DRAFT/PROPOSED

AIR EMISSION PERMIT NO. 03700368- 001
Total Facility Operating Permit

IS ISSUED TO

Recovery Technology Solutions

RECOVERY TECHNOLOGY SOLUTIONS
284th Street East
Randolph, Dakota County, MN 55065

The emission units, control equipment and emission stacks at the stationary source authorized in this permit are as described in the Permit Applications Table.

The conditions included in Stage 1 of this permit action are effective on the Stage 1 Issuance Date shown below. Stage 1 conditions authorize construction of the facility at the address listed above.

Beginning on the Stage 2 Issue Date shown below, Air Emission Permit No. 03700368-001 authorizes the Permittee to operate the stationary source at the address listed above unless otherwise noted in Table A. The Permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. 7007.1150 to 7007.1500. Terms used in the permit are as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

Unless otherwise indicated, all the Minnesota rules cited as the origin of the permit terms are incorporated into the State Implementation Plan under 40 CFR § 52.1220 and as such are enforceable by U.S. Environmental Protection Agency (EPA) Administrator or citizens under the Clean Air Act.

Permit Type: Federal; Part 70/Limits to Avoid NSR; Limits to Avoid NSR
Operating Permit Issue Date: < >
Stage 1 Issue Date – Authorization to Construct and Operate: <date1>
Stage 2 Issue Date – Major Amendment: <date2>
Operating Permit Expiration: < > -- All Title I Conditions do not expire.

Stage 1 Issuance:

Don Smith, P.E., Manager
Air Quality Permits Section
Industrial Division

for John Linc Stine
Commissioner
Minnesota Pollution Control Agency

Stage 2 Issuance:

Don Smith, P.E., Manager
Air Quality Permits Section
Industrial Division

for John Linc Stine
Commissioner
Minnesota Pollution Control Agency

Permit Applications Table

Permit Type	Application Date	Permit Action
Total Facility Operating Permit	8/2/2012	001

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NOTICE TO THE PERMITTEE:

Your stationary source may be subject to the requirements of the Minnesota Pollution Control Agency's (MPCA) solid waste, hazardous waste, and water quality programs. If you wish to obtain information on these programs, including information on obtaining any required permits, please contact the MPCA general information number at:

Metro Area	651-296-6300
Outside Metro Area	1-800-657-3864
TTY	651-282-5332

The rules governing these programs are contained in Minn. R. chs. 7000-7105. Written questions may be sent to: Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, Minnesota 55155-4194.

Questions about this air emission permit or about air quality requirements can also be directed to the telephone numbers and address listed above.

PERMIT SHIELD:

Subject to the limitations in Minn. R. 7007.1800, compliance with the conditions of this permit shall be deemed compliance with the specific provision of the applicable requirement identified in the permit as the basis of each condition. Subject to the limitations of Minn. R. 7007.1800 and 7017.0100, subp. 2, notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

FACILITY DESCRIPTION:

Recovery Technology Solutions (RTS) plans to construct a shingle recycling facility for the extraction of asphalt cement from ground roofing shingles. At the facility, shingles will be reduced into their component parts of asphalt cement, sand, rock and fiber material. These recovered components will be sold to off-site customers.

Emissions from the facility include particulate matter (PM), particulate matter less than ten microns in diameter (PM_{10}), particulate matter less than 2.5 microns in diameter ($PM_{2.5}$), nitrogen oxides (NO_X), sulfur dioxide (SO_2), carbon monoxide (CO), volatile organic compounds (VOCs), toluene (a Hazardous Air Pollutant [HAP]), other HAPs, and greenhouse gas (GHG) emissions expressed as carbon dioxide equivalents (CO_2e).

Toluene, which is a VOC and a HAP, will be used as the solvent for recovering the asphalt. Good solvent recovery practices and the use of a mineral oil system will control emissions of toluene. Particulate emissions from the facility will be reduced by applying a cyclone and a fabric filter.

TABLE A: LIMITS AND OTHER REQUIREMENTS

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Table A contains limits and other requirements with which your facility must comply. The limits are located in the first column of the table (What To do). The limits can be emission limits or operational limits. This column also contains the actions that you must take and the records you must keep to show that you are complying with the limits. The second column of Table A (Why to do it) lists the regulatory basis for these limits. Appendices included as conditions of your permit are listed in Table A under total facility requirements.

Subject Item: **Total Facility**

What to do	Why to do it
SOURCE-SPECIFIC REQUIREMENTS	hdr
The authorization to construct the new facility expires 18 months after issuance of the construction authorization for Air Emission Permit No. 03700368-001. The Permittee shall keep on-site records of the dates of installation and start-up of each EU, TK, GP, and FS identified in the permit.	[Stage 1] Title I Condition: 40 CFR Section 63.43(g)(4): MACT & Minn. R. 7007.3010
OPERATIONAL REQUIREMENTS	hdr
The Permittee shall comply with National Primary and Secondary Ambient Air Quality Standards, 40 CFR pt. 50, and the Minnesota Ambient Air Quality Standards, Minn. R. 7009.0010 to 7009.0080. Compliance shall be demonstrated upon written request by the MPCA.	40 CFR pt. 50; Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subp. 7(A), 7(L), & 7(M); Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080
Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted.	Minn. R. 7011.0020
Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated.	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)
Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment. At a minimum, the O & M plan shall identify all air pollution control equipment and control practices and shall include a preventative maintenance program for the equipment and practices, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment and practices to proper operation to meet applicable permit conditions, a description of the employee training program for proper operation and maintenance of the control equipment and practices, and the records kept to demonstrate plan implementation.	Minn. R. 7007.0800, subps. 14 and 16(J)
Operation Changes: In any shutdown, breakdown, or deviation the Permittee shall immediately take all practical steps to modify operations to reduce the emission of any regulated air pollutant. The Commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment shall be permitted to operate.	Minn. R. 7019.1000, subp. 4
Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150.	Minn. R. 7011.0150
Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7030.0010 - 7030.0080
Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A).	Minn. R. 7007.0800, subp. 9(A)
The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
PERFORMANCE TESTING	hdr
Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A, B, and/or C.	Minn. R. ch. 7017

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Performance Test Notifications and Submittals: Performance Tests are due as outlined in Table A of the permit. See Table B for additional testing requirements. Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-test Meeting: due 7 days before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy: due 105 days after each Performance Test The Notification, Test Plan, and Test Report may be submitted in an alternative format as allowed by Minn. R. 7017.2018.	Minn. R. 7017.2018; Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2
Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as stated in the MPCA's Notice of Compliance letter granting preliminary approval. Preliminary approval is based on formal review of a subsequent performance test on the same unit as specified by Minn. R. 7017.2025, subp. 3. The limit is final upon issuance of a permit amendment incorporating the change.	Minn. R. 7017.2025, subp. 3
MONITORING REQUIREMENTS	hdr
Monitoring Equipment Calibration: The Permittee shall calibrate all required monitoring equipment at least once every 12 months (any requirements applying to continuous emission monitors are listed separately in this permit).	Minn. R. 7007.0800, subp. 4(D)
Operation of Monitoring Equipment: Unless otherwise noted in Tables A, B, and/or C, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system.	Minn. R. 7007.0800, subp. 4(D)
RECORDKEEPING	hdr
Recordkeeping: Retain all records at the stationary source, unless otherwise specified within this permit, for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).	Minn. R. 7007.0800, subp. 5(C); 40 CFR Section 60.48c(i) & Minn. R. 7011.0570; 40 CFR Section 63.10(b)(1); 40 CFR 63.7560(b)
Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350, subp. 2), including records of the emissions resulting from those changes.	Minn. R. 7007.0800, subp. 5(B)
If the Permittee determines that no permit amendment or notification is required prior to making a change, the Permittee must retain records of all calculations required under Minn. R. 7007.1200. These records shall be kept for a period of five years from the date the change was made or until permit reissuance, whichever is longer. The records shall be kept at the stationary source for the current calendar year of operation and may be kept at the stationary source or office of the stationary source for all other years. The records may be maintained in either electronic or paper format.	Minn. R. 7007.1200, subp. 4
REPORTING/SUBMITTALS	hdr
Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3. At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over.	Minn. R. 7019.1000, subp. 3

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Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2. At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over.	Minn. R. 7019.1000, subp. 2
Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment.	Minn. R. 7019.1000, subp. 1
Notification of Deviations Endangering Human Health or the Environment Report: Within 2 working days of discovery, notify the Commissioner in writing of any deviation from permit conditions which could endanger human health or the environment. Include the following information in this written description: 1. the cause of the deviation; 2. the exact dates of the period of the deviation, if the deviation has been corrected; 3. whether or not the deviation has been corrected; 4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation.	Minn. R. 7019.1000, subp. 1
Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.	Minn. R. 7007.1150 - 7007.1500
Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H). Performance testing deadlines from the General Provisions of 40 CFR pt. 60 and pt. 63 are examples of deadlines for which the MPCA does not have authority to grant extensions and therefore do not meet the requirements of Minn. R. 7007.1400, subp. 1(H).	Minn. R. 7007.0400, subp. 2
Emission Inventory Report: due on or before April 1 of each calendar year following permit issuance, to be submitted on a form approved by the Commissioner.	Minn. R. 7019.3000 - 7019.3100
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 - 7002.0095

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Subject Item: **GP 001 Extraction (Subject to case-by-case MACT)**

Associated Items: EU 002 Mineral Oil System

FS 001 Fugitive Toluene Losses

SV 002 Mineral Oil System

TK 001 Toluene

TK 002 Miscella

TK 003 Asphalt Cement

TK 004 Asphalt Cement

TK 005 Asphalt Cement

TK 006 Asphalt Cement

What to do	Why to do it
LIMITS	hdr
Opacity: less than or equal to 20 percent	[Stage 1] Minn. R. 7011.0715, subp. 1(B)
Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.	[Stage 1] Minn. R. 7011.0715, subps. 1(A)
Compliance ratio for Toluene: less than or equal to 1.0	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
(continued) The Compliance Ratio = (fhap * actual solvent loss)/(allowable solvent loss) where: fhap = the weighted average HAP content of solvent purchased during the previous twelve operating months (volume fraction); Actual solvent loss = quantity of actual solvent loss during previous twelve operating months (gallons); Allowable solvent loss = quantity of shingles processed during the previous twelve operating months (tons) multiplied by 0.9 (gallons/ton) This reflects an allowable emission rate of 0.9 gallons of HAP per ton of shingles processed.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
VOC Usage: less than or equal to 224 tons/year using 12-month Rolling Sum	[Stage 1] Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
VOC COMPLIANCE METHOD	hdr
Daily recordkeeping of solvent losses. On each day of operation, the Permittee shall record the mass of volatile organic compounds (VOCs) received by the facility, the mass of VOCs in each tank, and the mass of any other VOCs used during the day. The mass of VOCs received by the facility shall be based on records provided by the provider.	[Stage 1] Title I Condition: recordkeeping to avoid classification as a major source under 40 CFR Section 52.21(j) & Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 4 & 5
Monthly recordkeeping and calculation of solvent losses. By the last day of each calendar month, the Permittee shall calculate and record the quantity of actual VOC loss (the monthly VOC emission losses) for the previous month and the 12-month rolling sum of actual VOC solvent losses for the previous 12 months. The following equation shall be used to calculate the monthly VOC emission losses: Monthly VOC losses = (VOCs stored in tanks at the facility on the first day of the month) + (VOCs delivered to the facility during the month) - (VOCs stored in tanks on the first day of the next month).	[Stage 1] Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000

Monthly recordkeeping and calculation of solvent losses. (continued) The following equation shall be used to calculate the 12-month rolling VOC emission losses: 12-month rolling VOC losses = (VOCs stored in tanks at the facility on the first day of the 12-month period) + (VOCs delivered to the facility during the 12-month period) - (VOCs stored in tanks on the first day of 13th month) These calculations shall be based on throughput logs, meters, tank liquid levels and/or delivery records.	[Stage 1] Title I Condition: To avoid classification as major source and modification under CFR Section 52.21 & Minn. R. 7007.3000 CONTINUED
MACT COMPLIANCE METHOD	hdr
The Permittee shall calculate the compliance ratio by the end of each calendar month following an operating month. - An operating month is any calendar month with at least one normal operating period (as defined by this permit). It does not include the initial startup period (as defined by this permit). - If the facility processes any quantity of shingles in a calendar month and the facility is not operating under an initial startup period, then the month must be categorized as an operating month. - The 12-month compliance ratio shall include operating months occurring prior to a source shutdown and operating months that follow after the source resumes operation, omitting the shutdown period. - If the facility shuts down and processes no shingles for an entire calendar month, then the month must be categorized as a nonoperating month. Exclude any nonoperating months from the compliance ratio determination.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
(continued) - If the facility is subject to an initial startup period, exclude from the compliance ratio determination any solvent and shingle information recorded for the initial startup period.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
Initial startup. Upon startup, the Permittee shall comply with Alternative 1: Normal Operation or Alternative 2: Initial Startup Period.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Initial startup of operation. The recordkeeping schedule begins on the initial startup date of the facility. At initial startup, the Permittee shall comply with Alternative 1 (normal operation) or Alternative 2 (initial startup period). For up to six calendar months after the startup date of the facility, the Permittee may comply with the requirements of Alternative 2; thereafter, the Permittee shall follow the requirements of Alternative 1. The Permittee shall keep a log noting when it is operating under Alternative 1 or Alternative 2.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010; Minn. R. 7007.0800, subp. 11
Alternative Operating Scenario 1. Normal Operation. The Permittee shall determine the first compliance ratio by the end of the calendar month following the first twelve operating months after the startup date of the facility - Operate and maintain the facility in accordance with the general duty provisions of 40 CFR Section 63.6(e). - Determine and record the extraction solvent loss in gallons. - Record the volume fraction of HAP present at greater than one percent by volume and gallons of extraction solvent in any shipments received. - Record the tons of shingles processed. - Determine the weighted average volume fraction of HAP in extraction solvent received by the end of the following calendar month.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010; Minn. R. 7007.0800, subp. 11
Alternative Operating Scenario 1. Normal Operation. (continued) - Determine and record the actual solvent loss, weighted average volume fraction HAP, shingles process and compliance ratio for each 12 operating month period by the end of the following calendar month. - Submit a Notification of Compliance Status or Annual Compliance Certification, as appropriate. - Submit a Deviation Notification Report by the end of the calendar month in which the compliance ratio exceeds 1.00.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010; Minn. R. 7007.0800, subp. 11 CONTINUED

Alternative Operating Scenario 2. Initial Startup Period. The Permittee shall determine the first compliance ratio by the end of the calendar month following the first twelve operating months after the termination of the initial startup period, which can last for up to six months. For up to six calendar months after the startup date of the facility, comply with the following requirements: - Operate and maintain the facility in accordance with the general duty provisions of 40 CFR Section 63.6(e). - Determine and record the extraction solvent loss in gallons. - Record the volume fraction of HAP present at greater than one percent by volume and gallons of extraction solvent in any shipments received. - Submit a Notification of Compliance Status or Annual Compliance Certification, as appropriate. - Submit a Periodic SSM Report. - Submit an Immediate SSM Report, as appropriate.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010; Minn. R. 7007.0800, subp. 11
OPERATIONAL REQUIREMENTS	hdr
Proper Operation and Maintenance: At all times, including periods of startup, shutdown and malfunction, the Permittee shall operate and maintain the emission unit subject to the case-by-case MACT standard for GP001 and its associated air pollution control and monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010; 40 CFR Section 63.6(e)(1)(i); Minn. R. 7011.7000
Malfunctions shall be corrected as soon as practicable after their occurrence.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010; 40 CFR Section 63.6(e)(1)(ii); Minn. R. 7011.7000
The Permittee shall prepare and implement a Startup, Shutdown, and Malfunction Plan (SSMP) for each of the emission units subject to the case-by-case Maximum Control Technology Standards by initial startup. The SSMP including associated control and monitoring equipment shall be prepared in accordance with 40 CFR Section 63.6(e)(3) and include requirements specified therein. The SSMP must be located at the plant site and must be kept updated. When the SSMP is updated, the Permittee must keep all previous versions of the SSMP for a period of 5 years. The Permittee must submit the SSMP when required.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010; 40 CFR Section 63.6(e)(3)(i); 40 CFR Section 63.6(e)(3)(v); Minn. R. 7011.7000
Revising the SSM Plan. The Permittee may periodically revise the startup, shutdown, and malfunction plan as necessary to satisfy the requirements of the case-by-case MACT or to reflect changes in equipment or procedures. Unless the permitting authority provides otherwise, the Permittee may make such revisions to the startup, shutdown, and malfunction plan without prior approval by the Administrator or the permitting authority. However, each such revision to a startup, shutdown, and malfunction plan must be reported in the Semiannual Deviations Report.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010; 40 CFR Section 63.6(e)(3)(viii); 40 CFR Section 63.6(e)(3)(v); Minn. R. 7011.7000
Revising the SSM Plan. (continued) If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the Permittee developed the plan, the Permittee must revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control and monitoring equipment.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010; 40 CFR Section 63.6(e)(3)(viii); 40 CFR Section 63.6(e)(3)(v); Minn. R. 7011.7000 CONTINUED
Revising the SSM Plan. (continued) In the event that the Permittee makes any revision to the startup, shutdown, and malfunction plan which alters the scope of the activities at the source which are deemed to be a startup, shutdown, or malfunction, or otherwise modifies the applicability of any emission limit, work practice requirement, or other requirement in a standard established under this part, the revised plan shall not take effect until after the Permittee has provided a written notice describing the revision to the Commissioner.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010; 40 CFR Section 63.6(e)(3)(viii); 40 CFR Section 63.6(e)(3)(v); Minn. R. 7011.7000 CONTINUED
Prior to construction or reconstruction of an "affected source" under the promulgated MACT standards, the Permittee must apply for and obtain an air emission permit.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010; 40 CFR Section 63.5(b)(3); Minn. R. 7011.7000
NOTIFICATIONS AND SUBMITTALS	hdr

