Petroleum Refinery MACT Compliance Assistance/Inspection Checklist

(Updated to include rule amendments as of November, 2000)

Contents

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This information was taken from the *Updated Petroleum Refinery MACT Standard Guidance* document, (EPA/305-B-97-010), Novmeber, 2000. For comments or questions concerning the technical content of this document, please contact Jim Durham at 919-541-5672 or at (durham.jim@epa.gov).

III. COMPLIANCE DEADLINES

A. All new sources Were all emission points in compliance at startup **or** by August 18, 1995, whichever was **later**?	Yes [ ] No [ ]
B. Existing Miscellaneous Process Vents and Gasoline Loading Racks Were all emission points in compliance by August 18, 1998?	Yes [ ] No [ ]
C. Existing Wastewater Streams 1. Were all emission points in compliance by August 18, 1998?	Yes [ ] No [ ]

2. Are all wastewater streams in compliance with the benzene waste operations NESHAP (40 CFR 61, Subpart FF)?	Yes [ ] No [ ]
D. Existing Storage Vessels	
1. Were all fixed roof vessels in compliance by August 18, 1998?	Yes [ ] No [ ]
2. Were fixed roof vessels for which the tanks that must be replaced in compliance by August 18, 1999?	Yes [ ] No [ ]
3. Were floating roof vessels in compliance by August 18, 2005, **or** the next scheduled maintenance and degassing after August 18, 1998, whichever is **first**?	Yes [ ] No [ ]
E. Marine Tank Vessel Loading Operations	
1. Were operations in compliance by August 18, **1999**?	Yes [ ] No [ ]
2. Are operations used to generate credit in an emissions average?	Yes [ ] No [ ]
If yes, were operations in compliance by August 18, 1998?	Yes [ ] No [ ]
If operations were <u>not</u> in compliance by August 18, 1998, was a case-by-case 1-year extension granted?	Yes [ ] No [ ]
F. Equipment Leaks	
1. Were equipment leaks in compliance by August 18, 1998?	Yes [ ] No [ ]
2. For sources that are complying with 40 CFR 60 Subpart VV or 40 CFR 63 Subpart H, are they meeting the deadlines in the 3 phases of emissions reductions?	Yes [ ] No [ ]

IV. GENERAL STANDARDS TO ALL APPLICABLE EMISSIONS POINTS

A. Performance Testing	
1. Did the facility conduct and initial performance test of all pollution control equipment for which it is required? (See Section I of this checklist for applicability. If the pollution control equipment is required by the MACT standard, an initial performance test is required. Note that no performance tests are required for floating roofs or process heaters > 44 MW with vent introduced into the flame zone.)	Yes [ ] No [ ]
2. Was the initial performance test <u>approved by EPA</u>?	Yes [ ] No [ ]
3. Did the facility <u>notify the regulatory authority 30 days prior</u> to conducting each performance test?	Yes [ ] No [ ]
4. Were the tests conducted at the <u>maximum representative operating capacity</u>?	Yes [ ] No [ ]

- Were controls operating at either maximum or minimum representative operating conditions for monitored parameters, whichever result in lower emission reduction? [40 CFR 63.642 (d)(3)])	Yes [ ] No [ ]
B. Operating Permits Did the owner or operator of the source subject to the standard apply for a one-time Part 70 or Part 71 operating permit from the appropriate authority?	Yes [ ] No [ ]
C. Application for Approval of Construction or Reconstruction If the source is a new or reconstructed source, did it submit an application for approval of construction or reconstruction?	Yes [ ] No [ ]
D. Notification of Compliance Status (NCS) Reports 1. Did the facility submit a Notification of Compliance Status (NCS) <u>within 150 days</u> after each applicable compliance deadline, or with the next periodic report for new Group 1 emission points or floating roof storage vessels brought into compliance after August 18, 1998?[1] (See part III of this checklist for applicable compliance deadlines.) *Note:* The NCS report may be included as a separate report, as an operating permit application, or in an amendment to an operating permit application).	Yes [ ] No [ ]
2. Did the report identify each <u>emission point</u> **and** <u>method of compliance</u>?	Yes [ ] No [ ]
3. Did the report include the following: a) Information on <u>individual emission points</u> to demonstrate compliance, such as range of monitored parameters? [40 CFR 63.654(f)(1) and (f)(3)]	Yes [ ] No [ ]
b) <u>Results of continuous monitoring</u> system performance evaluations? [40 CFR 63.654(f)(4)]	Yes [ ] No [ ]
c) <u>Determination of rule applicability to flexible operation units</u> and storage vessels and distillation units for which use varies from year to year? [40 CFR 63.654(h)(6)][1]	Yes [ ] No [ ]
4. If the facility was required to conduct initial performance tests, did it submit <u>one example complete test report</u> for each test method used? *Note:* For additional tests using the same method, only the results of the each additional test must be submitted. [40 CFR 63.654 (f)(2)]	Yes [ ] No [ ]
E. Periodic Reports 1. Have any **compliance exceptions** occurred within any 6-month reporting period?	Yes [ ] No [ ]

a) If yes, has the facility submitted periodic reports within 60 days after the end of each 6- month period?	Yes [ ] No [ ]
b) If the facility uses emissions averaging, has the facility submitted reports quarterly? [40 CFR 63.654(g)]	Yes [ ] No [ ]
2. Were any new Group 1 emission points added or did any Group 2 emission points become Group 1 emission points during the last 6-month period?	Yes [ ] No [ ]
a) If yes, was an NCS report included with the periodic report?	Yes [ ] No [ ]
3. Were any floating storage vessels brought into compliance during the last 6-month period?	Yes [ ] No [ ]
a) If yes, was an NCS report included with the periodic report?	Yes [ ] No [ ]

[1]This requirement reflects an amendment to 40 CFR Part 63 Subpart CC made on August 18, 1998. For more information, see Appendix G.

