow during the adsorption bed regeneration cycle greater than or equal to the reference stream mass flow established during the design evaluation or performance test; and ii. Keeping the applicable records required in § 63.998.

TABLE 9 TO SUBPART EEEE OF PART 63—CONTINUOUS COMPLIANCE WITH OPERATING LIMITS—Continued

[As stated in §§ 63.2378(a) and (b) and 63.2390(c), you must show continuous compliance with the operating limits for existing or new affected sources according to the following table]

For each existing and each new * * *	For the following operating limit * * *	You must demonstrate continuous compliance by * * *
	d. Maintain the temperature of the adsorption bed during regeneration (except during the cooling cycle) greater than or equal to the reference temperature established during the design evaluation or performance test.	i. Maintaining the temperature of the adsorption bed during regeneration (except during the cooling cycle) greater than or equal to the reference temperature established during the design evaluation or performance test; and ii. Keeping the applicable records required in § 63.998.
	e. maintain the temperature of the adsorption bed after regeneration (and within 15 minutes after completing any cooling cycle) less than or equal to the reference temperature established during the design evaluation or performance test.	i. Maintaining the temperature of the adsorption bed after regeneration (and within 15 minutes after completing any cooling cycle) less than or equal to the reference temperature established during the design evaluation or performance test; and ii. Keeping the applicable records required in § 63.998.
5. Affected source using an adsorption system without adsorbent regeneration to comply with an emission limit in Table 2 of this subpart.	a. Replace the existing adsorbent in each segment of the bed with an adsorbent that meets the replacement specifications established during the design evaluation or performance test before the age of the adsorbent exceeds the maximum allowable age established during the design evaluation or performance test.	i. Replacing the existing adsorbent in each segment of the bed with an adsorbent that meets the replacement specifications established during the design evaluation or performance test before the age of the adsorbent exceeds the maximum allowable age established during the design evaluation or performance test; and ii. Keeping the applicable records required in § 63.998.
	b. Maintain the temperature of the adsorption bed less than or equal to the reference temperature established during the design evaluation or performance test.	i. Maintaining the temperature of the adsorption bed less than or equal to the reference temperature established during the design evaluation or performance test; and ii. Keeping the applicable records required in § 63.998.
6. Affected source using a flare to comply with an emission limit in Table 2 of this subpart.	a. Maintain a pilot flame present in the flare at all times that vapors are not being vented to the flare (§ 63.11(b)(5)).	i. Continuously operating a device that detects the presence of the pilot flame; and ii. Keeping the applicable records required in § 63.998.
	b. Maintain a flare flame at all times that vapors are being vented from the emission source (§ 63.11(b)(5)).	i. Maintaining a flare flame at all times that vapors are being vented from the emission source; and ii. Keeping the applicable records required in § 63.998.
	c. Operate the flare with no visible emissions, except for up to 5 minutes in any 2 consecutive hours (§ 63.11(b)(4)).	i. Operating the flare with no visible emissions exceeding the amount allowed; and ii. Keeping the applicable records required in § 63.998.
	d. Operate the flare with an exit velocity that is within the applicable limits in § 63.11(b)(6), (7), and (8).	i. Operating the flare within the applicable exit velocity limits; and ii. Keeping the applicable records required in § 63.998.
	e. Operate the flare with a net heating value of the gas being combusted greater than the applicable minimum value in § 63.11(b)(6)(ii).	i. Operating the flare with the gas net heating value within the applicable limit; and ii. Keeping the applicable records required in § 63.998.