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Content of Notification of Compliance Status. The notification of compliance status must contain the information in items (1) through (5): (1) The name and address of the Permittee. (2) The physical address of the shingle processing facility. (3) Each HAP identified as being present in concentrations greater than 1 percent by volume in each delivery of solvent received during the 12 operating months period used for the initial compliance determination. (4) A statement designating the source as a major source of HAP or a demonstration that the source qualifies as an area source.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Content of Notification of Compliance Status. (continued) (5) A compliance certification indicating whether the source complied with all of the requirements of this subpart throughout the 12 operating months used for the initial source compliance determination. This certification must include a certification of the following items [(i) through (iii), below]: (i) A statement that the Plan for Demonstrating Compliance and the SSM plan are complete and available on-site for inspection. (ii) A statement that the facility is following the procedures described in the Plan for Demonstrating Compliance. (iii) A statement that the compliance ratio is less than or equal to 1.00.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
Content of Annual Compliance Certification. See the facility conditions for the schedule for the annual compliance certification. Include the information in items (1) through (5) in each annual certification: (1) The name and address of the Permittee. (2) The physical address of the shingle processing process. (3) Each HAP identified as being present in concentrations greater than 1 percent by volume in each delivery of solvent received during the 12 calendar months period covered by the report.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Content of Annual Compliance Certification. (continued) (5) A compliance certification to indicate whether the source was in compliance for each compliance determination made during the 12 calendar months period covered by the report. For each such compliance determination, the Permittee shall include a certification of items (i) through (ii): (i) A statement that the facility is following the procedures described in the plan for demonstrating compliance. (ii) A statement that the compliance ratio is less than or equal to 1.00.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
Deviation notification report. The Permittee shall submit a deviation report for each compliance determination for which the compliance ratio exceeds 1.00. The Permittee shall submit the deviation report by the end of the month following the calendar month in which the deviation was determined. The deviation notification report must include the information in items (1) through (3): (1) The name and address of the Permittee. (2) The physical address of the shingle production process. (3) The compliance ratio comprising the deviation. The frequency of submittal of the deviation notification report may be reduced if the MPCA and EPA do not object as provided in 40 CFR Section 63.10(e)(3)(iii).	40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Periodic startup, shutdown, and malfunction report. If the facility operates under an initial startup period, the Permittee shall submit a periodic SSM report by the end of the calendar month following each month in which the initial startup period occurred. The periodic SSM report must include items (1) through (3): (1) The name, title, and signature of a source's responsible official who is certifying that the report accurately states that all actions taken during the initial startup period were consistent with the SSM plan. (2) A description of events occurring during the time period, the date and duration of the events, and reason the time interval qualifies as an initial startup period. (3) An estimate of the solvent loss during the initial startup period with supporting documentation.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010

Immediate SSM reports. If, during an initial startup period, a SSM is handled differently from procedures in the SSM plan and the relevant emission requirements are exceeded, the Permittee shall submit an immediate SSM report. Immediate SSM reports consist of a telephone call or facsimile transmission to the MPCA within 2 working days after starting actions inconsistent with the SSM plan, followed by a letter within 7 working days after the end of the event. The letter must include items (1) through (3): (1) The name, title, and signature of a source's responsible official who is certifying the accuracy of the report, an explanation of the event, and the reasons for not following the SSM plan. (2) A description and date of the SSM event, its duration, and reason it qualifies as a SSM. (3) An estimate of the solvent loss for the duration of the SSM event with supporting documentation.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010
CALCULATION OF THE ACTUAL SOLVENT LOSS	hdr
By the end of each calendar month following an operating month, the Permittee shall determine the total solvent loss in gallons for the previous operating month. The total solvent loss for an operating month includes all solvent losses that occur during normal operating periods within the operating month. If solvent losses for twelve or more operating months have been determined, then the twelve operating months rolling sum of actual solvent loss in gallons shall also be determined by summing the monthly actual solvent loss for the previous twelve operating months. The twelve operating months rolling sum of solvent loss is the "actual solvent loss," which is used to calculate compliance. To determine the actual solvent loss from the facility, follow the procedures in the facility's Plan for Demonstrating Compliance to determine the items in paragraphs (1) through (5), below:	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
(continued) (1) The dates that define each operating status period during a calendar month. The dates that define each operating status period include the beginning date of each calendar month and the date of any change in the source operating status. These dates are the beginning and ending dates of the calendar month. (2) Source operating status. The Permittee shall categorize the operating status of the source for each recorded time interval as follows: (a) Normal operating period; (b) Nonoperating period; or (c) Initial startup period.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
(continued) (3) Measuring the beginning and ending solvent inventory. The Permittee shall measure and record the solvent inventory on the beginning and ending dates of each normal operating period that occurs during an operating month. An operating month is any calendar month with at least one normal operating period. The Permittee shall consistently follow the procedures described in the facility's Plan for Demonstrating Compliance to determine the extraction solvent inventory. The Permittee shall maintain readily available records of the actual solvent loss inventory. In general, the Permittee shall measure and record the solvent inventory only when the source is actively processing shingles. When the source is not active, some or all of the solvent working capacity is transferred to solvent storage tanks which can artificially inflate the solvent inventory.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
(continued) (4) Gallons of extraction solvent received. The Permittee shall record the total gallons of extraction solvent received in each shipment. For most processes, the gallons of solvent received represents purchases of delivered solvent added to the solvent storage inventory. However, if the facility's process refines additional asphalt from off-site sources, recovers solvent from the off-site asphalt, and adds it to the on-site solvent inventory, then the Permittee shall determine the quantity of recovered solvent and include it in the gallons of extraction solvent received.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED

(continued) (5) Solvent inventory adjustments. In some situations, solvent losses determined directly from the measured solvent inventory and quantity of solvent received is not an accurate estimate of the "actual solvent loss" for use in determining compliance ratios. In such cases, the Permittee may adjust the total solvent loss for each normal operating period as long as a reasonable justification for the adjustment is provided. Situations that may require adjustments of the total solvent loss include, but are not limited to, changes in solvent working capacity (described below):	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
(5) (continued) Changes in solvent working capacity. In the facility's records that are kept on-site, the Permittee shall document any process modifications resulting in changes to the solvent working capacity in the asphalt production process. In general, solvent working capacity is the volume of solvent normally retained in solvent recovery equipment such as the extractor, desolventizer-toaster, solvent storage, working tanks, mineral oil absorber, condensers, and asphalt/solvent distillation system. If the change occurs during a normal operating period, the Permittee shall determine the difference in working solvent volume and make a one-time documented adjustment to the solvent inventory.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
Use the following equation to determine the actual solvent loss occurring from the source for all normal operating periods recorded within a calendar month: Monthly Actual Solvent Loss (gal) = Summation from i = 1 to n of [SOLV(B)i - SOLV(E)i + SOLV(R)i +/- SOLV(A)i] Where: SOLV(B)i = Gallons of solvent in the inventory at the beginning of normal operating period i. SOLV(E)i = Gallons of solvent in the inventory at the end of normal operating period i. SOLV(R)i = Gallons of solvent received between the beginning and ending inventory dates of normal operating period i. SOLV(A)i = Gallons of solvent added or removed from the extraction solvent inventory during normal operating period i. n = Number of normal operating periods in a calendar month.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
(continued) The actual solvent loss is the total solvent losses during normal operating periods for the previous 12 operating months. The Permittee shall determine the facility's actual solvent loss by summing the monthly actual solvent losses for the previous 12 operating months. The Permittee shall record the actual solvent loss by the end of each calendar month following an operating month. The Permittee shall use the actual solvent loss to determine the compliance ratio. Actual solvent loss does not include losses that occur during nonoperating periods or initial startup periods. If any one of these operating status periods span an entire month, then the month is treated as nonoperating and there is no compliance ratio determination.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
DETERMINING THE WEIGHTED AVERAGE VOLUME FRACTION OF HAP IN THE ACTUAL SOLVENT LOSS	hdr
By the end of each calendar month following an operating month, the Permittee shall determine the weighted average volume fraction of HAP in extraction solvent received since the end of the previous operating month. If the monthly weighted average volume fraction of HAP in solvent received for 12 or more operating months has been determined, then the Permittee shall also determine an overall weighted average volume fraction of HAP in solvent received for the previous 12 operating months. Use the volume fraction of HAP determined as a 12 operating months weighted average to determine the compliance ratio.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010

The Permittee shall record the volume fraction of each HAP comprising more than 1 percent by volume of the solvent in each delivery of solvent, including solvent recovered from off-site asphalt. To determine the HAP content of the material in each delivery of solvent, the reference method is EPA Method 311 of appendix A of this part. EPA Method 311, an approved alternative method, or any other reasonable means for determining the HAP content may be used. Other reasonable means of determining HAP content include, but are not limited to, a material safety data sheet or a manufacturer's certificate of analysis. A certificate of analysis is a legal and binding document provided by a solvent manufacturer. The purpose of a certificate of analysis is to list the test methods and analytical results that determine chemical properties of the solvent and the volume percentage of all HAP components present in the solvent at quantities greater than 1 percent by volume.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
(continued) The facility is not required to test the materials that used at the facility, but the Commissioner may require a test using EPA Method 311 (or an approved alternative method) to confirm the reported HAP content. However, if the results of an analysis by EPA Method 311 are different from the HAP content determined by another means, the EPA Method 311 results will govern compliance determinations.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
The Permittee shall determine the weighted average volume fraction of HAP in the extraction solvent each operating month. The weighted average volume fraction of HAP for an operating month includes all solvent received since the end of the last operating month, regardless of the operating status at the time of the delivery. The Permittee shall determine the monthly weighted average volume fraction of HAP by summing the products of the HAP volume fraction of each delivery and the volume of each delivery and dividing the sum by the total volume of all deliveries as expressed in the following equation: Monthly Weighted Average HAP Content of Extraction Solvent (volume fraction) = Summation from i = 1 to n [Received(i) * Content(i)]/(Total Received)	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
(continued) Where: Received(i) = Gallons of extraction solvent received in delivery i. Content(i) = The volume fraction of HAP in extraction solvent delivery i. Total Received = Total gallons of extraction solvent received since the end of the previous operating month. n = Number of extraction solvent deliveries since the end of the previous operating month. The Permittee shall record the result by the end of each calendar month following an operating month.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
The Permittee shall determine the volume fraction of HAP in the extraction solvent as a 12 operating months weighted average. When the facility has processed shingles for 12 operating months, the Permittee shall sum the products of the monthly weighted average HAP volume fraction and corresponding volume of solvent received, and divide the sum by the total volume of solvent received for the 12 operating months, as expressed in the following equation: 12-month weighted average of HAP content in solvent received (volume fraction) = Summation from i = 1 to n [Received(i) * Content(i)]/(Total Received)	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
(continued) Where: Received(i) = Gallons of extraction solvent received in operating month i = [SOLV(R)i] Content(i) = Average volume fraction of HAP in extraction solvent received in operating month i (as determined for the "Monthly Weighted Average HAP Content of Extraction Solvent" equation). Total Received = Total gallons of extraction solvent received during the previous 12 operating months. The Permittee shall record the result by the end of each calendar month following an operating month and use it to determine the compliance ratio.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
DETERMINING THE QUANTITY OF SHINGLES PROCESSED	hdr

The Permittee shall determine all shingle measurements on an as received basis. The as received basis refers to the shingle's chemical and physical characteristics (e.g., weight) as initially received by the source and prior to any handling and processing of the shingles. By the end of each calendar month following an operating month, the Permittee shall determine the tons as received of shingles processed for the operating month. The total shingles processed for an operating month includes the shingles processed during all normal operating periods that occur within the operating month. If the tons of shingles processed for 12 or more operating months have been determined, the Permittee shall also determine the 12 operating months rolling sum of shingles processed by summing the tons of shingles processed for the previous 12 operating months. The 12 operating months rolling sum of shingles processed is used to calculate the compliance ratio.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
The Permittee shall follow the procedures in the Plan for Demonstrating Compliance to determine the items in (1) through (5), below. (1) The dates that define each operating status period. The dates that define each operating status period include the beginning date of each calendar month and the date of any change in the source operating status. The dates on each shingle inventory log must be consistent with the dates recorded for the solvent inventory. (2) Source operating status. The Permittee shall categorize the source operation for each recorded time interval. The source operating status for each time interval recorded on the shingle inventory must agree with the operating status recorded on the solvent inventory logs.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
(continued) (3) Measuring the beginning and ending inventory for shingles. The Permittee shall measure and record the shingles on the beginning and ending dates of each normal operating period that occurs during an operating month. An operating month is any calendar month with at least one normal operating period. The Permittee shall consistently follow the procedures described in the Plan for Demonstrating Compliance to determine the shingle inventory on an as received basis. The Permittee shall maintain readily available records of the shingle inventory. (4) Tons of shingles received. Record the tons of each shipment of shingles received and added to the on-site storage.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
(continued) (5) Shingle inventory adjustments. In some situations, determining the quantity of shingles processed directly from the measured shingle inventory and quantity of shingles received is not an accurate estimate of the tons of shingles processed for use in determining compliance ratios. If shingles are removed from storage but not processed at the facility, the Permittee shall adjust the shingle inventory and provide a justification for the adjustment. Situations that may require shingle inventory adjustments include, but are not limited to, the situations listed in items (i) through (v): (i) Shingles that become unsuitable for processing (ii) Shingles that are sold before they enter the processing operation. (iii) Shingles destroyed by an event such as a process malfunction, fire, or natural disaster. (iv) Shingles processed through operations prior to solvent extraction but not routed to the solvent extractor for further processing.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
(5) (continued) (v) Periodic physical measurements of inventory. For example, the facility may periodically empty shingles storage areas to physically measure the current shingle inventory. This periodic measurement procedure typically results in a small inventory correction. The correction factor, usually less than 1 percent, may be used to make an adjustment to the facility's shingle inventory that was estimated previously with indirect measurement techniques. To make this adjustment, the Plan for Demonstrating Compliance must provide for such an adjustment.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED

The Permittee shall determine the quantity of shingles processed at the facility during normal operating periods recorded within a calendar month using the following equation: Monthly Quantity of Shingles Processed (tons) = summation from n = 1 to n [SHINGLE(B) - SHINGLE(E) + SHINGLE(R) +/- SHINGLE(A) Where: SHINGLE(B) = Tons of shingles in the inventory at the beginning of normal operating period i. SHINGLE(E) = Tons of shingle in the inventory at the end of normal operating period i. SHINGLE(R) = Tons of shingles received during normal operating period i. SHINGLE(A) = Tons of shingles added or removed from the shingle inventory during normal operating period i. n = Number of normal operating periods in the calendar month during which shingles were processed.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
The quantity of shingles processed is the total tons of shingles processed during normal operating periods in the previous 12 operating months. The Permittee shall determine the tons of shingles processed by summing the monthly quantity of shingles processed for the previous 12 operating months. The Permittee shall record the 12 operating months quantity of shingles processed by the end of each calendar month following an operating month. Use the 12 operating months quantity of shingles processed to determine the compliance ratio. The quantity of shingles processed does not include shingles processed during the operating status periods in items (1) through (3): (1) Nonoperating periods. (2) Initial startup periods. (3) Exempt operation periods. If any one of these four operating status periods span an entire calendar month, then the calendar month is treated as a nonoperating month and there is no compliance ratio determination.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
RECORDKEEPING	hdr
The Permittee shall maintain, at a minimum, the following information in the files: 1) the occurrence and duration of each startup, shutdown, or malfunction of operation; 2) the occurrence and duration of each malfunction of the air pollution control equipment; 3) all maintenance performed on the pollution control equipment; 4) actions taken during periods of startup, shutdown, and malfunction when such actions are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan (SSMP). In this case, the Permittee shall report this action within 2 days of occurrence and follow by a written notification within 7 days of occurrence; 5) all information necessary to demonstrate conformance with the affected source's SSMP and actions taken in accordance with SSMP;	40 CFR Section 63.43: MACT & Minn. R. 7007.3010; 40 CFR Section 63.10(b)(2); Minn. R. 7019.0100, subp. 2(B)
(continued) 6) each period during which a continuous monitoring system (CMS) is malfunctioning or inoperative; 7) all required measurements needed to demonstrate compliance with a relevant standard; 8) all results of performance test, CMS performance evaluations, and opacity and visible emission observations; 9) all measurements as may be necessary to determine the conditions of performance tests and performance evaluations; 10) all CMS calibration checks; 11) all adjustments and maintenance performed on CMS; 12) any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements under this part; 13) all documents supporting initial notifications and notifications of compliance status.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010; 40 CFR Section 63.10(b)(2); Minn. R. 7019.0100, subp. 2(B) CONTINUED
Recordkeeping: The Permittee shall maintain files of all information required by 40 CFR pt. 63 in a form suitable and readily available for expeditious inspection and review. The files should be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. Only the most recent two years of information must be kept on site.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010; 40 CFR Section 63.10(b)(1); Minn. R. 7019.0100, subp. 2(B)

On and after the startup date, the Permittee shall keep the Plan for Demonstrating Compliance and the SSM plan on-site and readily available as long as the source is operational.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010
On and after the startup date, the Permittee shall record the information in (i) through (vii) in accordance with the facility's Plan for Demonstrating Compliance for the solvent inventory: (i) Dates that define each operating status period during a calendar month. (ii) The operating status of the facility (such as normal operation, nonoperating, initial startup period, or exempt operation) for each recorded time interval. (iii) Record the gallons of extraction solvent in the inventory on the beginning and ending dates of each normal operating period. (iv) The gallons of all extraction solvent received, purchased, and recovered during each calendar month. (v) All extraction solvent inventory adjustments, additions or subtractions in gallons. The Permittee shall document the reason for the adjustment and justify the quantity of the adjustment. (vi) The total solvent loss for each calendar month, regardless of the source operating status.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010
(continued) (vii) The actual solvent loss in gallons for each operating month.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
On and after the startup date, the Permittee shall record the items in (i) through (iii) for the weighted average volume fraction of HAP in the extraction solvent: (i) The gallons of extraction solvent received in each delivery. (ii) The volume fraction of each HAP exceeding 1 percent by volume in each delivery of extraction solvent. (iii) The weighted average volume fraction of HAP in extraction solvent received since the end of the last operating month.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010
On and after the startup date, the Permittee shall record items (i) through (vi) in accordance with the facility's Plan for Demonstrating Compliance: (i) The dates that define each operating status period. These dates must be the same as the dates entered for the extraction solvent inventory. (ii) The operating status of the facility (such as normal operation, nonoperating, initial startup period, or exempt operation) for each recorded time interval. (iii) The shingle inventory being processed on the beginning and ending dates of each normal operating period. (iv) The tons of shingles received at the affected source each normal operating period. (v) All shingle inventory adjustments, additions or subtractions for normal operating periods. The Permittee shall document the reason for the adjustment and justify the quantity of the adjustment. (vi) The tons of shingles processed during each operating month.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010
After the facility has processed shingles for 12 operating months and the facility is not operating during an initial startup period, record items (1) through (5) by the end of the calendar month following each operating month: (1) The 12 operating months rolling sum of the actual solvent loss in gallons. (2) The weighted average volume fraction of HAP in extraction solvent received for the previous 12 operating months. (3) The 12 operating months rolling sum of shingles processed at the the facility in tons. (4) A determination of the compliance ratio. (5) A statement of whether the source is in compliance with all elements of the requirements of this case-by-case MACT standard for GP001.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010
For each SSM event subject to an initial startup period, record items (1) through (3) by the end of the calendar month following each month in which the initial startup period occurred: (1) A description and date of the SSM event, its duration, and reason it qualifies as an initial startup. (2) An estimate of the solvent loss in gallons for the duration of the initial startup or malfunction period with supporting documentation. (3) A checklist or other mechanism to indicate whether the SSM plan was followed during the initial startup period.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010
PLAN FOR DEMONSTRATING COMPLIANCE	hdr

