

LARGE QUANTITY GENERATOR INSPECTION: CC AIR EMISSION STANDARDS

| Section U: Air Emission Standards CC | |
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| B. CC: Waste determination procedures | |
| U.006: The generator made the initial determination before any hazardous waste first entered the unit. | 665.1084(1)(a)1. |
| U.007: The generator made the initial determination of the average VO concentration using either direct measurement as specified in s. NR 665.1084(1)(c) or by knowledge as specified in s. NR 665.1084(1)(d). | 665.1084(1)(b) |
| U.008: The generator reviewed and updated, as necessary, this determination at least once every 12 months following the date of the initial determination (see item U.003) for the hazardous waste(s) entering the unit. | 665.1083(3)(a) |
| U.009: The generator performed a new waste determination whenever changes to the source generating the waste stream are reasonably likely to cause the average VO concentration of the hazardous waste to increase to a level that is equal to or greater than the VO concentration limit of less than 500 parts per million by weight (ppmw). | 665.1084(1)(a)2. |
| U.010: Generators uses direct measurement. If NO go to U.020. | NA1 |
| U.011: A generator using direct measurement identified and recorded the point of generation for the hazardous waste. | 665.1084(1)(c)1. |
| U.012: A generator using direct measurement collected samples of the hazardous waste at the point of generation in a manner that minimizes volatilization of organics contained in the waste sampled. | 665.1084(1)(c)2. |
| U.013: A generator using direct measurement collected for analysis a representative sample of the hazardous waste at its point of generation. | 665.1084(1)(c)2. |
| U.014: A generator using direct measurement designated and recorded the averaging period to be used for determining the average VO concentration for the hazardous waste on a mass-weighted average basis. The averaging period can represent any time interval that the generator determines is appropriate for the hazardous waste but may not exceed one year. | 665.1084(1)(c)2.a. |
| U.015: A generator using direct measurement collected within a one-hour period and analyzed a sufficient number of samples, but no less than 4, for a hazardous waste determination. The average of the 4 or more sample results constitutes a waste determination for the waste stream. One or more waste determinations may be required to represent the complete range of waste compositions and quantities that occur during the entire averaging period due to normal variations (e.g., seasonal variations in waste quantity or fluctuations in ambient temperature) in the operating conditions for the source or process generating the hazardous waste. | 665.1084(1)(c)2.b. |
| U.016: A generator using direct measurement collected and handled all samples according to written procedures that are documented in the sampling plan that is maintained on-site. The site sampling plan describes the procedure for collecting representative samples of the hazardous waste which minimizes loss of organics throughout the sample collection and handling process and maintains sample integrity. An example of acceptable sample collection and handling procedures for a total volatile organic constituent concentration may be found in Method 25D in Appendix A of 40 CFR part 60, incorporated by reference in s. NR 660.11. | 665.1084(1)(c)2.c. |
| U.017: A generator using direct measurement prepared and recorded sufficient information, as specified in the site sampling plan required under s. NR 665.1084(1)(c)2.c. (see item U.015), to document the waste quantity represented by the samples and, as applicable, the operating conditions for the source or process generating the hazardous waste represented by the samples. | 665.1084(1)(c)2.d. |



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| U.018: A generator using direct measurement prepared and analyzed each collected sample according to Method 25D in Appendix A of 40 CFR part 60 for the total concentration of volatile organic constituents, or using one or more methods when the individual organic compound concentrations are identified and summed and the summed waste concentration accounts for and reflects all organic compounds in the waste with Henry's law constant values of at least 0.1 mole-fraction- in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X) [which can also be expressed as 1.8 x 10-6 atmospheres/gram-mole/m3] at 25°C. Other test methods may be used if they meet the one of the following: 1. Any EPA standard method that has been validated according to "Alternative Validation Procedure for EPA Waste and Wastewater Methods," Appendix D of 40 CFR part 63 (s. NR 665.1084(1)(c)3.a.). 2. Any other analysis method that has been validated according to the procedures specified in Section 5.1 or Section 5.3, and the corresponding calculations in Section 6.1 or Section 6.3, of Method 301 in Appendix A of 40 CFR part 63, incorporated by reference in s. NR 660.11. The data are acceptable if they meet the criteria specified in Section 6.1.5 or Section 6.3.3 of Method 301. If correction is required under section 6.3.3 of Method 301, the data are acceptable if the correction factor is within the range 0.7 to 1.30. Other sections of Method 301 are not required (s. NR 665.1084(1)(c)3.b.). | 665.1084(1)(c)3. |
| U.019: A generator using direct measurement used the equation in s. NR 665.1084(1)(c)4. | 665.1084(1)(c)4. |
| | |
| U.020: A generator's knowledge based determination is supported by written documentation showing what is the average VO concentration in the hazardous waste. Examples of information that may be used as the basis for knowledge include the following: 1. Material balances for the source or process generating the hazardous waste. 2. Constituent-specific chemical test data for the hazardous waste from previous testing that are still applicable to the current waste stream. 3. Previous test data for other locations managing the same type of waste stream or other knowledge based on information included in manifests, shipping papers or waste certification | 665.1084(1)(d)1. |
| notices. U.021: If a generator's knowledge based determination is based on test data, then the test data includes the test method, the sampling protocol, and the means by which sampling variability and analytical variability are accounted for in the determination of the average VO concentration. For example, an owner or operator may use organic concentration test data for the hazardous waste stream that are validated according to Method 301 in appendix A of 40 CFR part 63, incorporated by reference in s. NR 660.11, as the basis for knowledge of the waste. If chemical constituent-specific concentration test data is used, the test data may be adjusted to the corresponding average VO concentration value which would have been obtained had the waste samples been analyzed using Method 25D in appendix A of 40 CFR part 60, incorporated by reference in s. NR 660.11. To adjust these data, multiply the measured | 665.1084(1)(d)2. |
| concentration for each individual chemical constituent contained in the waste by the appropriate constituent-specific adjustment factor (fm25D). U.022: For generators claiming that a unit is exempt from the subchapter CC standards in ss. NR 665.1085 to 665.1088, because prior to the hazardous waste stream entering the unit is was treated by one of the following methods: | NA1 |
| 1. Organic exit concentration (Ct) per s. NR 665.1083(3)(b)1. 2. Organic reduction efficiency (R) per s. NR 665.1083(3)(b)2. 2. Organic mass removal (MR) per s. NR 665.1083(3)(b)3. 3. Biological process (Rbio or (MRbio) per s. NR 665.1083(3)(b)4. 4. Miscellaneous treatment per s. NR 665.1083(3)(b)5. 5. Organic reduction efficiency (R) per s. NR 665.1083(3)(b)6. If not applicable go to U.065. | |

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| B. CC: Waste determination procedures | |
| U.023: The generator made the initial determination before any hazardous waste first entered the unit. | 665.1084(2)(a)1. |
| U.024: The generator made the initial determination of the average VO concentration using the procedures in s. NR 665.1084(1). | 665.1084(2)(a)1. |
| U.025: The generator reviewed and updated, as necessary, this determination at least once every 12 months following the date of the initial determination (see item U.003) for the hazardous waste streams entering the unit. | 665.1084(2)(a)1. |
| U.026: The generator performed a new waste determination whenever changes to the source generating the waste stream are reasonably likely to cause the average VO concentration of the hazardous waste to a level such that the applicable treatment conditions specified in s. NR 665.1083(3)(b), (c) or (d) are not achieved. | 665.1084(2)(a)2. |
| U.027: The generator, for the purpose of determining the performance of an organic destruction or removal process, accounted for VO concentrations determined to be below the limit of detection of the analytical method using the following VO concentration: 1. If Method 25D in appendix A of 40 CFR part 60, incorporated by reference in s. NR 660.11, is used for the analysis, one-half the blank value determined in the method at section 4.4, or a value of 25 ppmw, whichever is less. 2. If any other analytical method is used, one-half the sum of the limits of detection established for each organic constituent in the waste that has a Henry's law constant value at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X) [which can also be expressed as 1.8 x 10-6 atmospheres/gram-mole/m3] at 25 °C. | 665.1083(3)(9)a. |
| U.028: Procedure to determine the average VO concentration of a hazardous waste at the point of waste treatment. If not applicable go to U.038. | NA1 |
| U.029: The generator identified and recorded the point of generation for the hazardous waste. | 665.1084(2)(c)1. |
| U.030: The generator collected samples of the hazardous waste at the point of generation in a manner that minimizes volatilization of organics contained in the waste sampled. | 665.1084(2)(c)2. |
| U.031: The generator collected for analysis a representative sample of the hazardous waste at its point of generation. | 665.1084(2)(c)2. |
| U.032: The generator designated and recorded the averaging period to be used for determining the average VO concentration for the hazardous waste on a mass-weighted average basis. The averaging period can represent any time interval that the generator determines is appropriate for the hazardous waste but may not exceed one year. | 665.1084(2)(c)2.a. |
| U.033: The generator collected within a one-hour period and analyzed a sufficient number of samples, but no less than 4, for a hazardous waste determination. The average of the 4 or more sample results constitutes a waste determination for the waste stream. One or more waste determinations may be required to represent the complete range of waste compositions and quantities that occur during the entire averaging period due to normal variations (e.g., seasonal variations in waste quantity or fluctuations in ambient temperature) in the operating conditions for the source or process generating the hazardous waste. | 665.1084(2)(c)2.b. |



