

**MODULE X**  
**AIR EMISSION STANDARDS FOR CONTAINERS,**  
**AND THE HVAC**

**X.A.            RESERVED**

**X.B.            RESERVED**

**X.C.            RESERVED**

**X.D.            RESERVED**

**X.F.            RESERVED**

**X.G.            APPLICABILITY - CONTAINERS**

X.G.1.            The Permittee shall comply with the requirements of R315-8-22, air emission standards for storage of hazardous waste in containers at the facility.

X.G.2.            The Permittee is exempt from the requirements of R315-8-22 [40 CFR 264.1084 through 1087] provided the Permittee demonstrates compliance with X.G.2.a. and X.G.2.b. or demonstrates compliance with X.G.2.c.

X.G.2.a.           All hazardous wastes entering a container have an average volatile organic concentration (VOC) at the point of waste origination of less than 500 parts-per-million by weight as determined by Condition X.G.3.;

X.G.2.b.           All waste determinations specified by Condition X.G.1., have been updated at least once every 12 months following the date of the initial determination for hazardous waste streams entering container and tank units to be exempted;

X.G.2.c.           The VOC of the hazardous waste has been treated by an organic destruction or removal process that satisfies any one of the requirements and conditions of R315-8-22 [40 CFR 264.1082(c)(2)], provided the VOC of the treated wastes have been determined by Condition X.G.3. for treated wastes which are not controlled and monitored as required by R315-8-22 [40 CFR 264.1084 through 1087].

X.G.3.            If the Permittee exempts the waste pursuant to Condition X.G.2., the Permittee shall determine the VOC as follows:

X.G.3.a.           Initial or change of process waste determinations, at the point of waste origination, for average VOC(s) of hazardous waste streams and treated waste streams identified in Attachment 2 (Waste Analysis Plan) shall be performed in accordance with Attachment 2 (Waste Analysis Plan), R315-8-22 [40 CFR 264.1083, which references 40 CFR 265.1084(a)(3)], and subject to the procedures and requirements of Attachment 3 (Sampling, Analytical, and QA/QC Procedures).

X.G.3.b.           The Permittee shall update all waste determinations as necessary at least once every 12 months following the date of the initial determination for hazardous waste streams.

X.G.4.            Reserved.

- X.G.5. Reserved.
- X.G.6. Reserved.
- X.G.7. The Director of the Division of Solid and Hazardous Waste may request a waste characterization to determine compliance with R315-8-22.
- X.G.8. Reserved.
- X.G.9. Reserved.
- X.G.10. The Permittee shall control air emissions from hazardous waste in containers for the container management units identified in Table 2 as specified by R315-8-22 [40 CFR 264.1086] and as follows:
  - X.G.10.a. For containers with a design capacity greater than 26 gallons and less than 121 gallons, air emissions shall be controlled by level one control as specified by R315-8-22 [40 CFR 264.1086(c)].
  - X.G.10.b. For containers with a design capacity greater than 121 gallons, which are in light material service as defined by R315-7-30 [40CFR 265.1081], air emissions shall be controlled by level two control as specified by R315-8-22 [40 CFR 264.1086(d)].
  - X.G.10.c. For containers with a design capacity greater than 121 gallons, which are not in light material service as defined by R315-7-30 [40CFR 265.1081], air emissions shall be controlled by level one control as specified by R315-8-22 [40 CFR 264.1086(c)].
- X.G.11. Containers used for storage must be composed of suitable materials to minimize the exposure of VOCs to the atmosphere and the organic permeability of vapors. The container must form a vapor-tight seal.
- X.G.12. Reserved.
- X.G.13. The requirements of R315-8-22 and this Module do not apply to the following management units regardless of the waste determination:

**X.H. INSPECTION AND MONITORING**

- X.H.1. The Permittee shall follow the inspection plan and schedule in Attachment 5 (Inspection Plan).
- X.H.2. The Permittee shall monitor air emission controls as specified in Attachment 22 (Agent Monitoring Plan).