Facility Name: Recovery Technology Solutions

Permit Number: 03700368 - 001

Plan for Demonstrating Compliance. Prior to initial startup, the Permittee shall develop and implement a site-specific Plan for Demonstrating Compliance. The Permittee shall develop and implement a written Plan for Demonstrating Compliance that provides the detailed procedures that will be followed to monitor and record data necessary for demonstrating compliance with the requirements for GP 001. Upon completion, the plan is incorporated into this Part 70 permit by reference. The Permittee shall keep the plan on-site and readily available as long as the source is operational. If any changes to the plan for demonstrating compliance are made, the Permittee shall keep all previous versions of the plan and make them readily available for inspection for at least 5 years after each revision. The plan for demonstrating compliance must include the items in (1) through (7):	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Plan for Demonstrating Compliance. (continued) (1) The name and address of the owner or operator. (2) The physical address of the asphalt production process. (3) A detailed description of all methods of measurement that will be used at the facility to determine solvent losses, HAP content of solvent, and the tons of shingles processed. (4) When each measurement will be made. (5) Examples of each calculation to will use to determine compliance status. Include examples of how data measured with one parameter will be converted to other terms for use in compliance determination. (6) Example logs of how data will be recorded. (7) A plan to ensure that the data continue to meet compliance demonstration needs.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
The MPCA or EPA may require revisions to the Plan for Demonstrating Compliance. Revisions may be required by the MPCA or EPA if the procedures lack detail, are inconsistent or do not accurately determine solvent loss, HAP content of the solvent, or the tons of shingles processed.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010

Facility Name: Recovery Technology Solutions

Permit Number: 03700368 - 001

Subject Item: **EU 001 Dryer**

Associated Items: CE 001 Centrifugal Collector - High Efficiency

SV 001 Dryer Cyclone

What to do	Why to do it
LIMITS	hdr
Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.	[Stage 1] Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent	[Stage 1] Minn. R. 7011.0715, subp. 1(B)
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 80.6 percent control efficiency	[Stage 1] Minn. R. 7007.0800, subp. 2
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 10 micron: greater than or equal to 61.2 percent control efficiency	[Stage 1] Minn. R. 7007.0800, subp. 2
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 2.5 micron: greater than or equal to 61.2 percent control efficiency	[Stage 1] Minn. R. 7007.0800, subp. 2
Pressure Drop: greater than or equal to 2.0 inches of water column and less than or equal to 8.0 inches of water column for CE001.	[Stage 1] Minn. R. 7007.0800, subps. 2 and 14
OPERATIONAL REQUIREMENTS	hdr
The Permittee shall operate the control equipment (CE 001) at all times that the emission unit (EU 001) is in operation.	[Stage 1] Minn. R. 7007.0800, subp. 2
The Permittee shall monitor and record the pressure drop for the cyclone (CE 001) at least once every 24 hours when the cyclone is in operation.	[Stage 1] Minn. R. 7007.0800, subps. 2 and 14
Monitoring Equipment: The Permittee shall maintain the necessary monitoring equipment for measuring and recording pressure drop on the cyclone. The monitoring equipment must be installed, in use, and properly maintained when the cyclone is in operation.	Minn. R. 7007.0800, subp. 4
The Permittee shall maintain CE001 according to the control equipment manufacturer's specifications and shall perform the following on each piece of listed control equipment: A. maintain an inventory of spare parts that are subject to frequent replacement, as required by the manufacturing specification or documented in records under items H and I; B. train staff on the operation and monitoring of control equipment and troubleshooting, and train and require staff to respond to indications of malfunctioning equipment, including alarms and other indicators of abnormal operation; C. thoroughly inspect all control equipment at least annually, or as required by the manufacturing specification (this often requires shutting down temporarily); D. inspect monthly, or as required by the manufacturing specification, components that are subject to wear or plugging, for example: bearings, belts, hoses, fans, nozzles, orifices, and ducts;	Minn. R. 7007.0800, subp. 4
(continued) E. inspect quarterly, or as required by the manufacturing specification, components that are not subject to wear including structural components, housings, ducts, and hoods; F. check daily, or as required by the manufacturing specification, monitoring equipment, for example: pressure gauges, chart recorders, temperature indicators, and recorders; G. calibrate annually, or as required by the manufacturing specification, all monitoring equipment; H. maintain a record of activities conducted in items A to G consisting of the activity completed, the date the activity was completed, and any corrective action taken; and I. maintain a record of parts replaced, repaired, or modified for the previous five years.	Minn. R. 7007.0800, subp. 4 CONTINUED

Facility Name: Recovery Technology Solutions

Permit Number: 03700368 - 001

Subject Item: **EU 003 Screen**

Associated Items: SV 003 Screener Dust Collector

What to do	Why to do it
LIMITS	hdr
Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.	[Stage 1] Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent	[Stage 1] Minn. R. 7011.0715, subp. 1(B)
The Permittee shall operate the fabric filter at all times that the emission unit (EU 003) is in operation.	[Stage 1] Minn. R. 7007.0800, subp. 2
The Permittee shall maintain the fabric filter according to the manufacturer's specifications and shall perform the following on each piece of listed control equipment: A. maintain an inventory of spare parts that are subject to frequent replacement, as required by the manufacturing specification or documented in records under items H and I; B. train staff on the operation and monitoring of the fabric filter and troubleshooting, and train and require staff to respond to indications of malfunctioning equipment, including alarms and other indicators of abnormal operation; C. thoroughly inspect the fabric filter at least annually, or as required by the manufacturing specification (this often requires shutting down temporarily); D. inspect monthly, or as required by the manufacturing specification, components that are subject to wear or plugging, for example: bearings, belts, hoses, fans, nozzles, orifices, and ducts;	Minn. R. 7007.0800, subp. 4
(continued) E. inspect quarterly, or as required by the manufacturing specification, components that are not subject to wear including structural components, housings, ducts, and hoods; F. check daily, or as required by the manufacturing specification, monitoring equipment, for example: pressure gauges, chart recorders, temperature indicators, and recorders; G. calibrate annually, or as required by the manufacturing specification, all monitoring equipment; H. maintain a record of activities conducted in items A to G consisting of the activity completed, the date the activity was completed, and any corrective action taken; and I. maintain a record of parts replaced, repaired, or modified for the previous five years.	Minn. R. 7007.0800, subp. 4 CONTINUED

Facility Name: Recovery Technology Solutions

Permit Number: 03700368 - 001

Subject Item: **EU 004 Boiler 1**

Associated Items: SV 004 Boiler 1

What to do	Why to do it
LIMITS	hdr
Total Particulate Matter: less than or equal to 0.40 lbs/million Btu heat input . The potential to emit from the unit is 0.00765 lb/MMBtu due to equipment design and allowable fuels.	[Stage 1] Minn. R. 7011.0515, subp. 1
Opacity: less than or equal to 20 percent except for one six-minute period per hour of not more than 60 percent opacity.	[Stage 1] Minn. R. 7011.0515, subp. 2
Fuel type: Limited to natural gas or propane only, by design.	[Stage 1] C Minn. R. 7005.0100, subp. 35a
OPERATIONAL REQUIREMENTS	hdr
The Permittee shall comply with the requirements of 40 CFR pt. 63, subp. DDDDD for EU004 upon startup.	40 CFR Section 63.6(b); 40 CFR Section 63.7565; 40 CFR pt. 63, subp. DDDDD, Table 10
The requirements of 40 CFR pt. 63, subp. A shall apply to EU004 unless: (i) The Commissioner has granted an extension of compliance; or (ii) The President has granted an exemption from compliance with the standards of 40 CFR pt. 63, subp. A in accordance with section 112(i)(4) of the Act. Until an extension of compliance has been granted by the Commissioner under 40 CFR Section 63.6(i), the Permittee shall comply with all applicable requirements of 40 CFR pt. 63 for EU004.	40 CFR Section 63.6(a)(1), 63.6(i)(1) & Minn. R. 7011.7000; 40 CFR Section 63.7565; 40 CFR pt. 63, subp. DDDDD, Table 10
Circumvention. The Permittee shall not build, erect, install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. Such concealment includes, but is not limited to: (1) The use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere or (2) The use of gaseous diluents to achieve compliance with a relevant standard for visible emissions.	40 CFR Section 63.4 & Minn. R. 7011.7000; 40 CFR Section 63.7565; 40 CFR pt. 63, subp. DDDDD, Table 10
At all times, the Permittee shall operate and maintain EU004, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that 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.	[Stage 1] 40 CFR Section 63.7500(a)(3)
As provided in 40 CFR Section 63.6(g), EPA may approve use of an alternative to the work practice standards in this section. EPA has not approved an alternative for this facility.	40 CFR Section 63.7500(b)
The Permittee shall conduct an annual tune-up of EU 004 to demonstrate continuous compliance. The Permittee shall conduct first annual tune-up no later than 13 months after the initial startup of the new or reconstructed affected source. Each annual tune-up must be no more than 13 months after the previous tune-up. To conduct the tune-up, the Permittee shall: (i) As applicable, inspect the burner, and clean or replace any components of the burner as necessary. (The burner inspection may be delayed until the next scheduled unit shutdown). At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;	40 CFR Section 63.7540(a)(10); 40 CFR Section 63.7500(b); 40 CFR Section 63.7515(d)

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(continued) (ii) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available; (iii) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the inspection may be delayed until the next scheduled unit shutdown); (iv) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NOx requirement to which the unit is subject;	40 CFR Section 63.7540(a)(10) CONTINUED
(continued) (v) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and	40 CFR Section 63.7540(a)(10) CONTINUED
(continued) (vi) Maintain on-site and submit, if requested by the MPCA or EPA, an annual report containing the information in (A) through (C): (A) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater; (B) A description of any corrective actions taken as a part of the tune-up; and (C) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.	40 CFR Section 63.7540(a)(10) CONTINUED
If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.	40 CFR Section 63.7540(a)(13)
NOTIFICATIONS	hdr
RECORDKEEPING	hdr
Recordkeeping: By the last day of each calendar month, the Permittee shall record the amount of natural gas combusted in the boilers during the previous calendar month. These records shall consist of purchase records, receipts, or fuel meter readings.	[Stage 1] 40 CFR Section 60.48c(g)(2) & Minn. R. 7011.0570
If the Permittee operates EU004 using an alternative fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart under this part, other gas 1 fuel, or gaseous fuel subject to another subpart of this part or part 60, 61, or 65, the Permittee must keep records of the total hours per calendar year that alternative fuel is burned and the total hours per calendar year that the unit operated during periods of gas curtailment or gas supply emergencies.	40 CFR Section 63.7555(h)
The Permittee shall maintain records of the calendar date, time, occurrence and duration of each startup and shutdown. The Permittee shall maintain records of the type(s) and amount(s) of fuels used during each startup and shutdown.	40 CFR Section 63.7555(i), (j)
The Permittee shall keep a copy of each notification and report submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report submitted, according to the requirements in 40 CFR Section 63.10(b)(2)(xiv).	40 CFR Section 63.10(b)(2)(xiv); 40 CFR Section 63.7555(a)(1)
The Permittee shall keep the records in a form suitable and readily available for expeditious review, according to 40 CFR Section 63.10(b)(1).	40 CFR Section 63.10(b)(1); Minn. R. 7019.0100, subp. 2(B); 40 CFR Section 63.7560(a)
The Permittee shall keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR Section 63.10(b)(1). The records may be kept off site for the remaining 3 years.	40 CFR Section 63.10(b)(1); 40 CFR Section 63.7560(c)
The Permittee shall maintain relevant records for EU004 for all required maintenance performed on the air pollution control and monitoring equipment.	40 CFR Section 63.10(b)(2)(iii)
The Permittee shall maintain files of all information (including all reports and notifications) required by 40 CFR pt. 63, subp. DDDDD in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.	40 CFR Section 63.10(d)(1)

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REPORTING	hdr
The Permittee shall submit reports required under 40 CFR pt. 63, subp. DDDDD to the MPCA.	40 CFR Section 63.10(a) & (d)(1);.Minn. R. 7007.0800, subp. 6
The Permittee shall submit all reports required by Table 9 of 40 CFR pt. 63, subp. DDDDD electronically using CEDRI that is accessed through the EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due the report, the Permittee shall submit the report to the Administrator at the appropriate address listed in 40 CFR Section 63.13. At the discretion of the Administrator, the Permittee shall submit these reports, to the Administrator in the format specified by the Administrator.	40 CFR Section 63.7550(h)
The Semiannual Deviations Report shall contain the information required in 40 CFR Section 63.7550(c)(1), (c)(2), (c)(3), and (c)(12). If there are no deviations from the requirements for work practice standards in Table 3 to 40 CFR Section 63, Subpart DDDDD, provide a statement that there were no deviations from the emission limitations and work practice standards during the reporting period. If there is a deviation from a work practice standard during the reporting period, the report must contain the information in 40 CFR Section 63.7550(d).	40 CFR 63.10(d)(1); 40 CFR Section 63.7550; Minn. R. 7007.0800, subp. 6(A)(2)
Notification of compliance status. The Permittee shall comply with all permit requirements for compliance status reports. Each time a notification of compliance status is required, the Permittee shall submit the notification of compliance status to the MPCA following completion of the relevant compliance demonstration activity specified in the relevant standard. Advice on a notification of compliance status may be obtained from the Commissioner.	40 CFR Section 63.9(h); 40 CFR Section 63.7495(d); 40 CFR Section 63.7545(a); 40 CFR Section 63.7565
Within 48 hours of the declaration of each period of natural gas curtailment or supply interruption, as defined in 40 CFR Section 63.7575, the Permittee shall submit a notification of alternative fuel use if he or she intends to use a fuel other than natural gas, refinery gas, gaseous fuel subject to a subpart of 40 CFR pt. 60, pt. 61, pt. 63, or pt. 65, or other gas 1 fuel to fire EU004 during a period of natural gas curtailment or supply interruption, as defined in 40 CFR Section 63.7575. The notification must include the information specified in paragraphs (1) through (5): (1) Company name and address. (2) Identification of the affected unit. (3) Reason EU004 is unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared or the natural gas supply interruption began. (4) Type of alternative fuel intended to be used. (5) Dates when the alternative fuel use is expected to begin and end.	40 CFR Section 63.7545(f)
Compliance status report contents. The Permittee shall include the following information in the compliance report: (i) Company and Facility name and address. (ii) Process unit information, emissions limitations, and operating parameter limitations. (iii) Date of report and beginning and ending dates of the reporting period. (iv) The total operating time during the reporting period. (v) Include the date of the most recent tune-up for EU004. Include the date of the most recent burner inspection if it was not done annually was delayed until the next scheduled or unscheduled unit shutdown.	40 CFR Section 63.7550(c)

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Permit Number: 03700368 - 001

Subject Item: **EU 005 Process Heater for HOS**

Associated Items: SV 005 Process Heater for HOS

What to do	Why to do it
LIMITS	hdr
Total Particulate Matter: less than or equal to 0.40 lbs/million Btu heat input . The potential to emit from the unit is 0.00765 lb/MMBtu due to equipment design and allowable fuels.	[Stage 1] Minn. R. 7011.0515, subp. 1
Opacity: less than or equal to 20 percent except for one six-minute period per hour of not more than 60 percent opacity.	[Stage 1] Minn. R. 7011.0515, subp. 2
Fuel type: Limited to natural gas or propane only, by design.	[Stage 1] C Minn. R. 7005.0100, subp. 35a
OPERATIONAL REQUIREMENTS	hdr
At all times, the Permittee shall operate and maintain EU005, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that 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.	[Stage 1] 40 CFR Section 63.7500(a)
The Permittee shall conduct a 5-year performance tune-up. Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. The Permittee shall conduct the first 5-year tune-up no later than 61 months after the initial startup of the new or reconstructed affected source.	40 CFR Section 63.7500(b); 40 CFR Section 63.7515(d)
The Permittee shall conduct a tune-up of EU 005 to demonstrate continuous compliance every 5 years as specified below. The Permittee may delay the burner inspection specified in paragraph (i) until the next scheduled or unscheduled unit shutdown, but the Permittee shall inspect each burner at least once every 72 months. To conduct the tune-up, the Permittee shall: (i) As applicable, inspect the burner, and clean or replace any components of the burner as necessary. (The burner inspection may be delayed until the next scheduled unit shutdown). At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;	[Stage 1] 40 CFR Section 63.7540(a)(12)
(continued) (ii) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available; (iii) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the inspection may be delayed until the next scheduled unit shutdown); (iv) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NOx requirement to which the unit is subject;	40 CFR Section 63.7540(a)(12) CONTINUED
(continued) (v) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and	40 CFR Section 63.7540(a)(12) CONTINUED