WASTE & MATERIALS

Section U: Air Emission Standards CC B. CC: Waste determination procedures U.034: The generator collected and handled all samples according to written procedures that 665.1084(2)(c)2.c. are documented in the sampling plan that is maintained on-site. The site sampling plan describes the procedure for collecting representative samples of the hazardous waste which minimizes loss of organics throughout the sample collection and handling process and maintains sample integrity. An example of acceptable sample collection and handling procedures for a total volatile organic constituent concentration may be found in Method 25D in Appendix A of 40 CFR part 60, incorporated by reference in s. NR 660.11. U.035: The generator prepared and recorded sufficient information, as specified in the site 665.1084(2)(c)2.d. sampling plan required under s. NR 665.1084(1)(c)2.c. (see item U.015), to document the waste quantity represented by the samples and, as applicable, the operating conditions for the source or process generating the hazardous waste represented by the samples. U.036: The generator prepared and analyzed each collected sample according to Method 25D 665.1084(2)(c)3. in Appendix A of 40 CFR part 60 for the total concentration of volatile organic constituents, or using one or more methods when the individual organic compound concentrations are identified and summed and the summed waste concentration accounts for and reflects all organic compounds in the waste with Henry's law constant values of at least 0.1 mole-fractionin-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X) [which can also be expressed as 1.8 x 10-6 atmospheres/gram-mole/m3] at 25°C. Other test methods may be used if they meet the one of the following: 1. Any EPA standard method that has been validated according to "Alternative Validation Procedure for EPA Waste and Wastewater Methods," Appendix D of 40 CFR part 63 (s. NR 665.1084(2)(c)3.a). 2. Any other analysis method that has been validated according to the procedures specified in Section 5.1 or Section 5.3, and the corresponding calculations in Section 6.1 or Section 6.3, of Method 301 in Appendix A of 40 CFR part 63, incorporated by reference in s. NR 660.11. The data are acceptable if they meet the criteria specified in Section 6.1.5 or Section 6.3.3 of Method 301. If correction is required under section 6.3.3 of Method 301, the data are acceptable if the correction factor is within the range 0.7 to 1.30. Other sections of Method 301 are not required (s. 665.1084(2)(c)3.b.). U.037: The generator used the equation in s. NR 665.1084(2)(c)4. 665.1084(2)(c)4. U.038: Procedure to determine the exit concentration limit (Ct) for a treated hazardous waste. NA1 If not applicable go to U.042. U.039: The generator identified and recorded the point of generation for the hazardous waste. 665.1084(2)(d)1. U.040: The generator used an exit concentration limit (Ct) of 500 ppmw if a single hazardous 665.1084(2)(d)2. waste stream is identified for item U.038. U.041: The generator used the formula in s. NR 665.1084(d)(3) when there is more than one 665.1084(2)(d)3. hazardous waste stream is identified for item U.039. U.042: Procedure to determine the organic reduction efficiency (R) for a treated hazardous NA1 waste. If not applicable go to U.049. U.043: The generator determined the organic reduction efficiency (R) for a treatment process 665.1084(2)(e)1. based on the results of at least 3 consecutive runs.



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| U.044: The generator identify all hazardous waste streams entering the treatment process and all hazardous waste streams exiting the treatment process. | 665.1084(2)(e)2. |
| U.045: The generator prepared a sampling plan for measuring these streams that accurately reflects the retention time of the hazardous waste in the process. | 665.1084(2)(e)2. |
| U.046: For each run, the generator determined the information for each hazardous waste stream identified in U.044 using all of the following procedures: 1. Determine the mass quantity of each hazardous waste stream entering the process (Qb) and the mass quantity of each hazardous waste stream exiting the process (Qa). 2. Determine the average VO concentration at the point of waste origination of each hazardous waste stream entering the process (C b) during the run according to s. NR 665.1084(1)(c). Determine the average VO concentration at the point of waste treatment of each waste stream exiting the process (C a) during the run according to s. NR 665.1084(2)(c). | 665.1084(2)(e)3. |
| U.047: The generator calculated the waste volatile organic mass flow entering the process (Eb) and the waste volatile organic mass flow exiting the process (Ea) using the results determined according to s. NR 665.1084(2)(e)3. (item U.045) and the equations in s. NR 665.1084(2)(e)4. | 665.1084(2)(e)4. |
| U.048: The generator calculated the organic reduction efficiency of the process using the results determined according to s. NR 665.1084(2)(e)4. (item U.046) and the equation in s. NR 665.1084(2)(e)5. | 665.1084(2)(e)5. |
| U.049: Procedure to determine the required organic mass removal rate (RMR) for a treated hazardous waste. If not applicable go to U.054. | NA1 |
| U.050: The generator identified all of the hazardous waste streams entering the treatment process. | 665.1084(2)(f)1. |
| U.051: The generator determined the average VO concentration of each hazardous waste stream at the point of waste origination according to s. NR 665.1084(1). | 665.1084(2)(f)2. |
| U.052: For each individual hazardous waste stream that has an average VO concentration equal to or greater than 500 ppmw at the point of waste origination, the generator determined the average volumetric flow rate and the density of the hazardous waste stream at the point of waste origination. | 665.1084(2)(f)3. |
| U.053: The generator calculate the RMR using the average VO concentration, average volumetric flow rate and density determined for each individual hazardous waste stream, and the equation is s. NR 665.1084(2)(f)4. | 665.1084(2)(f)4. |
| U.054: Procedure to determine the actual organic mass removal rate (MR) for a treated hazardous waste. If not applicable go to U.059. | NA1 |
| U.055: The generator determined the MR based on results for a minimum of 3 consecutive runs. | 665.1084(2)(h)1. |
| U.056: The sampling time for each run in item U.055 is one hour. | 665.1084(2)(h)1. |
| U.057: The generator determined the waste volatile organic mass flow entering the process (Eb) and the waste volatile organic mass flow exiting the process (Ea) according to s. NR 665.1084(2)(e)4. | 665.1084(2)(h)2. |





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| U.058: The generator calculate the MR using the mass flow rate determined according to 665.1084(2)(h)2. (item U.056) and the equation is s. NR 665.1084(2)(h)3. | 665.1084(2)(h)3. |
| U.059: Procedure to determine the actual organic mass biodegradation rate (MRbio) for a treated hazardous waste. If not applicable go to U.065. | NA1 |
| U.060: The generator determined the MRbio based on results for a minimum of 3 consecutive runs. | 665.1084(2)(i)1. |
| U.061: The sampling time for each run in item U.059 is one hour. | 665.1084(2)(i)1. |
| U.062: The generator determine the waste organic mass flow entering the process (Eb) according to s. NR 665.1084(2)(e)4. | 665.1084(2)(i)2. |
| U.063: The generator determine the fraction of organic biodegraded (Fbio) using the procedure in appendix C of 40 CFR part 63. | 665.1084(2)(i)3. |
| U.064: The generator calculate the MRbio using the mass flow rates and fraction of organic biodegraded determined according to s. NR 665.1084(2)(i)2. and 3. (items U.062 and U.063), respectively, and the equation in s. NR 665.1084(2)(i)4. | 665.1084(2)(i)4. |
| U.065: For generators claiming that a unit is exempt from the subchapter CC standards in ss. NR 665.1085 to 665.1088, because the hazardous waste stream is being incinerated. If not applicable go to U.068. | NA1 |
| U.066: The generator has been issued an operating license under ch. NR 670 which implements subch. O of ch. NR 664. | 665.1083(3)(b)7.a. |
| U.067: The generator has designed and operates the incinerator according to the interim license requirements of subch. O. | 665.1083(3)(b)7.b. |
| U.068: For generators claiming that a unit is exempt from the subchapter CC standards in ss. NR 665.1085 to 665.1088, because the hazardous waste stream is being burned in a boiler or industrial furnace. If not applicable go to U.071. | NA1 |
| U.069: The generator has been issued an operating license under ch. NR 670 which implements subch. O of ch. NR 666. | 665.1083(3)(b)8.a. |
| U.070: The generator has designed and operates the boiler or industrial furnace according to the interim license requirements of subch. H of ch. NR 666. | 665.1083(3)(b)8.b. |
| U.071: For generators claiming that a unit is exempt from the subchapter CC standards in ss. NR 665.1085 to 665.1088, because a tank is used to bulk feed hazardous waste to a waste incinerator. If not applicable go to U.076. | NA1 |
| U.072 For a facility at which the total annual benzene quantity from the facility waste is equal to or greater than 10 megagrams per year. The tank is located inside an enclosure vented to a control device that is designed and operated according to all applicable requirements in 40 | 665.1083(3)(e)1. |
| CFR part 61, subpart FF-National Emission Standards for Benzene Waste Operations. U.073: The enclosure and control device serving the tank were installed and began operation prior to June 1, 1998. | 665.1083(3)(e)2. |