F. Startup, Shutdown and Malfunction Plans and Reports 1. Has the facility developed and implemented a startup, shutdown, and malfunction **plan** for the entire facility? *Note*: The plan is not required to include wastewater.	Yes [ ] No [ ]
a) If yes, does the malfunction plan describe procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction?	Yes [ ] No [ ]
b) Does the plan also include a program of corrective action for malfunction of process and air pollution control equipment used to comply with the relevant standard? *Note:* EPA typically defines malfunctions as rare, unforeseeable occurrences and does not allow for facilities to operate in malfunction for extended periods of time.	Yes [ ] No [ ]
2. Has the facility prepared a Startup, Shutdown, and Malfunction **Report** to document each: a) Start of operation of a process unit for production?	Yes [ ] No [ ]
b) Cessation of a process unit for maintenance, repair, or equipment replacement?	Yes [ ] No [ ]
c) Malfunction of a process unit?	Yes [ ] No [ ]
3. Are corrective actions to address each malfunction consistent with the startup, shutdown, and malfunction plan?	Yes [ ] No [ ]
a) If yes, has the facility submitted a statement to this effect in the semi-annual report? [40 CFR 63.10(d)(5)(I)]	Yes [ ] No [ ]

b) If a malfunction occurs and corrective actions are not consistent with the startup, shutdown, and malfunction plan, has the facility reported this in the periodic report for the time period in which the malfunction occurred?[1] *Note:* If a malfunction does not occur during a reporting period, a startup, shutdown, and malfunction report is not required.	Yes [ ] No [ ]
G. Reports Required for Special Situations 1. Does the facility use/intend to use alternative procedures (e.g., procedures other than those described in the MACT Standard) or devices to comply with the MACT standard?	Yes [ ] No [ ]
a) If yes, has the facility submitted the following information 18 months before the compliance date for existing sources, or with the approval of construction for new sources:	Yes [ ] No [ ]
• Request for approval to monitor an alternative control device operating parameter, with supporting justification? [40 CFR 63.654(h)(4)]	Yes [ ] No [ ]

[1]This requirement reflects an amendment to 40 CFR Part 63 Subpart CC made on August 18, 1998. For more information, see Appendix G.

• Request for approval to use data compression systems instead of keeping hourly records, with supporting information? [40 CFR 63.654(h)(5)]	Yes [ ] No [ ]
• Request to use other alternative monitoring methods, with supporting justification? [40 CFR 63.654(h)(5)(iv) and 63.8(f)(4)(ii)]	Yes [ ] No [ ]
• Request to establish an alternative emission standard, with a test plan or results of testing and monitoring? [40 CFR 63.6(g)(2)] *Note:* If EPA finds the alternative standard equivalent to the MACT standard, EPA will request public comment and publish a Federal Register notice allowing its use. Prior to conducting the inspection, the inspector should determine whether EPA has recently adopted any alternative standards equivalent to the MACT standard, with which the facility intends to comply.	Yes [ ] No [ ]
H. Requests for Extension of Compliance 1. Has the facility requested an extension of compliance either: a) at least 12 months before the compliance date? **or**	Yes [ ] No [ ]
b) 18 months prior if emissions averaging is used? *Note:* Facilities may request an extension of compliance if emissions reductions been achieved early, or is the source is unable to comply with the relevant standard. Requests for an extension of compliance can only be made for existing sources.	Yes [ ] No [ ]

2. If the facility submitted a request for an extension, did the request include the following: a) Description of controls to be installed?	Yes [ ] No [ ]
b) Compliance schedule?	Yes [ ] No [ ]
c) Interim emission control steps?	Yes [ ] No [ ]
I. Applications for a Performance Test Waiver 1. Is the facility unable to conduct a performance test for reasons such as technical or economic infeasibility, or other reasons, has an extension of compliance been requested?	Yes [ ] No [ ]
2. If yes, has the facility submitted an application for waiver of a performance test to the Administrator?	Yes [ ] No [ ]
3. Did the application include information justifying the request and detailing the infeasibility? [40 CFR 63.7(h)(3)(iii)]	Yes [ ] No [ ]
J. Recordkeeping 1. Does the facility keep records of reports submitted, monitoring results, and other records for at least 5 years? [40 CFR 63.642(e) and 63.654(I)(4)]	Yes [ ] No [ ]
2. Are records kept so that they are <u>accessible within 24 hours</u> of request in either hard copy or computer-readable form? [40 CFR 63.642(e)]	Yes [ ] No [ ]
3. Are the following records maintained on site: • Records of the <u>occurrence and duration</u> of each startup, shutdown, or malfunction of operation and air pollution control equipment? [40 CFR 63.10(b)(2)(I-ii)]	Yes [ ] No [ ]
• Records of <u>actions that are consistent and inconsistent</u> with the startup, shutdown, and malfunction plan? [40 CFR 63.10(b)(2)(iv-v)]	Yes [ ] No [ ]
• Records of continuous monitoring system <u>calibration</u> checks (if continuous monitoring is required)? [40 CFR 63.10(b)(x)]	Yes [ ] No [ ]
C Records for <u>storage vessels</u>?. [40 CFR 63.654(I)(1)]	Yes [ ] No [ ]
C Complete <u>test reports and reported results</u> for any required performance tests? [64.654(I)(2)]	Yes [ ] No [ ]
C Values of continuously monitored parameters? [40 CFR 63.654(I)(3)]	Yes [ ] No [ ]
• Any additional records required by permit?	Yes [ ] No [ ]

V. REQUIREMENTS FOR MISCELLANEOUS PROCESS VENTS

A. Miscellaneous Process Vents Control Requirements	
1. Is the source an **existing source**, and the vent contains 20 ppmv or more of organic HAPs, and emits 33 kg/day or more of total VOCs?	Yes [ ] No [ ]
2. Is the source a **new source**, and the vent contains 20 ppmv or more of organic HAPs, and emits 6.8 kg/day or more of VOCs?	Yes [ ] No [ ]
a) If yes to 1 or 2, does the facility control its Miscellaneous Process Vents by:	
C Using a flare? **or**	Yes [ ] No [ ]
C Reducing organic HAPs by 98% or to 20 ppmv using incinerators, boilers, process heaters, or other devices? **or**	Yes [ ] No [ ]
C If a boiler or process heater is used, the vent stream must be introduced into the flame zone of the control device, or in a location such that the required percent reduction or concentration is achieved?	Yes [ ] No [ ]
B. Miscellaneous Process Vents Testing Requirements	
1. Initial Performance Tests	
a) Vents routed to a flare	
Does the facility control Miscellaneous Process Vents emissions by routing vents to a **flare** or by using other control devices?	Yes [ ] No [ ]
1) If the facility uses a **flare**, has the facility conducted an initial performance test for each control device?	Yes [ ] No [ ]
2) Did the initial performance test show that the flare is operating properly, and that the emission rate does not exceed the capacity of the flame to control the emissions?	Yes [ ] No [ ]
3) For vents routed to a **flare**, did the initial performance test measure the following:	
C Emissions visibility?	Yes [ ] No [ ]
C Net heat value of combusted gas?	Yes [ ] No [ ]
C Flow rate of gases being combusted?	Yes [ ] No [ ]