(continued) (vi) Maintain on-site and submit, if requested by the MPCA or EPA, an annual report containing the information in (A) through (C): (A) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater; (B) A description of any corrective actions taken as a part of the tune-up; and (C) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.	40 CFR Section 63.7540(a)(12) CONTINUED
If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.	40 CFR Section 63.7540(a)(13)
NOTIFICATIONS	hdr
Within 48 hours of the declaration of each period of natural gas curtailment or supply interruption, as defined in 40 CFR Section 63.7575, the Permittee shall submit a notification of alternative fuel use if he or she intends to use a fuel other than natural gas, refinery gas, gaseous fuel subject to a subpart of 40 CFR pt. 60, pt. 61, pt. 63, or pt. 65, or other gas 1 fuel to fire EU005 during a period of natural gas curtailment or supply interruption, as defined in 40 CFR Section 63.7575. The notification must include the information specified in paragraphs (1) through (5): (1) Company name and address. (2) Identification of the affected unit. (3) Reason EU005 is unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared or the natural gas supply interruption began. (4) Type of alternative fuel intended to be used. (5) Dates when the alternative fuel use is expected to begin and end.	40 CFR Section 63.7545(f)
If the use of a fuel other than natural gas, refinery gas, or other gas 1 fuel to fire EU005 is intended during a period of natural gas curtailment or supply interruption, as defined in 40 CFR Section 63.7575, submit a notification of alternative fuel use within 48 hours of the declaration of each period of natural gas curtailment or supply interruption, as defined in 40 CFR Section 63.7575. The notification must include the information specified in paragraphs (1) through (5). (1) Company name and address. (2) Identification of the affected unit. (3) Reason that the facility is unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared or the natural gas supply interruption began. (4) Type of alternative fuel that is intended to be used. (5) Dates when the alternative fuel use is expected to begin and end.	40 CFR Section 63.7545(f)
REPORTING	hdr
The Semiannual Deviations Report shall contain the information required in 40 CFR Section 63.7550(c)(1), (c)(2), (c)(3), and (c)(12). If there are no deviations from the requirements for work practice standards in Table 3 to 40 CFR Section 63, Subpart DDDDD, provide a statement that there were no deviations from the emission limitations and work practice standards during the reporting period. If there is a deviation from a work practice standard during the reporting period, the report must contain the information in 40 CFR Section 63.7550(d).	40 CFR Section 63.7550; Minn. R. 7007.0800, subp. 6(A)(2)
The Permittee shall keep the records in a form suitable and readily available for expeditious review, according to 40 CFR Section 63.10(b)(1).	40 CFR Section 63.10(b)(1)
The Permittee shall keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR Section 63.10(b)(1). The records may be kept off site for the remaining 3 years.	40 CFR Section 63.10(b)(1)
As provided in 40 CFR Section 63.6(g), EPA may approve use of an alternative to the work practice standards in this section.	40 CFR Section 63.7500(b)

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Notification of compliance status. The Permittee shall comply with all permit requirements for compliance status reports. Each time a notification of compliance status is required, the Permittee shall submit the notification of compliance status to the MPCA following completion of the relevant compliance demonstration activity specified in the relevant standard. Advice on a notification of compliance status may be obtained from the Administrator.	40 CFR Section 63.9(h); 40 CFR Section 63.7495(d); 40 CFR Section 63.7545(a); 40 CFR Section 63.7565
Compliance status report contents. The Permittee shall include the following information in the compliance report: (i) Company and Facility name and address. (ii) Process unit information, emissions limitations, and operating parameter limitations. (iii) Date of report and beginning and ending dates of the reporting period. (iv) The total operating time during the reporting period. (v) Include the date of the most recent tune-up for EU005. Include the date of the most recent burner inspection if it was not done on a 5-year period was delayed until the next scheduled or unscheduled unit shutdown.	40 CFR Section 63.7550(c)
The Permittee shall submit all reports required by Table 9 of 40 CFR pt. 63, subp. DDDDD electronically using CEDRI that is accessed through the EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due the report, the Permittee shall submit the report to the Administrator at the appropriate address listed in 40 CFR Section 63.13. At the discretion of the Administrator, the Permittee shall submit these reports, to the Administrator in the format specified by the Administrator.	40 CFR Section 63.7550(h)
RECORDKEEPING	hdr
The Permittee shall keep a copy of each notification and report submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report submitted, according to the requirements in 40 CFR Section 63.10(b)(2)(xiv).	40 CFR Section 63.10(b)(2)(xiv)

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Subject Item: **TK 001 Toluene**

Associated Items: GP 001 Extraction (Subject to case-by-case MACT)

What to do	Why to do it
DESIGN REQUIREMENT	hdr
The Permittee shall equip the storage vessel with a permanent submerged fill pipe or the Permittee shall equip the storage vessel with a vapor recovery system or its equivalent.	[Stage 1] Minn. R. 7011.1505, subp. 3
OPERATIONAL REQUIREMENTS	hdr
Comply with the requirements of 40 CFR pt. 63 subp. EEEE upon startup.	[Stage 1] 40 CFR Section 63.6(b)(2)
The Permittee shall route all emissions from TK001 to the process. The process shall be operating at all times when the emissions from TK001 are routed to it, except during periods of start-up, shutdown and malfunction. The total aggregate amount of time during which the emissions bypass the fuel gas system or process during the calendar year without being routed to a control device, for all reasons (except SSM or product changeovers of flexible operation units and periods when a storage tank has been emptied and degassed), must not exceed 240 hours.	[Stage 1] 40 CFR Section 63.2346(a); 40 CFR Section 63.2378(a) & (d); 40 CFR Section 63.982(a)(1); 40 CFR Section 63.984(a)(1)
The Permittee shall record the times at which each emissions bypass of the fuel gas system or the process begins and ends. At the end of each bypass event, the Permittee shall sum the total bypass time for the calendar year.	[Stage 1] Minn. R. 7007.0800, subp. 4
Proper Operation and Maintenance: At all times, including periods of startup, shutdown and malfunction, the Permittee shall operate and maintain the emission unit subject to the MACT standard and its associated air pollution control and monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards.	[Stage 1] 40 CFR Section 63.6(e)(1)(i); Minn. R. 7011.7000
Malfunctions shall be corrected as soon as practicable after their occurrence.	[Stage 1] 40 CFR Section 63.6(e)(1)(ii); Minn. R. 7011.7000
Opening of a safety device is allowed at any time that it is required to avoid unsafe operating conditions.	[Stage 1] 40 CFR Section 63.2346(i)
NOTIFICATIONS AND SUBMITTALS	hdr
The Permittee shall submit the information required for the First Compliance report in either the Notification of Compliance Status or in the first Compliance report, whichever occurs first.	40 CFR Section 63.2343(b)(1)(i)
First Compliance report. The first Compliance report must contain the information specified below: (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) A listing of all transfer racks (except those racks at which only unloading of organic liquids occurs) and of tanks greater than or equal to 18.9 cubic meters (5,000 gallons) that are part of the affected source but are not subject to any of the emission limitations, operating limits, or work practice standards of this subpart.	[Stage 1] 40 CFR Section 63.2386(c)(1), (2), (3) & (10)
Subsequent Compliance reports. Subsequent Compliance reports must contain the information below: (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)(i) A listing of any storage tank that became subject to controls based on the criteria for control specified in table 2 to this subpart, items 1 through 6, since the filing of the last Compliance report. (ii) A listing of any transfer rack that became subject to controls based on the criteria for control specified in table 2 to this subpart, items 7 through 10, since the filing of the last Compliance report.	40 CFR Section 63.2386(d)

Subsequent Compliance reports. (continued) (5)(i) A listing of tanks greater than or equal to 18.9 cubic meters (5,000 gallons) that became part of the affected source but are not subject to any of the emission limitations, operating limits, or work practice standards of this subpart, since the last Compliance report. (ii) A listing of all transfer racks (except those racks at which only the unloading of organic liquids occurs) that became part of the affected source but are not subject to any of the emission limitations, operating limits, or work practice standards of this subpart, since the last Compliance report.	40 CFR Section 63.2386(d) CONTINUED
The Permittee shall submit a subsequent Compliance report if one or more of the events identified below occur since the filing of the Notification of Compliance Status or the last Compliance report: (1) Any storage tank or transfer rack became subject to control under this subpart EEEE; or (2) Any storage tank equal to or greater than 18.9 cubic meters (5,000 gallons) became part of the affected source but is not subject to any of the emission limitations, operating limits, or work practice standards of this subpart; or (3) Any transfer rack (except those racks at which only unloading of organic liquids occurs) became part of the affected source; or	40 CFR Section 63.2343(d)
(continued) (4) Any of the following information has changed: (a) Company name and address. (b) 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. (c) Date of report and beginning and ending dates of the reporting period.	40 CFR Section 63.2343(d) CONTINUED
The Permittee shall submit the notification of compliance status to the MPCA following completion of each relevant compliance demonstration activity specified in 40 CFR pt. 63 subp. EEEE.	40 CFR Section 63.9(h)(3)
The Permittee shall prepare a design evaluation (or engineering assessment) that demonstrates the extent to which the hazardous air pollutant emissions from TK001 are recovered and returned to the process. The Permittee shall submit this information as part of the Notification of Compliance Status.	[Stage 1] 40 CFR Section 63.2378(a); 40 CFR Part 63, Subpart EEEE, Tables 2, 4 & 10; 40 CFR Section 63.984(b)(2) & (b)(3); 40 CFR Section 63.999(b)(1)(i)
Notwithstanding the allowance to reduce the frequency of reporting for periodic SSM reports under 40 CFR Section 63.10(d)(5)(i), any time an action taken by the Permittee during a startup or shutdown that caused the source to exceed any applicable emission limitation in the standard, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures specified in the facility's SSMP, the Permittee shall report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan followed by a letter within 7 working days after the end of the event. The immediate report required shall consist of a telephone call (FAX) to the Administrator within 2 working days after commencing actions inconsistent with the plan, and it shall be followed by a letter delivered or postmarked within 7 working days after the end of the event. The report shall contain the information specified in 40 CFR Section 63.10(d)(5)(ii).	40 CFR Section 63.10(d)(5)(ii); Minn. R. 7019.0100, subp. 2(B)
RECORDKEEPING	hdr
Recordkeeping: The Permittee shall maintain files of all information required by 40 CFR pt. 63 in a form suitable and readily available for expeditious inspection and review. The files should be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. Only the most recent two years of information must be kept on site.	40 CFR Section 63.10(b)(1); Minn. R. 7019.0100, subp. 2(B)
The Permittee shall retain the records of each emissions bypass of the fuel gas system or the process, including the date and time of the event, its duration, and the total time in bypass mode for the calendar year. These records shall be retained for 5 years.	[Stage 1] Minn. R. 7007.0800, subp. 5
The Permittee shall keep documentation, including a record of the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid, that verifies that TK 001 is not required to be controlled under this subpart. The documentation shall be kept up-to-date and must be in a form suitable and readily available for expeditious inspection and review according to 40 CFR Section 63.10(b)(1), including records stored in electronic form in a separate location.	40 CFR Section 63.2343(b)(3)

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The Permittee shall maintain, at a minimum, the following information in the files: 1) the occurrence and duration of each startup, shutdown, or malfunction of operation; 2) the occurrence and duration of each malfunction of the air pollution control equipment; 3) all maintenance performed on the pollution control equipment; 4) actions taken during periods of startup, shutdown, and malfunction when such actions are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan (SSMP). In this case, the Permittee shall report this action within 2 days of occurrence and follow by a written notification within 7 days of occurrence. 5) all information necessary to demonstrate conformance with the affected source's SSMP and actions taken in accordance with SSMP;	40 CFR Section 63.10(b)(2); Minn. R. 7019.0100, subp. 2(B)
(continued) 6) each period during which a continuous monitoring system (CMS) is malfunctioning or inoperative; 7) all required measurements needed to demonstrate compliance with a relevant standard; 8) all results of performance test, CMS performance evaluations, and opacity and visible emission observations; 9) all measurements as may be necessary to determine the conditions of performance tests and performance evaluations; 10) all CMS calibration checks; 11) all adjustments and maintenance performed on CMS; 12) any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements under this part; 13) all documents supporting initial notifications and notifications of compliance status.	40 CFR Section 63.10(b)(2); Minn. R. 7019.0100, subp. 2(B) CONTINUED

Facility Name: Recovery Technology Solutions

Permit Number: 03700368 - 001

Subject Item: **TK 002 Miscella**

Associated Items: GP 001 Extraction (Subject to case-by-case MACT)

What to do	Why to do it
DESIGN REQUIREMENT	hdr
The Permittee shall equip the storage vessel with a permanent submerged fill pipe or the Permittee shall equip the storage vessel with a vapor recovery system or its equivalent.	[Stage 1] Minn. R. 7011.1505, subp. 3

Facility Name: Recovery Technology Solutions

Permit Number: 03700368 - 001

Subject Item: **TK 003 Asphalt Cement**

Associated Items: GP 001 Extraction (Subject to case-by-case MACT)

What to do	Why to do it
DESIGN REQUIREMENT	hdr
The Permittee shall equip the storage vessel with a permanent submerged fill pipe or the Permittee shall equip the storage vessel with a vapor recovery system or its equivalent.	[Stage 1] Minn. R. 7011.1505, subp. 3

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Permit Number: 03700368 - 001

Subject Item: **TK 004 Asphalt Cement**

Associated Items: GP 001 Extraction (Subject to case-by-case MACT)

What to do	Why to do it
DESIGN REQUIREMENT	hdr
The Permittee shall equip the storage vessel with a permanent submerged fill pipe or the Permittee shall equip the storage vessel with a vapor recovery system or its equivalent.	[Stage 1] Minn. R. 7011.1505, subp. 3

Facility Name: Recovery Technology Solutions

Permit Number: 03700368 - 001

Subject Item: **TK 005 Asphalt Cement**

Associated Items: GP 001 Extraction (Subject to case-by-case MACT)

What to do	Why to do it
DESIGN REQUIREMENT	hdr
The Permittee shall equip the storage vessel with a permanent submerged fill pipe or the Permittee shall equip the storage vessel with a vapor recovery system or its equivalent.	[Stage 1] Minn. R. 7011.1505, subp. 3

Facility Name: Recovery Technology Solutions

Permit Number: 03700368 - 001

Subject Item: **TK 006 Asphalt Cement**

Associated Items: GP 001 Extraction (Subject to case-by-case MACT)

What to do	Why to do it
DESIGN REQUIREMENT	hdr
The Permittee shall equip the storage vessel with a permanent submerged fill pipe or the Permittee shall equip the storage vessel with a vapor recovery system or its equivalent.	[Stage 1] Minn. R. 7011.1505, subp. 3

Facility Name: Recovery Technology Solutions

Permit Number: 03700368 - 001

Subject Item: **FS 001 Fugitive Toluene Losses**

Associated Items: GP 001 Extraction (Subject to case-by-case MACT)

What to do	Why to do it
RECEIVING SOLVENT DELIVERIES	hdr
When receiving deliveries of solvent by truck or tank car, the Permittee shall connect the vapor space of the stationary solvent tank with the vapor space of the truck or tank car making the delivery.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
LEAK DETECTION AND REPAIR (LDAR) PROVISIONS	hdr
LDAR provisions apply beginning at the time of startup and thereafter. The Permittee shall comply with the Phase I LDAR requirements upon initial startup. The Permittee shall comply with the Phase II LDAR requirements (in place of the Phase I requirements) beginning no later than 1 year after initial startup.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Each piece of equipment in a process unit to which the LDAR provisions apply shall be identified such that it can be distinguished readily from equipment that is not subject to the LDAR provisions. Identification of the equipment does not require physical tagging of the equipment. For example, the equipment may be identified on a plant site plan, in log entries, or by designation of process unit boundaries by some form of weatherproof identification.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Equipment that is in vacuum service is excluded from the LDAR provisions for FS 001. Equipment that is in organic HAP service less than 300 hours per calendar year is excluded from the LDAR provisions for FS 001.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
When each leak is detected, the following requirements apply: (1) Clearly identify the leaking equipment. (2) The identification on a valve may be removed after it has been monitored as specified in REPAIRING LEAKS FOR VALVES IN GAS/VAPOR SERVICE AND IN LIGHT LIQUID SERVICE, and in the pump quality assurance program, and no leak has been detected during the follow-up monitoring. If the Permittee elects to monitor a valve or connector that has been opened or has otherwise had the seal broken, the identification on that valve or connector may be removed after it is monitored as required and no leak is detected during that monitoring. (3) The identification which has been placed on equipment determined to have a leak, except for a valve or for a connector that has been opened or has otherwise had the seal broken but has not yet completed the required monitoring, may be removed after it is repaired.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Except as provided in paragraph (1) below, all terms in this subpart that define a period of time for completion of required tasks (e.g., weekly, monthly, quarterly, annual), refer to the standard calendar periods unless specified otherwise in the section or subsection that imposes the requirement. (1) If the initial compliance date does not coincide with the beginning of the standard calendar period, the Permittee may elect to utilize a period beginning on the compliance date, or may elect to comply in accordance with the provisions of paragraphs (2) or (3). (2) Time periods specified in this subpart for completion of required tasks may be changed by mutual agreement between the Permittee and the Commissioner, as specified in 40 CFR pt. 63, subp. A. For each time period that is changed by agreement, the revised period shall remain in effect until it is changed. A new request is not necessary for each recurring period.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
(continued) (3) Except as provided in paragraph (1) or (2), where the period specified for compliance is a standard calendar period, if the initial compliance date does not coincide with the beginning of the calendar period, compliance shall be required according to the schedule specified in paragraphs (3)(i) or (3)(ii), as appropriate. (i) Compliance shall be required before the end of the standard calendar period within which the compliance deadline occurs, if there remain at least 3 days for tasks that must be performed weekly, at least 2 weeks for tasks that must be performed monthly, at least 1 month for tasks that must be performed each quarter, or at least 3 months for tasks that must be performed annually; or (ii) In all other cases, compliance shall be required before the end of the first full standard calendar period after the period within which the initial compliance deadline occurs.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED

(continued) (4) In all instances where an LDAR provision requires completion of a task during each of multiple successive periods, the Permittee may perform the required task at any time during each period, provided the task is conducted at a reasonable interval after completion of the task during the previous period.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
In all cases where the Permittee must repair leaks by a specified time after the leak is detected, it is a violation to fail to take action to repair the leaks within the specified time. If action is taken to repair the leaks within the specified time, failure of that action to successfully repair the leak is not a violation. However, if the repairs are unsuccessful, a leak is detected and the Permittee shall take further action as required by applicable provisions of the case-by-case MACT standard for FS001.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
PUMPS IN LIGHT LIQUID SERVICE	hdr
(1) The Permittee shall monitor each pump monthly to detect leaks by the method specified in NORMAL MONITORING METHODS AND REQUIREMENTS and shall comply with the PUMPS IN LIGHT LIQUID SERVICE requirements, except as provided in the exemptions, below. (2) The instrument reading, as determined by the method as specified in NORMAL MONITORING METHODS AND REQUIREMENTS, that defines a leak in each phase of the standard is: (i) For Phase I, an instrument reading of 5,000 parts per million or greater. (ii) For Phase II, an instrument reading of 1,000 parts per million or greater.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
(1) When a leak is detected, The Permittee shall repair it as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in paragraph (3) or in the DELAY OF REPAIR section. (2) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. First attempts at repair include, but are not limited to, the following practices where practicable: (i) Tightening of packing gland nuts. (ii) Ensuring that the seal flush is operating at design pressure and temperature. (3) For pumps in Phase II to which a 1,000 parts per million leak definition applies, repair is not required unless an instrument reading of 2,000 parts per million or greater is detected.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
(1) The Permittee shall decide no later than the first monitoring period whether to calculate percent leaking pumps on a process unit basis or on a source-wide basis. Once the Permittee has decided, all subsequent percent calculations shall be made on the same basis. (2) If, in Phase II, calculated on a 6-month rolling average, the greater of either 10 percent of the pumps in a process unit or three pumps in a process unit leak, the Permittee shall implement a quality improvement program for pumps that complies with the QUALITY IMPROVEMENT PROGRAM FOR PUMPS requirements. (3) The number of pumps at a process unit shall be the sum of all the pumps in organic HAP service, except that pumps found leaking in a continuous process unit within 1 month after start-up of the pump shall not count in the percent leaking pumps calculation for that one monitoring period only.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
(continued) (4) Percent leaking pumps shall be determined by the following equation: %PL =((PL-PS)/(PT-PS))*100 where: %PL =Percent leaking pumps PL =Number of pumps found leaking as determined through monthly monitoring as required in paragraphs (1) and (2). PT =Total pumps in organic HAP service, including those equipped with a dual mechanical seal system that includes a barrier fluid system or designed with no externally actuated shaft penetrating the pump housing. PS =Number of pumps leaking within 1 month of start-up during the current monitoring period.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED

