MACT I

QUINNESEC MILL LEAK DETECTION AND REPAIR PLAN

Table of Contents

(1) Facility Information

Facility:	Verso Quinnesec, LLC
Type:	Hardwood Bleached Kraft Pulp & Paper
Location:	U.S. Highway 2 Quinnesec, Mi. 49876
Mailing Address:	P.O. Box 241 Norway, MI. 49870
Facility Manager:	Michael Glowdowski

(2) Policy and Objectives

It is the policy of Verso Quinnesec LLC to manage personnel and operations in full compliance with environmental laws and regulations, and in a manner that will minimize the potential impact on the environment.

This Leak Detection and Repair (LDAR) Plan outlines the management systems and procedures for implementation at this facility as required by federal regulation 40 CFR 63.454(b). The objective of the plan is to document procedures for closed-vent system inspections and subsequent repairs for discovered leaks.

This LDAR Plan will be updated when there is a change in mill design, construction, operation, or maintenance that materially affects any of the closed-vent systems and enclosures. The plan will be retained for the life of the affected source. This plan will be made available upon request to the Michigan Department of Environmental Quality.

INTRODUCTION

Verso Quinnesec LLC is required to develop and implement a site-specific inspection plan, commonly referred to as a leak detection and repair plan, in accordance with LDAR requirements under 40 CFR Subpart S (Pulp and Paper MACT or "Cluster Rule").
This plan outlines the management systems and procedures for implementation of this requirement at this facility. The overall objective of the plan is to ensure that applicable sources subject to national emissions standards for hazardous air pollutants (NESHAPSs) are properly collected and transported to control devices. The following systems are required to be in compliance with the MACT standards by April 16, 2002: Low Volume High Concentration (LVHC) closed vent system, High Volume Low Concentration (HVLC) closed vent system, Bleaching closed vent system, Kraft pulping condensates (foul condensate) closed collection system. These systems are described below:

(1) LVHC Closed Vent System

The LVHC Closed Vent System (see Appendix A for LVHC Process Diagram) collects vent gases from the flash heat condenser and condensate tank, foul methanol tank, foul condensate collection tank, evaporators and the stripper system**.** LVHC gases are routed to the lime kiln (primary) or waste fuel boiler (secondary) for incineration.

(2) HVLC Closed Vent System

The HVLC system collects vent gases from the following sources which are regulated by MACT: #1 & #2 brown stock washer hoods, #1, #2, and #3 post oxygen washer hoods, brown stock washer filtrate tanks, post oxygen washer filtrate tanks, reject screen, black liquor filter, black liquor filter reject tank, filtered black liquor tank, chip bin, hardwood blow tank, and oxygen delignification blow tank. The following unregulated sources are also included in the HVLC system: weak black liquor tank, intermediate black liquor tank, heavy black liquor tank, spill tank, combined condensate tank, salt cake mix tank, and precipitator surge tank. These gases are collected and incinerated in either the waste fuel boiler (primary) or the recovery furnace (secondary).

(3) Bleaching Closed Vent System

The Bleaching Closed Vent System (see Appendix A for Bleaching Process Diagram) collects vent gases from the D100, D1 and D2 chlorine dioxide bleaching stages. Bleaching gases are routed to scrubbers for treatment.

(4) Foul Condensate Closed Collection System

The Foul Condensate Closed Collection System (see Appendix A for Foul Condensate Collection Diagram) collects foul condensate from the flash heat condenser condensate tank, 4th and 5th evaporator effects (liquor feed effects), evaporator surface condenser, and HVLC and LVHC condensates. The collected foul condensate is routed to a stream stripper system and recycled in the pulp washing system for treatment.

Revisions:

Date	Revision	Reviser
8/21/17	Revise last sentence in Foul Condensate section to clarify condensate is recycled in the pulp washing system.	P. LaFleur

(1) SYSTEM BOUNDARY DETERMINATION

The closed vent systems (LVHC, HVLC, and Bleaching) and closed collection system (foul condensate) described in LDAR-1 are required to meet the requirements of 40 CFR 450, 453, 454, 457, and referenced sections of Subpart RR for positive pressure closed vent systems, negative pressure closed vent systems, and drain systems. 40 CFR Subpart S does not clearly define boundaries for closed vent systems and closed collection systems. Clearly defined boundaries are necessary to ensure compliance with all monitoring and reporting requirements.

Based on guidance found in the LVHC Boundary Position Paper, Bleach Plant Boundary Position Paper, and Condensate Boundary Position Paper (see Appendix B), the mill has defined the boundaries of the LVHC, HVLC, and bleach plant closed vent systems and the foul condensate closed collection system as described below:

(2) LVHC Closed Vent System

The LVHC Closed Vent System is comprised of the network of piping, ductwork and flow-inducing devices that transport the LVHC gases to the control devices (lime kiln or waste fuel boiler). The closed vent system boundaries are described below:

LVHC Closed Vent System Boundaries
Digester System: ▪ Digester Flash Condensate Tank – begins at tank vent line flange and ends at the vent line inlet flanges at the lime kiln and waste fuel boiler. ▪ Flash Heat Condenser – begins at tank vent line flange and ends at the vent line inlet flanges at the lime kiln and waste fuel boiler. ▪ Flash Heat Condensate Tank - begins at tank vent line flange and ends at the vent line inlet flanges at the lime kiln and waste fuel boiler.
Evaporator System: ▪ Hotwell – begins at the tank vent line flange and ends at the vent line inlet flanges at the lime kiln and waste fuel boiler. ▪ Surface Condenser – begins at the condenser vent line flange and ends at the vent line inlet flanges at the lime kiln and waste fuel boiler.
Steam Stripper System: ▪ Foul Condensate Storage Tank – begins at the tank vent line flange and ends at the vent line inlet flanges at the lime kiln and waste fuel boiler. ▪ Stripper Separator – begins at the separator vent line flange and ends at the vent line inlet flanges at the lime kiln and waste fuel boiler. ▪ Foul Methanol Storage Tank – begins at the tank vent line flange and ends at the vent line inlet flanges of lime kiln and waste fuel boiler.

The LVHC systems are under negative pressure from the flange connections to the intake of the CVG blowers. The LVHC system is under positive pressure from the discharge of the CVG blower until the system terminates at the lime kiln or waste fuel boiler.

(3) HVLC Closed Vent System

The HVLC Closed Vent System is comprised of the network of piping, ductwork and flow-inducing devices that transport the HVLC gases to the control devices (waste fuel boiler or recovery furnace). The HVLC closed vent system boundaries are described below:

HVLC Closed Vent System Boundaries
Pulp Washing System: • Nos. 1,2 Brown Stock Washers – begins at the hood enclosures interface (hood enclosure included) and ends at the vent line inlet flanges at the waste fuel boiler and recovery furnace. • Nos. 1,2 Brown Stock Filtrate Tanks – begins at the tank vent line flanges and ends at the vent line inlet flanges at the waste fuel boiler and recovery furnace.
O2 Delignification System: • Blow Tank – begins at the tank vent line flange and ends at the vent line inlet flanges at the waste fuel boiler and recovery furnace. • Nos.1 and 2 Post O2 Washers – begins at the hood enclosures interface (hood enclosure included) and ends at the inlet flanges at the waste fuel boiler and recovery furnace. • Nos.1 and 2 Post O2 Filtrate Tanks – begins at the tank vent line flanges and ends at the inlet flanges of the waste fuel boiler and recovery furnace. • Brown Stock Chest – begins at the tank vent line flanges and ends at the inlet flanges of the waste fuel boiler and recovery furnace. • Blend Chest - begins at the tank vent line flanges and ends at the inlet flanges of the waste fuel boiler and recovery furnace. • Pre-Bleach Washer – begins at the hood enclosures interface (hood enclosure included) and ends at the inlet flanges at the waste fuel boiler and recovery furnace. • Pre-Bleach Filtrate Tank – begins at the tank vent line flanges and ends at the inlet flanges of the waste fuel boiler and recovery furnace. •

Digester System:

- Chip Bin – begins at the separator vent line flange and ends at the vent line inlet flange at the waste fuel boiler and recovery boiler.
- Hardwood Blow Tank – begins at the tank vent line flange and ends at the vent line inlet flanges of the waste fuel boiler and recovery furnace.

The HVLC systems are under negative pressure from the flange connections to the intake of the DVG blowers. The HVLC system is under positive pressure from the discharge of the DVG blower until the system terminates at the waste fuel boiler or recovery boiler.