b) Vents routed to an incinerator or a boiler or process heater < 44 MW For vents routed to an incinerator or a boiler or process heater < 44 MW (150 MMBtu/hr) where the vent streams are <u>not</u> introduced into the flame zone of the boiler or process heater, did the initial performance test show compliance with the requirement to reduce organic HAPs by 98% or to 20 ppmv? [40 CFR 63.645 and 63.116 except (d) and (e)]	Yes [ ] No [ ]
c) Vents routed to other control devices Does the facility control Miscellaneous Process Vents emissions with: 1) Vents routed to a <u>boiler or process heater</u> $ 44 MW (150 MMBtu/hr)? **or**	Yes [ ] No [ ]
2) Vent streams that are <u>introduced into the flame zone of the boiler or process heater</u>? **or**	Yes [ ] No [ ]
3) <u>A control device for which a performance test was conducted</u> for determination of compliance with an NSPS if no process changes have been made? *Note:* If the facility answered yes to any of these questions (B.1.c) performance tests are not required for these vents.	Yes [ ] No [ ]
2. Sampling for initial performance tests a) Does the facility conduct performance test sampling and analysis according to the prescribed EPA-approved methods?	Yes [ ] No [ ]
3. Follow-up tests to process changes a) Have any process changes occurred at the facility?	Yes [ ] No [ ]
1) If yes, for each process change affecting a Group 2 process vent, did the facility recalculate the TOC emission rate to determine whether the vent remains a Group 2 process vent or becomes a Group 1 process vent?	Yes [ ] No [ ]
2) Was recalculation based on <u>vent stream flow rate</u> **and** <u>TOC</u> measurements as specified for initial performance tests **or** best engineering assessment practices? *Note:* That process changes include, but are not limited to, changes in production capacity, production rate, or catalyst type; whenever there is replacement, removal, or addition of recovery equipment; and debottlenecking activities. (Process changes do <u>not</u> include process upsets, unintentional, temporary process changes, or changes that are within the range on which the original calculation was based.)	Yes [ ] No [ ]

C. Miscellaneous Process Vents Monitoring Requirements **1. Miscellaneous process vents routed to a flare** For miscellaneous process vents routed to a flare, is a monitoring device capable of continuously detecting the presence of a pilot flame (including, but not limited to a thermocouple, an ultraviolet beam sensor, or an infrared sensor) used?	Yes [ ] No [ ]
2. Miscellaneous process vents routed to incinerators other than catalytic incinerators For miscellaneous process vents routed to incinerators other than catalytic incinerators, is a temperature monitoring device with a continuous recorder used?	Yes [ ] No [ ]
Is the device located in the firebox or in the duct work immediately downstream of the firebox in a position before any substantial heat exchange occurs?	Yes [ ] No [ ]
3. Miscellaneous Process Vents routed to catalytic incinerators For Miscellaneous Process Vents routed to catalytic incinerators, is a temperature monitoring device with a continuous recorder used?	Yes [ ] No [ ]
Is the device located in the gas stream immediately before and after the catalyst bed?	Yes [ ] No [ ]
4. Miscellaneous process vents routed to boiler or process heaters with a design heat capacity <44 megawatts where the vent streams are not introduced into the flame zone For miscellaneous process vents routed to boiler or process heaters with a design heat capacity <44 megawatts where the vent streams are not introduced into the flame zone, is a temperature monitoring device with a continuous recorder used?	Yes [ ] No [ ]
Is the device located in the firebox? *Note:* No monitoring is required for boilers or process heaters.	Yes [ ] No [ ]
5. Refineries that use a vent system with bypass line valves that have not been sealed or secured. For refineries that use a vent system with bypass line valves that have not been sealed or secured, is a flow indicator that determines at least every hour whether a vent stream flow is present used?	Yes [ ] No [ ]
Is the indicator located at the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere?	Yes [ ] No [ ]

6. Refineries that use a vent system with bypass lines, where the valves have been secured in the closed position with a car-seal or a lock-and key-type configuration. For refineries that use a vent system with bypass lines, where the valves have been secured in the closed position with a car-seal or a lock-and key-type configuration, are the valves visually inspected at least every other month to ensure that they are maintained in the closed position and the vent stream is not diverted through the bypass line?	Yes [ ] No [ ]
7. Refineries using other approved control devices For refineries using other approved control devices or requesting to monitor other parameters, is the facility complying with any site-specific monitoring requirements?	Yes [ ] No [ ]
D. Miscellaneous Process Vents Reporting Requirements **1. Notice of Compliance Status (NCS) reports** **a) All miscellaneous process vents affected by the MACT standard** For miscellaneous process vents affected by the MACT standard, has the refinery submitted an NCS report that identifies the following: 1) Each vent?	Yes [ ] No [ ]
2) Whether the process vent is Group 1 or Group 2?	Yes [ ] No [ ]
3) For each Group 1 vent that is not included in an emissions average, the method of compliance (e.g., use of a flare or other control device meeting the requirements of the MACT standard)? [40 CFR 63.643(a)] *Note:* If the required information has been submitted at an earlier date, or at different times, and/or in different submittals, later submittals may refer to earlier submittals instead of duplicating and resubmitting previously submitted information.	Yes [ ] No [ ]
4) For miscellaneous process vents with control devices required to be tested under the MACT standard, did the NCS include information on each testing method, and results of the performance test since there are different requirements for each test and test method used?	Yes [ ] No [ ]
5) For each test method used, did the NCS include the following test results: a) The percentage reduction of organic HAPs or TOC or the outlet concentration of organic HAPs or TOC (ppm by volume on a dry basis corrected to 3 percent oxygen), determined as specified in 40 CFR 63.116(c)?	Yes [ ] No [ ]

b) The value of the monitored parameter specified in 40 CFR 63 Subpart CC, Table 10 or a site specific parameter approved by the permitting authority, averaged over the full period of the performance test?	Yes [ ] No [ ]
6) For each test method used, does the NCS include the following supporting information: a) Sampling site description?	Yes [ ] No [ ]
b) Description of sampling and analysis procedures, and any modifications to standard procedures?	Yes [ ] No [ ]
c) Quality assurance procedures?	Yes [ ] No [ ]
d) Record of operating conditions during the test?	Yes [ ] No [ ]
e) Record of preparation of standards?	Yes [ ] No [ ]
f) Record of calibrations?	Yes [ ] No [ ]
g) Raw data sheets for field sampling?	Yes [ ] No [ ]
h) Raw data sheets for field and laboratory analyses?	Yes [ ] No [ ]
l) Documentation of calculations?	Yes [ ] No [ ]
j) Any other information required by the test method?	Yes [ ] No [ ]
7) If the same test is conducted for multiple emission points, did the facility submit the following: a) one complete test report for each test method used for each emission point?	Yes [ ] No [ ]
b) for additional tests using the same method, the additional test results?	Yes [ ] No [ ]
8) Miscellaneous Process Vents Controlled by Flares a) For vents controlled by flares, did the NCS include the following test results: - all visible emission readings?	Yes [ ] No [ ]
- heat content determinations?	Yes [ ] No [ ]
- flow rate measurements?	Yes [ ] No [ ]
- exit velocity determinations made during the compliance determination? [40 CFR 63.654(f)(1)(iv)(A)]	Yes [ ] No [ ]
b) For vents controlled by flares, a <u>statement of whether a flame was present</u> at the pilot light over the full period of the compliance determination? [40 CFR 63.654(f)(1)(iv)(B)]	Yes [ ] No [ ]