- X.H.3. If any container greater than 0.1m<sup>3</sup> in capacity (e.g., 55 gallon drum or ton containers) is stored for a period of one year or longer, the Permittee shall visually inspect the container and its cover and closure devices initially and thereafter at least once every 12 months. The container shall be inspected for visible cracks, holes, gaps, or other open spaces into the interior of the container. For storage in the Container Handling Building (CHB) and Unpack Area (UPA), monitoring of the interior of the overpack can be used instead of this visual inspection.
- X.H.4. With the exception of ton containers the Permittee shall make a first attempt at repair of any defect detected during the inspection described in Condition X.H.3. no later than 24 hours after detection. Repair shall be completed as soon as possible but no later than five calendar days after detection. If repair of the defect cannot be completed within five calendar days, the hazardous waste shall be removed from the container and the container shall not be used to manage hazardous waste until the defect is repaired. Any ton container with a defect shall be managed as described in Attachment 5 (Inspection Plan) and Attachment 12 (Containers).
- X.H.5. The Permittee shall inspect containers and maintain a record of the inspections and a copy of the procedure used to determine that containers with a capacity of 0.46m<sup>3</sup> or greater, which do not meet applicable DOT regulations as specified by R315-8-22 [40 CFR 264.1086(f)], are not managing hazardous waste in light material service.

**X.I. RECORDKEEPING AND REPORTING**

- X.I.1. The Permittee shall maintain records for each container or tank exempted from the standards of Condition X.G.
- X.I.2. As required by R315-8-22 [40 CFR 265.1084(b)(2)] and Attachment 2 (Waste Analysis Plan), the Permittee shall record the information from each exempted hazardous waste determination as identified in Condition X.G. (e.g., test results, measurements, calculations and other documentation) including the date, time, and location for each hazardous waste sample collected.
- X.I.3. If exempted under Condition X.G., the Permittee shall record the identification number of the hazardous waste management unit in which the waste is treated.
- X.I.4. The Permittee shall orally report to the Director of the Division of Solid and Hazardous Waste, within 24 hours, each occurrence when hazardous waste is placed in a waste management unit identified in Table 2 or Table 4 in noncompliance with the conditions specified in Condition X.G.
- X.I.5. The Permittee shall submit a written report within 15 calendar days of the time the Permittee becomes aware of the occurrence specified in Condition X.I.4. The written report shall contain the EPA identification number, the facility name and address, a description of the noncompliance event and the cause, actions taken to correct the noncompliance and prevent recurrence of the noncompliance and the report shall be signed and dated by a authorized representative of the Permittee.

- X.I.6 The Permittee shall maintain the following information for all container management units identified in Table 2 that are subject to the air emission requirements of R315-8-22 [40 CFR 264.1086]: type of container; type of air emission control; and records of Inspections/Monitoring Information with the required information specified below:
- X.I.6.a. For all container management units identified in Table 2 that are used to store containers having a design capacity greater than 121 gallons, the Permittee shall maintain the information used to determine the status of the material as either light or heavy in accordance with R315-7-30 [40 CFR 265.1081].
- X.I.6.b. For all container management units identified in Table 2 that are used to store containers for which the less than 500 ppmv exemption is used, as specified in R315-8-22 [40 CFR 264.1082(c)], the Permittee shall maintain the exemption/waste determination information in Condition X.I.6.
- X.I.7. The Permittee shall maintain the following information in the Operating Record for all tanks subject to the air emission requirements of R315-8-22 [40 CFR 264.1084], identified in Table 2:
- X.I.7.a. An identification number or other unique identification description of the tanks;
- X.I.7.b. Date of inspection; type, description, and location of defect; date of detection; and corrective action taken to repair the defect; and
- X.I.7.c. Maximum organic vapor pressure of the hazardous waste in the tank, determined in accordance with Condition X.G. Where applicable, the determination shall include the date and time samples were taken, the analytical method used, and the analytical results.

**X.J. GENERAL OPERATING CONDITIONS**

- X.J.1. TOCDF MDB HVAC
- X.J.1.a. All HVAC filter units and filter unit vestibules shall be maintained at a negative pressure. These pressures will be recorded every four hours in the Operating Record. These pressures will also be recorded each time the unit's operating status is changed. If any of these readings are found to be positive, agent-processing operations within the facility shall cease immediately. A description of the filter system is located in Attachment 5 (Inspection Plan), Paragraph 5.9.
- X.J.1.b. Seven HVAC filter units, each with a minimum of six carbon banks, shall be operational at all times when any hazardous waste brought to the MDB for treatment requires those wastes to be un-containerized to enable treatment. During power upsets, the facility shall follow contingency procedures Attachment 9 (Contingency Plan) Paragraph 9.1.1.5.1 for maintaining negative pressure.
- X.J.1.b.1 A minimum of three HVAC filter units, each with a minimum of three carbon banks, shall be operational at all times when all the hazardous wastes brought to the MDB are managed in closed containers until the wastes are transferred into the MPF.