(4) Bleaching Closed Vent System

The Bleaching Closed Vent System is comprised of piping, ductwork and flow-inducing devices that transport bleaching gases to the control device (scrubbers). The bleach plant closed vent system boundaries are described below:

Bleach Plant Closed Vent System Boundaries
D100 Stage System: • D100 Seal Tank - begins at the tank vent line flange and ends at the vent line inlet flange connection of the D100 scrubber. • D100 Washer - begins at the washer hood interface (hood enclosure included) and ends at the vent line inlet flange connection of the D100 scrubber.
D1 and D2 Stages System: • D1 and D2 Seal Tanks - begins at the tanks vent line flange connections and ends at the vent line inlet flanges at the D1 and D2 system scrubber. • D100, D1 and D2 Towers – begins at the tower vent line inlet flanges and ends at the vent line inlet flange connection of the D1 and D2 system scrubber. • D1 and D2 Washers – begins at the washer hoods interface (hood enclosures included) and ends at the vent line inlet flange connection of the D1 and D2 system scrubber.

The bleach plant closed vent system is under negative pressure up to the control devices (scrubbers).

(5) Foul Condensate Closed Collection System

The Foul Condensate Closed Collection System is comprised of the network of piping, storage tanks, and pumps that convey foul condensate to the control device (steam stripper system). The foul condensate closed collection system is described below:

Foul Condensate Closed Collection System Boundaries
Digester Foul Condensate System: • Flash Heat Condenser - begins at the condenser discharge line flange and ends at the condensate line inlet flange at the steam stripper strainers. • Reboiler (Flash Steam) – begins at the reboiler discharge line and ends at the condensate line inlet flange at the steam stripper strainers.

Evaporator Foul Condensate System:

- Evaporator 5TH Effect - begins at the 5th effect discharge line and ends at the condensate line inlet flange at the steam stripper strainers.
- Surface Condenser – begins at the condenser discharge line and ends at the condensate line inlet flange at the steam stripper strainers.

LVHC Foul Condensate System:

- Blower Separator - begins at the separator discharge line flange and ends at the condensate line inlet flange at the steam stripper strainers.

HVLC Foul Condensate System:

- Blower - begins at the blower discharge line and ends at the condensate inlet flange at the steam stripper strainers.
- Cooler – begins at the cooler discharge line and ends at the condensate inlet flange at the steam stripper strainers.
- Entrainment Separator – begins at the separator discharge line and ends at the condensate inlet flange at the steam stripper strainers.

Foul Condensate Storage:

- Foul Condensate Tank – includes tank hatches, rupture disks, and pressure reliefs.
- Digester Condensate Flash Tank – includes tank hatches, rupture disks, and pressure reliefs.

INSPECTION PROCEDURES

(1) MONTHLY INSPECTIONS

The MACT Rule Subpart S requires that closed vent systems (LVHC, HVLC, and Bleach Plant) and closed collection systems (foul condensate) are visually inspected once per calendar month (at least 21 days between inspections) to insure system integrity is maintained (see Appendix C for Monthly Leak Detection and Repair and Inspection Forms for LVHC, HVLC, Bleach Plant, and Condensate Collection). Detailed below are the monthly inspection procedures for each system.

LVHC Closed Vent System

The LVHC Closed Vent System will be inspected once per calendar month (at least 21 days between inspections). Any visible defect or leak will be noted on the Inspection Form and proper repair procedures will be followed in accordance with Repair and Documentation Procedures outlined in this Section.

HVLC Closed Vent System

The HVLC Closed Vent System will be inspected once per calendar month (at least 21 days between inspections). Any visible defect or leak will be noted on the Inspection Form and proper repair procedures will be followed in accordance with Repair and Documentation Procedures outlined in this Section. Each washer hood (enclosure opening), and all other openings on the closed vent system will also be inspected for indications that the system is maintaining negative pressure (without any signs of puffing).

Bleach Plant Closed Vent System

The Bleach Plant Closed Vent System will be inspected once per calendar month (at least 21 days between inspections). Any visible defect or leak will be noted on the Inspection Form and proper repair procedures will be followed in accordance with Repair and Documentation Procedures outlined in this Section. Each washer hood (enclosure opening) and all other openings on the closed vent system will also be inspected to ensure that the system is maintaining negative pressure (without any signs of puffing).

Foul Condensate Closed Collection System

The Foul Condensate Closed Collection System will be inspected once per calendar month (at least 21 days between inspections). Any visible defect or leak will be noted on the Inspection Form and proper repair procedures will be followed in accordance with Documentation and Repair Procedures in this Section. Drains using a seal pot with a water seal to control air emissions must be inspected to verify that the appropriate liquid levels are being maintained and to identify any other defects that could reduce water seal control effectiveness. The mill will also inspect all unburied portions of the line for defects including visible cracks, holes, gaps, or other open spaces in the sewer line joints, seals, or other emission interfaces.

(2) ANNUAL TESTING

The MACT Rule Subpart S regulations require that the mill demonstrate initially and annually that each enclosure opening is maintained at negative pressure (as specified in 40 CFR 63.457(e)). The MACT Rule Subpart S regulations also require that positive pressure portions of LVHC and HVLC closed vent systems demonstrate "no detectable leaks" initially and annually in accordance with 40 CFR 63.453 and 457(d), which specifies the leak detection threshold of 500 ppm. Detailed below is the mill's annual testing program.

Negative Pressure Hood Enclosure Testing

The Quinnesec mill's HVLC system and Bleaching system includes enclosures (washer hoods). All hoods which were closed during the initial performance test must be closed, and other openings must indicate negative pressure. This will be demonstrated by use of smoke tubes (or other approved instrumentation) to demonstrate flow into the enclosure opening. Annual testing will be conducted by a qualified contractor. The contractor will supply the mill with a report which documents the results of the testing for each point tested as well as supporting QA/QC information on the report will be issued to the mill.

Positive Pressure (Method 21) Leak Testing

Positive pressure leak testing will be conducted on an annual basis on positive pressure portions of the HVLC and LVHC gas conveyance systems (see Appendix A for Process Diagrams). Leak testing will also be conducted on the digester flash heat condensate tank and foul condensate collection tank as required in 40 CFR 63.453(l). To meet this requirement the mill will conduct leak testing according to the procedures in Method 21, Part 60, Appendix A. Method 21 testing will be conducted by a qualified contractor. The contractor will supply the mill with a report which documents the results of the testing for each point tested as well as supporting QA/QC information on the instrument capabilities for meeting the Performance Criteria specified in Method 21.

Testing conducted by the qualified contractor will be documented with the use of a numbering system. Each component subject to Method 21 testing has been identified and labeled in accordance with this numbering system. This numbering system will facilitate tracking of repairs when leaks and/or defects are identified.

Monthly inspection and annual testing documents will be kept on file for 5 years.

(3) REPAIR PROCEDURES

Repairs or corrective actions must be completed as soon as practiable. An initial attempt to repair leaks/defects must be completed within five days with the final repair completed within 15 days. If the repair cannot be completed with out a process unit shutdown, the repair may be delayed until the next process unit shutdown. If delayed, the repair MUST be completed during the next process unit shutdown. Leaks or other defects identified and repaired as part of a monthly inspection and annual testing inspection will be tracked through the mill's maintenance work order system and/or contractor database system.

Monthly inspection and annual testing repair documents will be kept on file for 5 years.

(1) BYPASS LINE MONITORING

Subpart S regulations require record keeping for HAP venting from bypass lines (e.g., rupture disks, relief valves, and computer controlled bypasses).

Bypass venting (computer and manual) will be tracked and documented in the Proficy Computer System.

The compliance reporting system will produce semi-annual reports (or more frequent upon request) of all system bypasses of the LVHC, HVLC, and condensate systems as part of the required semi-annual excess emissions report and SSM report. These reports will be kept on file in the Environmental Department.

(1) DIFFICULT OR UNSAFE ACCESS POINTS

The mill has submitted and received concurrence from EPA on an alternative monitoring request which exempts the mill from the monthly and annual inspection and repair requirements if it is determined that personnel performing the inspection would be exposed to an imminent or potential danger or that the equipment could not be inspected without elevating personnel more than six feet above a support surface.

The following table identifies each point that will be monitored on a three-year basis.