c) If a parameter other than the presence of a pilot flame is monitored, the acceptable range for the parameter and the rationale (including any supporting data or calculations) for the range? *Note:* Results of a prior performance test can be used if that test was conducted using the methods specified in 40 CFR 63.645 and test conditions were representative of current operating conditions.	Yes [ ] No [ ]
9) Vents routed to an incinerator or boiler or process heater < 44 MW where the vent streams are <u>not</u> introduced into the flame zone In addition to the information required for all miscellaneous process vents, do NCS reports for vents routed to an incinerator or boiler or process heater < 44 MW where the vent streams are <u>not</u> introduced into the flame zone include the following information: a) Average firebox temperature (or gas stream temperature for catalytic incinerators) over the duration of the performance test?	Yes [ ] No [ ]
b) Acceptable range for the daily average firebox temperature and rationale for the range?	Yes [ ] No [ ]
c) Times at which an operating day begins and ends?	Yes [ ] No [ ]
2. Periodic reports a) Has the refinery experienced any <u>compliance exceptions or periods of excess emissions</u>? (Compliance exceptions and periods of excess emissions do not include periods of startup, shutdown, malfunction, performance testing and monitoring system calibration.)	Yes [ ] No [ ]
b) Has the refinery <u>submitted the appropriate periodic reports</u> regarding the compliance exceptions or periods of excess emissions?	Yes [ ] No [ ]
1) Were the reports submitted no later than 60 days after the end of each 6-month period when any compliance exceptions occur? *Note:* The first 6-month period begins on the date the NCS report is required to be submitted.	Yes [ ] No [ ]
2) If the refinery uses emissions averaging, were the reports submitted quarterly?	Yes [ ] No [ ]
3) For control devices for which an initial performance test is required (flare, incinerator, and boiler or process heater < 44 MW where the vent streams are not introduced into the flame zone), did the facility submit the following information in the periodic report: C Complete test report for initial performance test results?	Yes [ ] No [ ]

C Times and duration of periods when monitoring devices are not operating?	Yes [ ] No [ ]
4) Periodic Reports for vents routed to a flare For vents routed to a flare, did the facility submit a record of each pilot flame determination (or alternate parameter upon request and approval) in the periodic report?	Yes [ ] No [ ]
5) Periodic Reports for vents routed to an incinerator or boiler or process heater < 44 MW where the vent streams are <u>not</u> introduced into the flame zone For vents routed to an incinerator or boiler or process heater < 44 MW where the vent streams are <u>not</u> introduced into the flame zone, did the facility submit the following information in the periodic report: C Record of <u>each firebox temperature</u> value or a block average of values for periods of 1 hour or less?	Yes [ ] No [ ]
C Record of the <u>daily average</u> firebox temperature? *Note*: If all hourly temperature values are within the range reported in the NCS, the facility may record that all values are within the range instead of daily average values.	Yes [ ] No [ ]

VI. REQUIREMENTS FOR STORAGE VESSELS

A. Control Requirements for Storage Vessels 1. For storage vessels with **floating roofs** does the facility use one of the following control devices?	Yes [ ] No [ ]
a) Internal floating roof with specified seals?	Yes [ ] No [ ]
b) External floating roof?	Yes [ ] No [ ]
c) External floating roof converted to an internal floating roof (i.e., fixed roof installed above the external floating roof)?	Yes [ ] No [ ]
2. For storage vessels with **closed vent systems**, does the facility use a closed vent system routed to a flare or other control device that reduces HAP emissions by 95% or to 20 ppmv?	Yes [ ] No [ ]
3. Are all storage vessels that store a liquid with a maximum true vapor pressure of total organic HAPs $ 76.6 kPa controlled by a closed vent system and control device? [40 CFR 63.119(a)(2)]	Yes [ ] No [ ]
- If yes, are, work practices, as specified in 40 CFR 63.119(b) through (e), followed for each of the control methods?	Yes [ ] No [ ]

4. Storage vessels at new sources a) In addition to the above control requirements, did storage vessels at new sources also install deck fitting controls, as specified in 40 CFR 63.119(c)(2)(I) through (xii), on all floating roof tanks?	Yes [ ] No [ ]
b) Do storage vessels at new sources also apply the control requirements of 40 CFR 63.119(b)(5) and (b)(6)?	Yes [ ] No [ ]
B. Testing Requirements for Storage Vessels **1. Initial Performance Tests for Closed Vent Systems Routed to a Flare** a) For storage vessels equipped with a closed vent system routed to a flare, has the facility conducted an initial performance test or compliance determination, as specified in 40 CFR 63.11(b), to ensure compliance with the control requirement to reduce total organic HAP emissions by 95% or to 20 ppmv?	Yes [ ] No [ ]
1) If yes, did the test include the measurement/determination of the following: C Emissions visibility?	Yes [ ] No [ ]
C Net heat value of combusted gas?	Yes [ ] No [ ]
C Flow rate of gases being combusted?	Yes [ ] No [ ]
C Exit velocity?	Yes [ ] No [ ]
2. Initial Performance Tests for Closed Vent Systems Routed to a Control Device Other Than a Flare a) For storage vessels equipped with a closed vent system routed to a control device other than a flare, did the facility conduct either an initial design evaluation, as specified in 40 CFR 63.120(d)(1)(I), **or** an initial performance test, as specified in 40 CFR 63.120(d)(1)(ii)?	Yes [ ] No [ ]
C. Monitoring and Inspection Requirements for Storage Vessels for Storage Vessels Required to Apply Controls **1. Storage vessels equipped with a closed vent system** For storage vessels equipped with a closed vent system, does the facility monitor the parameters proposed in the Notice of Compliance Status (NCS) report to ensure that the control device is being properly operated and maintained? *Note:* There are no monitoring requirements for storage vessels equipped with floating roofs.	Yes [ ] No [ ]