Pumps with dual mechanical seal systems. Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the PUMPS IN LIGHT LIQUID SERVICE requirements, provided the following requirements are met: (1) Each dual mechanical seal system is: (i) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or (ii) Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that complies with the CLOSED-VENT SYSTEMS AND CONTROL DEVICES requirements; or (iii) Equipped with a closed-loop system that purges the barrier fluid into a process stream. (2) The barrier fluid is not in light liquid service. (3) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Pumps with dual mechanical seal systems. (continued) (4) Each pump is checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. (i) If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the pump shall be monitored as specified in NORMAL MONITORING METHODS AND REQUIREMENTS to determine if there is a leak of organic HAP in the barrier fluid. (ii) If an instrument reading of 1,000 parts per million or greater is measured, a leak is detected. (5) Each sensor as described in paragraph (3) is observed daily or is equipped with an alarm unless the pump is located within the boundary of an unmanned plant site.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
Pumps with dual mechanical seal systems. (continued) (6)(i) The Permittee determines, based on design considerations and operating experience, criteria applicable to the presence and frequency of drips and to the sensor that indicates failure of the seal system, the barrier fluid system, or both. (ii) If indications of liquids dripping from the pump seal exceed the criteria established in paragraph(6)(i), or if, based on the criteria established in paragraph(6)(i), the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected. (iii) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in the DELAY OF REPAIR section. (iv) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
Any pump that is designed with no externally actuated shaft penetrating the pump housing is exempt from the PUMPS IN LIGHT LIQUID SERVICE requirements. Any pump equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to a process or to a fuel gas system or to a control device that complies with the CLOSED-VENT SYSTEMS AND CONTROL DEVICES requirements is exempt from the PUMPS IN LIGHT LIQUID SERVICE requirements.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Any pump that is designated as an unsafe-to-monitor pump is exempt from the monitoring and repair requirements for PUMPS IN LIGHT LIQUID SERVICE if: (1) The Permittee determines that the pump is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with the PUMPS IN LIGHT LIQUID SERVICE requirements; and (2) The Permittee has a written plan that requires monitoring of the pump as frequently as practical during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
PRESSURE RELIEF VALVES IN GAS/VAPOR SERVICE	hdr

(a) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with an instrument reading of less than 500 parts per million above background except as provided in paragraph (b), as measured by the method specified in NORMAL MONITORING METHODS AND REQUIREMENTS. (b)(1) After each pressure release, the pressure relief device shall be returned to a condition indicated by an instrument reading of less than 500 parts per million above background, as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in the DELAY OF REPAIR section. (2) No later than 5 calendar days after the pressure release and being returned to organic HAP service, the pressure relief device shall be monitored to confirm the condition indicated by an instrument reading of less than 500 parts per million above background, as measured by the method specified in NORMAL MONITORING METHODS AND REQUIREMENTS.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device as described in the CLOSED-VENT SYSTEMS AND CONTROL DEVICES requirements is exempt from the PRESSURE RELIEF VALVES IN GAS/VAPOR SERVICE requirements.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
(1) Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the PRESSURE RELIEF VALVES IN GAS/VAPOR SERVICE requirements, provided the Permittee complies with the requirements in paragraph (2). (2) After each pressure release, a rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in the DELAY OF REPAIR section.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
SAMPLING CONNNECTION SYSTEMS	hdr
Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system. Gases displaced during filling of the sample container are not required to be collected or captured.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Requirements for closed-purge, closed-loop, or closed-vent systems. Each closed-purge, closed-loop, or closed-vent system shall: (1) Return the purged process fluid directly to the process line; or (2) Collect and recycle the purged process fluid to a process; or (3) Be designed and operated to capture and transport the purged process fluid to a control device that complies with the CLOSED-VENT SYSTEMS AND CONTROL DEVICES requirements.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
In-situ sampling systems and sampling systems without purges are exempt from the SAMPLING CONNNECTION SYSTEMS requirements.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
OPEN-ENDED VALVES OR LINES	hdr
Requirements for open-ended valves or lines. (a)(1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in paragraphs (d) and (e). (2) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line, or during maintenance or repair. (b) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. (c) When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph (a) at all other times.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Requirements for open-ended valves or lines. (continued) (d) Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the OPEN-ENDED VALVES OR LINES requirements. (e) Open-ended valves or lines containing materials which would autocatalytically polymerize or, would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in paragraphs (a) through (c) are exempt from the OPEN-ENDED VALVES OR LINES requirements.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
VALVES IN GAS/VAPOR SERVICE AND IN LIGHT LIQUID SERVICE	hdr
These provisions apply to valves that are either in gas service or in light liquid service.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010

The Permittee shall monitor all valves, except for those that are designated as unsafe-to-monitor or difficult-to-monitor, according to the valve monitoring frequency, and shall comply with all other provisions, except as provided in the DELAY OF REPAIR section. (1) The valves shall be monitored to detect leaks by the method specified in NORMAL MONITORING METHODS AND REQUIREMENTS. (2) The instrument reading that defines a leak in each phase of the standard is a reading of 500 parts per million or greater.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Valve monitoring frequency. In Phase I, each valve shall be monitored quarterly. In Phase II, the Permittee shall monitor valves for leaks at the intervals specified below: (1) At process units with 2 percent or greater leaking valves, the Permittee shall monitor each valve once per month (except for unsafe-to-monitor or difficult-to-monitor valves). (2) At process units with less than 2 percent leaking valves, the Permittee shall monitor each valve once each quarter, except as provided in paragraphs (3) and (4). (3) At process units with less than 1 percent leaking valves, the Permittee may elect to monitor each valve once every 2 quarters. (4) At process units with less than 0.5 percent leaking valves, the Permittee may elect to monitor each valve once every 4 quarters.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Calculating monitoring frequency. (1) Percent leaking valves at a process unit shall be determined by the following equation: %VL =(VL /(VT +VC)) * 100 where: %VL =Percent leaking valves as determined through periodic monitoring. VL =Number of valves found leaking excluding nonrepairables as provided in paragraph (3)(i). VT =Total valves monitored, in a monitoring period excluding valves monitored as required when repairing leaks (below). VC =Optional credit for removed valves=0.67 * net number (i.e., total removed minus total added) of valves in organic HAP service removed from process unit after initial start-up. If credits are not taken, then VC =0.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Calculating monitoring frequency. (continued) (2) For use in determining monitoring frequency, as specified in paragraph (d) of this section, the percent leaking valves shall be calculated as a rolling average of two consecutive monitoring periods for monthly, quarterly, or semiannual monitoring programs; and as an average of any three out of four consecutive monitoring periods for annual monitoring programs. (3)(i) Nonrepairable valves shall be included in the calculation of percent leaking valves the first time the valve is identified as leaking and nonrepairable and as required to comply with paragraph (ii). Otherwise, a number of nonrepairable valves (identified and included in the percent leaking calculation in a previous period) up to a maximum of 1 percent of the total number of valves in organic HAP service at a process unit may be excluded from calculation of percent leaking valves for subsequent monitoring periods.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
Calculating monitoring frequency. (continued) (ii) If the number of nonrepairable valves exceeds 1 percent of the total number of valves in organic HAP service at a process unit, the number of nonrepairable valves exceeding 1 percent of the total number of valves in organic HAP service shall be included in the calculation of percent leaking valves.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
Repairing leaks for valves in gas/vapor service and in light liquid service. (1) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in the DELAY OF REPAIR section. (2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. (3) When a leak has been repaired, the valve shall be monitored at least once within the first 3 months after its repair. (i) The monitoring shall be conducted using the NORMAL MONITORING METHODS AND REQUIREMENTS or the MONITORING METHODS AND REQUIREMENTS WITH ADJUSTMENTS TO BACKGROUND LEVELS, as appropriate, to determine whether the valve has resumed leaking.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010

Repairing leaks for valves in gas/vapor service and in light liquid service. (continued) (ii) The normal requirements to monitor periodically may be used to satisfy the requirements of this paragraph (3), if the timing of the monitoring period coincides with the time specified in this paragraph (3). Alternatively, other monitoring may be performed to satisfy the requirements of this paragraph (3), regardless of whether the timing of the monitoring period for periodic monitoring coincides with the time specified in this paragraph (3). (iii) If a leak is detected by monitoring that is conducted pursuant to paragraph (3) of this section, the Permittee shall follow the normal requirements to monitor periodically to determine whether that valve must be counted as a leaking valve for purposes of calculating the percent leaking valves at a process unit.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
Repairing leaks for valves in gas/vapor service and in light liquid service. (continued) (A) If the Permittee elected to use normal periodic monitoring required to satisfy the requirements of paragraph (3) of this section, then the valve shall be counted as a leaking valve. (B) If the Permittee elected to use other monitoring, prior to the normal periodic monitoring, to satisfy the requirement to monitor within 3 months of its repair, then the valve shall be counted as a leaking valve unless it is repaired and shown by periodic monitoring not to be leaking	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
First attempts at repair include, but are not limited to, the following practices where practicable: (1) Tightening of bonnet bolts, (2) Replacement of bonnet bolts, (3) Tightening of packing gland nuts, and (4) Injection of lubricant into lubricated packing.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Any valve that is designated as an unsafe-to-monitor valve is exempt from these requirements if: (1) The Permittee determines that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with the monitoring requirements; and (2) The Permittee has a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Any valve that is designated as a difficult-to-monitor valve is exempt from these requirements if: (1) The Permittee determines that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface or it is not accessible at anytime in a safe manner; (2) The Permittee designates less than 3 percent of the total number of valves as difficult-to-monitor; and (3) The Permittee follows a written plan that requires monitoring of the valve at least once per calendar year.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
PUMPS, VALVES, CONNECTORS, AND AGITATORS IN HEAVY LIQUID SERVICE; INSTRUMENTATION SYSTEMS; AND PRESSURE RELIEF DEVICES IN LIQUID SERVICE	hdr
Pumps, valves, connectors, and agitators in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and instrumentation systems shall be monitored within 5 calendar days by the method specified in NORMAL MONITORING METHODS AND REQUIREMENTS if evidence of a potential leak to the atmosphere is found by visual, audible, olfactory, or any other detection method. If such a potential leak is repaired as required, it is not necessary to monitor the system for leaks by the method specified in NORMAL MONITORING METHODS AND REQUIREMENTS.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Leak thresholds. If an instrument reading of 10,000 parts per million or greater for agitators or 500 parts per million or greater for valves, connectors, instrumentation systems, and pressure relief devices is measured, a leak is detected.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010

Response to detected leaks. (1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in the DELAY OF REPAIR section. (2) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. (3) For equipment identified in paragraph (a) of this section that is not monitored by the method specified in NORMAL MONITORING METHODS AND REQUIREMENTS, repaired shall mean that the visual, audible, olfactory, or other indications of a leak to the atmosphere have been eliminated; that no bubbles are observed at potential leak sites during a leak check using soap solution; or that the system will hold a test pressure.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
First attempts at repair include, but are not limited to, the following: For pumps: (i) Tightening of packing gland nuts; and (ii) Ensuring that the seal flush is operating at design pressure and temperature. For valves: (1) Tightening of bonnet bolts; (2) Replacement of bonnet bolts; (3) Tightening of packing gland nuts; and (4) Injection of lubricant into lubricated packing.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
DELAY OF REPAIR	hdr
Delay of repair of equipment for which leaks have been detected is allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur by the end of the next process unit shutdown. Delay of repair of equipment for which leaks have been detected is allowed for equipment that is isolated from the process and that does not remain in organic HAP service.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Delay of repair for valves, connectors, and agitators is also allowed if: (1) The Permittee determines that emissions of purged material resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair, and (2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with the CLOSED-VENT SYSTEMS AND CONTROL DEVICES requirements.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Delay of repair for pumps is also allowed if: (1) Repair requires replacing the existing seal design with a new system that the Permittee has determined under the QUALITY IMPROVEMENT PROGRAM FOR PUMPS provisions will provide better performance or: (i) A dual mechanical seal system that meets the requirements listed in FS 001 for pumps with dual mechanical seal system, (ii) A pump with no externally actuated shaft penetrating the pump housing, or (iii) A closed-vent system capable of capturing and transporting any leakage from the seal or seals to a process or to a fuel gas system or to a control device that complies with the CLOSED-VENT SYSTEMS AND CONTROL DEVICES requirements; and (2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Delay of repair beyond a process unit shutdown will be allowed for a valve if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the second process unit shutdown will not be allowed unless the third process unit shutdown occurs sooner than 6 months after the first process unit shutdown.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
CLOSED-VENT SYSTEMS AND CONTROL DEVICES	hdr

Except for parts of the closed-vent system that are designated unsafe-to-inspect and difficult-to-inspect, each closed-vent system shall be inspected according to the procedures and schedule specified in (1) and (2). (1) If the closed-vent system is constructed of hard-piping, the Permittee shall: (i) Conduct an initial inspection according to the NORMAL MONITORING METHODS AND REQUIREMENTS procedures, and (ii) Conduct annual visual inspections for visible, audible, or olfactory indications of leaks. (2) If the vapor collection system or closed-vent system is constructed of duct work, the Permittee shall: (i) Conduct an initial inspection according to the NORMAL MONITORING METHODS AND REQUIREMENTS procedures, and (ii) Conduct annual inspections according to the NORMAL MONITORING METHODS AND REQUIREMENTS procedures.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Leaks, as indicated by an instrument reading greater than 500 parts per million above background or by visual inspections, shall be repaired as soon as practicable, except as provided in (3). (1) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. (2) Repair shall be completed no later than 15 calendar days after the leak is detected, except as provided in (3). (3) Delay of repair of a closed-vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the Permittee determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Any parts of the closed-vent system that are designated as unsafe to inspect are exempt from the NORMAL MONITORING METHODS AND REQUIREMENTS inspection if: (1) The Permittee determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with the NORMAL MONITORING METHODS AND REQUIREMENTS; and (2) The Permittee has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times, but not more frequently than annually.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Whenever organic HAP emissions are vented to a closed-vent system or control device used to comply with the LDAR provisions, such system or control device shall be operating.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
AGITATORS IN GAS/VAPOR SERVICES AND IN LIGHT LIQUID SERVICE	hdr
Monitoring requirements for agitators in gas/vapor services and in light liquid service. (a)(1) Each agitator shall be monitored monthly to detect leaks by the NORMAL MONITORING METHODS AND REQUIREMENTS. (2) If an instrument reading of 10,000 parts per million or greater is measured, a leak is detected. (b)(1) Each agitator shall be checked by visual inspection each calendar week for indications of liquids dripping from the agitator. (2) If there are indications of liquids dripping from the agitator, a leak is detected. (c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in the DELAY OF REPAIR section. (2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Agitators with a dual mechanical seal system. Each agitator equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the NORMAL MONITORING METHODS AND REQUIREMENTS, provided the requirements specified in (1) through (6) are met: (1) Each dual mechanical seal system is: (i) Operated with the barrier fluid at a pressure that is at all times greater than the agitator stuffing box pressure; or (ii) Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that complies with the NORMAL MONITORING METHODS AND REQUIREMENTS; or (iii) Equipped with a closed-loop system that purges the barrier fluid into a process stream. (2) The barrier fluid is not in light liquid organic HAP service. (3) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010

Agitators with a dual mechanical seal system. (continued) (4) Each agitator is checked by visual inspection each calendar week for indications of liquids dripping from the agitator seal. (i) If there are indications of liquids dripping from the agitator seal at the time of the weekly inspection, the agitator shall be monitored as specified in the NORMAL MONITORING METHODS AND REQUIREMENTS to determine the presence of organic HAP in the barrier fluid. (ii) If an instrument reading of 10,000 parts per million or greater is measured, a leak is detected. (5) Each sensor as described in (3) is observed daily or is equipped with an alarm unless the agitator is located within the boundary of an unmanned plant site.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
Agitators with a dual mechanical seal system. (continued) (6)(i) The Permittee determines, based on design considerations and operating experience, criteria applicable to the presence and frequency of drips and to the sensor that indicates failure of the seal system, the barrier fluid system, or both. (ii) If indications of liquids dripping from the agitator seal exceed the criteria established in (6)(i), or if, based on the criteria established in (6)(i), the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected. (iii) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in the DELAY OF REPAIR section. (iv) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
Any agitator equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to a process or fuel gas system or to a control device that complies with the CLOSED-VENT SYSTEMS AND CONTROL DEVICES requirements is exempt from the monitoring requirements for agitators in gas/vapor services and in light liquid service.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Any agitator that is difficult-to-monitor is exempt from the monitoring requirements for agitators in gas/vapor services and in light liquid service if: (1) The Permittee determines that the agitator cannot be monitored without elevating the monitoring personnel more than two meters above a support surface or it is not accessible at anytime in a safe manner; (2) The process unit within which the agitator is located is an existing source or the Permittee designates less than three percent of the total number of agitators in a new source as difficult-to-monitor; and (3) The Permittee follows a written plan that requires monitoring of the agitator at least once per calendar year.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Any agitator that is obstructed by equipment or piping that prevents access to the agitator by a monitor probe is exempt from the monitoring requirements for agitators in gas/vapor services and in light liquid service.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Any agitator that is designated as an unsafe-to-monitor agitator is exempt from the monitoring requirements for agitators in gas/vapor services and in light liquid service if: (1) The Permittee operating determines that the agitator is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of fulfilling the monitoring requirements for agitators in gas/vapor services and in light liquid service; and (2) The Permittee has a written plan that requires monitoring of the agitator as frequently as practical during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
CONNECTORS IN GAS/VAPOR SERVICE AND IN LIGHT LIQUID SERVICE	hdr
The Permittee shall monitor all connectors in gas/vapor and light liquid service, at the monitoring intervals for connectors in gas/vapor service and in light liquid service, except for connectors that are unsafe-to-monitor, unsafe-to-repair, or inaccessible, or that are ceramic or ceramic-lined. (1) The connectors shall be monitored to detect leaks by the NORMAL MONITORING METHODS AND REQUIREMENTS. (2) If an instrument reading greater than or equal to 500 parts per million is measured, a leak is detected.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010