TABLE 10 TO SUBPART EEEE OF PART 63—CONTINUOUS COMPLIANCE WITH WORK PRACTICE STANDARDS

[As stated in §§ 63.2378(a) and (b) and 63.2386(c)(6), you must show continuous compliance with the work practice standards for existing or new affected sources according to the following table]

For* * *	For the following standard* * *	You must demonstrate continuous compliance by* * *
1. Each internal floating roof (IFR) storage tank at an existing or new affected source meeting any set of capacity and vapor pressure limits specified in Table 2, items 1 through 4 of this subpart.	a. Install a floating roof designed and operated according to the applicable specifications in § 63.1063(a) and (b).	i. Visually inspecting the floating roof deck, deck fittings, and rim seals of each IFR: once per year, and each time the storage tank is completely emptied and degassed, or every 10 years, whichever occurs first (§ 63.1063(c)(1), (d), and (e)); and ii. Keeping the tank records required in § 63.1065.
2. Each external floating roof (EFR) storage tank at an existing or new affected source meeting any set of capacity and vapor pressure limits specified in Table 2, items 1 through 4 of this subpart.	a. See the standard in item 1.a. of this table ..	i. Visually inspecting the floating roof deck, deck fittings, and rim seals of each EFR each time the storage tank is completely emptied and degassed, or every 10 years, whichever occurs first (§ 63.1063(c)(2), (d), and (e)); and ii. Performing seal gap measurements on the secondary seal of each EFR at least once every year, and on the primary seal of each EFR at least every 5 years (§ 63.1063(c)(2), (d), and (e)); and iii. Keeping the tank records required in § 63.1065.
3. Each IFR or EFR tank at an existing or new affected source meeting any set of capacity and vapor pressure limits specified in Table 2, items 1 through 4 of this subpart.	a. Repair the conditions causing storage tank inspection failures (§ 63.1063(e)).	i. Repairing conditions causing inspection failures: before refilling the storage tank with liquid, or within 45 days (or up to 105 days with extensions) for a tank containing liquid; and ii. keeping the tank records required in § 63.1065(b).

TABLE 11 TO SUBPART EEEE OF PART 63—REQUIREMENTS FOR REPORTS

[As stated in § 63.2386(b) and (f), you must submit a compliance or startup, shutdown, and malfunction report according to the following table]

You must submit a (n) * * *	The report must contain * * *	You must submit the report * * *
1. Compliance report	a. A statement that there were no deviations from the standards during the reporting period; or if you have a deviation from any standard during the reporting period, the report must contain the information in § 63.2386(e).	i. Semiannually, and report. it must be postmarked within 30 days after the end of each calendar half (§ 63.10(e)(3)(v)).
	b. If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your SSMP, the compliance report must include the information in § 63.10(d)(5)(i).	See the submission in item 1.a.i. of this table.
2. Immediate startup, shutdown, and malfunction report if you had a startup, shutdown, or malfunction during the reporting period that is not consistent with your SSMP.	a. Actions taken for the event	By fax or telephone within 2 working days after starting actions inconsistent with the plan.
	b. The information in § 63.10(d)(5)(ii)	By letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authority (§ 63.10(d)(5)(ii)).

TABLE 12 TO SUBPART EEEE OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART EEEE

[As stated in § 63.2398, you must comply with the applicable General Provisions requirements according to the following table]:

Citation	Subject	Brief description	Applies to subpart EEEE
§ 63.1	Applicability	Initial applicability determination; Applicability after standard established; Permit requirements; Extensions, Notifications.	Yes.
§ 63.2	Definitions	Definitions for part 63 standards	Yes
§ 63.3	Units and Abbreviations	Units and abbreviations for part 63 standards	Yes.
§ 63.4	Prohibited Activities and Circumvention.	Prohibited activities; Circumvention, Severability	Yes.