2. Closed vent systems routed to a control device Does the facility inspect closed vent systems routed to a control device every 12 months as specified in 40 CFR 63.148?	Yes [ ] No [ ]
3. Storage Vessels with floating roofs a) Do the storage vessels have a single-seal system or a double-seal system?	Yes [ ] No [ ]
b) Storage vessels with a single seal system For storage vessels with a single seal system and equipped with a fixed roof and an internal floating roof or an external floating roof converted to an internal floating roof, does the refinery conduct the following inspections: 1) Visually inspect the internal floating roof and primary seal through manholes and roof hatches at least once every 12 months after initial fill, or at least every 12 months after the compliance date?	Yes [ ] No [ ]
2) Visually inspect the internal floating roof and primary seal each time the storage vessel is emptied and degassed **and** at least once every 10 years after the compliance date?	Yes [ ] No [ ]
3) Visually inspect gaskets, slotted membranes, and sleeve seal (if any) each time the storage vessel is emptied and degassed **and** at least once every 10 years after the compliance date (new source only)?	Yes [ ] No [ ]
c) Storage vessels with a double single seal system For storage vessels with a double single seal system and equipped with a fixed roof and an internal floating roof or an external floating roof converted to an internal floating roof, does the refinery conduct the following: 1) Visually inspect the internal floating roof, primary seal, and secondary seal each time the vessel is emptied and degassed and at least once every 5 years after the compliance date? **or**	Yes [ ] No [ ]
2) Visually inspect the internal floating roof and the secondary seal through manholes and roof hatches at least once every 12 months after initial fill, or at least every 12 months after the compliance date; **and**	Yes [ ] No [ ]
3) Visually inspect the internal floating roof, primary seal, and secondary seal each time the vessel is emptied and degassed and at least once every 10 years after the compliance date?	Yes [ ] No [ ]

d) Storage vessels equipped with an external floating roof 1) For storage vessels equipped with an external floating roof, does the facility visually inspect the following, <u>each time the vessel is emptied and degassed</u>: - external floating roof?	Yes [ ] No [ ]
- the primary and secondary seals?	Yes [ ] No [ ]
- fittings?	Yes [ ] No [ ]
2) For storage vessels equipped with an external floating roof, does the facility conduct the following additional inspections: C **For single-seal systems, does the facility:** - Measure the gaps between the vessel wall and the primary seal by the compliance date and at least once a year, until a secondary seal is installed?	Yes [ ] No [ ]
- When a secondary seal is installed, measure gaps between the vessel wall and both the primary and secondary seal within 90 calendar days of installation, and then comply with the double-seal inspection requirements? [40 CFR 63.120(b)(1)(ii)]	Yes [ ] No [ ]
C **For double-seal systems, does the facility:** - Measure the gaps between the vessel wall and the primary seal during hydrostatic testing or by the compliance date and at least once every 5 years thereafter?	Yes [ ] No [ ]
- Measure the gaps between the vessel wall and the secondary seal by the compliance date and at least once a year?	Yes [ ] No [ ]
D. Reporting Requirements for Storage Vessels Equipped with Closed Vent Systems **1. Notice of Compliance Status Reports** **a) Storage vessels equipped with a closed vent system routed to a flare** For storage vessels equipped with a closed vent system routed to a flare, does the NCS contain the results of the initial performance test, including: C Flare design, such as steam-assisted, air-assisted, or non-assisted?	Yes [ ] No [ ]
C Visible emissions readings?	Yes [ ] No [ ]
C Heat content determinations?	Yes [ ] No [ ]

C Flow rate measurements?	Yes [ ] No [ ]
C Exit velocity determinations?	Yes [ ] No [ ]
C Periods during the compliance determination when the pilot flame is absent?	Yes [ ] No [ ]
b) NCS Reports for storage vessels equipped with a closed vent system routed to a control device other than a flare For storage vessels equipped with a closed vent system routed to a control device other than a flare, does the NCS also include: C Description of the parameter(s) to be monitored to ensure proper operation and maintenance of the control device?	Yes [ ] No [ ]
C Explanation of the parameter selection?	Yes [ ] No [ ]
C Frequency of monitoring?	Yes [ ] No [ ]
C Design evaluation documentation, as specified in 40 CFR 63.120(d)(1)(I), **or** results of the initial performance test including identification of emission points sharing the control device?	Yes [ ] No [ ]
2. Periodic Reports a) Have any **compliance exceptions** regarding storage vessels occurred?	Yes [ ] No [ ]
If yes, has the facility submitted the appropriate periodic reports for storage vessels?	Yes [ ] No [ ]
b) Periodic Reports for storage vessels equipped with a closed vent system routed to a control device For storage vessels equipped with a closed vent system routed to a control device, do periodic reports include a description of the following: C Routine maintenance for the control device that was performed during the previous 6 months?	Yes [ ] No [ ]
C Routine maintenance anticipated for the control device for the next 6 months?	Yes [ ] No [ ]
C For a control device that is a flare, each occurrence and cause when the requirements specified in 40 CFR 63.11(b) are not met?	Yes [ ] No [ ]
C For a control device other than a flare, each occurrence and cause of monitored parameters being outside the ranges documented in the NCS?	Yes [ ] No [ ]

c)	**Periodic reports for storage vessels equipped with any type of floating roof** For storage vessels equipped with any type of floating roof, do the periodic reports contain the results of each inspection in which a failure was detected, including:	
	1) Date of inspection?	Yes [ ] No [ ]
	2) Identification of the storage vessel?	Yes [ ] No [ ]
	3) Description of the failure?	Yes [ ] No [ ]
	4) Nature and date of repair or date the vessel was emptied?	Yes [ ] No [ ]
d)	Did the facility apply for an extension beyond the 45 day period for correcting failures identified during inspections of storage vessels?	Yes [ ] No [ ]
	1) If the facility applied for an extension, did the corresponding periodic reports also include the following information: C Description of the failure?	Yes [ ] No [ ]
	C Statement that alternate storage capacity is unavailable?	Yes [ ] No [ ]
	C Schedule of actions that will ensure that the control equipment will be repaired or the vessel will be emptied as soon as possible?	Yes [ ] No [ ]
Note: If the vessel cannot be repaired or emptied within 45 days, the facility may utilize up to 2 extensions of up to 30 additional days each.		
e)	**Storage vessels equipped with an external floating roof** For storage vessels equipped with an external floating roof, did the facility conduct any gap measurement?	Yes [ ] No [ ]
	1) If yes, did the facility notify the Administrator 30 days in advance of the gap measurement?	Yes [ ] No [ ]
	2) Were the requirements of 40 CFR 63.120(b)(3), (4), (5), or (6) not met for any of the gap measurements?	Yes [ ] No [ ]
	- If yes, were the results of the gap measurement in which the requirements were not met included in the periodic reports?	Yes [ ] No [ ]
	- Was the following information included in the reports: C Date of seal gap measurement?	Yes [ ] No [ ]
	C Raw data and calculations described in 63.120(b)(5) or (6)?	Yes [ ] No [ ]
	C Description of seal conditions that are not met?	Yes [ ] No [ ]