Monitoring intervals for connectors in gas/vapor service and in light liquid service. The Permittee shall monitor for leaks at the intervals specified in (1) and (2). (1) Within the first 12 months after initial start-up or by no later than 12 months after the date of promulgation of a specific subpart that references this subpart, whichever is later, the Permittee shall monitor all connectors, except as provided in paragraphs (f) through (h) of this section. (2) After conducting the initial survey required in (1), the Permittee shall perform all subsequent monitoring of connectors at the frequencies specified in paragraphs (i) through (v): (i) Once per year (i.e., 12-month period), if the percent leaking connectors in the process unit was 0.5 percent or greater during the last required annual or biennial monitoring period.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Monitoring intervals for connectors in gas/vapor service and in light liquid service. (continued) (ii) Once every 2 years, if the percent leaking connectors was less than 0.5 percent during the last required monitoring period. The Permittee may comply with this paragraph by monitoring at least 40 percent of the connectors in the first year and the remainder of the connectors in the second year. The percent leaking connectors will be calculated for the total of all monitoring performed during the 2-year period. (iii) If the Permittee operating a process unit in a biennial leak detection and repair program calculates less than 0.5 percent leaking connectors from the 2-year monitoring period, the Permittee may monitor the connectors one time every 4 years. The Permittee may comply with the requirements of this paragraph by monitoring at least 20 percent of the connectors each year until all connectors have been monitored within 4 years.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
Monitoring intervals for connectors in gas/vapor service and in light liquid service. (continued) (iv) If a process unit complying with the requirements of paragraph (b) of this section using a 4-year monitoring interval program has greater than or equal to 0.5 percent but less than 1 percent leaking connectors, the Permittee shall increase the monitoring frequency to one time every 2 years. The Permittee may comply with the requirements of this paragraph by monitoring at least 40 percent of the connectors in the first year and the remainder of the connectors in the second year. The Permittee may again elect to use the provisions of (iii) when the percent leaking connectors decreases to less than 0.5 percent.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
Monitoring intervals for connectors in gas/vapor service and in light liquid service. (continued) (v) If a process unit complying with requirements of (iii) using a 4-year monitoring interval program has 1 percent or greater leaking connectors, the Permittee shall increase the monitoring frequency to one time per year. The Permittee may again elect to use the provisions of paragraph (iii) of this section when the percent leaking connectors decreases to less than 0.5 percent.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
Connectors that have been opened or otherwise had the seal broken. (i) Except as provided in (ii), each connector that has been opened or has otherwise had the seal broken shall be monitored for leaks when it is reconnected or within the first 3 months after being returned to organic hazardous air pollutants service. If the monitoring detects a leak, it shall be repaired according to the provisions for normal repair of connectors , unless it is determined to be nonrepairable, in which case it is counted as a nonrepairable connector for the purposes of calculating the percent leaking connectors for determining the monitoring frequency.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Connectors that have been opened or otherwise had the seal broken. (continued) (ii) As an alternative to the requirements in (i), the Permittee may choose not to monitor connectors that have been opened or otherwise had the seal broken. In this case, the Permittee may not count nonrepairable connectors for the purposes of calculating the percent leaking connectors for determining the monitoring frequency. The Permittee shall calculate the percent leaking connectors for the monitoring periods by setting the nonrepairable component, C(AN) , for calculating the percent leaking connectors for determining the monitoring frequency to zero for all monitoring periods. (iii) The Permittee may switch alternatives described in (i) and (ii) at the end of the current monitoring period, provided that it is reported as required begin the new alternative in annual monitoring. The initial monitoring in the new alternative shall be completed no later than 12 months after reporting the switch.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED

Normal repair of connectors. When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except for unsafe-to-repair connectors and as provided in DELAY OF REPAIR. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Any connector that is designated as an unsafe-to-monitor connector is exempt from the NORMAL MONITORING METHODS AND REQUIREMENTS if: (1) The Permittee determines that the connector is unsafe to monitor because personnel would be exposed to an immediate danger as a result of complying with the NORMAL MONITORING METHODS AND REQUIREMENTS; and (2) The Permittee has a written plan that requires monitoring of the connector as frequently as practicable during safe to monitor periods, but not more frequently than the periodic schedule otherwise applicable.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Any connector that is designated as an unsafe-to-repair connector is exempt from the NORMAL MONITORING METHODS AND REQUIREMENTS if: (1) The Permittee determines that repair personnel would be exposed to an immediate danger as a consequence of repairing the connector; and (2) The connector will be repaired before the end of the next scheduled process unit shutdown.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
(1) Any connector that is inaccessible or is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined), is exempt from the NORMAL MONITORING METHODS AND REQUIREMENTS and from the recordkeeping and reporting requirements. An inaccessible connector is one that is: (i) Buried; (ii) Insulated in a manner that prevents access to the connector by a monitor probe; (iii) Obstructed by equipment or piping that prevents access to the connector by a monitor probe; (iv) Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold which would allow access to connectors up to 7.6 meters (25 feet) above the ground; (v) Inaccessible because it would require elevating the monitoring personnel more than 2 meters above a permanent support surface or would require the erection of scaffold; or	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
(continued) (vi) Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines, or would risk damage to equipment. (2) If any inaccessible or ceramic or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the leak shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in the DELAY OF REPAIR provisions or for unsafe-to-repair connectors. (3) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
Determining the monitoring frequency. For use in determining the monitoring frequency, the percent leaking connectors shall be calculated as specified in (1) and (2). (1) For the first monitoring period, use the following equation: % C(L) = C(L) /(C(t) + C(c)) * 100 where: % C(L) = Percent leaking connectors as determined through periodic monitoring required in paragraphs (a) and (b) of this section. C(L) = Number of connectors measured at 500 parts per million or greater, by the NORMAL MONITORING METHODS AND REQUIREMENTS. C(t) = Total number of monitored connectors in the process unit. C(c) = Optional credit for removed connectors = 0.67 * net (i.e., total removed-total added) number of connectors in organic hazardous air pollutants service removed from the process unit after the date of initial start-up. If credits are not taken, then C(c) = 0.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010

Determining the monitoring frequency. (continued) (2) For subsequent monitoring periods, use the following equation: % C(L) = [(C(L) - C(AN))/(C(t) + C(c))] * 100 where: % C(L) = Percent leaking connectors as determined through the required periodic monitoring. C(L) = Number of connectors, including nonrepairables, measured at 500 parts per million or greater, by the NORMAL MONITORING METHODS AND REQUIREMENTS. C(AN) = Number of allowable nonrepairable connectors, as determined by monitoring of connectors required above, not to exceed 2 percent of the total connector population, C(t) . C(t) = Total number of monitored connectors, including nonrepairables, in the process unit. C(c) = Optional credit for removed connectors = 0.67 * net number (i.e., total removed-total added) of connectors in organic hazardous air pollutants service removed from the process unit after the date of initial startup. If credits are not taken, then C(c) = 0.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
Optional credit for removed connectors. If the Permittee eliminates a connector subject to monitoring, the Permittee may receive credit for elimination of the connector provided the requirements in (1) through (3) are met. (1) The connector was welded after initial startup. (2) The integrity of the weld is demonstrated by monitoring it according to the NORMAL MONITORING METHODS AND REQUIREMENTS or by testing using X-ray, acoustic monitoring, hydrotesting, or other applicable method. (3) Welds created after initial startup are monitored or tested within 3 months after being welded. (4) If an inadequate weld is found or the connector is not welded completely around the circumference, the connector is not considered a welded connector and is therefore not exempt from the LDAR provisions.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
QUALITY IMPROVEMENT PROGRAM FOR PUMPS	hdr
In Phase II, if, on a 6-month rolling average, the greater of either 10 percent of the pumps in a process unit (or plant site) or three pumps in a process unit (or plant site) leak, the Permittee shall comply with the requirements s specified below.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
The Permittee shall comply with the requirements of this section until the number of leaking pumps is less than the greater of either 10 percent of the pumps or three pumps, calculated as a 6-month rolling average, in the process unit (or plant site). Once the performance level is achieved, the Permittee shall comply with the PUMPS IN LIGHT LIQUID SERVICE requirements.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
If in a subsequent monitoring period, the process unit (or plant site) has greater than 10 percent of the pumps leaking or three pumps leaking (calculated as a 6-month rolling average), the Permittee shall resume the quality improvement program starting at performance trials.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Requirements for the quality improvement program (QIP) for pumps. The quality improvement program shall include the following: (1) The Permittee shall comply with the PUMPS IN LIGHT LIQUID SERVICE requirements. (2) The Permittee shall collect the following data, and maintain records as required in the RECORDKEEPING section for pumps in the quality improvement program, for each pump in each process unit (or plant site) subject to the quality improvement program. The data may be collected and the records may be maintained on a process unit or plant site basis. (i) Pump type (e.g., piston, horizontal or vertical centrifugal, gear, bellows); pump manufacturer; seal type and manufacturer; pump design (e.g., external shaft, flanged body); materials of construction; if applicable, barrier fluid or packing material; and year installed. (ii) Service characteristics of the stream such as discharge pressure, temperature, flow rate, corrosivity, and annual operating hours.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010

Requirements for the QIP for pumps. (continued) (iii) The maximum instrument readings observed in each monitoring observation before repair, response factor for the stream if appropriate, instrument model number, and date of the observation. (iv) If a leak is detected, the repair methods used and the instrument readings after repair. (v) If the data will be analyzed as part of a larger analysis program involving data from other plants or other types of process units, a description of any maintenance or quality assurance programs used in the process unit that are intended to improve emission performance. (3) The Permittee shall continue to collect data on the pumps as long as the process unit (or plant site) remains in the quality improvement program.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
Requirements for the QIP for pumps. (continued) (4) The Permittee shall inspect all pumps or pump seals which exhibited frequent seal failures and were removed from the process unit due to leaks. The inspection shall determine the probable cause of the pump seal failure or of the pump leak and shall include recommendations, as appropriate, for design changes or changes in specifications to reduce leak potential. (5)(i) The Permittee shall analyze the data collected to comply with the requirements of (2) to determine the services, operating or maintenance practices, and pump or pump seal designs or technologies that have poorer than average emission performance and those that have better than average emission performance. The analysis shall determine if specific trouble areas can be identified on the basis of service, operating conditions or maintenance practices, equipment design, or other process specific factors.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
Requirements for the QIP for pumps. (continued) (ii) The analysis shall also be used to determine if there are superior performing pump or pump seal technologies that are applicable to the service(s), operating conditions, or pump or pump seal designs associated with poorer than average emission performance. A superior performing pump or pump seal technology is one with a leak frequency of less than 10 percent for specific applications in the process unit or plant site. A candidate superior performing pump or pump seal technology is one demonstrated or reported in the available literature or through a group study as having low emission performance and as being capable of achieving less than 10 percent leaking pumps in the process unit (or plant site). (iii) The analysis shall include consideration of: (A) The data obtained from the inspections of pumps and pump seals removed from the process unit due to leaks;	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
Requirements for the QIP for pumps. (continued) (B) Information from the available literature and from the experience of other plant sites that will identify valve designs or technologies and operating conditions associated with low emission performance for specific services, and (C) Information on limitations on the service conditions for the pump seal technology operating conditions as well as information on maintenance procedures to ensure continued low emission performance. (iv) The data analysis may be conducted through an inter- or intra-company program (or through some combination of the two approaches) and may be for a single process unit, a plant site, a company, or a group of process units.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
Requirements for the QIP for pumps. (continued) (5)(v) The first analysis of the data shall be completed no later than 18 months after the start of Phase II. The first analysis shall be performed using a minimum of two quarters of data. An analysis of the data shall be done each year the process unit is in the quality improvement program. (6) A trial evaluation program shall be conducted at each plant site for which the data analysis does not identify use of superior performing pump seal technology or pumps that can be applied to the areas identified as having poorer than average performance, except as provided in paragraph (6)(v). The trial program shall be used to evaluate the feasibility of using in the process unit (or plant site) the pump designs or seal technologies, and operating and maintenance practices that have been identified by others as having low emission performance.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED

Requirements for the QIP for pumps. (continued) (i) The trial program shall include on-line trials of pump seal technologies or pump designs and operating and maintenance practices that have been identified in the available literature or in analysis by others as having the ability to perform with leak rates below 10 percent in similar services, as having low probability of failure, or as having no external actuating mechanism in contact with the process fluid. If any of the candidate superior performing pump seal technologies or pumps is not included in the performance trials, the reasons for rejecting specific technologies from consideration shall be documented as required in the RECORDKEEPING section for each superior emission performing pump technology that is rejected from performance trials.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
Requirements for the QIP for pumps. (continued) (ii) The number of pump seal technologies or pumps in the trial evaluation program shall be the lesser of 1 percent or pumps for programs involving single process units and the lesser of 1 percent or 5 pumps for programs involving a plant site or groups of process units. The minimum number of pumps or pump seal technologies in a trial program shall be 1. (iii) The trial evaluation program shall specify and include documentation of: (A) The candidate superior performing pump seal designs or technologies to be evaluated, the stages for evaluating the identified candidate pump designs or pump seal technologies, including the time period necessary to test the applicability; (B) The frequency of monitoring or inspection of the equipment; (C) The range of operating conditions over which the component will be evaluated; and	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
Requirements for the QIP for pumps. (continued) (D) Conclusions regarding the emission performance and the appropriate operating conditions and services for the trial pump seal technologies or pumps.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
Requirements for the QIP for pumps. (continued) (iv) The performance trials shall initially be conducted, at least, for a 6-month period beginning not later than 18 months after the start of the quality improvement program. No later than 24 months after the start of the quality improvement program, the Permittee shall have identified pump seal technologies or pump designs that, combined with appropriate process, operating, and maintenance practices, operate with low emission performance for specific applications in the process unit. The Permittee shall continue to conduct performance trials as long as no superior performing design or technology has been identified, except as provided in paragraph (6)(vi) of this section. The initial list of superior emission performance pump designs or pump seal technologies shall be amended in the future, as appropriate, as additional information and experience is obtained.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
Requirements for the QIP for pumps. (continued) (v) Any plant site with fewer than 400 valves and owned by a corporation with fewer than 100 employees shall be exempt from trial evaluations of pump seals or pump designs. Plant sites exempt from the trial evaluations of pumps shall begin the pump seal or pump replacement program at the start of the fourth year of the quality improvement program.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
Requirements for the QIP for pumps. (continued) (vi) A Permittee who has conducted performance trials on all alternative superior emission performance technologies suitable for the required applications in the process unit may stop conducting performance trials provided that a superior performing design or technology has been demonstrated or there are no technically feasible alternative superior technologies remaining. The Permittee shall prepare an engineering evaluation documenting the physical, chemical, or engineering basis for the judgment that the superior emission performance technology is technically infeasible or demonstrating that it would not reduce emissions.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED

Requirements for the QIP for pumps. (continued) (7) Each Permittee shall prepare and implement a pump quality assurance program that details purchasing specifications and maintenance procedures for all pumps and pump seals in the process unit. The quality assurance program may establish any number of categories, or classes, of pumps as needed to distinguish among operating conditions and services associated with poorer than average emission performance as well as those associated with better than average emission performance. The quality assurance program shall be developed considering the findings of the data analysis required under paragraph (d)(5) of this section, if applicable, the findings of the trial evaluation required in paragraph (d)(6) of this section, and the operating conditions in the process unit. The quality assurance program shall be updated each year as long as the process unit has the greater of either 10 percent or more leaking pumps or has three leaking pumps.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
Requirements for the QIP for pumps. (continued) (i) The quality assurance program shall: (A) Establish minimum design standards for each category of pumps or pump seal technology. The design standards shall specify known critical parameters such as tolerance, manufacturer, materials of construction, previous usage, or other applicable identified critical parameters; (B) Require that all equipment orders specify the design standard (or minimum tolerances) for the pump or the pump seal; (C) Provide for an audit procedure for quality control of purchased equipment to ensure conformance with purchase specifications. The audit program may be conducted by the Permittee of the plant site or process unit or by a designated representative; and	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
Requirements for the QIP for pumps. (continued) (D) Detail off-line pump maintenance and repair procedures. These procedures shall include provisions to ensure that rebuilt or refurbished pumps and pump seals will meet the design specifications for the pump category and will operate such that emissions are minimized. (ii) The quality assurance program shall be established no later than the start of the third year of the quality improvement program for plant sites with 400 or more valves or 100 or more employees; and no later than the start of the fourth year of the quality improvement program for plant sites with less than 400 valves and less than 100 employees.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
Requirements for the QIP for pumps. (continued) (8) Beginning at the start of the third year of the quality improvement program for plant sites with 400 or more valves or 100 or more employees and at the start of the fourth year of the quality improvement program for plant sites with less than 400 valves and less than 100 employees, the Permittee shall replace, as described in paragraphs (d)(8)(i) and (d)(8)(ii) of this section, the pumps or pump seals that are not superior emission performance technology with pumps or pump seals that have been identified as superior emission performance technology and that comply with the quality assurance standards for the pump category. Superior emission performance technology is that category or design of pumps or pump seals with emission performance which, when combined with appropriate process, operating, and maintenance practices, will result in less than 10 percent leaking pumps for specific applications in the process unit or plant site.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
Requirements for the QIP for pumps. (continued) (8) (continued) Superior emission performance technology includes material or design changes to the existing pump, pump seal, seal support system, installation of multiple mechanical seals or equivalent, or pump replacement.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
Requirements for the QIP for pumps. (continued) (i) Pumps or pump seals shall be replaced at the rate of 20 percent per year based on the total number of pumps in light liquid service. The calculated value shall be rounded to the nearest nonzero integer value. The minimum number of pumps or pump seals shall be one. Pump replacement shall continue until all pumps subject to the PUMPS IN LIGHT LIQUID SERVICE requirements are pumps determined to be superior performance technology. (ii) The Permittee may delay replacement of pump seals or pumps with superior technology until the next planned process unit shutdown, provided the number of pump seals and pumps replaced is equivalent to the 20 percent or greater annual replacement rate. (iii) The pumps shall be maintained as specified in the quality assurance program.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
NORMAL MONITORING METHODS AND REQUIREMENTS	hdr