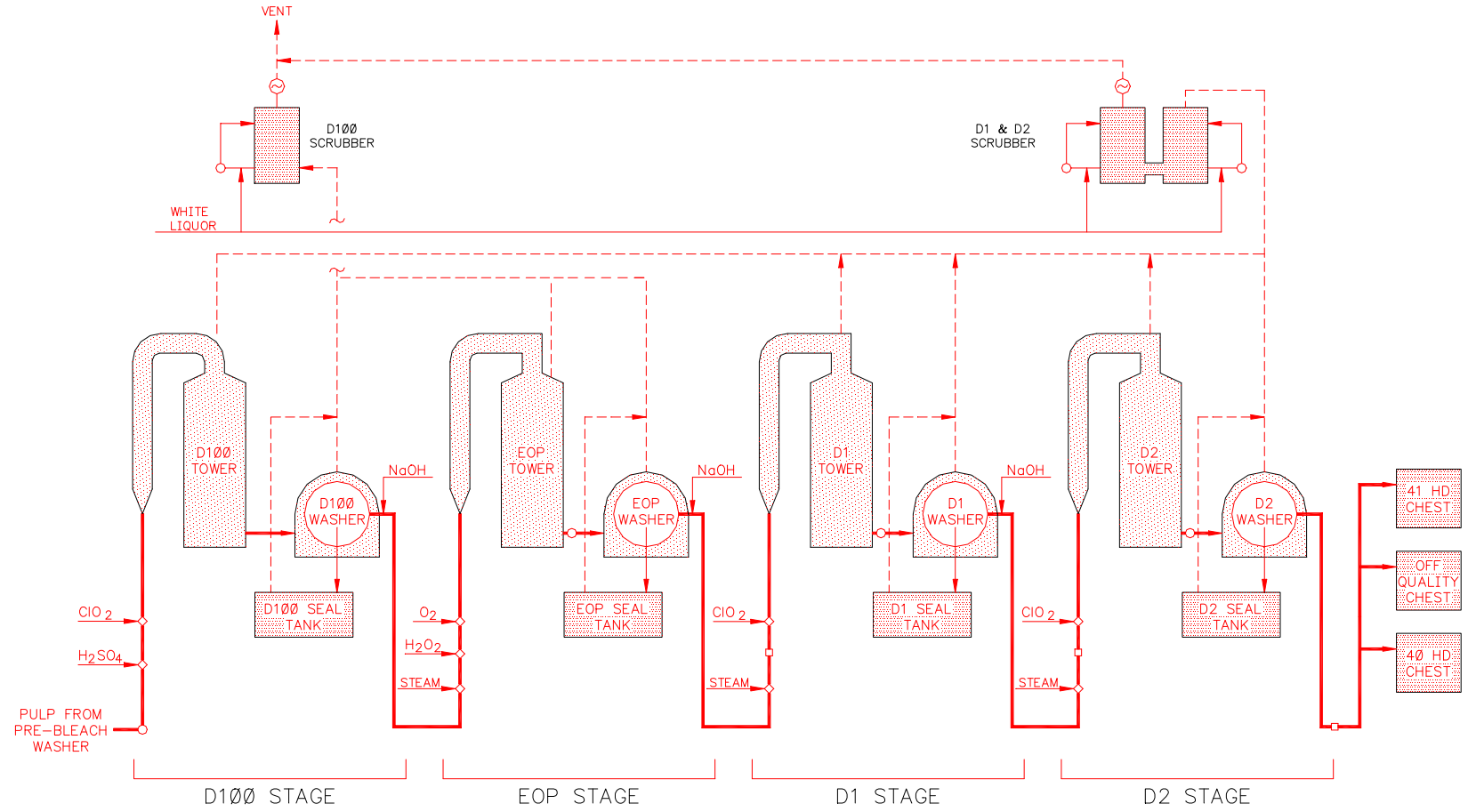
Location/Description	Monitoring Point Identification	Reason for Exemption	Inspection Frequency	Plan for Completing Inspection/Repair
Lime kiln - LVHC gas collection line flange near inlet to kiln.	Flange Tag ID. 001513	Unsafe to monitor – dangerous location	3 years	Provide access via crane or scaffolding to monitor for leaks and complete any potential repairs.
Lime kiln - LVHC gas collection line flange near inlet to kiln.	Flange Tag ID. 001514	Unsafe to monitor – dangerous location	3 years	Provide access via crane or scaffolding to monitor for leaks and complete any potential repairs.
Pulp mill - HVLC gas reheater bottom flange	Flange Tag ID. 001522	Unsafe to monitor – dangerous location	3 years	Provide access via crane or scaffolding to monitor for leaks and complete any potential repairs.
Pulp mill – HVLC gas reheater bypass valve	Valve Tag ID. 001523	Unsafe to monitor – dangerous location	3 years	Provide access via crane or scaffolding to monitor for leaks and complete any potential repairs.

* See Appendix A for system drawings

Revisions

Date	Revision	Reviser
8/21/17	Per 2006 tag changes 000087 changed to 001513, 000088 changed to 001514, 000171 changed to 001522, 000172 changed to 111523	P. LaFleur

PULP BLEACHING PROCESS



VERSO PAPER CORP.

ENVIRONMENTAL

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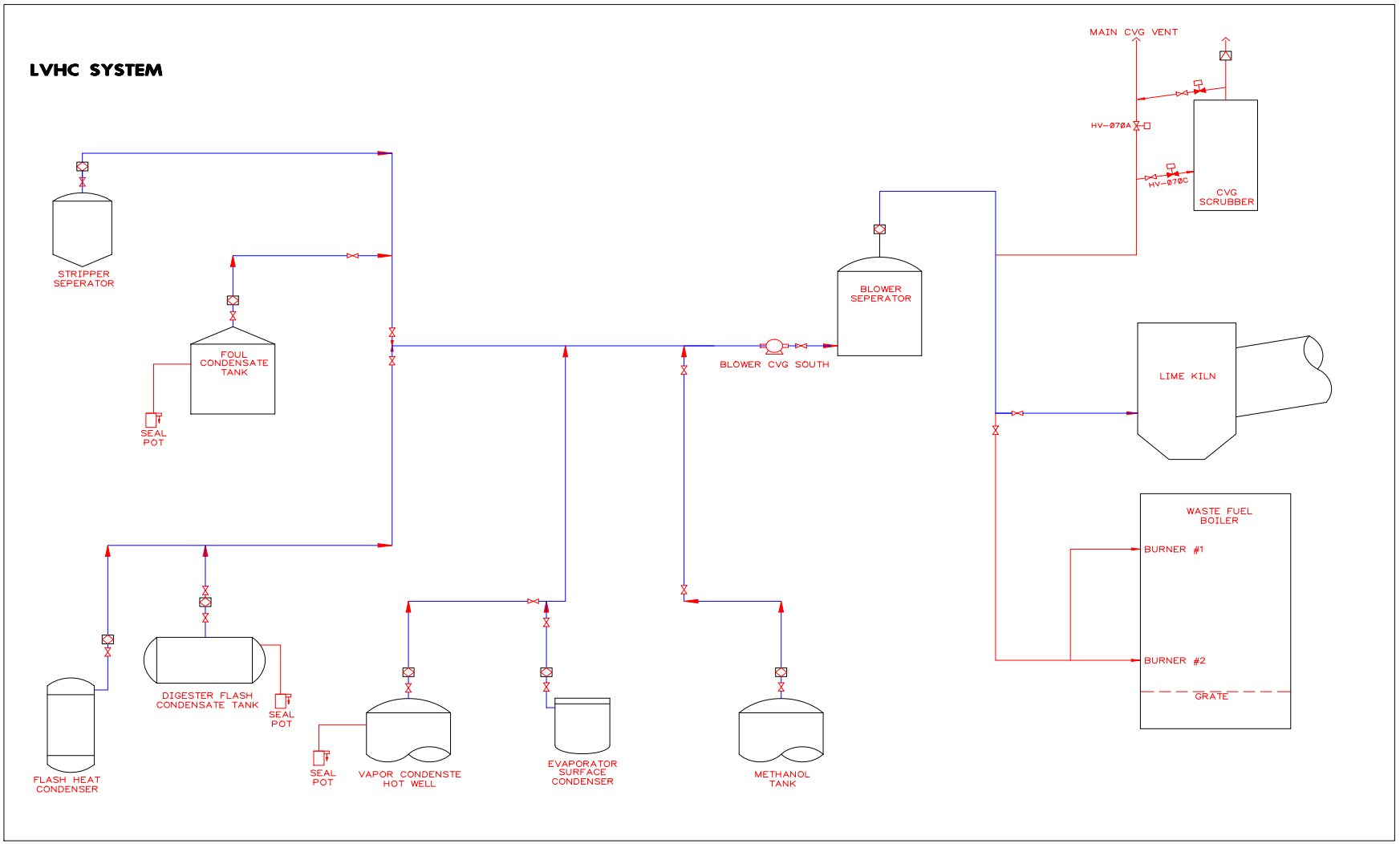

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VERSO PAPER CORP.