Key: C or EV: Evaluated - no noncompliance detected at the time of inspection

CA: Compliance with Concern R: Returned to Compliance

N: No UN: Unknown NA: Inspected, Not Applicable NE: Evaluation Determination will be Made at a Later Date NI: Not Inspected No 'box' is an open ended question

ND: Inspected, Not Determined



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| U.074: The enclosure is designed and operated according to the criteria for a permanent total enclosure in Method 204-"Criteria for and Verification of a Permanent or Temporary Total Enclosure" of appendix M of 40 CFR part 51. The enclosure may have permanent or temporary openings to allow worker access, passage of material into or out of the enclosure by conveyor, vehicles or other mechanical or electrical equipment or to direct air flow into the enclosure. | 665.1083(3)(e)3. |
| U.075: The verification procedure for the enclosure in Section 8 of Method 204 is performed annually. | 665.1083(3)(e)3. |
| U.076: For generators claiming that a unit is exempt from the subchapter CC standards in ss. NR 665.1085 to 665.1088, because the hazardous waste stream meets one of the following: 1. The waste meets the numerical concentration limits for organic hazardous constituents, applicable to the hazardous waste, as specified in ch. NR 668-Hazardous Waste Land Disposal Restrictions under Table "Treatment Standards for Hazardous Waste" in s. NR 668.40. | 665.1083(3)(d) |
| 2. The organic hazardous constituents in the waste have been treated by the treatment technology established by the department for the waste in s. NR 668.42 (1), or have been removed or destroyed by an equivalent method of treatment approved by EPA pursuant to 40 CFR 268.42(b). | |
| U.077: Procedure to determine the maximum organic vapor pressure of a hazardous waste in a tank. If no tank go to U.086. | NA1 |
| U.079: An generator determined the maximum organic vapor pressure for each hazardous waste placed in a tank using Tank Level 1 controls according to the standards in s. NR 665.1085(3). | 665.1084(3)(a) |
| U.080: The generator used either direct measurement as specified in s. NR 665.1084(3)(c) or knowledge of the waste as specified in s. NR 665.1084(3)(d) to determine the maximum organic vapor pressure which is representative of the hazardous waste composition stored or treated in the tank. | 665.1084(3)(b) |
| U.081: A generator using direct measurement collected a sufficient number of samples to be representative of the waste contained in the tank. | 665.1084(3)(c)1. |
| U.082: A generator using direct measurement collected and handled all samples according to written procedures prepared by the owner or operator and documented in a site sampling plan. The plan described the procedure for collecting representative samples of the hazardous waste which minimizes loss of organics throughout the sample collection and handling procedures may be found in Method 25D in Appendix A of 40 CFR part 60 | 665.1084(3)(c)1. |
| U.083: A generator using direct measurement maintains a copy of the written sampling plan on-site in the facility operating records. | 665.1084(3)(c)1. |
| U.084: A generator using direct measurement used one of the following analytical methods to compute the maximum organic vapor pressure of the hazardous waste. 1. Method 25E in appendix A of 40 CFR part 60. 2. Methods described in American Petroleum Institute Publication 2517, Third Edition, February 1989, "Evaporative Loss from External Floating-Roof Tanks". 3. Methods obtained from standard reference texts. 4. ASTM Method D2879-92. | 665.1084(3)(c)2. |
| 5. A method approved by the department. | |



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| U.095: The generator checked each potential leak interface by traversing the instrument probe around the potential leak interface as close to the interface as possible, as described in Method 21 in appendix A of 40 CFR part 60. | 665.1084(4)(g) |
| 1. In the case when the configuration of the cover or closure device prevents a complete traverse of the interface the generator sampled all accessible portions of the interface. 2. In the case when the configuration of the closure device prevents any sampling at the interface and the device is equipped with an enclosed extension or horn (e.g., some pressure relief devices) the generator placed the instrument probe inlet at approximately the center of the exhaust area to the atmosphere. | |
| U.096: The generator compared the arithmetic difference between the maximum organic concentration indicated by the instrument and the background level with the value of 500 | 665.1084(4)(h) |
| ppmv. If the difference is less than 500 ppmv, then the potential leak interface is determined to operate with no detectable organic emissions. Note that when monitoring a seal around a rotating shaft that passes through a cover opening the comparison is specified in s. NR 665.1084(4)(i) (see item U.086). | |
| U.097: For the seals around a rotating shaft that passes through a cover opening, the generator compared the arithmetic difference between the maximum organic concentration indicated by the instrument and the background level with the value of 10,000 ppmw. If the | 665.1084(4)(i) |
| difference is less than 10,000 ppmw, then the potential leak interface is determined to operate with no detectable organic emissions. | |
| C. CC: Level 1 Tank | |
| U.098: Tanks. If no tanks go to U.173 | NA1 |
| U.099: Level 1 Tanks. If no applicable go to U.113. A level 1 tank is one of the following (s. NR 665.1085(2)(a)): 1. The hazardous waste in the tank has a maximum organic vapor pressure which is less than | NA1 |
| the maximum organic vapor pressure limit for the tank's design capacity category as follows: a. For a tank design capacity equal to or greater than 40,000 gallons (151 m3), the maximum organic vapor pressure limit for the tank is .75 psi (5.2 kPa). | |
| b. For a tank design capacity equal to or greater than 20,000 gallons (75 m3) but less than 40,000 gallons (151 m3), the maximum organic vapor pressure limit for the tank is 4.00 psi (27.6 kPa). | |
| c. For a tank design capacity less than 20,000 gallons (75 m3), the maximum organic vapor pressure limit for the tank is 11.1 psi(76.6 kPa). 2. The hazardous waste in the tank is not heated to a temperature that is greater than the | |
| temperature at which the maximum organic vapor pressure of the hazardous waste is determined for | |
| the purpose of complying with item 1 above. 3. The hazardous waste in the tank is not treated using a waste stabilization process. | |
| U.100: The generator determined the maximum organic vapor pressure for a hazardous waste to be managed in the tank. | 665.1085(3)(a) |
| U.101: The generator determined the maximum organic vapor pressure for a hazardous waste using the procedures in 665.1084(3) (see items U.087 to U.085). | 665.1085(3)(a) |
| U.102: The generator determined the maximum organic vapor pressure before the hazardous waste was placed in the tank for the first time. | 665.1085(3)(a) |
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| C. CC: Level 1 Tank | |
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| U.103: The generator performed a new determination whenever changes to the hazardous waste managed in the tank could potentially cause the maximum organic vapor pressure to increase to a level that is equal to or greater than the maximum organic vapor pressure limit for the tank design capacity category as specified is s. NR 665.1085(2)(a) (see item U.099), as applicable to the tank. | 665.1085(3)(a) |
| U.104: The tank's fixed roof and its closure devices is designed to form a continuous barrier over the entire surface area of the hazardous waste in the tank. The fixed roof may be a separate cover installed on the tank (e.g., a removable cover mounted on an open-top tank) or may be an integral part of the tank structural design (e.g., a horizontal cylindrical tank equipped with a hatch). | 665.1085(3)(b)1. |
| U.105: The fixed roof is installed in a manner such that there are no visible cracks, holes, gaps or other open spaces between roof section joints or between the interface of the roof edge and the tank wall. | 665.1085(3)(b)2. |
| U.106: Each opening in the fixed roof, and any manifold system associated with the fixed roof, is one of the following: 1. Equipped with a closure device designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps or other open spaces in the closure device or between the perimeter of the opening and the closure device. 2. Connected by a closed-vent system that is vented to a control device. The control device removed or destroys organics in the vent stream, and is operating whenever hazardous waste is managed in the tank, except as follows: a. During periods when it is necessary to provide access to the tank for performing the activities below (item 2.b), venting of the vapor headspace underneath the fixed roof to the control device is not required, opening of closure devices is allowed and removal of the fixed roof is allowed. After completing the activity, the closure device is promptly secure in the closed position or reinstall the cover, as applicable, and resume operation of the control device. b. During periods of routine inspection, maintenance, or other activities needed for normal operations, and for the removal of accumulated sludge or other residues from the bottom of the tank. | 665.1085(3)(b)3. |
| U.107: The fixed roof and its closure devices is made of suitable materials that minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and maintains the integrity of the fixed roof and closure devices throughout their intended service life. Factors to consider when selecting the materials for and designing the fixed roof and closure devices include organic vapor permeability, the effects of any contact with the hazardous waste or its vapors managed in the tank, the effects of outdoor exposure to wind, moisture and sunlight | 665.1085(3)(b)4. |

and the operating practices used for the tank on which the fixed roof is installed.