Monitoring shall comply with Method 21 of 40 CFR part 60, appendix A.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
(i) Except as provided for in (ii), the detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, appendix A, except the instrument response factor criteria in Section 3.1.2(a) of Method 21 shall be for the average composition of the process fluid not each individual VOC in the stream. For process streams that contain nitrogen, water, air, or other inerts which are not organic HAP's or VOC's, the average stream response factor may be calculated on an inert-free basis. The response factor may be determined at any concentration for which monitoring for leaks will be conducted. (ii) If no instrument is available at the plant site that will meet the performance criteria specified in (i), the instrument readings may be adjusted by multiplying by the average response factor of the process fluid, calculated on an inert-free basis as described in (i).	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
The instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR part 60, appendix A.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
Calibration gases shall be: (i) Zero air (less than 10 parts per million of hydrocarbon in air); and (ii) Mixtures of methane in air at the concentrations specified in (ii)(A) and (ii)(B). A calibration gas other than methane in air may be used if the instrument does not respond to methane or if the instrument does not meet the performance criteria specified in paragraph (i) of this section. In such cases, the calibration gas may be a mixture of one or more of the compounds to be measured in air. (A) For Phase I, a mixture of methane or other compounds, as applicable, and air at a concentration of approximately, but less than, 10,000 parts per million for agitators, 5,000 parts per million for pumps, and 500 parts per million for all other equipment, except as provided in (iii).	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
(continued) (B) For Phase II, a mixture of methane or other compounds, as applicable, and air at a concentration of approximately, but less than, 10,000 parts per million methane for agitators; 2,000 parts per million for pumps in food/medical service; 5,000 parts per million for pumps in polymerizing monomer service; 1,000 parts per million for all other pumps; and 500 parts per million for all other equipment, except as provided in (iii).	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
(continued) (iii) The instrument may be calibrated at a higher methane concentration than the concentration specified for that piece of equipment. The concentration of the calibration gas may exceed the concentration specified as a leak by no more than 2,000 parts per million. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 parts per million above the concentration specified as a leak and the highest scale shall be calibrated with a calibration gas that is approximately equal to 10,000 parts per million. If only one scale on an instrument will be used during monitoring, the Permittee need not calibrate the scales that will not be used during that day's monitoring.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
Monitoring shall be performed when the equipment is in organic HAP service, in use with an acceptable surrogate volatile organic compound which is not an organic HAP, or is in use with any other detectable gas or vapor.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010
MONITORING METHODS AND REQUIREMENTS WITH ADJUSTMENTS TO BACKGROUND LEVELS	hdr
When compressors, pressure relief devices in gas/vapor services, or closed-vent systems and control devices are monitored for compliance with a leak definition of 500 ppm or when equipment subject to a leak definition of 500 ppm is monitored for leaks as required by this subpart, the Permittee may elect to adjust or not to adjust the instrument readings for background. If the Permittee elects to not adjust instrument readings for background, the Permittee shall monitor the equipment according to the procedures specified in the NORMAL MONITORING METHODS AND REQUIREMENTS. In such case, all instrument readings shall be compared directly to the applicable leak definition to determine whether there is a leak. If the Permittee elects to adjust instrument readings for background, the Permittee shall monitor the equipment according to the procedures specified in (1) through (4) below:	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010

(continued) (1) The NORMAL MONITORING METHODS AND REQUIREMENTS shall apply. (2) The background level shall be determined, using the same procedures that will be used to determine whether the equipment is leaking. (3) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Method 21 of 40 CFR part 60, appendix A. (4) The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 parts per million for determining compliance.	[Stage 1] 40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
RECORDKEEPING REQUIREMENTS	hdr
LDAR recordkeeping requirements. The following information pertaining to all equipment in each process unit subject to the LDAR requirements shall be recorded: (1)(i) A list of identification numbers for equipment (except connectors exempt from monitoring and recordkeeping otherwise identified and instrumentation systems) subject to the LDAR requirements. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the LDAR provisions are identified as a group, and the number of connectors subject is indicated. With respect to connectors, the list shall be complete no later than the completion of the initial survey required within 12 months of initial startup. (ii) A schedule by process unit for monitoring connectors and valves that are subject to the LDAR provisions.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010
LDAR recordkeeping requirements. (continued) (iii) Physical tagging of the equipment to indicate that it is in organic HAP service is not required. Equipment subject to the LDAR provisions may be identified on a plant site plan, in log entries, or by other appropriate methods. (2)(i) A list of identification numbers for equipment that the Permittee elects to equip with a closed-vent system and control device, including pumps, compressors, pressure relief devices, or agitators. (ii) A list of identification numbers for compressors that the Permittee elects to designate as operating with an instrument reading of less than 500 parts per million above background. (3)(i) A list of identification numbers for pressure relief devices subject to the LDAR provisions. (ii) A list of identification numbers for pressure relief devices equipped with rupture disks.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
LDAR recordkeeping requirements. (continued) (4) Identification of instrumentation systems subject to the LDAR provisions. Individual components in an instrumentation system need not be identified. (5) The following information shall be recorded for each dual mechanical seal system: (i) Design criteria required for each pump, compressor or agitator equipped with a dual mechanical seal system operated with a barrier fluid system and an explanation of the design criteria; and (ii) Any changes to these criteria and the reasons for the changes. (6) The following information pertaining to all pumps identified as unsafe-to-monitor, all valves identified as unsafe-to-monitor or difficult-to-monitor, all agitators identified as unsafe-to-monitor or difficult-to-monitor or identified as obstructed by equipment or piping, and connectors identified as unsafe-to-monitor or unsafe-to-repair shall be recorded:	40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
LDAR recordkeeping requirements. (continued) (i) Identification of equipment designated as unsafe to monitor, difficult to monitor, or unsafe to inspect and the plan for monitoring or inspecting this equipment. (ii) A list of identification numbers for the equipment that is designated as difficult to monitor, an explanation of why the equipment is difficult to monitor, and the planned schedule for monitoring this equipment. (iii) A list of identification numbers for connectors that are designated as unsafe to repair and an explanation why the connector is unsafe to repair. (7)(i) A list of valves removed from and added to the process unit, if the net credits for removed valves is expected to be used. (ii) A list of connectors removed from and added to the process unit and documentation of the integrity of the weld for any removed connectors, as required. This is not required unless the net credits for removed connectors is expected to be used.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED

LDAR recordkeeping requirements. (continued) (8) For any leaks detected from pumps in light liquid service; from compressors; from valves in gas/vapor service and in light liquid service; from pumps, valves, connectors, and agitators in heavy liquid service; instrumentation systems, and pressure relief devices in liquid service; from agitators in gas/vapor service and in light liquid service; and from connectors in gas/vapor service and in light liquid service; a weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
Calibration recordkeeping requirements. The Permittee shall document the calibration of each detection instrument each day of its use. The documentation for each detection instrument shall include: (1) A description of the calibration gases, including methane concentration; (2) The instrument's response factor; (3) The instrument's response time; and (4) The instrument's calibration precision.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010
For visual inspections of equipment subject to the LDAR provisions, the Permittee document that the inspection was conducted and the date of the inspection. The Permittee shall maintain records as specified for leaking equipment identified in this inspection. These records shall be retained for 2 years.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010
When each leak is detected from pumps in light liquid service; from valves in gas/vapor service and in light liquid service; from pumps, valves, connectors, and agitators in heavy liquid service; instrumentation systems, and pressure relief devices in liquid service; from agitators in gas/vapor service and in light liquid service; and from connectors in gas/vapor service and in light liquid, the following information shall be recorded and kept for 2 years: (1) The instrument and the equipment identification number and the operator name, initials, or identification number. (2) The date the leak was detected and the date of first attempt to repair the leak. (3) The date of successful repair of the leak. (4) Maximum instrument reading measured by Method 21 of 40 CFR part 60, appendix A after it is successfully repaired or determined to be nonrepairable.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010
(continued) (5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak. (i) The Permittee may develop a written procedure that identifies the conditions that justify a delay of repair. The written procedures may be included as part of the startup/shutdown/malfunction plan, required by 40 CFR Section 63.6(e)(3), for the source or may be part of a separate document that is maintained at the plant site. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure. (ii) If delay of repair was caused by depletion of stocked parts, there must be documentation that the spare parts were sufficiently stocked on-site before depletion and the reason for depletion. (6) Dates of process unit shutdowns that occur while the equipment is unrepaired.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
(continued) (7)(i) Identification, either by list, location (area or grouping), or tagging of connectors that have been opened or otherwise had the seal broken since the last monitoring period required for monitoring connectors, as described in paragraph (i) of Connectors that have been opened or otherwise had the seal broken , unless the Permittee elects not to monitor connectors according to paragraph (ii) of Connectors that have been opened or otherwise had the seal broken. (ii) The date and results of monitoring as required for Connectors that have been opened or otherwise had the seal broken. If identification of connectors that have been opened or otherwise had the seal broken is made by location under paragraph (7)(i) of this section, then all connectors within the designated location shall be monitored. (8) Copies of the periodic reports, if records are not maintained on a computerized database capable of generating summary reports from the records.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
The dates and results of the monitoring following a pressure release for each pressure relief device subject to the PRESSURE RELIEF DEVICES IN GAS/VAPOR SERVICE provisions. The results shall include: (1) The background level measured during each compliance test. (2) The maximum instrument reading measured at each piece of equipment during each compliance test.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010

The Permittee shall maintain records of the information specified in (1) through (3) for closed-vent systems and control devices subject to the CLOSED-VENT SYSTEMS AND CONTROL DEVICES provisions. The records specified in (1) shall be retained for the life of the equipment. The records specified in (2) and (3) shall be retained for 2 years. (1) The design specifications and performance demonstrations specified in paragraphs (1)(i) through (1)(iii) of this section. (i) Detailed schematics, design specifications of the control device, and piping and instrumentation diagrams. (ii) The dates and descriptions of any changes in the design specifications. (iii) A description of the parameter or parameters monitored, as required in CLOSED-VENT SYSTEMS AND CONTROL DEVICES, to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010
(continued) (2) Records of operation of closed-vent systems and control devices, as specified in paragraphs (2)(i) through (2)(iii). (i) Dates and durations when the required closed-vent systems and control devices are not operated as designed as indicated by the monitored parameters. (ii) Dates and durations during which the monitoring system or monitoring device is inoperative. (iii) Dates and durations of start-ups and shutdowns of required control devices.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
(continued) (3) Records of inspections of closed-vent systems subject to the CLOSED-VENT SYSTEMS AND CONTROL DEVICES provisions. (i) For each inspection conducted in accordance with the CLOSED-VENT SYSTEMS AND CONTROL DEVICES provisions during which no leaks were detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. (ii) For each inspection conducted in accordance with the CLOSED-VENT SYSTEMS AND CONTROL DEVICES provisions during which leaks were detected, the following information shall be recorded: (a) The instrument and the equipment identification number and the operator name, initials, or identification number. (b) The date the leak was detected and the date of first attempt to repair the leak. (c) The date of successful repair of the leak.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
(continued) (d) Maximum instrument reading measured by Method 21 of 40 CFR part 60, appendix A after it is successfully repaired or determined to be nonrepairable. (e) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak. (i) The Permittee may develop a written procedure that identifies the conditions that justify a delay of repair. The written procedures may be included as part of the startup/shutdown/malfunction plan, required by 40 CFR Section 63.6(e)(3), for the source or may be part of a separate document that is maintained at the plant site. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure. (ii) If delay of repair was caused by depletion of stocked parts, there must be documentation that the spare parts were sufficiently stocked on-site before depletion and the reason for depletion.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
(continued) (f) Dates of process unit shutdowns that occur while the equipment is unrepaired. (g)(i) Identification, either by list, location (area or grouping), or tagging of connectors that have been opened or otherwise had the seal broken since the last monitoring period required for monitoring connectors, as described in paragraph (i) of Connectors that have been opened or otherwise had the seal broken , unless the Permittee elects not to monitor connectors according to paragraph (ii) of Connectors that have been opened or otherwise had the seal broken. (ii) The date and results of monitoring as required for Connectors that have been opened or otherwise had the seal broken. If identification of connectors that have been opened or otherwise had the seal broken is made by location under paragraph (g)(i) of this section, then all connectors within the designated location shall be monitored.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
(continued) (h) Copies of the periodic reports, if records are not maintained on a computerized database capable of generating summary reports from the records.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED

A Permittee subject to the quality improvement programs requirements for pumps shall maintain the records specified in paragraphs (1) through (6) for the period of the quality improvement program for the process unit. (1) For Permittees subject to the requirements of the pump quality improvement program: (i) All quality improvement program data in (a) through (e) : (a) Pump type (e.g., piston, horizontal or vertical centrifugal, gear, bellows); pump manufacturer; seal type and manufacturer; pump design (e.g., external shaft, flanged body); materials of construction; if applicable, barrier fluid or packing material; and year installed. (b) Service characteristics of the stream such as discharge pressure, temperature, flow rate, corrosivity, and annual operating hours.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010
(continued) (c) The maximum instrument readings observed in each monitoring observation before repair, response factor for the stream if appropriate, instrument model number, and date of the observation. (d) If a leak is detected, the repair methods used and the instrument readings after repair. (e) If the data will be analyzed as part of a larger analysis program involving data from other plants or other types of process units, a description of any maintenance or quality assurance programs used in the process unit that are intended to improve emission performance. (ii) The rolling average percent leaking pumps. (iii) Documentation of all inspections conducted and any recommendations for design or specification changes to reduce leak frequency. (iv) The beginning and ending dates while meeting the quality improvement program requirements.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
(continued) (2) If a leak is not repaired within 15 calendar days after discovery of the leak, the reason for the delay and the expected date of successful repair. (3) Records of all analyses required for the quality improvement program for pumps. The records will include the following: (i) A list identifying areas associated with poorer than average performance and the associated service characteristics of the stream, the operating conditions and maintenance practices. (ii) The reasons for rejecting specific candidate superior emission performing valve or pump technology from performance trials. (iii) The list of candidate superior emission performing valve or pump technologies, and documentation of the required performance trial program items. (iv) The beginning date and duration of performance trials of each candidate superior emission performing technology. (4) All records documenting the quality assurance program for valves or pumps.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
(continued) (5) Records indicating that all valves or pumps replaced or modified during the period of the quality improvement program are in compliance with the quality assurance requirement. (6) Information and data to show the corporation has fewer than 100 employees, including employees providing professional and technical contracted services.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
The Permittee with equipment in heavy liquid service shall comply with the requirements of either (1) or (2) of this section, as provided in (3). (1) Retain information, data, and analyses used to determine that a piece of equipment is in heavy liquid service. (2) When requested by the Administrator, demonstrate that the piece of equipment or process is in heavy liquid service. (3) A determination or demonstration that a piece of equipment or process is in heavy liquid service shall include an analysis or demonstration that the process fluids do not meet the definition of "in light liquid service." Examples of information that could document this include, but are not limited to, records of chemicals purchased for the process, analyses of process stream composition, engineering calculations, or process knowledge.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010
The Permittee shall identify, either by list or location (area or group), equipment in organic HAP service less than 300 hours per year.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010
REPORTING	hdr

The Permittee shall submit the reports listed in (1) through (3). Permittees requesting an extension of compliance shall also submit the report listed in paragraph (4) of this section. (1) An Initial Notification, and (2) A Notification of Compliance Status, and (3) Periodic Reports. (4) Pursuant to section 112(i)(3)(B) of the Act, the Permittee may request an extension allowing an existing source up to 1 additional year beyond the compliance date. (i) A request for an extension shall be submitted to the operating permit authority as part of the operating permit application. (ii) A request for an extension of compliance must include the data described in 40 CFR Section 63.6(i)(6)(i) (A), (B), and (D). (iii) The requirements in 40 CFR Section 63.6(i)(8) through (i)(14) will govern the review and approval of requests for extensions of compliance.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010
The Permittee shall submit Periodic Reports. (1) A report containing the information in (2) and (3) shall be submitted semiannually starting 6 months after the Notification of Compliance Status. The first periodic report shall cover the first 6 months after initial startup. Each subsequent periodic report shall cover the 6 month period following the preceding period. (2) For each process unit complying with the LDAR provisions, the summary information listed in paragraphs (i) through (xiv) of this paragraph for each monitoring period during the 6-month period. (i) The number of valves for which leaks were detected, the percent leakers, and the total number of valves monitored; (ii) The number of valves for which leaks were not repaired, identifying the number of those that are determined nonrepairable; (iii) The number of pumps for which leaks were detected, the percent leakers, and the total number of pumps monitored; (iv) The number of pumps for which leaks were not repaired;	40 CFR Section 63.43: MACT & Minn. R. 7007.3010
(continued) (v) The number of compressors for which leaks were detected; (vi) The number of compressors for which leaks were not repaired; (vii) The number of agitators for which leaks were detected; (viii) The number of agitators for which leaks were not repaired; (ix) The number of connectors for which leaks were detected, the percent of connectors leaking, and the total number of connectors monitored; (x) The number of connectors for which leaks were not repaired, identifying the number of those that are determined nonrepairable; (xi) The facts that explain any delay of repairs and, where appropriate, why a process unit shutdown was technically infeasible. (xii) The results of all monitoring to show compliance with the standards for PRESSURE RELIEF DEVICES IN GAS/VAPOR SERVICE and for CLOSED-VENT SYSTEMS AND CONTROL DEVICES within the semiannual reporting period. (xiii) If applicable, the initiation of a quality improvement program for pumps.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
(continued) (xiv) If applicable, notification of a change in connector monitoring alternatives as described in "Connectors that have been opened or otherwise had the seal broken." (3) The information listed in paragraph (c) of this section for the Notification of Compliance Status for process units with later compliance dates. Any revisions to items reported in earlier Notification of Compliance Status, if the method of compliance has changed since the last report.	40 CFR Section 63.43: MACT & Minn. R. 7007.3010 CONTINUED
GENERAL PROVISIONS	hdr
Prior to construction or reconstruction of a major-emitting "affected source" under the promulgated MACT standards, the Permittee must apply for and obtain an air emission permit.	40 CFR Section 63.5(b)(3); Minn. R. 7011.7000
After the effective date of any relevant standard promulgated by the Administrator under 40 CFR pt. 63, the Permittee who constructs a new affected source that is not major-emitting or reconstructs an affected source that is not major-emitting that is subject to such standard, or reconstructs a source such that the source becomes an affected source subject to the standard, must notify the Administrator of the intended construction or reconstruction. The notification must be submitted in accordance with the procedures in 40 CFR Section 63.9(b).	40 CFR Section 63.5(b)(4); Minn. R. 7011.7000
After the effective date of any relevant standard promulgated by the Administrator under 40 CFR pt. 63, equipment added (or a process change) to an affected source that is within the scope of the definition of affected source under the relevant standard must be considered part of the affected source and subject to all provisions of the relevant standard established for that affected source.	40 CFR Section 63.5(b); Minn. R. 7011.7000