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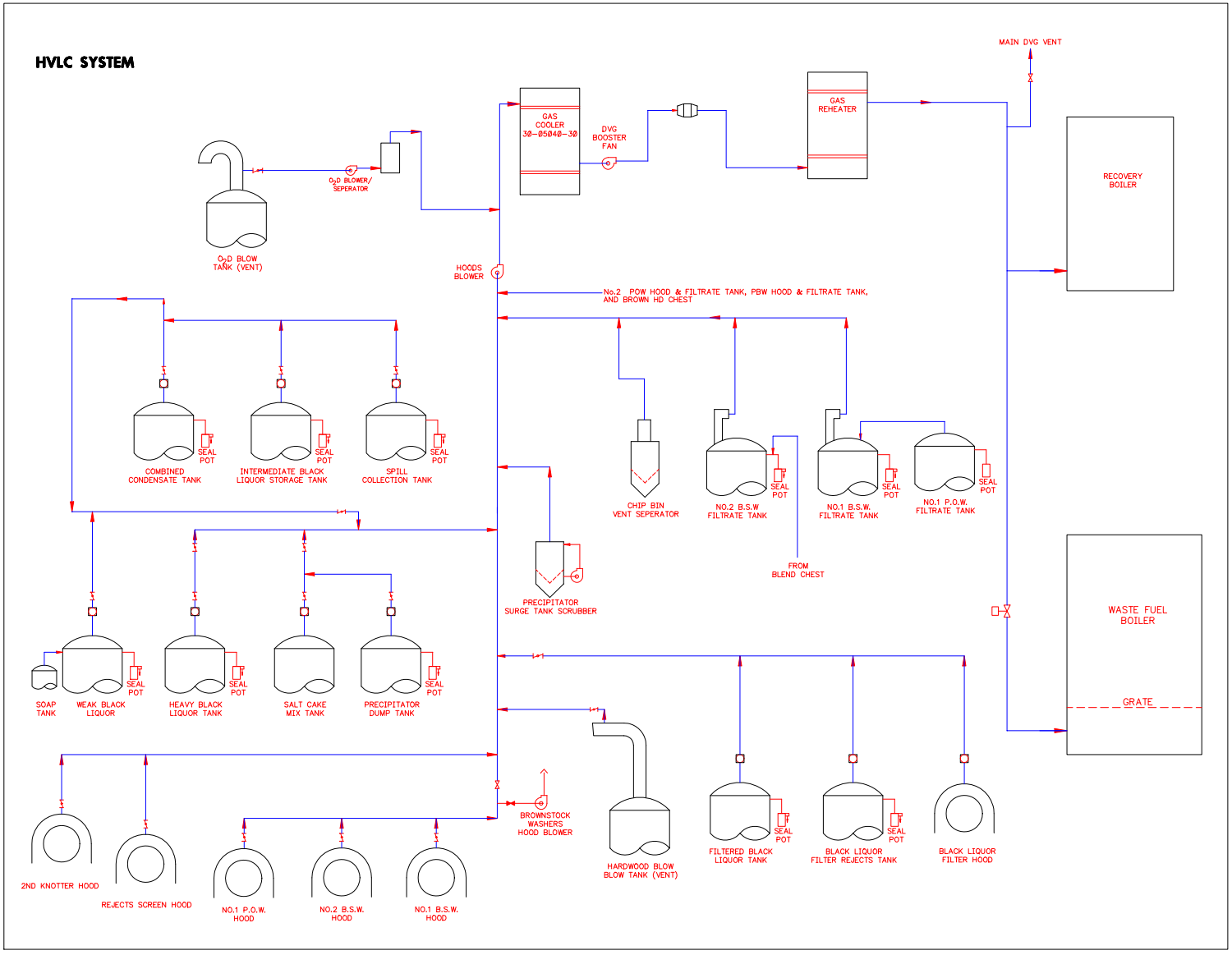

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ENVIRONMENTAL

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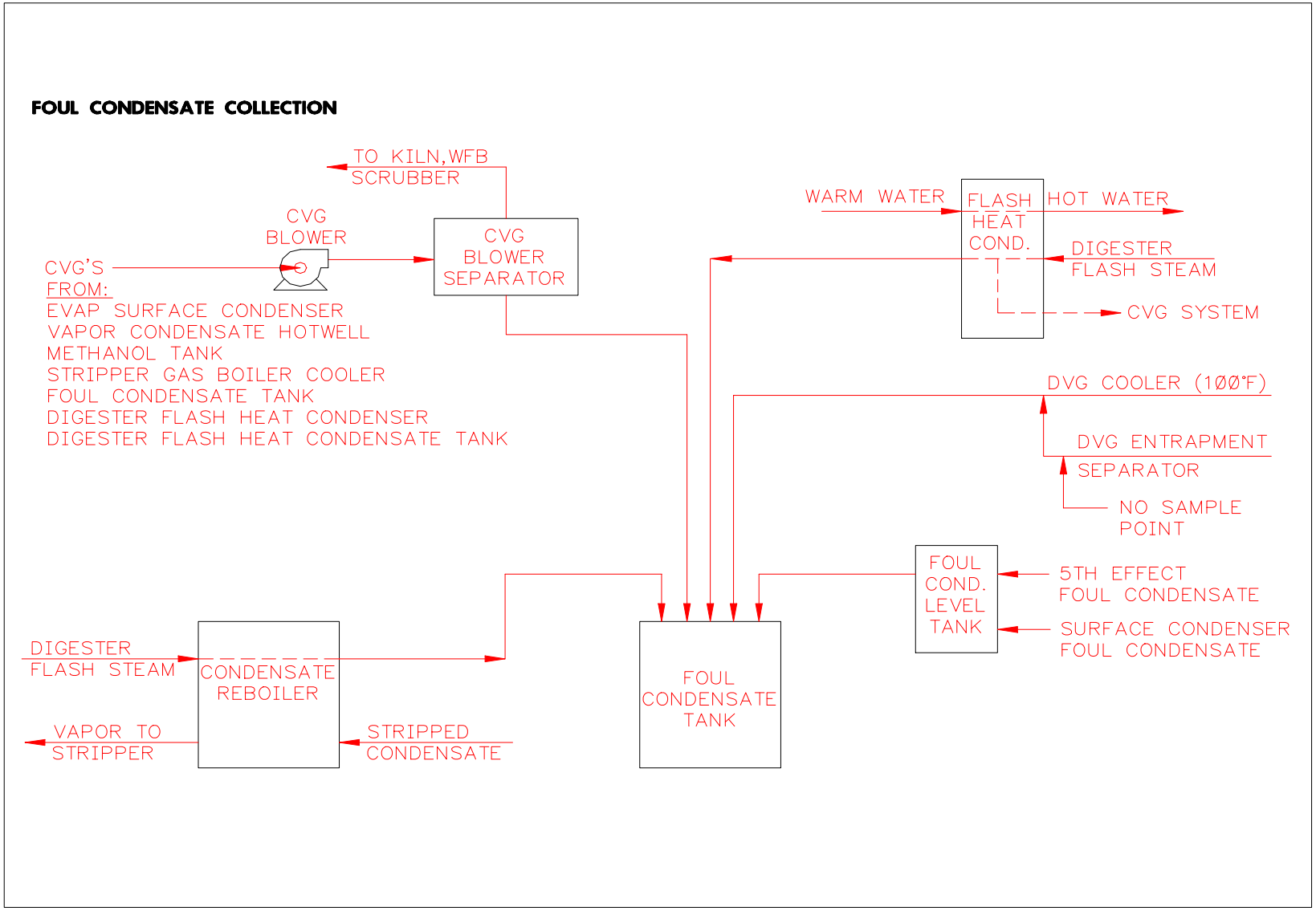

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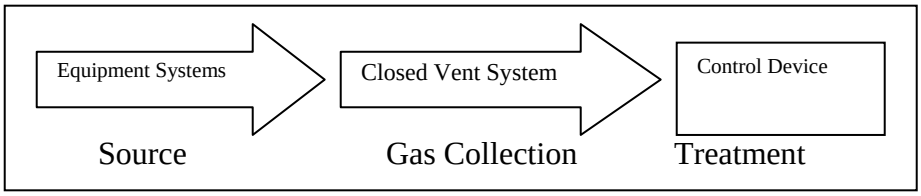
Cluster Rule Bleach Plant Boundaries Position Paper
October 2000, as revised August 2017

ISSUE / BACKGROUND

The Cluster Rule regulations do not clearly define the boundaries for the bleach plant equipment system, closed vent system, and control device. Clearly defined boundaries are necessary to ensure compliance with all monitoring and reporting requirements. Based on § 63.445(b), bleaching systems using chlorine or chlorinated compounds for bleaching must be enclosed and routed to a control device through a closed vent system meeting the requirements § 63.450 (see Figure 1).