TABLE 12 TO SUBPART EEEE OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART EEEE—Continued

[As stated in § 63.2398, you must comply with the applicable General Provisions requirements according to the following table]:

Citation	Subject	Brief description	Applies to subpart EEEE
§ 63.5	Construction/Reconstruction	Applicability; Applications; Approvals	Yes.
§ 63.6(a)	Compliance with Standards/ O&M–Applicability.	GP apply unless compliance extension; GP apply to area sources that become major.	Yes.
§ 63.6(b)	Compliance Dates for New and Reconstructed Sources.	Standards apply at effective date; 3 years after effective date; upon startup; 10 years after construction or reconstruction commences for section 112(f).	Yes.
§ 63.6(b)(5)	Notification	Must notify if commenced construction or reconstruction after proposal.	Yes.
§ 63.6(b)(6)	[Reserved]		
§ 63.6(b)	Compliance Dates for New and Reconstructed Area Sources that Become Major.	Area sources that become major must comply with major source standards immediately upon becoming major, regardless of whether required to comply when they were an area source.	Yes.
§ 63.6(c)(1)–(2)	Compliance Dates for Existing Sources.	Comply according to date in subpart, which must be no later than 3 years after effective date; for section 112(f) standards, comply within 90 days of effective date unless compliance extension.	Yes.
§ 63.6(c)(3)–(4)	[Reserved]		
§ 63.6(c)(5)	Compliance Dates for Existing Area Sources that Become Major.	Area sources that become major must comply with major source standards by date indicated in subpart or by equivalent time period (e.g., 3 years).	Yes.
§ 63.6(d)	[Reserved]		
§ 63.6(e)(1)–(2)	Operation & Maintenance	Operate to minimize emissions at all times; correct malfunctions as soon as practicable; and operation and maintenance requirements independently enforceable; information Administrator will use to determine if operation and maintenance requirements were met.	Yes.
§ 63.6(e)(3)	Startup, Shutdown, and Malfunction (SSM) Plan.	Requirement for SSM plan; content of SSM plan	Yes.
§ 63.6(f)(1)	Compliance except During SSM	You must comply with emission standards at all times except during SSM.	Yes.
§ 63.6(f)(2)–(3)	Methods for Determining Compliance.	Compliance based on performance test, operation and maintenance plans, records, inspection.	Yes
§ 63.6(g)(1)–(3)	Alternative Standard	Procedures for getting an alternative standard	Yes.
§ 63.6(h)	Opacity/Visible Emission (VE) Standards.	Requirements for opacity and visible emission standards	No. The subpart does not have opacity/VE standards.
§ 63.6(h)(1)	Compliance with opacity/VE Standards.	You must comply with opacity/VE standards at all times except during SSM.	No.
§ 63.6(h)(2)(i)	Determining Compliance with Opacity/VE Standards.	If standard does not state test method, use Method 9 for opacity and Method 22 for VE.	No.
§ 63.6(h)(2)(ii)	[Reserved]		
§ 63.6(h)(2)(iii)	Using Previous Tests to Demonstrate Compliance with Opacity/VE Standards.	Criteria for when previous opacity/VE testing can be used to show compliance with this subpart.	No.
§ 63.6(h)(3)	[Reserved]		
§ 63.6(h)(4)	Notification of Opacity/VE Observation Date.	Must notify Administrator of anticipated date of observation	No.
§ 63.6(h)(5)(i), (iii)–(v).	Conducting Opacity/VE Observations.	Dates and schedule for conducting opacity/VE observations	No.
§ 63.6(h)(5)(ii)	Opacity Test Duration and Averaging Times.	Must have at least 3 hours of observation with thirty 6-minute averages.	No.
§ 63.6(h)(6)	Records of Conditions During Opacity/VE Observations.	Must keep records available and allow Administration to inspect.	No.
§ 63.6(h)(7)(i)	Report COMS Monitoring Data from Performance Test.	Must submit COMS data with other performance test data	No.
§ 63.6(h)(7)(ii)	Using COMS instead of Method 9.	Can submit COMS data instead of Method 9 results even if rule requires Method 9, but must notify Administrator before performance test.	No.
§ 63.6(h)(7)(iii)	Averaging Time for COMS during Performance Test.	To determine compliance, must reduce COMS data to 6-minute averages.	No.
§ 63.6(h)(7)(iv)	COMS Requirements	Owner/operator must demonstrate that COMS performance evaluations are conducted according to § 63.8(e); COMS are properly maintained and operated according to § 63.8(c) and data quality as § 63.8(d).	No.