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WASTE & MATERIALS

LARGE QUANTITY GENERATOR INSPECTION: CC AIR EMISSION STANDARDS

Section U: Air Emission Standards CC C. CC: Level 1 Tank U.108; Whenever that is hazardous waste is in the tank the fixed roof is in place and the 665.1085(3)(c) closure device is secured in the closed position except as follows: 1. Opening of the closure devices or removal of the fixed roof is allowed at the following times: a. To provide access to the tank for performing routine inspection, maintenance or other activities needed for normal operations. Examples of those activities include those times when a worker needs to open a port to sample the liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. After completing the activity, promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank. b. To remove accumulated sludge or other residues from the bottom of the tank. 2. Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the tank internal pressure according to the tank design specifications. The device is designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens is established such that the device remains in the closed position whenever the tank internal pressure is within the internal pressure operating range determined by the owner or operator based on the tank manufacturer recommendations, applicable rules, fire protection and prevention codes, standard engineering codes and practices or other requirements for the safe handling of flammable, ignitable, explosive, reactive or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the tank internal pressure exceeds the internal pressure operating range for the tank as a result of loading operations or diurnal ambient temperature fluctuations. 3. Opening of a safety device is allowed at any time conditions require doing so to avoid an unsafe condition. "Safety device" means a closure device such as a pressure relief valve, frangible disc, fusible plug or any other type of device which functions exclusively to prevent physical damage or permanent deformation to a unit or its air emission control equipment by venting gases or vapors directly to the atmosphere during unsafe conditions resulting from an unplanned, accidental or emergency event. For the purpose of this subchapter, a safety device is not used for routine venting of gases or vapors from the vapor headspace underneath a cover such as during filling of the unit or to adjust the pressure in this vapor headspace in response to normal daily diurnal ambient temperature fluctuations. A safety device is designed to remain in a closed position during normal operations and open only when the internal pressure, or another relevant parameter, exceeds the device threshold setting applicable to the air emission control equipment as determined by the owner or operator based on manufacturer recommendations, applicable rules, fire protection and prevention codes, standard engineering codes and practices or other requirements for the safe handling of flammable, ignitable, explosive, reactive or hazardous materials. U.109: The generator visually inspects the fixed roof and its closure devices to check for 665.1085(3)(d)1. defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes or gaps in the roof sections or between the roof and the tank wall, broken, cracked or otherwise damaged seals or gaskets on closure devices and broken or missing hatches, access covers, caps or other closure devices. U.110: The generator performs an initial inspection of the fixed roof and its closure devices on 665.1085(3)(d)2.

C or EV: Evaluated - no noncompliance detected at the time of inspection

or before the date that the tank becomes subject to subchapter CC.

*: Dept. approved alternate may apply

N: No UN: Unknown NA: Inspected, Not Applicable NE: Evaluation Determination will be Made at a Later Date NI: Not Inspected No 'box' is an open ended question

ND: Inspected, Not Determined



| IANAGEMENT PROGRAM | |
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| Section U: Air Emission Standards CC | |
| C. CC: Level 1 Tank | |
| U.111: The generator performs the inspections at least once every year except as follows. 1. In the case when inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions, the generator may designate a cover as an "unsafe to inspect and monitor cover" when the following are complied with: a. The generator prepared a written explanation for the cover stating the reasons why the cover is unsafe to visually inspect or to monitor, if required. b. The generator developed and implemented a written plan and schedule to inspect and monitor the cover, using the procedures specified in the applicable section of subchapter CC, as frequently as practicable during those times when a worker can safely access the cover. 2. In the case when a tank is buried partially or entirely underground, inspect and monitor, as required by the applicable provisions of this requirement, only those portions of the tank cover and those connections to the tank (e.g., fill ports, access hatches, gauge wells, etc.) that are located on or above the ground surface. | 665.1085(3)(d)2. |
| U.112: In the event that a defect is detected, the generator repaired the defect as follows:1. Make first efforts at repair of the defect no later than 5 calendar days after detection, and complete the repair as soon as possible but no later than 45 calendar days after detection | 665.1085(3)(d)3. |
| except as provided in item 2 below. 2. Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the tank and no alternative tank capacity is available at the site to accept the hazardous waste normally managed in the tank. In this case, repair the defect the next time the process or unit that is generating the hazardous waste managed in the tank stops operation. Complete repair of the defect before the process or unit resumes operation. | |
| D. CC: Level 2 Tank | |
| U.113: Level 2 Tanks. If no applicable go to U.113. A level 2 tank is one of the following (s. NR 665.1085(2)(a)): 1. The hazardous waste in the tank has a maximum organic vapor pressure which is less than the maximum organic vapor pressure limit for the tank's design capacity category as follows: a. For a tank design capacity equal to or greater than 40,000 gallons (151 m3), the maximum organic vapor pressure for the tank is greater than .75 psi (5.2 kPa). b. For a tank design capacity equal to or greater than 20,000 gallons (75 m3) but less than 40,000 gallons (151 m3), the maximum organic vapor pressure for the tank is greater than 4.00 psi (27.6 kPa). c. For a tank design capacity less than 20,000 gallons (75 m3), the maximum organic vapor pressure for the tank is greater than 11.1 psi(76.6 kPa). | NA1 |
| U.114: The level 2 tank meets one of the following: 1. A fixed-roof tank equipped with an internal floating roof according to Item U.115. | 665.1085(4) |
| A tank equipped with an external floating roof according to sub. (6). A tank vented through a closed-vent system to a control device according to sub. (7). A pressure tank designed and operated according to sub. (8). A tank located inside an enclosure that is vented through a closed-vent system to an enclosed combustion control device according to sub. (9). | |
| U.115: Tanks having a fixed-roof with an internal floating roof. If not applicable go to U.127 Note that safety devices, as defined in s. NR 665.1081(20), may be installed and operated as necessary on tanks having a fixed-roof with an internal floating roof. | NA1 |

except when the floating roof must be supported by the leg supports.

665.1085(5)(a)1.

U.116: The tank is designed with an internal floating roof that floats on the liquid surface



LARGE QUANTITY GENERATOR INSPECTION: CC AIR EMISSION STANDARDS

| ection U: Air Emission Standards CC | |
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| D. CC: Level 2 Tank | |
| U.117: The tank is equipped with an internal floating roof that provides a continuous seal between the wall of the tank and the floating roof edge that meets any of the following | 665.1085(5)(a)2. |
| requirements: 1. A single continuous seal that is either a liquid-mounted seal or a metallic shoe seal. a. "Liquid-mounted seal" means a foam or liquid-filled primary seal mounted in contact with the hazardous waste between the tank wall and the floating roof continuously around the circumference of the tank. | |
| o. "Metallic shoe seal" means a continuous seal that is constructed of metal sheets which are neld vertically against the wall of the tank by springs, weighted levers or other mechanisms and s connected to the floating roof by braces or other means. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof. 2. Two continuous seals mounted one above the other. The lower seal may be a vapor-mounted seal. | |
| a. "Vapor-mounted seal" means a continuous seal that is mounted such that there is a vapor space between the hazardous waste in the unit and the bottom of the seal. | |
| U.118: The internal floating roof meets all of the following: 1. Each opening in a non-contact internal floating roof, except for automatic bleeder vents (vacuum breaker vents) and the rim space vents, provides a projection below the liquid surface— 2. Each opening in the internal floating roof is equipped with a gasketed cover or a gasketed lid except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells and stub drains. | 665.1085(5)(a)3. |
| 3. Each penetration of the internal floating roof for the purpose of sampling has a slit fabric cover that covers at least 90 percent of the opening. 4. Each automatic bleeder vent and rim space vent is gasketed. 5. Each penetration of the internal floating roof that allows for passage of a ladder has a gasketed sliding cover. 6. Each penetration of the internal floating roof that allows for passage of a column supporting | |
| the fixed roof has a flexible fabric sleeve seal or a gasketed sliding cover. U.119: When the floating roof is resting on the leg supports, the process of filling, emptying or | 665.1085(5)(b)1. |
| refilling is continuous and completed as soon as practical. | 003.1063(3)(b)1. |
| U.120: The automatic bleeder vents are set to closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports. | 665.1085(5)(b)2. |
| U.121: Prior to filling the tank, each cover, access hatch, gauge float well or lid on any opening n the internal floating roof is bolted or fasten closed (i.e., no visible gaps). Rim space vents are set to open only when the internal floating roof is not floating or when the pressure beneath the rim exceeds the manufacturer's recommended setting. | 665.1085(5)(b)3. |
| J.122: The generator visually inspects the floating roof and its closure devices to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, the nternal floating roof is not floating on the surface of the liquid inside the tank, liquid has | 665.1085(5)(c)1. |
| accumulated on top of the internal floating roof, any portion of the roof seals have detached from the roof rim, holes, tears or other openings are visible in the seal fabric, the gaskets no onger close off the hazardous waste surface from the atmosphere or the slotted membrane has more than 10 percent open area. | |
| U.123: The generator inspects the internal floating roof components as follows, except as provided in 665.1085(5)(c)3 (see item U.124). 1. Visually inspect the internal floating roof components through openings on the fixed-roof (e.g., manholes and roof hatches) at least once every 12 months after initial fill. 2. Visually inspect the internal floating roof, primary seal, secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the tank is emptied and degassed and at least every 10 years. | 665.1085(5)(c)2. |

Key: C or EV: Evaluated - no noncompliance detected at the time of inspection

CA: Compliance with Concern R: Returned to Compliance

X or V: Non-Compliance

N: No UN: Unknown NA: Inspected, Not Applicable NE: Evaluation Determination will be Made at a Later Date NI: Not Inspected