Bleaching processes can be divided into three distinct categories: **Equipment Systems**, **Closed Vent System**, **Control Device**.

Figure 1

The intent of this paper is to identify International Paper's position on:

1) boundaries for bleaching process equipment system, the closed vent system and the control device;
2) monitoring and general duty requirements; and
3) applicability for bleaching system leak detection and repair requirements.

EQUIPMENT SYSTEMS

I. **Bleaching Equipment System Boundary**

Per § 63.441, the *Bleaching Systems* are defined by the regulation as consisting of:

Bleaching Stage

a. Includes chlorine compound bleaching stage towers, seal tanks, vacuum pumps, and steam mixers through the point where the bleaching tower or seal tank connects to the vent line (flange connection) where gases are collected and routed to treatment.

b. Includes washers up to the washer-hood interface (i.e. washers themselves excluding hoods)

c. Includes all other bleaching equipment serving the same function as the equipment listed in a and b above.

B. **Monitoring and General Duty Applicability**

The provisions described in § 63.453(q) apply to by-pass line vents from any of the above equipment systems *where applicable (most bleach plants do not have by-pass lines)*. All bypass vents from equipment systems are to be monitored by direct measurement or using a surrogate parameter to determine the presence of flow in conformance with the Cluster Rule, which infers knowledge of when venting occurs, and the General Duty Clause which requires the use of good air pollution control practices at all times.

C. **Leak Detection and Repair (LDAR) Applicability**

In accordance with § 63.450 and § 63.453(k), leak detection and repair requirements apply only to enclosures (an example of an enclosure would be washer hoods) and closed vent systems and not to equipment systems. The bleaching stage equipment systems listed above, including the towers and washers themselves *up to* the washer hood interface, are outside the boundary of the closed vent system, therefore LDAR requirements are not applicable. Although LDAR requirements are not applicable to equipment systems, certain hatches on bleaching towers, if improperly closed, could impede the performance of the closed vent system by allowing excessive air infiltration to the closed vent system. To ensure proper operation of equipment systems that can affect the closed vent system operation these hatches should be inspected periodically.

CLOSED VENT SYSTEM

A. **Closed Vent System Boundary**

Per § 63.441, the *Closed Vent System* is comprised of the piping, ductwork connections and flow-inducing devices that transport gas or vapor from an emission point to a *Control Device.* In other words, the *Closed Vent System* is the conveyance system for bleach plant vent gases. The entry points for process gases to the *Closed Vent System* associated with each process equipment system component is described below; the point where gas exits the *Closed Vent System* is at the *Control Device* (i. e. scrubber) for all systems.

Bleaching stage

a. Bleaching tower - The closed vent system begins at the point where the bleaching tower connects to the vent line (flange connection) where gases are collected and routed to treatment.
b. Seal tanks - The closed vent system begins at the point where the seal tank connects to the vent line (flange connection) where gases are collected and routed to treatment.
c. Washers - The closed vent system begins at the washer-hood interface.
d. Other bleaching equipment - Where applicable the closed vent system begins at the first point where gas is collected off an equipment system and is routed to a control device.

B. **Monitoring and General Duty Applicability**

The provisions described in § 63.453(q) apply to by-pass line vents from any of the above equipment systems *where applicable (most bleach plants do not have by-pass lines)*. All vents from equipment systems are to be monitored by direct measurement or using a surrogate parameter to determine the presence of flow in conformance with the Cluster Rule, which infers knowledge of when venting occurs, and the General Duty Clause which requires the use of good air pollution control practices at all times.

C. **Leak Detection and Repair Applicability**

In accordance with § 63.450 and § 63.453(k), leak detection and repair requirements apply to enclosures and the closed vent system. Since most bleach plant closed vent systems are entirely negative pressure systems, the negative pressure requirements in § 63.450 (b) and § 63.457 (e) would apply. These regulations require initial and annual demonstrations of negative pressure using a smoke tube, etc. at all enclosure openings. All openings that are closed during the initial performance test must remain closed except when it is necessary for sampling, maintenance, and repairs. A 30 day visual inspection is also required for all portions of the closed vent system including hoods, openings, ductwork, etc.

CONTROL DEVICE

A. **Control Device System Boundary**

The *Control Device* is comprised mainly of scrubbers and any other equipment integral to the control device such as fans, motors, etc. Anything upstream of the scrubber vessel gas inlet flange is considered part of the *Closed Vent System* or conveyance system as previously described.

B. **Monitoring and General Duty Applicability**

The provisions described in § 63.453(q) apply to the control device. Any bypasses of the control device would be detected as previously described.

C. **Leak Detection and Repair Applicability**

In accordance with § 63.450(a) and § 63.453(k), leak detection and repair requirements apply only to enclosures and closed vent systems; therefore, leak detection and repair requirements would not apply to the control device.

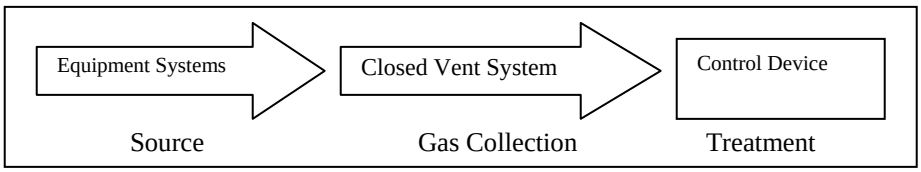
Revisions

Date	Revision	Reviser
8/29/17	Changed B and C to reflect SSM applicability rule revisions.	P. LaFleur

Cluster Rule LVHC System Position Paper
October 2000, as revised August 2017

ISSUE / BACKGROUND

The Cluster Rule regulations do not clearly define the boundaries for the LVHC system, closed vent system, and control device. Clearly defined boundaries are necessary to ensure compliance with all monitoring and reporting requirements. Based on § 63.443(c), all equipment systems must be enclosed, routed to a closed vent system and vented to a control device as depicted below.



Pulping processes can be divided into three distinct categories: **Equipment Systems**, **Closed Vent System**, **Control Device**.

The intent of this paper is to identify Verso Paper's position on:

1) boundaries for each of the three types of LVHC system categories list above;
2) monitoring and general duty requirements for each category;
3) excess emission allowances under the 1% provision; and
4) leak detection and repair requirements for each category.

EQUIPMENT SYSTEMS

A. **System Boundary**

Per § 63.441, the *LVHC Equipment Systems* are defined by the regulation as consisting of:

1. ***Digester System***
   Includes digesters, blow tanks, blow heat accumulator, relief gas condensers, and chip steamers not using fresh steam. The digester system boundary ends at the outlet of the blow heat accumulator secondary (or tertiary) condenser. For softwood or continuous digester systems the equipment system boundary ends at the outlet of the turpentine condenser or the condenser performing an analogous process function.

2. ***Turpentine Recovery System***
   a. Includes turpentine condensers to the outlet of the secondary condenser.
   b. Includes decanters and storage tanks up to the flange connection to the LVHC line on top of the tank leading to collection.

3. ***Evaporator System***
   Includes multiple effect evaporators, concentrators, surface condensers, and hotwells. The equipment system boundary ends at the (flange) connection to the LVHC line on the last evaporator system vessel leading to collection for vessels piped in series. For vessels individually connected to the LVHC gas collection system, the equipment system ends at the connection of each vessel to the LVHC gas collection system.

4. ***Other Equipment***
   For equipment not described in 1-3 above, assess the equipment function. If the equipment is an integral part of a process function (e.g. surface condenser on an evaporator set) then include it as part of the equipment system. The equipment system ends (boundary) at the point where the last process vessel in series connects to LVHC gas collection system.

B. **Monitoring and General Duty**

All vents from equipment systems (including by-pass lines, PV breakers, etc.) are to be monitored by direct measurement or using a surrogate parameter to determine the presence of flow in conformance with the Cluster Rule, which infers knowledge of when venting occurs, and the General Duty Clause of § 63.453(q) which requires the use of good air pollution control and safety practices at all times.