C Nature and date of repair or date the vessel was emptied?	Yes [ ] No [ ]
f) Floating Roof Storage Vessel Brought into Compliance after August 18, 1998. Do the Periodic Reports include a NCS for each floating roof storage vessel brought into compliance during the reporting period?[1]	Yes [ ] No [ ]
a) If yes, does the NCS include the method of compliance?	Yes [ ] No [ ]
b) If yes, does the NCS include a list of all other floating roofs subject to control requirements that are not yet in compliance and their expected compliance date?	Yes [ ] No [ ]
c) If yes, for floating roof vessels brought into compliance, including those brought into compliance during the last reporting period, does the NCS include the actual date of compliance?	Yes [ ] No [ ]
3. Internal Inspection Notifications a) Did the facility notify the Administrator of filling or refilling of each storage vessel with organic HAPs?	Yes [ ] No [ ]
b) Did the facility notify the Administrator at least 30 calendar days prior to any scheduled internal inspections?	Yes [ ] No [ ]
- If not, was the internal inspection not planned? **and**	Yes [ ] No [ ]
- Could the owner/operator of the refinery not have known about the inspection 30 calendar days in advance of refilling the vessel with organic HAPs?	Yes [ ] No [ ]
c) If the inspection is not planned and the owner/operator could not have known about it in advance, did the facility notify the Administrator at least 7 calendar days prior to refilling the storage vessel?	Yes [ ] No [ ]
- If the notification was made by telephone, was it immediately followed by written documentation demonstrating why the inspection was unplanned?	Yes [ ] No [ ]

[1]This requirement reflects an amendment to 40 CFR Part 63 Subpart CC made on August 18, 1998. For more information, see Appendix G.

- If the notification was made in writing, was it is received by the Administrator at least 7 calendar days prior to the refilling? *Note:* If the State or local permitting authority has received delegation of the Refinery MACT (not all states have as of August 1997), they can waive the notification requirements for all or some storage vessels at petroleum refineries. The State or local permitting authority may also grant permission to refill storage vessels sooner than 30 days after submitting the required notification under 40 CFR 64.654(h)(2)(I)(A) or sooner than 7 days after submitting the notification under 40 CFR 64.654(h)(2)(I)(B) on a case-by-case basis.	Yes [ ] No [ ]
E. Recordkeeping Requirements for Storage Vessels **1) All Storage Vessels** - For all storage vessels, does the facility maintain records of Group 1 or Group 2 determinations, vessel dimensions, and analysis of capacity for 5 years?	Yes [ ] No [ ]
- In addition, does the facility maintain all information required to be reported for 5 years?	Yes [ ] No [ ]
2) Storage vessels equipped with a closed vent system routed to a control device For storage vessels equipped with a closed vent system routed to a control device, does the facility also maintain the following records for 5 years:	
a) Complete test report for initial performance test results?	Yes [ ] No [ ]
b) Measured values of monitored parameters?	Yes [ ] No [ ]
c) Planned routine maintenance performed, including: - The first time of day and date the control requirements are <u>not</u> met at the beginning of the planned routine maintenance? **and**	Yes [ ] No [ ]
- The first time of day and date the control requirements are met at the conclusion of the planned routine maintenance?	Yes [ ] No [ ]
4) For storage vessels equipped with any type of floating roof, does the facility retain records of <u>each inspection performed</u>? [40 CFR 63.123c and (e)]	Yes [ ] No [ ]
5) For storage vessels equipped with an external floating roof, does the facility retain records of each <u>seal gap measurement</u>, including date, raw data obtained in the measurement, and the calculations described in 40 CFR 63.120(b)(3) and (4)?	Yes [ ] No [ ]

VII. REQUIREMENTS FOR WASTEWATER STREAMS

A. Control Requirements for Wastewater Streams *Note:* If a refinery is in compliance with the benzene waste NESHAP [40 CFR 61 Subpart FF], it is considered to be in compliance with the refinery MACT standard. Provisions of the benzene waste NESHAP apply to the following wastewater streams at petroleum refineries: (1) Total benzene loading $ 10 Mg per year, **and** (2) Flow rate $ .02 liters per minute, **and** (3) Benzene concentration $ 10 ppm by weight, **and** (4) Not exempt from controls under the benzene waste NESHAP.) 1. Has the refinery reduced benzene mass emissions from wastewater streams by 99% by using suppression followed by steam stripping, biotreatment, or other treatment process?	Yes [ ] No [ ]
2. For vents from steam strippers and other waste management or treatment units, does the facility utilize a control device that achieves 95% emission reduction or 20 ppmv at the outlet of the control device?	Yes [ ] No [ ]
B. Testing and Monitoring Requirements for Wastewater Streams 1. Do all wastewater streams at the facility comply with the testing requirements of the benzene waste NESHAP found in 40 CFR 61.340 through 61.355?	Yes [ ] No [ ]
2. Is testing done at the required frequency?	Yes [ ] No [ ]
3. If required, are periodic measurements of the benzene concentration in the wastewater performed?	Yes [ ] No [ ]
4. If required, does the facility conduct monitoring of the process or control device operating parameter?	Yes [ ] No [ ]
C. Reporting and Recordkeeping Requirements for Wastewater Streams 1. Do all wastewater streams comply with the reporting requirements of the benzene waste NESHAP found in 40 CFR 61.356 and 61.357? [40 CFR 63.654(a)]	Yes [ ] No [ ]
2. In addition, is all information required to be reported retained for 5 years? [40 CFR 63.654(I)(4)] *Note:* Since affected sources should already be in compliance with 40 CFR 61 Subpart FF, they will not need to make any changes to their current reporting and recordkeeping procedures in order to comply with the Petroleum MACT standard.	Yes [ ] No [ ]