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Section U: Air Emission Standards CC

| D. CC: Level 2 Tank | |
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| U.124: As an alternative to performing the inspections in s. NR 665.1085(5)(c)2. (see item U.123) for an internal floating roof equipped with 2 continuous seals mounted one above the other, the generator visually inspects the internal floating roof, primary and secondary seals, gaskets, slotted membranes and sleeve seals (if any) each time the tank is emptied and degassed and at least every 5 years. | 665.1085(5)(c)3. |
| U.125: Prior to each inspection required by s. NR 665.1085(5)(c)2. and 3 (see items U.123 and U.124), the generator notified the department in advance of each inspection to provide the department with the opportunity to have an observer present during the inspection. The generator notified the department of the date and location of the inspection as follows: 1. Prior to each visual inspection of an internal floating roof in a tank that has been emptied and degassed, prepare and send written notification so that the department receives it at least 30 calendar days before refilling the tank, except when an inspection is not planned as provided in item 2 below. 2. When a visual inspection is not planned and the owner or operator could not have known about the inspection 30 calendar days before refilling the tank, notify the department as soon as possible, but no later than 7 calendar days before refilling the tank. Make this notification by telephone and immediately follow with a written explanation for why the inspection is unplanned. Alternatively, send written notification, including the explanation for the unplanned inspection, so that the department receives it at least 7 calendar days before refilling the tank. | 665.1085(5)(c)4. |
| U.126: In the event that a defect is detected, the generator repaired the defect as follows: 1. Make first efforts at repair of the defect no later than 5 calendar days after detection, and complete the repair as soon as possible but no later than 45 calendar days after detection except as provided in item 2 below. 2. Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the tank and no alternative tank capacity is available at the site to accept the hazardous waste normally managed in the tank. In this case, repair the defect the next time the process or unit that is generating the hazardous waste managed in the tank stops operation. Complete repair of the defect before the process or unit resumes operation. | 665.1085(5)(c)5. |
| U.127: Tanks having an external floating roof. If not applicable go to U.149 Note that safety devices, as defined in s. NR 665.1081(20), may be installed and operated as necessary on tanks having a fixed-roof with an internal floating roof. | NA1 |
| U.128: The external floating roof is designed to float on the liquid surface except when the floating roof must be supported by the leg supports. | 665.1085(6)(a)1. |



Section U: Air Emission Standards CC

| D. CC: Level 2 Tank | |
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| U.129: The floating roof is equipped with 2 continuous seals, one above the other, between the wall of the tank and the roof edge. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal. 1. The primary seal is a liquid-mounted seal or a metallic shoe seal. The total area of the gaps between the tank wall and the primary seal do not exceed 212 square centimeters (cm2) per meter of tank diameter, and the width of any portion of these gaps may not exceed 3.8 centimeters (cm). If a metallic shoe seal is used for the primary seal, the metallic shoe seal is designed so that one end extends into the liquid in the tank and the other end extends a vertical distance of at least 61 centimeters above the liquid surface. a. "Liquid-mounted seal" means a foam or liquid-filled primary seal mounted in contact with the hazardous waste between the tank wall and the floating roof continuously around the circumference of the tank. b. "Metallic shoe seal" means a continuous seal that is constructed of metal sheets which are held vertically against the wall of the tank by springs, weighted levers or other mechanisms and is connected to the floating roof by braces or other means. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof. 2. The secondary seal is mounted above the primary seal and cover the annular space between the floating roof and the wall of the tank. The total area of the gaps between the tank wall and the secondary seal does not exceed 21.2 square centimeters (cm2) per meter of tank diameter, and the width of any portion of these gaps may not exceed 1.3 centimeters (cm) | 665.1085(6)(a)2. |
| diameter, and the width of any portion of these gaps may not exceed 1.3 centimeters (cm). U.130: The external floating roof meets all of the following: 1. Except for automatic bleeder vents (vacuum breaker vents) and rim space vents, each opening in a non-contact external floating roof is projected below the liquid surface. 2. Except for automatic bleeder vents, rim space vents, roof drains and leg sleeves, each opening in the roof is equipped with a gasketed cover, seal, or lid. 3. Each access hatch and each gauge float well is equipped with a cover that is designed to be bolted or fastened when the cover is secured in the closed position. 4. Each automatic bleeder vent and each rim space vent is equipped with a gasket. 5. Each roof drain that empties into the liquid managed in the tank is equipped with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening. 6. Each unslotted and slotted guide pole well is equipped with a gasketed sliding cover or a flexible fabric sleeve seal. 7. Each unslotted guide pole is equipped with a gasketed cap on the end of the pole. 8. Each slotted guide pole is equipped with a gasketed float or other device which closes off the liquid surface from the atmosphere. 9. Each gauge hatch and each sample well is equipped with a gasketed cover. | 665.1085(6)(a)3. |
| U.131: When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling is continuous and completed as soon as practical. | 665.1085(6)(b)1. |
| U.132: Each opening in the roof is secured and maintained in a closed position at all times except when the closure device must be open for access. This requirement does not apply to automatic bleeder vents, rim space vents, roof drains, and leg sleeves. | 665.1085(6)(b)2. |
| U.133: Each access hatch and each gauge float well is bolted or covers fastened when secured in the closed position. | 665.1085(6)(b)3. |
| U.134: Automatic bleeder vents are closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports. | 665.1085(6)(b)4. |
| U.135: Rim space vents are set to open only at those times that the roof is being floated off the roof leg supports or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting. | 665.1085(6)(b)5. |

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WASTE & MATERIALS

Section U: Air Emission Standards CC D. CC: Level 2 Tank U.136: The cap on the end of each unslotted guide pole is secured in the closed position at all 665.1085(6)(b)6. times except when measuring the level of the liquid in the tank or collecting samples of the liquid. U.137: The cover on each gauge hatch or sample well is secured in the closed position at all 665.1085(6)(b)7. times except when the hatch or well must be opened for access. U.138: Both the primary seal and the secondary seal completely cover the annular space 665.1085(6)(b)8. between the external floating roof and the wall of the tank in a continuous fashion except during inspections. U.139: The generator performs measurements of the gaps between the tank wall and the 665.1085(6)(c)1.a. primary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every 5 years. U.140: The generator performs measurements of the gaps between the tank wall and the 665.1085(6)(c)1.b. secondary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every year. U.141: The generator complies with s. NR 665.1085(6)(c)1.a. and b. (see items U.139 and 665.1085(6)(c)1.c. U.140) when hazardous waste is placed back into the tank after the tank ceases to hold hazardous waste for a period of one year or more. U.142: The generator determined the total surface area of gaps in the primary seal and in the 665.1085(6)(c)1.d. secondary seal individually using the following procedure: 1. Perform the seal gap measurements at one or more floating roof levels when the roof is floating off the roof supports. 2. Measure seal gaps, if any, around the entire perimeter of the floating roof in each place where a 0.32-centimeter (cm) diameter uniform probe passes freely (without forcing or binding against the seal) between the seal and the wall of the tank and measure the circumferential distance of each location. 3. For a seal gap measured under s. NR 665.1085(6)(c), determine the gap surface area using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each width by its respective circumferential distance. 4. Calculate the total gap area by adding the gap surface areas determined for each identified gap location for the primary seal and the secondary seal individually, and then dividing the sum for each seal type by the nominal diameter of the tank. Then compare these total gap areas per unit of tank diameter for the primary seal and secondary seal to the respective standards for the seal type in s. NR 665.1085(6)(a)2. (see item U.129). U.143: In the event that the seal gap measurements do not conform to the specifications in s. 665.1085(6)(c)1.e. NR 665.1085(6)(a)2. (see item U.129), the generator repaired the defect according to following: 1. Make first efforts at repair of the defect no later than 5 calendar days after detection, and complete the repair as soon as possible but no later than 45 calendar days after detection except as provided in item 2 below. 2. Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the tank and no alternative tank capacity is available at the site to accept the hazardous waste normally managed in the tank. In this case, repair the defect the next time the process or unit that is generating the hazardous waste managed in the tank stops operation. Complete repair of the defect before the process or unit resumes operation. U.144: The generator visually inspects the floating roof and its closure devices to check for 665.1085(6)(c)2.a. defects that could result in air pollutant emissions. Defects include, but are not limited to, holes, tears, or other openings in the rim seal or seal fabric of the floating roof, a rim seal detached from the floating roof, all or a portion of the floating roof deck being submerged below the surface of the liquid in the tank, broken, cracked or otherwise damaged seals or gaskets on

closure devices and broken or missing hatches, access covers, caps, or other closure devices.