C. **1% Excess Emission Allowance Applicability**

In accordance with § 63.443(e), periods of excess emissions from LVHC system control devices are not a violation of § 63.443(c) and (d) provided the time of excess emissions, including SSM events, does not exceed one percent [1%] (period of excess emissions divided by total process operating time over a semi-annual reporting period). Any venting from the LVHC equipment system that bypasses the control device is excess emissions and is subject to excess emission requirements and the 1% excess emissions allowance.

D. **Leak Detection and Repair Applicability**

In accordance with § 63.450(a) and § 63.453(k), leak detection and repair requirements apply only to *enclosures* and *closed vent systems*. The pulp and paper NESHAP does not define an enclosure but it can be inferred from NSPS and the other NESAHP standards (see Attachment 1) what constitutes an enclosure; based on these standards, there are no "enclosures" on the LVHC equipment systems. Furthermore, since the equipment systems are not part of the closed vent system as described below, leak detection and repair requirements do not apply to LVHC equipment system components. However, in the spirit of the General Duty Clause (which requires good air pollution control practices at all times) equipment system leaks should be repaired at the first opportunity or during the next shutdown, depending on the severity of the problem and the environmental impact.

CLOSED VENT SYSTEM

A. **System Boundary**

Per § 63.441, the *Closed Vent System* is comprised of the piping, ductwork connections and flow-inducing devices that transport gas or vapor from an emission point to a *Control Device.* In other words, the *Closed Vent System* is the conveyance system for LVHC gases. The entry points for process gases to the *Closed Vent System* associated with each equipment system is described below; the point where gas exits the *Closed Vent System* is at the *Control Device* (burner) for all systems.

1. ***Digester***
   a. The closed vent system begins at the outlet of the blow heat accumulator secondary (or tertiary) condenser. For softwood or continuous digester systems the closed vent system begins at the outlet of the turpentine condenser or the condenser performing an analogous process function.
   b. For foul condensate collection tanks the closed vent system begins at the flange on top of the tank. *Note: the tank itself is considered to be part of the condensate closed collection system which is not addressed in this document*.

2. ***Turpentine Recovery***
   a. The closed vent system begins at the secondary condenser outlet where the vessel connects to the LVHC gas collection system.
   b. The closed vent system begins at the decanter and storage tank flange connection to the LVHC line.

3. ***Evaporator***
   The closed vent system begins at the (flange) connection to the LVHC line on the last evaporator system vessel leading to collection for vessels piped in series. For vessels individually connected to the LVHC gas collection system, the closed vent system begins at the connection of each vessel to the LVHC gas collection system.

B. **Monitoring and General Duty Applicability**

The provisions described in § 63.453(q) apply to vents from anywhere in the closed vent system. All vents from the closed vent system (including by-pass lines, PV breakers, etc.) are to be monitored by direct measurement or using a surrogate parameter to determine the presence of flow in conformance with the Cluster Rule, which infers knowledge of when venting occurs, and the General Duty Clause which requires the use of good air pollution control practices at all times.

C. **1% Excess Emission Allowance Applicability**

In accordance with § 63.443(a), any venting from the closed vent system that bypasses the control device is excess emissions and is subject the 1% excess emissions allowance.

D. **Leak Detection and Repair Applicability**

In accordance with § 63.450(a) and § 63.453(k), leak detection and repair requirements apply to the closed vent system (i.e., visual inspections, vacuum side demonstration of negative pressure, positive side leak checks, etc.).

CONTROL DEVICE

A. **System Boundary**

The *Control Device* is comprised of the burner including quenchers, scrubbers, and any other equipment integral to the destruction device such as combustion air fans, quencher recirculation system, etc. Anything upstream of the burner is considered part of the *Closed Vent System* or conveyance system as previously described.

B. **Monitoring and General Duty Applicability**

The provisions described in § 63.453(q) apply to the control device. Any bypasses of the control device would be detected as previously described.

C. **1% Excess Emission Allowance Applicability**

In accordance with § 63.443(e) and the preamble to the Cluster Rule, the 1% excess emissions allowance for events would apply to:

1. control device bypasses,
2. periods when the control device is inoperable**,** and
3. periods when the operating parameter value (e.g. combustion temperature) established during the initial performance test cannot be maintained within the appropriate range

D. **Leak Detection and Repair Applicability**

In accordance with § 63.450(a) and § 63.453(k), leak detection and repair requirements apply only to enclosures and closed vent systems; therefore, leak detection and repair requirements would not apply to the control device.

Revisions

Date	Revision	Reviser
8/29/17	Changed B and C to reflect SSM applicability rule revisions.	P. LaFleur

ATTACHMENT 1

Appendix M to 40 CFR 51 (Method 204)
Permanent Total Enclosure: A permanently installed enclosure that completely surrounds a source of emissions such that all VOC emissions are captured and contained for discharge to a control device.

40 CFR 60.441(a)
Hood or enclosure means any device used to capture fugitive volatile organic compounds.

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

40 CFR 60.711(a)(17)
Total enclosure means a structure that is constructed around a source of emissions so that all VOC emissions are collected and exhausted through a stack or duct.

40 CFR 60.541(a)
Enclosure means a structure that surrounds a VOC application area and drying area, and that captures and contains evaporated VOC and vents it to a control device. Enclosures may have permanent or temporary openings.

40 CFR 61.345(a)(3)
Treatment of a waste in a container ... shall be performed by the owner or operator in a manner such that whenever it is necessary for the container to be open while the waste is being treated, the container is located under a cover (e.g. enclosure) with a closed vent system that routes all organic vapors from the container to a control device ...

40 CFR 63.542
Enclosure hood means a hood that covers a process fugitive emission source on the top and all sides, with openings only for access to introduce or remove materials to or from a source and through which an induced flow of air is ventilated.

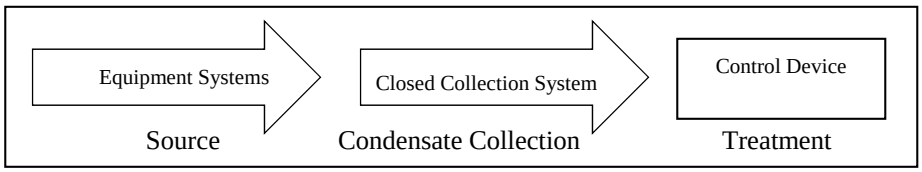
40 CFR 63.681
Enclosure means a structure that surrounds a tank or container, captures organic vapors emitted from the tank or container and vents the captured vapor through a closed vent system to a control device.

40 CFR 63.702(a)
Total enclosure means a structure that is constructed around a gaseous emission source so that all gaseous pollutants emitted from the source are collected and ducted through a control device, such that 100% capture efficiency is achieved. There are no fugitive emissions from a total enclosure. The only openings in a total enclosure are forced makeup air and exhaust ducts and natural draft openings such that those that allow material to enter and exit the enclosure for processing. All access doors or windows are closed during routine operation of the enclosed source. Brief occasional opening of such doors or windows to accommodate process equipment adjustments are acceptable, but if such openings are routine or if an access door remains open during the entire operation, the access door must be considered a natural draft opening.

Cluster Rule Condensate Boundaries Position Paper
October 15, 2000, as revised August 2017

ISSUE / BACKGROUND

The Cluster Rule regulations do not clearly define the boundaries for condensate source equipment systems, closed collection systems, and the control device. Clearly defined boundaries are necessary to ensure compliance with all monitoring and reporting requirements. Based on § 63.446(d), condensate collected to meet the requirements of the rule must be conveyed in a closed collection system which meets the requirements of § 63.446(d) operating requirements and drain system requirements in 40 CFR 63.960-962 of Subpart RR.



Condensate processes can be divided into three distinct categories:
Equipment Systems,
Closed Vent System,
Control Device.

The intent of this paper is to identify Verso Paper's position on:

1) boundaries for condensate source equipment systems, the closed collection system and the control device;
2) monitoring and general duty requirements; and
3) applicability for condensate closed collection system drain system requirements.

EQUIPMENT SYSTEMS

A. **Condensate Equipment System Boundary**

Per § 63.441, the *Condensate Equipment Systems* are defined by the regulation as consisting of:

1. Digester System

Includes digesters, blow tanks, blow heat accumulator, and relief gas condensers. The digester system boundary ends at the pump discharge of the pump which transfers condensate from the blow heat accumulator secondary (or tertiary) condenser to the condensate collection system in systems where the pump is an integral part of the process function. For gravity drained systems, the equipment system ends at the flange connection at the outlet of the relief gas condenser. For softwood or continuous digester systems the equipment system boundary ends at the outlet of the turpentine condenser (or the condenser performing an analogous process function) or at the pump discharge where the pump is integral to the process operation.