TABLE 12 TO SUBPART EEEE OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART EEEE—Continued

[As stated in § 63.2398, you must comply with the applicable General Provisions requirements according to the following table]:

Citation	Subject	Brief description	Applies to subpart EEEE
§ 63.6(h)(7)(v)	Determining Compliance with Opacity/VE Standards.	COMS is probable but not conclusive evidence of compliance with opacity standard, even if Method 9 observation shows otherwise. Requirements for COMS to be probable evidence-proper maintenance, meeting PS 1, and data have not been altered.	No.
§ 63.6(h)(8)	Determining Compliance with Opacity/VE Standards.	Administrator will use all COMS, Method 9, and Method 22 results, as well as information about operation and maintenance to determine compliance.	Yes.
§ 63.6(h)(9)	Adjusted Opacity Standard	Procedures for Administrator to adjust an opacity standard ..	Yes.
§ 63.6(i)(1)–(14)	Compliance Extension	Procedures and criteria for Administrator to grant compliance extension.	Yes.
§ 63.6(j)	Presidential Compliance Exemption.	President may exempt any source from requirement to comply with subpart.	Yes.
§ 63.7(a)(1)–(2)	Performance Test Dates	Dates for conducting initial performance testing and other dates are compliance demonstrations; must contained in conduct 180 days after first subject to subpart.	No. These dates are contained in § 63.2354.
§ 63.7(a)(3)	Section 114 Authority	Administrator may require a performance test under CAA section 114 at any time.	Yes.
§ 63.7(b)(1)	Notification of Performance Test	Must notify Administrator 60 days before the test	Yes.
§ 63.7(b)(2)	Notification of Rescheduling	If have to reschedule performance test, must notify Administrator of rescheduled date 5 days before scheduled date.	Yes.
§ 63.7(c)	Quality Assurance/Test Plan	Requirement to submit site-specific 60 days before the test or on date Administrator agrees with; test plan approval procedures; performance audit requirements; internal and external QA procedures for testing.	Yes.
§ 63.7(d)	Testing Facilities	Requirements for testing facilities	Yes.
§ 63.7(e)(1)	Conditions for Conducting Performance Tests.	Performance test must be conducted under representative conditions; cannot conduct performance tests during SSM; not a violation to exceed standard during SSM.	Yes.
§ 63.7(e)(2)	Conditions for Conducting Performance Tests.	Must conduct according to subpart and EPA test methods unless Administrator approves alternative.	Yes.
§ 63.7(e)(3)	Test Run Duration	Must have three test runs of at least one hour each; compliance is based on arithmetic mean of three runs; conditions when data from an additional test run can be used.	Yes.
§ 63.7(f)	Alternative Test Method	Procedures by which Administrator can grant approval to use an alternative test method.	Yes.
§ 63.7(g)	Performance Test Data Analysis	Must include raw data in performance test report; must submit performance test data 60 days after end of test with the notification of compliance status; keep data for 5 years.	Yes
§ 63.7(h)	Waiver of Tests	Procedures for Administrator to waive performance test	Yes.
§ 63.8(a)(1)	Applicability of Monitoring Requirements.	Subject to all monitoring requirements in standard	Yes.
§ 63.8(a)(2)	Performance Specifications	Performance Specifications in appendix B of 40 CFR part 60 apply.	Yes.
§ 63.8(a)(3)	[Reserved]		
§ 63.8(a)(4)	Monitoring with Flares	Unless this subpart says otherwise, the requirements for flares in § 63.11 apply.	Yes.
§ 63.8(b)(1)	Monitoring	Must conduct monitoring according to standard unless Administrator approves alternative.	Yes.
§ 63.8(b)(2)–(3)	Multiple Effluents and Multiple Monitoring Systems.	Specific requirements for installing monitoring systems; must install on each effluent before it is combined and before it is released to the atmosphere unless Administrator approves otherwise; if more than one monitoring system on an emission point, must report all monitoring system results, unless one monitoring system is a backup.	Yes.
§ 63.8(c)(1)	Monitoring System Operation and Maintenance.	Maintain monitoring system in a manner consistent with good air pollution control practices.	Yes.
§ 63.8(c)(1)(i)	Routine and Predictable SSM	Follow the SSM plan for routine repairs; keep parts for routine repairs readily available; reporting requirements for SSM when action is described in SSM plan.	Yes.
§ 63.8(c)(1)(ii)	SSM not in SSM plan	Reporting requirements for SSM when action is not described in SSM plan.	Yes.
§ 63.8(c)(1)(iii)	Compliance with Operation and Maintenance Requirements.	How Administrator determines if source complying with operation and maintenance requirements; review of source O&M procedures, records, manufacturer's recommendations; inspections.	Yes.
§ 63.8(c)(2)–(3)	Monitoring System Installation	Must install to get representative emission or parameter measurements; must verify operational status before or at performance test.	Yes.