LARGE QUANTITY GENERATOR INSPECTION: CC AIR EMISSION STANDARDS

| Section U: Air Emission Standards CC | |
|---|--------------------|
| D. CC: Level 2 Tank | |
| U.145: The generator performs an initial inspection of the external floating roof and its closure devices on or before the date that the tank becomes subject to subchapter CC. | 665.1085(6)(c)2.b. |
| U.146: The generator performs the inspections at least once every year except as follows. 1. In the case when inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions, the generator may designate a cover as an "unsafe to inspect and monitor cover" when the following are complied with: a. The generator prepared a written explanation for the cover stating the reasons why the cover is unsafe to visually inspect or to monitor, if required. b. The generator developed and implemented a written plan and schedule to inspect and monitor the cover, using the procedures specified in the applicable section of subchapter CC, as frequently as practicable during those times when a worker can safely access the cover. 2. In the case when a tank is buried partially or entirely underground, inspect and monitor, as | 665.1085(6)(c)2.b. |
| required by the applicable provisions of this requirement, only those portions of the tank cover and those connections to the tank (e.g., fill ports, access hatches, gauge wells, etc.) that are located on or above the ground surface. | |
| U.147: In the event that a defect is detected, the generator repaired the defect according to following: 1. Make first efforts at repair of the defect no later than 5 calendar days after detection, and complete the repair as soon as possible but no later than 45 calendar days after detection except as provided in item 2 below. 2. Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the tank and no alternative tank capacity is available at the site to accept the hazardous waste normally managed in the tank. In this case, repair the defect the next time the process or unit that is generating the hazardous waste managed in the tank stops operation. Complete repair of the defect before the process or unit resumes operation. U.148: Prior to each inspection required by s. NR 665.1085(6)(c)1. or 2., the generator notified the department in advance of each inspection to provide the department with the opportunity to | 665.1085(6)(c)2.c. |
| have an observer present during the inspection. The generator notified the department of the date and location of the inspection as follows: 1. Prior to each inspection to measure external floating roof seal gaps as required under s. NR 665.1085(6)(c)1., the generator prepared and sent written notification so that the department receives it at least 30 calendar days before the date the measurements are scheduled to be performed. 2. Prior to each visual inspection of an external floating roof in a tank that has been emptied and degassed, the generator prepared and sent written notification so that the department receives it at least 30 calendar days before refilling the tank except when an inspection is not planned as provided for item 3 below. 3. When a visual inspection is not planned and the generator could not have known about the inspection 30 calendar days before refilling the tank, the generator notified the department as soon as possible, but no later than 7 calendar days before refilling the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that the department receives it at least 7 calendar days before refilling the tank. U.149: Tanks with fixed roofs that are vented to a control device. If not applicable go to U.160 | NA1 |
| A generator who controls air pollutant emissions from a tank by venting the tank to a control device must meet all of the following requirements: | |
| U.150: The fixed roof and its closure devices is designed to form a continuous barrier over the entire surface area of the liquid in the tank. | 665.1085(7)(a)1. |

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LARGE QUANTITY GENERATOR INSPECTION: CC AIR EMISSION STANDARDS

Section U: Air Emission Standards CC D. CC: Level 2 Tank U.151: Each opening in the fixed roof not vented to the control device is equipped with a 665.1085(7)(a)2. closure device meets one of the following: 1. If the pressure in the vapor headspace underneath the fixed roof is less than atmospheric pressure when the control device is operating, the closure devices to designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. 2. If the pressure in the vapor headspace underneath the fixed roof is equal to or greater than atmospheric pressure when the control device is operating, the closure device is designed to operate with no detectable organic emissions. U.153: The fixed roof and its closure devices is made of suitable materials that will minimize 665.1085(7)(a)3. exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to consider when selecting the materials for and designing the fixed roof and closure devices include organic vapor permeability, the effects of any contact with the liquid and its vapor managed in the tank, the effects of outdoor exposure to wind, moisture and sunlight, and the operating practices used for the tank on which the fixed roof is installed. U.154: The closed-vent system and control device is designed and operated according to s. 665.1085(7)(a)4. NR 665.1088 (see section U.). U.155: Whenever there is hazardous waste in the tank, the fixed roof is installed and each 665.1085(7)(b) closure device is secured in the closed position and the vapor headspace underneath the fixed roof is vented to the control device except as follows: 1. Venting to the control device is not required, and opening of closure devices or removal of the fixed roof is allowed at the following times: a. To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of those activities include those times when a worker needs to open a port to sample liquid in the tank or when a worker needs to open a hatch to maintain or repair equipment. After completing the activity, promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank. b. To remove accumulated sludge or other residues from the bottom of the tank. 2. Opening of a safety device is allowed at any time conditions require doing so to avoid an unsafe condition. "Safety device" means a closure device such as a pressure relief valve, frangible disc, fusible plug or any other type of device which functions exclusively to prevent physical damage or permanent deformation to a unit or its air emission control equipment by venting gases or vapors directly to the atmosphere during unsafe conditions resulting from an unplanned, accidental or emergency event. For the purpose of this subchapter, a safety device is not used for routine venting of gases or vapors from the vapor headspace underneath a cover such as during filling of the unit or to adjust the pressure in this vapor headspace in response to normal daily diurnal ambient temperature fluctuations. A safety device is designed to remain in a closed position during normal operations and open only when the internal pressure, or another relevant parameter, exceeds the device threshold setting applicable to the air emission control equipment as determined by the owner or operator based on manufacturer recommendations, applicable rules, fire protection and prevention codes, standard engineering codes and practices or other requirements for the safe handling of flammable, ignitable, explosive, reactive or hazardous materials U.156: The generator visually inspects the fixed roof and its closure devices to check for 665.1085(7)(c)1. defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes or gaps in the roof sections or between the roof and the tank wall, broken, cracked or otherwise damaged seals or gaskets on closure devices, and broken or missing hatches, access covers, caps or other closure devices.

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| Section U: Air Emission Standards CC | |
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| D. CC: Level 2 Tank | |
| U.157: The generator performs an initial inspection of the air emission control equipment on or before the date that the tank becomes subject to subchapter CC. | 665.1085(7)(c)3. |
| U.158: The generator performs the inspections at least once every year except as follows. 1. In the case when inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions, the generator may designate a cover as an "unsafe to inspect and monitor cover" when the following are complied with: a. The generator prepared a written explanation for the cover stating the reasons why the cover is unsafe to visually inspect or to monitor, if required. b. The generator developed and implemented a written plan and schedule to inspect and monitor the cover, using the procedures specified in the applicable section of subchapter CC, as frequently as practicable during those times when a worker can safely access the cover. 2. In the case when a tank is buried partially or entirely underground, inspect and monitor, as required by the applicable provisions of this requirement, only those portions of the tank cover and those connections to the tank (e.g., fill ports, access hatches, gauge wells, etc.) that are located on or above the ground surface. | 665.1085(7)(c)3. |
| U.159: In the event that a defect is detected, the generator repaired the defect according to following:1. Make first efforts at repair of the defect no later than 5 calendar days after detection, and | 665.1085(7)(c)4. |
| complete the repair as soon as possible but no later than 45 calendar days after detection except as provided in item 2 below. 2. Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the tank and no alternative tank capacity is available at the site to accept the hazardous waste normally managed in the tank. In this case, repair the defect the next time the process or unit that is generating the hazardous waste managed in the tank stops operation. Complete repair of the defect before the process or unit resumes operation. | |
| U.160: Pressure tanks. If not applicable go to U.164 A generator who controls air pollutant emissions from a pressure tank must meet all of the following requirements: | NA1 |
| U.161: The tank is designed to not vent to the atmosphere as a result of compression of the vapor headspace in the tank during filling of the tank to its design capacity | 665.1085(8)(a) |
| U.162: All tank openings are equipped with closure devices designed to operate with no detectable organic emissions determined using the procedure in s. NR 665.1084 (4) (see section U.086). | 665.1085(8)(b) |
| U.163: Whenever hazardous waste is in the tank, the tank is operated as a closed system that does not vent to the atmosphere except under any of the following conditions: 1. At those times when opening of a safety device, as defined in s. NR 665.1081, is required to avoid an unsafe condition. 2. At those times when purging of inerts from the tank is required and the purge stream is routed to a closed-vent system and control device designed and operated according to s. NR | 665.1085(8)(c) |
| 665.1088. U.164: Enclosure vented to an enclosed combustion control device. If not applicable go to U.171. | NA1 |
| A generator who controls air pollutant emissions by using an enclosure vented through a closed-vent system to an enclosed combustion control device is subject to all of the following requirements. | |
| U.165: The tank is located inside an enclosure. | 665.1085(9)(a) |