VIII. REQUIREMENTS FOR GASOLINE LOADING RACKS

A. Control Requirements for Gasoline Loading Racks Is the facility in compliance with the gasoline distribution facilities NESHAP found in 40 CFR 63 Subpart R, which requires the facility to: 1. Reduce emissions of total organic compounds (TOC) to 10 milligrams per liter of gasoline loaded; **and** 2. Load gasoline only in vapor tight cargo tanks that have been tested to assure vapor tightness?	Yes [ ] No [ ]
B. Testing and Monitoring Requirements for Gasoline Loading Racks 1. Is the facility in compliance with the testing and monitoring requirements of the gasoline distribution facilities NESHAP found in 40 CFR 63.425(a) through (c) (performance tests), 63.425(e) through (h) (annual certification), 63.425(f) (leak detection tests), 63.425(g) (nitrogen pressure decay field tests), and 63.427 (continuous monitoring)?	Yes [ ] No [ ]
2. Initial Performance Tests a) Did the facility conduct an initial performance test for gasoline racks according to the test methods and procedures in 40 CFR 60.503 (except using a reading of 500 ppm to determine the level of leaks to be repaired under 40 CFR 60.503)?	Yes [ ] No [ ]
b) Did the facility conduct any follow-up tests following process changes?	Yes [ ] No [ ]
If yes, did the refinery document the reasons for any change in the operating parameter value since the previous test?	Yes [ ] No [ ]
c) If the facility is using a closed vent system and control device as specified in 40 CFR 60.112b(a)(3) to control emissions from gasoline loading racks, did the facility conduct initial performance tests on the control devices? [40 CFR 63.423]	Yes [ ] No [ ]
d) If the facility uses a flare to control emissions, and emissions from the gasoline loading rack cannot be measured using the methods specified in 40 CFR 60.503, is the refinery in compliance with the provisions of 40 CFR 63.11(b)?	Yes [ ] No [ ]
3. Annual Certification Tests Does the facility conduct annual tests on gasoline cargo tanks to certify that emissions controls are functioning properly?	Yes [ ] No [ ]
- If yes, is the annual performance test conducted according to the vacuum and pressure tests described in Method 27 of 40 CFR 60 Appendix A?	Yes [ ] No [ ]

4. Leak Detection Tests During loading operations, does the facility conduct a leak detection test for gasoline cargo tanks according to Method 21 of 40 CFR 60 Appendix A?	Yes [ ] No [ ]
a) Are the tests conducted on each compartment <u>during the loading</u> of that compartment, or <u>while the compartment is still under pressure</u>?	Yes [ ] No [ ]
b) In addition to Method 21, are the following requirements for the test met [40 CFR 63.425]: C To eliminate a positive instrument drift, does the dwell time for each leak detection not exceed two times the instrument response time?	Yes [ ] No [ ]
C Is the instrument purged with ambient air between each leak detection?	Yes [ ] No [ ]
C Is the duration of the purge in excess of two instrument response times?	Yes [ ] No [ ]
C Does the facility attempt to block the wind from the area being monitored, and record the highest detector reading and location for each leak?	Yes [ ] No [ ]
5. Additional Testing Requirements a) For cargo tanks with manifolded product lines, does the facility conduct a nitrogen pressure decay field test on each compartment of each tank? (This test is described in 40 CFR 63.425(g).)	Yes [ ] No [ ]
b) Does the facility also conduct a continuous performance pressure decay test, as described in 40 CFR 63.425 (h)?	Yes [ ] No [ ]
6. Continuous Monitoring Are gasoline loading racks in compliance with the continuous monitoring requirements of 40 CFR 63.427(a) and (b)?	Yes [ ] No [ ]
a) Is the continuous monitoring system installed, calibrated, certified, operated and maintained according to manufacturer specifications?	Yes [ ] No [ ]
b) Is the location where the continuous monitoring system is installed appropriate to the type of system used (e.g., carbon adsorption, refrigeration condenser, thermal oxidation, or flare)?	Yes [ ] No [ ]
C. Reporting and Recordkeeping Requirements for Gasoline Loading Racks 1. Did the facility include the NCS for the gasoline loading racks in the initial NCS for the refinery?	Yes [ ] No [ ]

2. For gasoline loading racks, does the facility comply with the reporting and recordkeeping requirements of the gasoline distribution facilities NESHAP found in 40 CFR 63.428(b), (c), (g)(1), and (h)(1) through (h)(3)?	Yes [ ] No [ ]
3. Does the facility retain all required records for 5 years?	Yes [ ] No [ ]

IX. REQUIREMENTS FOR MARINE TANK VESSEL LOADING

A. Control Requirements for Marine Tank Vessel Loading Are all marine tank vessel loading operations that are subject to the MACT standard in compliance with the marine tank loading NESHAP found in 40 CFR 63 Subpart Y, which requires the following: 1. For **existing sources** does the facility utilize controls that: C Collect vapors discharged during loading?	Yes [ ] No [ ]
C Load only in vapor tight vessels?	Yes [ ] No [ ]
C Reduce collected HAP emissions by 97% or use vapor balancing?	Yes [ ] No [ ]
2. For **new sources** does the facility utilize controls that: C Collect vapors discharged during loading?	Yes [ ] No [ ]
C Load only in vapor tight vessels?	Yes [ ] No [ ]
C Reduce collected HAP by 98% or use vapor balancing?	Yes [ ] No [ ]
B. Testing and Monitoring Requirements for Marine Tank Vessel Loading For all marine tank vessel loading subject to the MACT Standard, does the refinery comply with the testing and monitoring requirements of the marine tank loading NESHAP found in 40 CFR 63.560 through 63.567? *Note:* The Initial Notification Report under 40 CFR 63.567(b) is not required.	Yes [ ] No [ ]
C. Reporting and Recordkeeping Requirements for Marine Tank Vessel Loading 1. For all marine tank vessel loading subject to the MACT standard, does the refinery comply with the reporting and recordkeeping requirements of the marine tank loading NESHAP found in 40 CFR 63.566, 63.567(a) and (c) through (l)?	Yes [ ] No [ ]
2. Does the facility retain all records required to be kept for 5 years?	Yes [ ] No [ ]

X. REQUIREMENTS FOR EQUIPMENT LEAKS

A. Control Requirements for Equipment Leaks 1. For equipment leaks at **existing sources**, does the facility comply with either of the following equipment leaks provisions: (a) 40 CFR 60 Subpart VV (synthetic organic chemical manufacturing industry (SOCMI) equipment leaks NSPS)? **or**	Yes [ ] No [ ]