- X.J.1.b.2 Upon completion of treating waste brought into the MDB a minimum of three HVAC filter units, each with a minimum of three carbon banks shall be in operation at all times until MDB Unventilated Monitoring Testing \*UMT) is complete.
- X.J.1.b.3 If secondary wastes that must be un-containerized for treatment are to be transferred to the MDB after the number of carbon banks in each MDB filter unit is reduced to three, the Permittee shall receive approval from the Director of the Division of Solid and Hazardous Waste prior to transferring the waste to the MDB.
- X.J.1.b.4 The Permittee may discontinue operation of the MDB HVAC filters upon completion of the MDB UMT.
- X.J.1.b.5 The Permittee shall provide written notification to the Director of the Division of Solid and Hazardous Waste when MDB UMT is completed.
- X.J.1.c. The Permittee shall comply with Attachment 5 (Inspection Plan) for the inspection of the HVAC filter units. For the purpose of compliance with these conditions, each filter unit is defined as beginning at the inlet flange of the filter unit inlet isolation damper and ending at the outlet flange of the filter unit outlet damper.
- X.J.2 Area 10 Igloos 1631 and 1632
- X.J.2.a The Permittee may perform permitted hazardous waste management activities in Igloos 1631 and 1632 when Filter-101 (primary filter) is online.
- X.J.2.b The Permittee shall suspend operations of the Autoclave, DVS and DVSSR and seal or remove all waste drums from Igloos 1631 and 1632 during times when Filter-101 is offline and Filter-102 is online.
- X.J.3 **ATLIC HVAC**
- X.J.3.a All ATLIC HVAC filter units and filter unit vestibules shall be maintained at a negative pressure when online. These pressures will be recorded every four hours in the Operating Record. These pressures will also be recorded each time the unit's operating status is changed. If any of these reading are found to be positive, agent-processing operations within the facility shall cease immediately. A description of the filter system is located in Attachment 5 (Inspection Plan), paragraph 5.9.2.
- X.J.3.b. Two HVAC filter units shall be operational at all times when any hazardous waste is being managed in Igloo 1639 and the associated Environmental Enclosure. During power upsets, the facility shall follow contingency procedures in Attachment 9 (Contingency Plan), paragraph 9.1.1.5.3 for maintaining negative pressure.
- X.J.3.c The Permittee shall comply with Attachment 5 (Inspection Plan) for the inspection of the HVAC filter units. For the purpose of compliance with these conditions, each filter unit is defined as beginning at the inlet flange of the filter unit inlet isolation damper and ending at the outlet flange of the filter unit outlet damper.
- X.K. **REPLACEMENT OF CARBON FILTER BANKS**