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| ection U: Air Emission Standards CC | |
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| D. CC: Level 2 Tank | |
| U.166: The enclosure is designed and operated according to the criteria for a permanent total enclosure in Method 204—"Criteria for and Verification of a Permanent or Temporary Total Enclosure" of appendix M of 40 CFR part 51. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles or other mechanical means; entry of permanent mechanical or electrical equipment or direct airflow into the enclosure. | 665.1085(9)(a) |
| U.167: The enclosure verification procedure in Section 8 of Method 204 was performed when the enclosure was first installed. | 665.1085(9)(a) |
| U.168: The enclosure verification procedure in Section 8 of Method 204 is performed annually. | 665.1085(9)(a) |
| U.169: The enclosure is vented through a closed-vent system to an enclosed combustion control device that is designed and operated according to the standards for a vapor incinerator, boiler, or process heater in s. NR 665.1088 (see section U.???). | 665.1085(9)(b) |
| U.170: Safety devices may be installed and operated as necessary on any enclosure, closed-vent system or control device used to comply with s. NR 665.1085(9)(a) and (b) (see items U.165 to U.169). "Safety device" means a closure device such as a pressure relief valve, frangible disc, fusible plug or any other type of device which functions exclusively to prevent physical damage or permanent deformation to a unit or its air emission control equipment by venting gases or vapors directly to the atmosphere during unsafe conditions resulting from an unplanned, accidental or emergency event. For the purpose of this subchapter, a safety device is not used for routine venting of gases or vapors from the vapor headspace underneath a cover such as during filling of the unit or to adjust the pressure in this vapor headspace in response to normal daily diurnal ambient temperature fluctuations. A safety device is designed to remain in a closed position during normal operations and open only when the internal pressure, or another relevant parameter, exceeds the device threshold setting applicable to the air emission control equipment as determined by the owner or operator based on manufacturer recommendations, applicable rules, fire protection and prevention codes, standard engineering codes and practices or other requirements for the safe handling of flammable, ignitable, explosive, reactive or hazardous materials. | 665.1085(9)(c) |
| U.171: Transferring hazardous waste to a tank. If not applicable go to U.173. A generator who transfer hazardous waste to a tank subject to subchapter CC is subject to all of the following requirements. | NA1 |
| U.172: When transferring hazardous waste to the tank from another tank subject s. NR 665.1085 or from a surface impoundment subject to s. NR 665.1086, the generator uses continuous hard-piping or another closed system that does not allow exposure of the hazardous waste to the atmosphere. This requirement does not apply when transferring a hazardous waste to the tank under any of the following conditions: 1. The hazardous waste meets the average VO concentration conditions in s. NR 665.1083(3)(a) at the point of waste origination. 2. The hazardous waste has been treated by an organic destruction or removal process to meet s. NR 665.1083(3)(b). For the purpose of complying with this requirement, an individual drain system is a closed system when it meets 40 CFR part 63, subpart RR-National Emission Standards for Individual Drain Systems. | 665.1085(10)(a) |
| U.173: Containers. If not applicable go to U.173 A generator who controls air pollutant emissions from a containers is subject to all of the following: | NA1 |



| Section U: Air Emission Standards CC | | |
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| G. CC: Level 3 Container | | |
| U.207: Level 3 containers. If not applicable go to U.211. Level 3 containers consist of the following: 1. A container having a design capacity of at least 26.4 gallons (0.1 m3) 2. Waste stabilization is occurring. "Waste stabilization" means any physical or chemical process used to either reduce the mobility of hazardous constituents in a hazardous waste or eliminate free liquids. | NA1 | |
| U.208: A container that is vented directly through a closed-vent system to a control device is design and operate according to the closed-vent system and control device requirements of s. NR 665.1088. Safety devices, as defined in s. NR 665.1081, may be installed and operated as necessary on any container, enclosure, closed-vent system or control device used to comply with this requirement. | 665.1087(5)(a)1. | |
| U.209: A container that is vented inside an enclosure which is exhausted through a closed-vent system to a control device meets all of the following: 1. Is designed and operated according to the container enclosure criteria for a permanent total enclosure in Method 204-"Criteria for and Verification of a Permanent or Temporary Total Enclosure" in appendix M of 40 CFR part 51. The enclosure may have permanent or temporary openings to allow worker access, passage of containers through the enclosure by conveyor or other mechanical means, entry of permanent mechanical or electrical equipment or direct airflow into the enclosure. Perform the verification procedure for the enclosure in Section 8 of Method 204 initially when the enclosure is first installed and, thereafter, annually. 2. Is designed and operated according to the closed-vent system and control device requirements of to s. NR 665.1088. Safety devices, as defined in s. NR 665.1081, may be installed and operated as necessary on any container, enclosure, closed-vent system or control device used to comply with this requirement. U.210: The generator transfers hazardous waste in or out of a Level 3 container in such a manner as to minimize exposure of the hazardous waste to the atmosphere, to the extent practical, considering the physical properties of the hazardous waste and good engineering | 665.1087(5)(a)2. | |
| and safety practices for handling flammable, ignitable, explosive, reactive, or other hazardous materials. Examples of container loading procedures that meet this paragraph include using a submerged-fill pipe or other submerged-fill method to load liquids into the container, a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations, or a fitted opening in the top of a container through which the hazardous waste is filled and subsequently purging the transfer line before removing it from the container opening. H. CC: Closed-vent systems and control devices | | |
| U.211: Standards: closed-vent systems and control devices. If not applicable go to U.301 This section applies to each closed-vent system and control device installed and operated by | NA1 | |
| U.212: General Requirements for Closed Vent Systems. A closed-vent system is defined as a system that is not open to the atmosphere and that is composed of piping, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device. | NA1 | |
| U.213: The closed-vent system routes the gases, vapors, and fumes emitted from the hazardous waste in the unit to a control device that meets the requirements of s. NR 665.1088(3). | 665.1088(2)(a) | |



Section U: Air Emission Standards CC H. CC: Closed-vent systems and control devices U.214: The closed-vent system meets all of the following: 665.1088(2)(b) 1. Is designed and operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background determined by Method 21 (s. NR 665.1034 (2)) and by visual inspections. 2. Is designed to operate at a pressure below atmospheric pressure. Equip the system with at least one pressure gauge or other pressure measurement device that can be read from a readily accessible location to verify that negative pressure is being maintained in the closed-vent system when the control device is operating U.215: If the closed-vent system includes bypass devices that could be used to divert the gas 665.1088(2)(c) or vapor stream to the atmosphere before entering the control device, each bypass device is equipped with either a flow indicator (s. NR 665.1088(2)(c)1)) or a seal or locking device (s. NR 665.1088(2)(c)2)). For the purpose of complying with this paragraph, low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, spring-loaded pressure relief valves, and other fittings used for safety purposes are not bypass devices. U.216: If a flow indicator is used to comply with U.215, the flow indicator is installed at the inlet 665.1088(2)(c)1. to the bypass line used to divert gases and vapors from the closed-vent system to the atmosphere at a point upstream of the control device inlet. A flow indicator means a device which indicates the presence of either gas or vapor flow in the bypass line. U.217: If a seal or locking device is used to comply with U.215, the seal or locking device is 665.1088(2)(c)2. placed on the mechanism by which the bypass device position is controlled (e.g., valve handle, damper lever) when the bypass device is in the closed position such that the bypass device cannot be opened without breaking the seal or removing the lock. Examples of the devices include, but are not limited to, a car-seal or a lock-and-key configuration valve. Visually inspect the seal or closure mechanism at least once every month to verify that the bypass mechanism is maintained in the closed position. U.218: A closed-vent system that is operating at a pressure above atmospheric pressure with NA1 no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background as determined by Method 21 and by visual inspections. If no then go to U.228 U.219: The generator of a closed-vent system that is operating at a pressure above 665.1033(11)(a)1. atmospheric pressure conducted an initial leak detection monitoring of the closed-vent system on or before the date that the system becomes subject to s. NR 665.1033. Monitor the closed-vent system components and connections using the procedures in s. NR 665.1034 (2) to demonstrate that the closed-vent system operates with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background. U.220: The generator conducted the initial leak detection using the procedures (Method 21) in 665.1033(11)(a)1. s. NR 665.1034(2) to demonstrate that the closed-vent system operates with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background. U.221: After the initial leak detection monitoring, the generator visually inspect the closed-vent 665.1033(11)(a)2.a system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between 2 sections of hard piping or a bolted and gasketed ducting flange) at least once per year to check for defects that could result in air pollutant emissions. Monitor a component or connection using the procedures in s. NR 665.1034 (2) to demonstrate that it operates with no detectable emissions following any time the component is repaired or replaced (e.g., a section of damaged hard piping is replaced with new hard piping) or the connection is unsealed (e.g., a flange is unbolted). U.222: After the initial leak detection monitoring, any time a component is repaired or 665.1033(11)(a)2.a replaced (e.g., a section of damaged hard piping is replaced with new hard piping) or the connection is unsealed (e.g., a flange is unbolted), the generator monitor the component or connection using the procedures (Method 21) in s. NR 665.1034 (2) to demonstrate that it operates with no detectable emissions.

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U.225: The generator control detectable emissions, as indicated by visual inspection, or by an

instrument reading greater than 500 ppmv above background, as soon as practicable, but not later than 15 calendar days after the emission is detected. Delay of repair of a closed-vent system for which leaks have been detected is allowed if the repair is technically infeasible

WASTE & MATERIALS

Section U: Air Emission Standards CC

H. CC: Closed-vent systems and control devices U.223: After the initial leak detection monitoring, the generator monitored the closed-vent 665.1033(11)(a)2.b system components or connections (other than those specified in item T.112 and T.113) annually and at other times requested by the department using the procedures (Method 21) in s. NR 665.1034 (2) to demonstrate that the components or connections operate with no detectable emissions. The following components or connections are not subject to this requirement. 1. Any components of a closed-vent system that are designated as unsafe to monitor are exempt when the generator does all of the following: a. Determines that the components of the closed-vent system are unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with this requirement. (b) Adheres to a written plan that requires monitoring the closed-vent system components using the procedure in this requirement as frequently as practicable during safe-to-monitor times. The generator designating any components of a closed-vent system as unsafe to monitor must record in a log that is kept in the facility operating record the identification of closed-vent system components that are designated as unsafe to monitor, an explanation for each closed-vent system component stating why the closed-vent system component is unsafe to monitor, and the plan for monitoring each closed-vent system component. U.224: Maintain a record of the inspection and monitoring according to s. NR 665.1035. 665.1033(11)(a)4.

| without a process unit shutdown, or if the generator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Complete repair of the equipment by the end of the next process unit shutdown. | |
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| U.226: The generator control detectable emissions, as indicated by visual inspection, or by an instrument reading greater than 500 ppmv above background made the first attempt at repair no later than 5 calendar days after the emission is detected. | 665.1033(11)(c)2. |
| U.227: Maintain a record of the defect repair according to s. NR 665.1035. | 665.1033(11)(c)4. |
| U.228: A closed-vent system that is operating at a pressure below atmospheric pressure. If no then go to U.235 | NA1 |
| U.229: The generator conducted an initial inspection of the closed-vent system on or before the date that the system becomes subject to s. NR 665.1033. | 665.1033(11)(b)2. |
| U.230: The generator conducts an inspection at least once every year. | 665.1033(11)(b)2. |
| U.231: The generator visually inspected the closed-vent system to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes or gaps in ductwork or piping or loose connections. | 665.1033(11)(b)1. |

665.1033(11)(c)1.