(b) Modified 40 CFR 63 Subpart H (hazardous organic NESHAP (HON) negotiated regulation)?	Yes [ ] No [ ]
2. For equipment leaks at **new sources**, does the facility must comply with modified 40 CFR 63 Subpart H?	Yes [ ] No [ ]
B. Testing, Inspection, and Monitoring Requirements for Equipment Leaks? For all equipment leaks subject to the MACT standard, does the refinery comply with the testing, inspection, and monitoring requirements for equipment leaks in 40 CFR 60.1046 and 60.1047 (40 CFR 60 Subpart VV), or 40 CFR 63.162 through 63.180 (40 CFR 63 Subpart H)?	Yes [ ] No [ ]
C. Reporting and Recordkeeping Requirements for Equipment Leaks For all equipment leaks subject to the MACT Standard, does the refinery comply with the reporting and recordkeeping requirements for equipment leaks found in 40 CFR 60.1048 and 60.1049 (40 CFR 60 Subpart VV), (except the name rather than the signature of the person deciding to delay repair must be recorded)[1], or 40 CFR 63.181 and 63.182 (40 CFR 63 Subpart H) (except for 63.182(b), (c)(2), and (c)(4))?	Yes [ ] No [ ]

XI. EMISSIONS AVERAGING

A. Emissions Averaging Applicability Did the facility conduct emissions averaging?	Yes [ ] No [ ]
- If yes, did the facility conduct emissions averaging only for emission points at a single refinery? *Note:* Emissions averaging is not allowed across sources, such as across different plant sites or between refinery and HON sources (i.e., units having a hazardous organic air pollutant as its *primary product*) at the same plant site. In addition, an emissions estimation is only required for points included in emissions averages, not for all points in the source. A limitation on the emissions averaging provision is that States have the authority to disallow emissions averaging and require the application of standard control requirements to all emission points.	Yes [ ] No [ ]
B. Emissions Averaging Credit/Debit System 1. Were emission credits and debits calculated on a <u>mass basis</u> using equations in 40 CFR 63.652(g) and (h) based on actual operations?	Yes [ ] No [ ]
2. Were credits calculated <u>greater than or equal to debits</u> calculated on an <u>annual basis</u>? [40 CFR 63.652(e)(3)]	Yes [ ] No [ ]
3. Did debits exceed credits by more than 30% in any one quarter? [40 CFR 652(e)(4)]	Yes [ ] No [ ]

[1] This requirement reflects an amendment to 40 CFR Part 63 Subpart CC made on August 18, 1998. For more information, see Appendix G.

4. Were any emission points other than the following used to generate emissions averaging credits [40 CFR 63.652(c)(1) through (3)]: C Group 2 emission points. C Group 1 emission points controlled by technology with a higher nominal efficiency than the reference control technology. C Emission points from which emissions are reduced by pollution reduction measures, alone or in conjunction with other controls, that get more emission reduction than required?	Yes [ ] No [ ]
5. Did the facility use any of the following emission points to generate emissions averaging credits [40 CFR 63.652(d)]: C Emission points already controlled on or before November 15, 1990, unless the level of control was increased after November 15, 1990? (If so, credit is allowed for the increase only.)	Yes [ ] No [ ]
C Group 1 emission points that are controlled by a reference control technology, unless the technology has been approved for use in a different manner and a higher nominal efficiency has been assigned? (For example, it is not allowable to claim that an internal floating roof meeting only the specifications stated in the reference control technology definition in 40 CFR 63.641 applied to a storage vessel is achieving greater than 95 percent control.)	Yes [ ] No [ ]
C Emission points on shutdown process units?	Yes [ ] No [ ]
C Emission points controlled to comply with a State or other Federal rule, unless the level of control has been increased after November 15, 1990 above what is required by the State or other Federal rule? *Note:* If the facility used any of these emission points, credit is allowed for the increase only.	Yes [ ] No [ ]
Note: Debits are generated if the required level of control of a Group 1 emission point, such as 98% for miscellaneous process vents and 95% for storage vessels, is not achieved. [40 CFR 63.652(g)] (See Table 2.3 for required level of control.) Debits and credits are calculated using formulas found in 40 CFR 63.652(g) and (h).	
6. Did the facility conduct calculations from any of the following: C Wastewater that is not process wastewater or wastewater streams treated in biological treatment units? (Group 1 wastewater streams cannot be left undercontrolled or uncontrolled to generate debits) [40 CFR 63.652(d)(4)]	Yes [ ] No [ ]

C More than 20 individual emission points in addition to those controlled by pollution prevention measures?	Yes [ ] No [ ]
- Where pollution prevention measures are used, no more than 25 emission points total? [40 CFR 63.652(f)(1)]	Yes [ ] No [ ]
C Emission points during periods of startup, shutdown, and malfunction? [40 CFR 63.652(f)(2)]	Yes [ ] No [ ]
C Emission points for which continuous monitors are used and excess emissions occur? [40 CFR 63.652(f)(3)] (For these periods, the monthly credits and debits will be adjusted as specified in 40 CFR 63.652(f)(3)(I) through (iii).)	Yes [ ] No [ ]
C. Approval of Emissions Averaging Plan 1. Did the facility submit for approval an emissions averaging plan in the Implementation Plan or Operating Permit Application?	Yes [ ] No [ ]
2. Did the plan demonstrate that the credits will be sufficient to offset the debits under representative operating conditions? [40 CFR 63.652(e)(3)(I)] *Note:* The plan may include use of innovative technologies, different from the reference control technology, provided that the innovative technologies achieve greater than the level of control required for a Group 1 emission point.)	Yes [ ] No [ ]
3. Did the facility include a <u>risk assessment</u> in the plan of any hazards or risks of the plan, such as the risk from one large emission point versus the risk from combined emission points?	Yes [ ] No [ ]
- Did the facility review such hazards and risks and compare them to point-by-point compliance?	Yes [ ] No [ ]
D. Testing, Monitoring, Reporting, and Recordkeeping for Emissions Averaging 1. For <u>each emission point included in an emissions average</u>, did the refinery perform testing, monitoring, reporting, and recordkeeping equivalent to the requirements for Group 1 emission points that are not included in emissions averaging? [40 CFR 63.653(a)]	Yes [ ] No [ ]
2. In addition, did the facility <u>maintain the monthly calculations</u> of debits and credits?	Yes [ ] No [ ]
3. Does the facility maintain the following records for emissions averaging: C Initial performance test results (if applicable)?	Yes [ ] No [ ]
C Monthly debits, credits, and calculations using EPA-specified calculation procedures?	Yes [ ] No [ ]
C Operating parameter monitoring results?	Yes [ ] No [ ]

This information was taken from the ***Updated*** *Petroleum Refinery MACT Standard Guidance* document, (EPA/305-B-97-010), Novmeber, 2000. For comments or questions concerning the technical content of this document, please contact Jim Durham at 919-541-5672 or at (durham.jim@epa.gov).