2. Turpentine Recovery System

Includes condensers, decanters, storage tanks, and other equipment serving the same purpose up to the discharge of the weir box where underflow drains to the condensate collection system.

3. Evaporator System

Includes liquor feed effect evaporator bodies and vacuum systems including, concentrators, surface condensers, and hotwells. The equipment system boundary ends at the condensate pump discharge leading to collection on the last evaporator system vessel leading to collection for vessels piped in series. For vessels individually connected to the condensate collection system, the equipment system ends at the pump discharge at each vessel leading to the condensate collection system.

4. LVHC/HVLC Gas Collection Systems

Includes the gas collection and transport system used to convey gases from the LVHC/HVLC system to a control device up to the point where the condensate drain connects to the condensate collection system (flange connection).

5. Other Equipment

For equipment not described in 1-4 above, assess the equipment function. If the equipment is an integral part of a process function (e.g. surface condenser on an

evaporator set) then include it as part of the equipment system. The equipment system ends (boundary) at the point where the last process vessel in series connects to condensate collection system.

B. **Monitoring and General Duty Applicability**

The provisions described in § 63.453(q) apply to any of the above equipment systems. All bypasses from equipment systems are to be monitored for tracking of SSM and other process related by-passes.

C. **Closed Collection System Requirement Applicability**

In accordance with § 63.446 and § 63.453(l), the individual drain system requirements apply to closed collection systems. An individual drain system is defined as a conveyance system including hard-piping, drains, junction boxes and sewer lines. These requirements do not apply to equipment systems.

CLOSED COLLECTION SYSTEM

A. **Closed Collection System Boundary**

Per § 63.441, the *Closed Collection System* is comprised of the hard-piping, drains, junction boxes, water seals and sewer lines conveying condensate from a source to a *Control Device.* The entry points for process condensates to the *Closed Collection System* associated with each equipment system is described below; the point where condensate exits the *Closed Collection System* is at the *Control Device* for all systems or where condensate is bypassed from the system to an alternate sewer.

1. ***Digester***
   a. The closed collection system begins at the pump discharge of the pump which transfers condensate from the blow heat accumulator secondary (or tertiary) condenser to the condensate collection system. For gravity drained systems, the closed collection system begins at the flange connection at the outlet of the relief gas condenser. For softwood or continuous digester systems the equipment system boundary ends at the outlet of the turpentine condenser (or the condenser performing an analogous process function) or at the pump discharge where the pump is integral to the process operation.
   b. For foul condensate collection tanks the tank itself is considered to be part of the condensate closed collection system.

2. ***Turpentine Recovery***
   The closed vent system begins the discharge of the weir box where underflow drains to the condensate collection system.

3. ***Evaporator***
   The closed collection system begins at the condensate pump discharge on the last evaporator system vessel leading to collection for vessels piped in series. For vessels individually connected to the condensate collection system, the collection system begins at the pump discharge at each vessel leading to the condensate collection system.

4. **LVHC/HVLC Gas Collection Systems**
   For LVHC/HVLC systems the closed collection system begins at the point where the condensate drain connects to the condensate collection system (flange connection).

B. **Monitoring and General Duty Applicability**

The provisions described in § 63.453(q) apply to the closed collection system. All malfunctions occurring within the closed collection system are to be monitored for tracking of SSM and process related by-passes.

C. **Closed Collection System Requirement Applicability**

In accordance with § 63.446 and § 63.453(l), the individual drain system requirements apply to closed collection systems. All condensate tanks included in the closed collection system are subject to the requirements of § 63.446(d)(2) including leak checking by Method 21. Individual drain system requirements include water seal inspections and 30 inspections of the system to identify defects as specified by § 63.453(l) and development (inclusion) of a site-specific inspection plan.

CONTROL DEVICE

A. **Control Device System Boundary**

The *Control Device* is comprised of one or more of three treatment options specified in the regulations. For a steam stripper, the control device includes the stripper column and associated stripper feed tanks, condensers, and heat exchangers as well as all equipment associated with methanol rectification. For biological treatment systems, the treatment device begins at the point where the collection system pipe discharges into the basin or Unox tank. The device includes all associated treatment equipment downstream of this point (including aerators, pumps, etc.). For recycling of condensates to an NCG gas collected washer system, the treatment system begins at the point were the collection system pipe enters the washer (pump or shower????) and includes all associated washing equipment and NCG gas collection equipment through and including the gas incineration device (lime kiln, boiler, RTO, et.).

B. **10% Downtime Allwoance Applicability**

Per § 63.443(g) a 10% downtime allowance has been provided for steam strippers which is inclusive of SSM events.

C. **Closed Collection System Requirement Applicability**

In accordance with § 63.446 and § 63.453(l), the individual drain system requirements apply to only to closed collection systems, therefore these requirements would not apply to the control device.

Revisions

Date	Revision	Reviser
8/29/17	Changed B and C to reflect SSM applicability rule revisions.	P. LaFleur

Look for leaks/defects such as:

- Loose flanges
- Cracks or holes
- Rupture discs blown or leaking by
- Vents or drains not closed

If a defect or leak is found:

- Notify your shift manager immediately
- Check the D/L box
- Complete and attach a Leak Detection Repair and Report form

Pulp Mill CVG System Inspection

Date:_____ Operator: _____

Equipment:	**Boundaries:**	OK	D/L	Initials
Digester Flash Heat Condenser	Begins at condenser vent line flange and ends at connection with line from digester flash condensate tank			
Digester Flash Condensate Tank	Begins at tank vent line flange and ends at the connection to the line from the foul condensate stripper in the R&U area			
Main CVG line and Switching valves	Begins with main CVG line through east lime kiln area wall (inspect all switching valves and lines in elevated platform area) and ends with main CVG line inlet flange to Limekiln			
CVG Line to Limekiln	Begins with the line from the switching valves to the Lime Kiln and ends with the inlet flange to the Limekiln			
Foul Methanol Storage Tank	Begins at the tank vent line flange and ends at the inlet flange to the Lime Kiln			

Pulp Mill Bleach Plant System Inspection

Date:_____ Operator: _____

Equipment:	**Boundaries:**	OK	D/L	Initials
D100 Seal Tank	Begins at the tanks vent line flange connections and ends at the vent line inlet flange connection of the D100 scrubber			
D100 Washer	Begins at the washer hood interface (hood enclosure included) and ends at the vent line inlet flange connection of the D100 scrubber			
D1 and D2 Seal Tanks	Begins at the tanks vent line flange connections and ends at the vent line inlet flanges at the D1 and D2 system scrubber			
D100, D1 and D2 Towers	Begins at the tower vent line inlet flange and ends at the vent line inlet flange connection of the D1 and D2 system scrubber			
D1 and D2 Washers	Begins at the washer hoods interface (hood enclosures included) and ends at the vent line inlet flange connection of the D1 and D2 system scrubber.			

Pulp Mill DVG System Inspection

Date:_____ Operator: _____

Equipment:	**Boundaries:**	OK	D/L	Initials
# 1, 2 Brown Stock, and #1 POW Filtrate Tanks	Begins at tank vent line flanges, continue to 3rd floor and ends at the main DVG line connection			
#2 POW Filtrate tank, Washer Hood, and Blend Chest	Begins at the tank vent flanges to the hood flange connections and from the hood flange to the main DVG line connection			
PBW Filtrate Tank and Washer Hood	Begins at the tank vent flanges to the hood flange connections and from the hood flange to the main DVG line connection			
#1 & #2 BSW and #1 POW Washers	Begins at the hood flange and ends at the main DVG line connection			
O2 Delig Blow Tank	Begins at the O2 Blow Tank vent flange through the blower system and ends at the main DVG line connection			
Brown Stock HD Chest	Begins at the HD chest vent flange and ends at the main DVG line connection			
Hardwood Blow Tank	Begins at the Hard Wood Blow tank vent flange and ends at the main DVG line connection			
Chip Bin Vent Separator	Begins at the Chip Bin Vent Separator top flange and ends at the main DVG line connection			
DVG Fans, Cooler and Heater System	Begins at the inlet to the Entrainment Separator through the DVG fan, Cooler, Entrainment Separator, Booster Fan, Heater and ends at the last flange in the Pulp Mill Area.			