TABLE 12 TO SUBPART EEEE OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART EEEE—Continued

[As stated in § 63.2398, you must comply with the applicable General Provisions requirements according to the following table]:

Citation	Subject	Brief description	Applies to subpart EEEE
§ 63.8(c)(4)	CMS Requirements	CMS must be operating except during breakdown, out-of control, repair, maintenance, and high-level calibration drifts; COMS must have a minimum of one cycle of sampling and analysis for each successive 10-second period and one cycle of data recording for each successive 6-minute period; CEMS must have a minimum of one cycle of operation for each successive 15-minute period.	Yes. However, CEMS/COMS are not applicable.
§ 63.8(c)(5)	COMS Minimum Procedures	COMS minimum procedures	No.
§ 63.8(c)(6)–(8)	CMS Requirements	Zero and high level calibration check requirements Out-of-control periods.	Yes.
§ 63.8(d)	CMS Quality Control	Requirements for CMS quality control, including calibration, etc.; must keep quality control plan on record for 5 years; keep old versions for 5 years after revisions.	Yes.
§ 63.8(e)	CMS Performance Evaluation	Notification, performance evaluation test plan, reports	Yes.
§ 63.8(f)(1)–(5)	Alternative Monitoring Method	Procedures for Administrator to approve alternative monitoring.	Yes.
§ 63.8(f)(6)	Alternative to Relative Accuracy Test.	Procedures for Administrator to approve alternative relative accuracy tests for CEMS.	No.
§ 63.8(g)	Data Reduction	COMS 6-minute averages calculated over at least 36 evenly spaced data points; CEMS 1 hour averages computed over at least 4 equally spaced data points; data that cannot be used in average.	Yes. However, CEMS/COMS are not applicable.
§ 63.9(a)	Notification Requirements	Applicability and State delegation	Yes.
§ 63.9(b)(1)–(5)	Initial Notifications	Submit notification within 120 days after effective date; notification of intent to construct/reconstruct, Notification of commencement of construction/reconstruction, Notification of startup; contents of each.	Yes.
§ 63.9(c)	Request for Compliance Extension.	Can request if cannot comply by date or if installed BACT/LAER.	Yes.
§ 63.9(d)	Notification of Special Compliance Requirements for New Sources.	For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date.	Yes.
§ 63.9(e)	Notification of Performance Test	Notify Administrator 60 days prior	Yes.
§ 63.9(f)	Notification of VE/Opacity Test	Notify Administrator 30 days prior	No.
§ 63.9(g)	Additional Notifications When Using CMS.	Notification of performance evaluation; notification about use of COMS data; Notification that exceeded criterion for relative accuracy alternative.	Yes. However, there are no opacity/VE standards.
§ 63.9(h)(1)–(6)	Notification of Compliance Status	Contents; due 60 days after end of performance test or other compliance demonstration, except for opacity/VE, which are due 30 days after; when to submit to Federal vs. State authority.	Yes.
§ 63.9(i)	Adjustment of Submittal Deadlines.	Procedures for Administrator to approve change in when notifications must be submitted.	Yes.
§ 63.9(j)	Change in Previous Information	Must submit within 15 days after the change	Yes.
§ 63.10(a)	Recordkeeping/Reporting	Applies to all, unless compliance extension; when to submit to Federal vs. State authority; procedures for owners of more than 1 source.	Yes.
§ 63.10(b)(1)	Recordkeeping/Reporting	General requirements; keep all records readily available; keep for 5 years.	Yes.
§ 63.10(b)(2)(i)–(iv)	Records Related to Startup, Shutdown, and Malfunction.	Occurrence of each for operations (process equipment); occurrence of each malfunction of air pollution control equipment; maintenance on air pollution control equipment; actions during startups, shutdowns, and malfunctions.	Yes.
§ 63.10(b)(2)(vi)–(xi)	CMS Records	Malfunctions, inoperative, out-of-control periods	Yes.
§ 63.10(b)(2)(xii)	Records	Records when under waiver	Yes.
§ 63.10(b)(2)(xiii)	Records	Records when using alternative to relative accuracy test	Yes.
§ 63.10(b)(2)(xiv)	Records	All documentation supporting initial notification and notification of compliance status.	Yes.
§ 63.10(b)(3)	Records	Applicability determinations	Yes.
§ 63.10(c)	Records	Additional records for CMS	Yes.
§ 63.10(d)(1)	General Reporting Requirements	Requirement to report	Yes.
§ 63.10(d)(2)	Report of Performance Test Results.	When to submit to Federal or State authority	Yes.
§ 63.10(d)(3)	Reporting Opacity or VE Observations.	What to report and when	Yes.
§ 63.10(d)(4)	Progress Reports	Must submit progress reports on schedule if under compliance extension.	Yes.
§ 63.10(d)(5)	Startup, Shutdown, and Malfunction Reports.	Contents and submission	Yes.