Facility Name: Recovery Technology Solutions

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The GENERAL PROVISIONS shall apply to the facility unless: (i) The Administrator (or a State with an approved permit program) has granted an extension of compliance; or (ii) The President has granted an exemption from compliance with the LDAR standard in accordance with section 112(i)(4) of the Act.	40 CFR Section 63.6(a)(1); Minn. R. 7011.7000
Until an extension of compliance has been granted by the Administrator (or a State with an approved permit program) under 40 CFR Section 63.6(i), the Permittee shall comply with all applicable GENERAL PROVISIONS.	40 CFR Section 63.6(i)(1); Minn. R. 7011.7000
If the Permittee has been granted an extension of compliance under 40 CFR 63, subpart D, the LDAR requirements do not apply to those sources while the facility is operating under such compliance extensions.	40 CFR Section 63.9(a)(2)
Alternative work practice for monitoring equipment for leaks - (A) Paragraphs (A), (B), and (C) apply to all equipment for which the applicable subpart requires monitoring with a 40 CFR part 60, appendix A-7, Method 21 monitor, except for closed vent systems, equipment designated as leakless, and equipment identified in the applicable subpart as having no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background. The Permittee may use an optical gas imaging instrument instead of a 40 CFR part 60, Appendix A-7, Method 21 monitor. Requirements that are specific to the Method 21 instrument do not apply under this section. All other LDAR requirements that are not addressed in paragraphs (A), (B), and (C) of this section continue to apply. For example, equipment specification requirements, and non-Method 21 instrument recordkeeping and reporting requirements in the applicable subpart continue to apply.	[Stage 1] 40 CFR Section 63.11(c)
Alternative work practice for monitoring equipment for leaks - (A) (continued) The terms defined in paragraphs (A)(1) through (5) of this section have meanings that are specific to the alternative work practice standard in paragraphs (A), (B), and (C) of this section. (1) LDAR requirements means the requirements of FS 001 that require monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor. (2) Equipment means pumps, valves, pressure relief valves, compressors, open-ended lines, flanges, connectors, and other equipment covered by the applicable subpart that require monitoring with a 40 CFR part 60, appendix A-7, Method 21 monitor. (3) Imaging means making visible emissions that may otherwise be invisible to the naked eye. (4) Optical gas imaging instrument means an instrument that makes visible emissions that may otherwise be invisible to the naked eye. (5) Repair means that equipment is adjusted, or otherwise altered, in order to eliminate a leak.	[Stage 1] 40 CFR Section 63.11(c) CONTINUED
Alternative work practice for monitoring equipment for leaks - (A) (continued) (6) Leak means: (i) Any emissions imaged by the optical gas instrument; (ii) Indications of liquids dripping; (iii) Indications by a sensor that a seal or barrier fluid system has failed; or (iv) Screening results using a 40 CFR part 60, appendix A-7, Method 21 monitor that exceed the leak definition in the applicable subpart to which the equipment is subject.	[Stage 1] 40 CFR Section 63.11(c) CONTINUED
Alternative work practice for monitoring equipment for leaks - (B) Alternative work practice for monitoring equipment for leaks. (B) The alternative work practice standard for monitoring equipment for leaks is available to the portions of the LDAR requirements that require monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor. (1) The Permittee can choose to comply with the alternative work practice requirements in paragraph (C) of this section instead of using the 40 CFR part 60, appendix A-7, Method 21 monitor to identify leaking equipment. The Permittee shall document the equipment, process units, and facilities for which the alternative work practice will be used to identify leaks. (2) Any leak detected when following the leak survey procedure in paragraph (C)(3) of this section must be identified for repair as required in the applicable subpart.	[Stage 1] 40 CFR Section 63.11(d)

Alternative work practice for monitoring equipment for leaks - (B) (continued) (3) If the alternative work practice is used to identify leaks, re-screening after an attempted repair of leaking equipment must be conducted using either the alternative work practice or the 40 CFR part 60, Appendix A-7, Method 21 monitor at the leak definition required in the applicable subparts to which the equipment is subject. (4) The schedule for repair is as required in the applicable subpart. (5) When this alternative work practice is used for detecting leaking equipment, choose one of the monitoring frequencies listed in Table 1 to subpart A of this part in lieu of the monitoring frequency specified for regulated equipment in the applicable subpart. Reduced monitoring frequencies for good performance are not applicable when using the alternative work practice.	[Stage 1] 40 CFR Section 63.11(d) CONTINUED
Alternative work practice for monitoring equipment for leaks - (B) (continued) (6) When this alternative work practice is used for detecting leaking equipment, the following are not applicable for the equipment being monitored: (i) Skip period leak detection and repair; (ii) Quality improvement plans; or (iii) Complying with standards for allowable percentage of valves and pumps to leak.	[Stage 1] 40 CFR Section 63.11(d) CONTINUED
Alternative work practice for monitoring equipment for leaks - (B) (continued) (7) When the alternative work practice is used to detect leaking equipment, the regulated equipment in paragraph (d)(1)(i) of this section must also be monitored annually using a 40 CFR part 60, Appendix A-7, Method 21 monitor at the leak definition required in the applicable subpart. The owner or operator may choose the specific monitoring period (for example, first quarter) to conduct the annual monitoring. Subsequent monitoring must be conducted every 12 months from the initial period. Owners or operators must keep records of the annual Method 21 screening results, as specified in 40 CFR Section 63.11(i)(4)(vii).	[Stage 1] 40 CFR Section 63.11(d) CONTINUED
Alternative work practice for monitoring equipment for leaks - (C) If the Permittee chooses to use the alternative work practice, the Permittee must comply with the requirements of paragraphs (C)(1) through (C)(5) of this section. (1) Instrument specifications. The optical gas imaging instrument must comply with the requirements specified in paragraphs (C)(1)(i) and (C)(1)(ii) of this section. (i) Provide the operator with an image of the potential leak points for each piece of equipment at both the detection sensitivity level and within the distance used in the daily instrument check described in paragraph (C)(2) of this section. The detection sensitivity level depends upon the frequency at which leak monitoring is to be performed. (ii) Provide a date and time stamp for video records of every monitoring event.	[Stage 1] 40 CFR Section 63.11(e)
Alternative work practice for monitoring equipment for leaks - (C) (continued) (2) Daily instrument check. On a daily basis, and prior to beginning any leak monitoring work, test the optical gas imaging instrument at the mass flow rate determined in paragraph (C)(2)(i) of this section in accordance with the procedure specified in paragraphs (C)(2)(ii) through (C)(2)(iv) of this section for each camera configuration used during monitoring (for example, different lenses used), unless an alternative method to demonstrate daily instrument checks has been approved in accordance with paragraph (C)(2)(v) of this section. (i) Calculate the mass flow rate to be used in the daily instrument check by following the procedures in paragraphs (C)(2)(i)(A) and (C)(2)(i)(B) of this section.	[Stage 1] 40 CFR Section 63.11(e) CONTINUED
Alternative work practice for monitoring equipment for leaks - (C) (continued) (A) For a specified population of equipment to be imaged by the instrument, determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, within the distance to be used in paragraph (C)(2)(iv)(B) of this section, at or below the standard detection sensitivity level. (B) Multiply the standard detection sensitivity level, corresponding to the selected monitoring frequency in Table 1 of subpart A of this part, by the mass fraction of detectable chemicals from the stream identified in paragraph (C)(2)(i)(A) of this section to determine the mass flow rate to be used in the daily instrument check, using the following equation. E(dic) = E(sds) times the summation from I = 1 to k of x(i)	[Stage 1] 40 CFR Section 63.11(e) CONTINUED

Alternative work practice for monitoring equipment for leaks - (C) (continued) Where: E(dic) = Mass flow rate for the daily instrument check, grams per hour x(i) = Mass fraction of detectable chemical(s) i seen by the optical gas imaging instrument, within the distance to be used in paragraph (C)(2)(iv)(B) of this section, at or below the standard detection sensitivity level, E(sds). E(sds) = Standard detection sensitivity level from Table 1 to subpart A, grams per hour k = Total number of detectable chemicals emitted from the leaking equipment and seen by the optical gas imaging instrument. (ii) Start the optical gas imaging instrument according to the manufacturer's instructions, ensuring that all appropriate settings conform to the manufacturer's instructions. (iii) Use any gas chosen by the user that can be viewed by the optical gas imaging instrument and that has a purity of no less than 98 percent.	[Stage 1] 40 CFR Section 63.11(e) CONTINUED
Alternative work practice for monitoring equipment for leaks - (C) (continued) (iv) Establish a mass flow rate by using the following procedures: (A) Provide a source of gas where it will be in the field of view of the optical gas imaging instrument. (B) Set up the optical gas imaging instrument at a recorded distance from the outlet or leak orifice of the flow meter that will not be exceeded in the actual performance of the leak survey. Do not exceed the operating parameters of the flow meter. (C) Open the valve on the flow meter to set a flow rate that will create a mass emission rate equal to the mass rate calculated in paragraph (C)(2)(i) of this section while observing the gas flow through the optical gas imaging instrument viewfinder. When an image of the gas emission is seen through the viewfinder at the required emission rate, make a record of the reading on the flow meter.	[Stage 1] 40 CFR Section 63.11(e) CONTINUED
Alternative work practice for monitoring equipment for leaks - (C) (continued) (v) Repeat the procedures specified in paragraphs (C)(2)(ii) through (C)(2)(iv) of this section for each configuration of the optical gas imaging instrument used during the leak survey. (vi) To use an alternative method to demonstrate daily instrument checks, apply to the Administrator for approval of the alternative under 40 CFR Section 63.177 or 40 CFR Section 63.178, whichever is applicable. (3) Leak survey procedure. Operate the optical gas imaging instrument to image every regulated piece of equipment selected for this work practice in accordance with the instrument manufacturer's operating parameters. All emissions imaged by the optical gas imaging instrument are considered to be leaks and are subject to repair. All emissions visible to the naked eye are also considered to be leaks and are subject to repair.	[Stage 1] 40 CFR Section 63.11(e) CONTINUED
Alternative work practice for monitoring equipment for leaks - (C) (continued) (4) Recordkeeping. Keep the records described in paragraphs (C)(4)(i) through (C)(4)(vii) of this section: (i) The equipment, processes, and facilities for which the owner or operator chooses to use the alternative work practice. (ii) The detection sensitivity level selected from Table 1 to subpart A of this part for the optical gas imaging instrument. (iii) The analysis to determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, as specified in paragraph (C)(2)(i)(A) of this section. (iv) The technical basis for the mass fraction of detectable chemicals used in the equation in paragraph (C)(2)(i)(B) of this section.	[Stage 1] 40 CFR Section 63.11(e) CONTINUED
Alternative work practice for monitoring equipment for leaks - (C) (continued) (v) The daily instrument check. Record the distance, per paragraph (C)(2)(iv)(B) of this section, and the flow meter reading, per paragraph (C)(2)(iv)(C) of this section, at which the leak was imaged. Keep a video record of the daily instrument check for each configuration of the optical gas imaging instrument used during the leak survey (for example, the daily instrument check must be conducted for each lens used). The video record must include a time and date stamp for each daily instrument check. The video record must be kept for 5 years.	[Stage 1] 40 CFR Section 63.11(e) CONTINUED

Alternative work practice for monitoring equipment for leaks - (C) (continued) (vi) Recordkeeping requirements in the applicable subpart. A video record must be used to document the leak survey results. The video record must include a time and date stamp for each monitoring event. A video record can be used to meet the recordkeeping requirements of the LDAR requirements if each piece of regulated equipment selected for this work practice can be identified in the video record. The video record must be kept for 5 years. (vii) The results of the annual Method 21 screening required in 40 CFR Section 63.11(h)(7). Records must be kept for all regulated equipment specified in 40 CFR Section 63.11(h)(1). Records must identify the equipment screened, the screening value measured by Method 21, the time and date of the screening, and calibration information required in the LDAR requirements.	[Stage 1] 40 CFR Section 63.11(e) CONTINUED
Alternative work practice for monitoring equipment for leaks - (C) (continued) (5) Reporting. Submit the reports required in the LDAR requirements. Submit the records of the annual Method 21 screening required in 40 CFR Section 63.11(h)(7)to the Administrator via e-mail to CCG-AWP@EPA.GOV.	[Stage 1] 40 CFR Section 63.11(e) CONTINUED

TABLE B: SUBMITTALS

Facility Name: Recovery Technology Solutions

Permit Number: 03700368 - 001

Also, where required by an applicable rule or permit condition, send to the Permit Document Coordinator notices of:
- accumulated insignificant activities,
- installation of control equipment,
- replacement of an emissions unit, and
- changes that contravene a permit term.

Send submittals that are required to be submitted to the U.S. EPA regional office to:

Chief Air Enforcement
Air and Radiation Branch
EPA Region V
77 West Jackson Boulevard
Chicago, Illinois 60604

Table B lists most of the submittals required by this permit. Please note that some submittal requirements may appear in Table A or, if applicable, within a compliance schedule located in Table C. Table B is divided into two sections in order to separately list one-time only and recurrent submittal requirements.

Send submittals that are required by the Acid Rain Program to:

U.S. Environmental Protection Agency
Clean Air Markets Division
1200 Pennsylvania Avenue NW (6204N)
Washington, D.C. 20460

Send any application for a permit or permit amendment to:

Fiscal Services
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Each submittal must be postmarked or received by the date specified in the applicable Table. Those submittals required by parts 7007.0100 to 7007.1850 must be certified by a responsible official, defined in Minn. R. 7007.0100, subp. 21. Other submittals shall be certified as appropriate if certification is required by an applicable rule or permit condition.

Unless another person is identified in the applicable Table, send all other submittals to:

AQ Compliance Tracking Coordinator
Industrial Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

Facility Name: Recovery Technology Solutions

Permit Number: 03700368 - 001

What to send	When to send	Portion of Facility Affected
Application for Permit Reissuance	due 180 days before expiration of Existing Permit	Total Facility
Notification of compliance status	due 610 days after Initial Startup (6 calendar months for the initial startup period, 12 operating months to record data, and 2 calendar months to complete the report), the Permittee shall submit a notification of compliance status report to the responsible agency no later than 60 days after determining the initial 12 operating months compliance ratio.	GP001
Notification of compliance status	due 90 days after Initial Startup. The Notification of Compliance Status shall provide the information listed in (1) through (4) of this section for each process unit subject to the LDAR. (1) Process unit identification. (2) Number of each equipment type (e.g., valves, pumps) excluding equipment in vacuum service. (3) Method of compliance with the standard (for example, "monthly leak detection and repair" or "equipped with dual mechanical seals"). (4) Planned schedule for each phase of the PUMPS IN LIGHT LIQUID SERVICE and VALVES IN GAS/VAPOR SERVICE AND IN LIGHT LIQUID SERVICE requirements.	FS001
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup for TK001. Submit the notification to the MPCA and provide a copy to EPA Region 5.	TK001
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup of EU004. This notification shall include: (1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility; (2) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under 40 CFR Section 60.42c or 40 Section 60.43c; and (3) The annual capacity factor at which the Permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.	EU004
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup of EU005.	EU005
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup. Submit the name and number of each unit and the actual date of the initial startup of each unit. The notification of actual startup date must also include whether the facility has elected to operate under an initial startup period. An estimate of the anticipated duration and a justification for that duration shall be included.	GP001

Facility Name: Recovery Technology Solutions

Permit Number: 03700368 - 001

Notification of the Date Construction Began	due 30 days after Start Of Construction of EU 004. This notification shall include: (1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility; (2) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under 40 CFR Section 60.42c or 40 Section 60.43c; and (3) The annual capacity factor at which the Permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.	EU004

Facility Name: Recovery Technology Solutions

Permit Number: 03700368 - 001

What to send	When to send	Portion of Facility Affected
Compliance Status Report	due 31 days after end of each calendar half-year following Initial Startup. The Permittee shall submit the first Compliance report for the facility for the period beginning at startup and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after startup. 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 startup. 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. 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.	TK001
Semiannual Deviations Report	due 30 days after end of each calendar half-year following Permit Issuance. The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. If no deviations have occurred, the Permittee shall submit the report stating no deviations.	Total Facility
Compliance Certification	due 31 days after end of each calendar year following Permit Issuance (for the previous calendar year). The Permittee shall submit this on a form approved by the Commissioner, both to the Commissioner and to the US EPA regional office in Chicago. This report covers all deviations experienced during the calendar year.	Total Facility
Compliance Status Report	due 30 days after end of each calendar year following Permit Issuance. The Permittee shall submit a compliance report for EU004 on at least an annual basis. The report shall follow paragraphs (1) through (4): (1) The first compliance report must cover the period beginning on the initial startup of EU004 and ending on December 31. (2) The first annual report must be postmarked or submitted no later than January 31. (3) Each annual report must cover the applicable annual period from January 1 to December 31. (4) Each annual report must be postmarked or submitted no later than January 31.	EU004

Facility Name: Recovery Technology Solutions

Permit Number: 03700368 - 001

Compliance Status Report	due 30 days after end of each calendar 60 months following Permit Issuance. The Permittee shall submit a compliance report for EU005 on at least a 5-year basis. The report shall follow paragraphs (1) through (4): (1) The first compliance report must cover the period beginning on the initial startup of EU005 and ending on the first December 31 at least five years after initial startup of EU005. (2) The first 5-year compliance report must be postmarked or submitted no later than the first January 31 following the completion of the five-year period after initial startup of EU005. (3) Each 5-year compliance report must cover the applicable 5-year periods from January 1 to December 31. (4) Each 5-year compliance report must be postmarked or submitted no later than January 31.	EU005

APPENDIX MATERIAL
Facility Name: Recovery Technology Solutions
Permit Number: 03700368-001

APPENDIX B
Insignificant Activities

Minn. R. 7007.1300	Activity	Applicable performance standard
subp. 3.A	Natural gas-fired space heaters in the office and boiler buldings (0.2 MMBtu/hr)	Minn. R. 7011.0510/.0515
subp. 3.I	Cooling tower, back dust storage silo/conveyor, back dust storage silo loadout, solids (sand, rock) loadout	Minn. R. 7011.0715
subp. 3.J	Fugitive emissions from paved roads and parking lots	Minn. R. 7011.0150