Pulp Mill Foul Condensate System Inspection

Date:_____ Operator: _____

Equipment:	**Boundaries:**	OK	D/L	Initials
Digester Flash Condensate Tank	Includes tank hatches, rupture disks, pressure reliefs and seal pot			
Digester Flash Heat Condenser	Begins at the condenser discharge line flange from the condenser condensate level tank and ends as it enters the R&U area			
CVG Blower Separator	Begins at the separator outlet flange and ends at the east wall before the R&U dept.			
DVG Foul Condensate Seal Pot	Begins at the outlet flange of the seal pot and ends where line enters the R&U area			

Look for leaks/defects such as:

- Loose flanges
- Cracks or holes
- Rupture discs blown or leaking by
- Vents or drains not closed

If a defect or leak is found:

- Notify your shift manager immediately
- Check the D/L box
- Complete and attach a Leak Detection Repair and Report form

R&U CVG System Inspection

Date:_____ Operator: _____

Equipment:	**Boundaries:**	OK	D/L	Initials
Hotwell	Begins at the hotwell vent flange and ends at the main CVG suction line in the pipe rack			
Surface Condenser	Begins at the surface condenser outlet vent flange and ends at the main CVG suction line in the pipe rack			
Foul Condensate Storage Tank	Begins at the foul condensate storage tank vent flange and ends at the main CVG suction line in the pipe rack			
Stripper Separator	Begins at the stripper separator outlet vent flange and ends at the north wall of the stripper building			
Main CVG Suction Line	Begins at the north wall of the stripper building and ends at the wall on the 2nd floor at the entrance to the kiln			
CVG Line to WFB	Begins at the wall on the 2nd floor at the entrance to the kiln and ends at the inlet flanges to the north and south burners of the waste fuel boiler			

R&U DVG System Inspection

Date:_____ Operator: _____

Equipment:	**Boundaries:**	OK	D/L	Initials
DVG line to WFB	Begins at the outlet flange of the DVG gas reheater and ends at the flange connection to the waste fuel boiler (includes main DVG vent 30HV259B)			
DVG line to Recovery Boiler	Begins at the "TEE" connection in the main DVG line and ends at the flange connection to the recovery boiler			

R&U Foul Condensate System Inspection

Date:_____ Operator: _____

Equipment:	**Boundaries:**	OK	D/L	Initials
CVG Blower Separator to FC tank line	Begins at the wall on the 2nd floor entrance to the kiln area and ends at the inlet flange to the foul condensate storage tank			
Pulp Mill Flash Heat Condenser to FC tank	Begins in the pipe rack north of the R&U warm water pumps and ends at the inlet flange to the foul condensate storage tank			
Reboiler condensate to FC tank line	Begins at the bottom of the reboiler and ends at the inlet flange to the foul condensate storage tank			
Evaporator 5th effect to FC level tank line	Begins at the connection to the body of the 5th effect and ends at the inlet flange to the foul condensate level tank			
Surface Condenser to FC level tank line	Begins at the flange connections at the bottom of the surface condenser and ends at the inlet flange to the foul condensate level tank			
FC Level Tank to FC Storage Tank line	Includes the foul condensate level tank, connections, attachments and pumps and ends at the connection to the foul condensate storage tank			
DVG Foul Condensate Seal Pot to FC tank	Begins at the connection to the DVG foul condensate seal pot and ends at the connection to the foul condensate storage tank			
Foul Condensate Storage Tank	Includes tank hatches, rupture disks, pressure reliefs and seal pot			
Foul Condensate Tank Discharge Line	Begins at outlet flange from foul condensate storage tank and ends at the inlet flange to the fiber filters			

VERSO QUINNESEC MILL LDAR-C-3	**QUINNESEC MILL** **Leak Detection and Repair** **Report Procedure and Documentation Form**	Department: Pulp Mill ( ) R&U ( )

Leak Detection and Repair Report Form

(Reporter's) Name:	Date defect or leak was found:	
Equipment No., type and identification:		
Describe the leak or defect:		
Describe the repair methods applied in each attempt to repair the leak or defect (first attempt is required within 5-days of discovery):		
First Attempt Date: W.O. #	Repair Methods:	Person performing repairs:
Second Attempt Date: W.O. #	Repair Methods:	Person performing repairs:
Third Attempt Date: W.O. #	Repair Methods:	Person performing repairs:
Fourth Attempt Date: W.O. #	Repair Methods:	Person performing repairs:
Reason for the delay if the leak or defect is not repaired within 15 days (i.e., mill shutdown required):		
Expected date of repair if the leak or defect is not repaired within 15 days?		
Date of successful repair:		Person performing repairs:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

OCT 2 6 2001

REPLY TO THE ATTENTION OF
(AE-17J)

Richard A. Menard
Principal Environmental Engineer
International Paper
Quinnesec Mill
P.O. Box 191
Norway, MI 49870-0191

Re: Response to Request for Alternative Closed Collection and Vent System Monitoring Provisions

Dear Mr. Menard:

This letter is in response to your request dated July 9, 2001, for approval of alternative monitoring procedures for the closed collection and vent system subject to, among other things, the requirements located at 40 C.F.R. § 63.453(k) and (l). In your letter, you request that inherently unsafe or inaccessible areas be exempted from 30-day and annual inspection, monitoring, and repair requirements located at 40 C.F.R. § 63.453(k) and (l) and that the monitoring and inspection of the closed collection and vent system required at 40 C.F.R. § 63.453(k) be done once per calendar month with at least 21 days in between inspections rather than every 30 days. The United States Environmental Protection Agency (U.S. EPA), Region 5, has reviewed your request and has made the following determinations.

U.S. EPA approves your request that inherently unsafe or inaccessible closed vent systems or enclosures be exempted from the 30-day and annual inspection and monitoring requirements located at 40 C.F.R. § 63.453(k) and (l) under the conditions listed below. U.S. EPA does not approve any exemptions from any of the repair requirements pertaining to closed vent systems or enclosures. This is consistent with the Hazardous Organic NESHAP or HON, which also does not exempt any "unsafe" or "inaccessible" components from repair requirements. Also, we will not exempt "fixed roof covers" from inspections and monitoring as this term is not used in 40 C.F.R. § 63.453(k) or (l).

The conditions that must be met for closed vent systems and enclosure to be exempt from the 30-day and annual inspection and monitoring requirements specified in 40 C.F.R. § 63.453(k) and (l) are:

(1) You must determine 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 40 C.F.R. § 63.453(k) and (l). However, if any equipment or portions of the closed vent system or enclosures can be visually inspected from the floor level, or at a distance from areas in the plant that do not pose an imminent or potential danger, you must inspect such subject areas and equipment from the floor level, or at a distance from the areas in the plant that do not pose an imminent or potential danger. Any parts of the closed vent system or enclosure that can safely be inspected from the floor, or from the distance are not considered unsafe to inspect and therefore are not exempt from the inspection and monitoring requirements in 40 C.F.R. § 63.453(k) and (l); and

(2) You must have a written plan that includes, among other things, identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment. The plan must require inspection of the equipment as frequently as practicable during safe-to-inspect times; and

(3) You must determine that the equipment that is "inaccessible" cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface. However, if any equipment or portions of the closed vent system or enclosures can be visually inspected at a distance from the floor level, or from an area in the plant less than 2 meters above a support surface, you must inspect this equipment at a distance from the floor level or from an area less than 2 meters above a support surface, and this equipment is not considered "inaccessible" or exempt from the inspection and monitoring requirements; and

(4) You must have a written plan that includes, among other things, identification of all parts of the closed vent system that are designated as "inaccessible", an explanation of why the equipment is "inaccessible" and the plan for inspecting the equipment. The plan must require inspection of the equipment at least once every 3 years, or at least once during each permit term, whichever is more frequent.

This approval shall not preclude International Paper's requirement to comply with any other State, local, or Federal monitoring requirements for these areas. This approval does not make any specific conclusions regarding International Paper's determinations that specific areas of the closed vent system or enclosures are unsafe, inaccessible, or not able to be inspected from the floor level or other areas of the plant. U.S. EPA

reserves the right to challenge such determinations during an inspection, or on the basis of information obtained directly, or indirectly from International Paper.

U.S. EPA believes that adequate rationale has been presented for allowing a more flexible frequency of the monitoring required at 40 C.F.R. § 63.453(k). Therefore, U.S. EPA approves your request that the monitoring and inspection of each closed collection, and vent system specified at 40 C.F.R. § 63.453(k) be performed once during each calendar month with at least 21 days between each inspection.

If you have any questions regarding the above determinations or require additional information, please contact Manoj Patel, of my staff, at (312) 353-3565.

Sincerely yours,

George T. Czerniak, Chief
Air Enforcement and Compliance Assurance Branch

cc: Brian Brady
Marquette District Office
Michigan Department and Environmental Quality