TABLE 12 TO SUBPART EEEE OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART EEEE—Continued

[As stated in § 63.2398, you must comply with the applicable General Provisions requirements according to the following table]:

Citation	Subject	Brief description	Applies to subpart EEEE
§ 63.10(e)(1)–(2)	Additional CMS Reports	Must report results for each CEMS on a unit; written copy of CMS performance evaluation; 2–3 copies of COMS performance evaluation.	Yes. However, CEMS/COMS are not applicable.
§ 63.10(e)(3)(i)–(iii)	Reports	Schedule for reporting excess emissions and parameter monitor exceedance (now defined as deviations).	Yes. However, note that the title of the report is the compliance report. Deviations are excess emissions or parameter exceedances.
§ 63.10(e)(3)(iv)–(v)	Excess Emissions Reports	Requirement to revert to quarterly submission if there is an excess emissions and parameter monitor exceedances (now defined as deviations); provision to request semiannual reporting after compliance for 1 year; submit report by 30th day following end of quarter or calendar half; if there has not been an exceedance or excess emissions (now defined as deviations), report contents in a statement that there have been no deviations; must submit report containing all of the information in §§ 63.8(c)(7)–(8) and 63.10(c)(5)–(13).	Yes.
§ 63.10(e)(3)(vi)–(viii).	Excess Emissions Report and Summary Report.	Requirements for reporting excess emissions for CMS (now called deviations); requires all of the information in §§ 63.10(c)(5)–(13) and 63.8(c)(7)–(8).	Yes.
§ 63.10(e)(4)	Reporting COMS data	Must submit COMS data with performance test data	N/A.
§ 63.10(f)	Waiver for Recordkeeping/Reporting.	Procedures for Administrator to waive	Yes.
§ 63.11	Flares	Requirements for flares	Yes.
§ 63.12	Delegation	State authority to enforce standards	Yes.
§ 63.13	Addresses	Addresses where reports, notifications, and requests are sent.	Yes.
§ 63.14	Incorporation by Reference	Test methods incorporated by reference	Yes.
§ 63.15	Availability of Information	Public and confidential information	Yes.