- X.K.1. For MDB HVAC filter units configured with six carbon beds, the Permittee shall notify the Director of the Division of Solid and Hazardous Waste within seven days after a confirmed breakthrough of chemical agent at 3 Vapor Screening Level (VSL) for GB, VX, and for HD in carbon bank number two of any one of the nine MDB HVAC carbon filter units. Within 30 days from the time of the confirmed breakthrough, the Permittee shall begin operations to replace carbon banks one and two in that unit. If any confirmed agent breakthrough is detected in any other carbon filter midbed (other than midbed #1 or 2), the Director of the Division of Solid and Hazardous Waste shall be notified within 24 hours. The Permittee shall begin operations to replace the carbon banks associated with the confirmed readings within 30 days of the confirmed breakthrough.
- X.K.2. The Permittee may discontinue midbed agent monitoring for MDB HVAC filter units configured with three carbon beds.
- X.K.3. The Permittee shall perform leak test challenges on affected MDB HVAC carbon filter banks if one or more trays in a bank are replaced, or if maintenance to a bank is performed that could affect the filter banks integrity or leak-tightness.
- X.K.4. At the TOCDF MDB HVAC carbon filter units, leak test challenges are not required for the first carbon bank and any carbon bank that has been exposed to confirmed agent breakthrough. The challenge data shall be made available to the Director of the Division of Solid and Hazardous Waste upon request.
- X.K.5. The Carbon Adsorption Filtration system (primary or back-up) for Igloos 1631 and 1632 shall have the first carbon filter bed replaced when any agent is detected between the first and second midbeds at a concentration greater than or equal to 1.0 VSL. Within 15 days from the time the midbed agent concentration reaches 1.0 VSL, the Permittee shall begin operations to replace the carbon in the affected unit.
- X.K.6. If agent is detected beyond the second carbon bed at the exhaust stack of the Igloos Carbon Adsorption Filtration system, then hazardous waste treatment and primary containment operations shall be immediately stopped and the exhaust flow path shall be switched to the back-up filter. All carbon within the filter train that experienced breakthrough shall be replaced with new carbon prior to being placed back into service in accordance with 40 CFR 264.1086(e)(2)(ii) via §264.1087(c)(3)(i) via §264.1033(h)(1).
- X.K.7. The Carbon Adsorption Filtration system for ATLIC shall have the first carbon filter bed replaced when any agent is confirmed between the second and third midbeds at a concentration greater than or equal to 0.4 VSL for Lewisite or 0.5 VSL for GA. Within 15 days from the time the midbed agent concentration reaches 0.4 VSL for Lewisite or 0.5 VSL for GA, the Permittee shall begin operations to replace the carbon in the affected unit.

X.L. **MONITORING REQUIREMENTS**

- X.L.1. If a TOCDF MDB HVAC filter stack ACAMS alarm is confirmed, the Permittee shall notify the Director of the Division of Solid and Hazardous Waste within 24 hours pursuant to Condition I.U. of a release from the HVAC filter stack.

- X.L.1.a. The Director of the Division of Solid and Hazardous Waste shall be notified within 24 hours of a confirmed ATLIC HVAC filter stack emission equal to or greater than 0.4 VSL for Lewisite or 0.5 VSL GA . The Director of the Division of Solid and Hazardous Waste shall be notified within 24 hours pursuant to Condition I.U. of a release from the ATLIC HVAC filter stack at concentration equal to or greater than 1.0 VSL for GA and Lewisite.
- X.L.2. A Depot Area Air Monitoring System (DAAMS) tube sampling the HVAC stack shall be pulled at least every twelve hours and analyzed. A corresponding Quality Plant (QP) sample shall be pulled at least daily and analyzed. The QP sample shall correspond to one of the twelve-hour samples.
- X.L.3. When HVAC filter units are configured with six banks of carbon the DAAMS tubes monitoring the most downstream midbed location shall be analyzed immediately if an HVAC stack ACAMS alarms is confirmed. The DAAMS tubes shall be pulled and analyzed in accordance with Attachment 3 (Sampling, Analytical, and QA/QC Procedures).
- X.L.4. The HVAC filter unit vestibules shall be monitored in accordance with Attachment 22 (Agent Monitoring Plan) for the presence of chemical agent when the associated filter unit is placed in a standby condition when the filter unit is configured with six banks of carbon.
- X.L.5. When the HVAC stack ACAMS is off line for more than 10 minutes, the DAAMS tube sampling the HVAC stack shall be pulled and analyzed as soon as the ACAMS is back on line.
- X.L.6. Reserved
- X.L.7. Igloo 1631 (Autoclave) and Igloo 1632 (DVS/DVSSR) carbon filtration system shall continuously monitor for agent breakthrough.
- X.L.7.1. The Permittee shall continuously sample the exhaust air from the carbon filter train between the first and second carbon bed using DAAMS tubes. The DAAMS tubes will be analyzed for each potential agent that has exhausted into the carbon filtration system, and
- X.L.7.2. The Permittee shall sample the exhaust air from the carbon filtration system exhaust stack using ACAMS with confirmation DAAMS. All instances of breakthrough beyond the first carbon filter midbed shall be reported to the Director of the Division of Solid and Hazardous Waste within 24 hours.
- X.L.8. Reserved
- X.L.8.1. The Permittee shall monitor the exhaust air form the ATLIC Filter System Stack for agent specified in Attachment 22 (Agent Monitoring Plan).