[FR Doc. 02–7095 Filed 4–1–02; 8:45 am]

BILLING CODE 6560–50–P

APPENDIX III

Alaska Department of Environmental Conservation
Air & Water Quality Division
Proposed Air Toxic Assessment Strategy
Revised March 2002

The Department of Environmental Conservation has initiated an assessment of air toxics in Alaska. Toxic air pollutants are airborne substances that are poisonous under certain concentrations and may increase long term health risks. The purpose of this air toxics assessment is to evaluate potential public health threats in urban or rural Alaska and how to best reduce those health risks.

The assessment will address toxic air pollutants currently listed by the Environmental Protection Agency. Toxic air pollutants will be surveyed statewide, but some activities will focus on urban areas. This document summarizes the department's strategy for the assessment.

Goals

The primary goal of the Alaska Air Toxic Assessment is to evaluate and reduce the potential health risk associated with toxic air pollutants in Alaska through the following activities:

- Identify toxic air pollutants and sources in Alaska.
- Prioritize these pollutants and sources based upon health risks and public input.
- Develop an implementation plan based on public health priorities.
- Implement planned projects with the help and input of interested Alaskans.
- Evaluate the success of plans and projects.

Public Involvement

Public involvement will be an integral part of the department's Air Toxic Assessment. The department is developing and maintaining lists of interested individuals, organizations, and businesses. Outreach activities will be key to informing the public on air toxic issues, generating interest in the department's Assessment, and addressing citizen concerns. The department is inviting participation from these individuals in developing priorities and projects for the assessment.

Tasks

The department has identified several important short-term tasks necessary for developing an assessment. These tasks will be completed or initiated within the next two years. Several tasks will be on-going over time.

- **Stakeholder Involvement/Outreach**
  - The department has sent out information and surveys as initial outreach to a broad range of interested groups including government agencies, industry, environmental organizations, universities, and tribal groups.
  - Stakeholders are being sought to actively work on air toxic pollutant issues specific to neighborhoods, communities, and the entire state.
  - Stakeholder comments and information will be considered during all activities.

- **Emission Inventory**
  - A 1999 emission inventory is being developed to look at toxic air pollutants, particularly in urban areas.
  - The inventory will be used to determine pollutants and sources in Alaska.
  - The inventory will provide a strong foundation for short and long term needs.
  - Inventory will include stationary, area, and mobile sources.

- **Prioritization**
  - After completing the emission inventory, department staff and stakeholders will review and prioritize pollutants for further research.
  - Risk will play an important role.
  - Indoor air pollutant risks will also need to be considered and evaluated.

- **Air Toxics Monitoring**
  - Initial monitoring projects will be conducted based upon immediate concerns. One potential project could be monitoring at selected areas in Anchorage.
  - Future monitoring projects will be developed through the prioritization process.

- **Future Controls**
  - Once air toxics concerns are identified, prioritized, and evaluated, the department will work with interested parties to determine potential control strategies.
  - Voluntary actions will likely be important and will require public acceptance.
  - To undertake certain activities, the department will explore the potential for partnerships with stakeholders.

Schedule

Proposed Assessment Schedule Calendar Year 2000-2002	
Activity	**Tentative Time Frame**
Initial Outreach to Potential Stakeholders	April 2000
Emission Inventory Development - Contact Specific Stakeholders for Data	April 2000 – June 2002
Initial Prioritization of Pollutants - Stakeholder Outreach/Workshops	July – September 2002
Development of Monitoring Project(s) - Stakeholder Outreach/Workshops	July – December 2002
Development of Future Efforts - Stakeholder Involvement Needed	Early 2003