LARGE QUANTITY GENERATOR INSPECTION: CC AIR EMISSION STANDARDS

| Section U: Air Emission Standards CC | |
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| H. CC: Closed-vent systems and control devices | |
| U.232: The generator control detectable emissions, as indicated by visual inspection, or by an instrument reading greater than 500 ppmv above background, as soon as practicable, but not later than 15 calendar days after the emission is detected. 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 generator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Complete repair of the equipment by the end of the next process unit shutdown. | 665.1033(11)(c)1. |
| U.233: The generator control detectable emissions, as indicated by visual inspection, or by an instrument reading greater than 500 ppmv above background made the first attempt at repair no later than 5 calendar days after the emission is detected. | 665.1033(11)(c)2. |
| U.234: Maintain a record of the defect repair according to s. NR 665.1035. | 665.1033(11)(c)4. |
| U.235 Control Devices. | NA1 |
| U.236: The control device is one of the following: 1. Is a device (e.g., condenser, carbon adsorption) that is designed and operated to reduce the total organic content of the inlet vapor stream vented to the control device by at least 95% by weight. 2. Is a an enclosed combustion device (e.g., a thermal vapor incinerator, catalytic vapor incinerators, boilers, and process heaters) that is designed and operated to reduce the organic emissions vented to it by 95 weight percent or greater; to achieve a total organic compound concentration of 20 ppmv, expressed as the sum of the actual compounds, not carbon equivalents, on a dry basis corrected to 3 percent oxygen; or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760 °C. If a boiler or process heater is used as the control device, introduce the vent stream into the flame combustion zone of the boiler or process heater. 3. A flare designed and operated according to s. NR 665.1033(4). Note that the specifications and requirements for control devices do not apply during periods of planned routine maintenance (s. NR 665.1088(3)(b)2.) or during a control device system malfunction (s. NR 665.1088(3)(b)3.). | 665.1088(3)(a) |
| U.237: If using a carbon adsorption system to comply with s. NR 665.1088(3)(a) (see item U.236). If not applicable go to U.244 | NA1 |
| U.238: Following the initial startup of the control device, the generator using a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly on-site in the control device, replaced the existing carbon in the control device with fresh carbon at a regular, predetermined time interval that is no longer than the carbon service life established as a requirement of s. NR 665.1035(2)(d)3.f. The carbon's service life is established by the design analysis that considers the vent stream composition, constituent concentrations, flow rate, relative humidity and temperature. The design analysis also establishes the design exhaust vent stream organic compound concentration level, number and capacity of carbon beds, type and working capacity of activated carbon used for carbon beds, design total steam flow over the period of each complete carbon bed regeneration cycle, duration of the carbon bed steaming and cooling or drying cycles, design carbon bed temperature after regeneration, design carbon bed regeneration time and design service life of carbon (s. NR 665.1035(2)(d)3.f.). | 665.1088(3)(c)1. |

Key: C or EV: Evaluated - no noncompliance detected at the time of inspection

CA: Compliance with Concern R: Returned to Compliance X or V: Non-Compliance

N: No UN: Unknown NA: Inspected, Not Applicable NE: Evaluation Determination will be Made at a Later Date NI: Not Inspected No 'box' is an open ended question

ND: Inspected, Not Determined

LARGE QUANTITY GENERATOR INSPECTION: CC AIR EMISSION STANDARDS

| ection U: Air Emission Standards CC | | |
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| H. CC: Closed-vent systems and control devices | | |
| U.239: Following the initial startup of the control device, the generator using a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly on-site in the control device must replace the existing carbon in the control device with fresh carbon on a regular basis using one of the following: 1. Monitor the concentration level of the organic compounds in the exhaust vent stream from the carbon adsorption system on a regular schedule and replace the existing carbon with fresh carbon immediately when carbon breakthrough is indicated. The monitoring frequency must be daily or at an interval no greater than 20 percent of the time required to consume the total carbon working capacity established as a requirement of s. NR 665.1035(2)(d)3.g., whichever is longer. 2. Replace the existing carbon with fresh carbon at a regular, predetermined time interval that is less than the design carbon replacement interval established as a requirement of s. NR 665.1035(2)(d)3.g. The design analysis per s. NR 665.1035(2)(d)3.g must consider the vent stream composition, constituent concentrations, flow rate, relative humidity and temperature. The design analysis must also establish the design outlet organic concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed and design carbon replacement | 665.1088(3)(c)1. | |
| interval based on the total carbon working capacity of the control device and source operating schedule. | | |
| U.240: Carbon that is a hazardous waste and is removed from the control device and is regenerated or reactivated in an on-site thermal treatment, the on-site thermal treatment meets | 665.1088(3)(c)2. | _ |
| one of the following: 1. The generator of the unit has been issued an operating license under ch. NR 670 which implements the requirements of subch. X of ch. NR 664. 2. The unit is equipped with and operating air emission controls according to the applicable requirements of this subchapter and subch. CC or subch. AA of ch. NR 664 and subch. CC of ch. NR 664. 3. The unit is equipped with and operating air emission controls according to a national emission standard for hazardous air pollutants under 40 CFR part 61 or 63, or corresponding provisions of subch. III of ch. NR 446 and chs. NR 447 to 469. | | |
| U.241: Carbon that is a hazardous waste and is removed from the control device and is | 665.1088(3)(c)2. | |
| incinerated in an on-site hazardous waste incinerator, the on-site hazardous waste incinerator meets one of the following: 1. The generator has been issued an operating license under ch. NR 670 which implements the requirements of subch. O of ch. NR 664. 2. The generator has designed and operates the incinerator according to the interim license requirements of subch. O of ch. NR 664. | | |
| U.242: Carbon that is a hazardous waste and is removed from the control device and is burned in an on-site boiler or industrial furnace, the on-site boiler or industrial furnace meets | 665.1088(3)(c)2. | |
| one of the following: 1. The generator has been issued an operating license under ch. NR 670 which implements the requirements of subch. H of ch. NR 666. 2. The generator has designed and operates the boiler or industrial furnace according to the interim license requirements of subch. H of ch. NR 666. | | |
| U.243: The generator demonstrated that a carbon adsorption system achieves the performance requirements of s. NR 665.1088(3)(a) based on the total quantity of organics | 665.1088(3)(e)5. | |
| vented to the atmosphere from all carbon adsorption system equipment that is used for organic | | |
| adsorption, organic desorption or carbon regeneration, organic recovery and carbon disposal. U.244: If using a control device other than a thermal vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system to comply with s. NR 665.1088(3)(a) (see item U.236). If not applicable go to U.246. | NA1 | |
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Section U: Air Emission Standards CC

| Section U: Air Emission Standards CC | |
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| H. CC: Closed-vent systems and control devices | |
| U.245: the generator developed documentation including sufficient information to describe the control device operation and identify the process parameter or parameters that indicate proper operation and maintenance of the control device. | 665.1088(3)(d) |
| U.246: If using a flare to comply with s. NR 665.1088(3)(a) (see item U.236). If not applicable go to U.261. | NA1 |
| U.247: The flare is designed for and operated with no visible emissions as determined by the Method 22 (s. NR 665.1033(5)(a)), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. | 665.1033(4)(a) |
| U.248: The flare is operated with a flame present at all times as determined by a heat sensing device. | 665.1033(4)(b) |
| U.249: The continuous recorder for the flare indicates the continuous ignition of the pilot flame. | 665.1033(4)(b) |
| U.250: The flare's monitoring equipment is installed, calibrated, maintained, and operated according to the manufacturer's specifications. | 665.1033(6)(b) |
| U.251: A steam-assisted flare or an air-assisted flare has a net heating value of the vent stream routed to the flare of >=11.2 MJ/scm (300 Btu/scf). | 665.1033(4)(c) |
| U.252: A nonassisted flare has a net heating value of the vent stream routed to the flare of 7.45 MJ/scm (200Btu/scf). | 665.1033(4)(c) |
| U.253: The net heating value of the vent stream determined by the equation contained in s. NR 264.1033(5)(b). | 665.1033(5)(b) |
| U.254: For steam-assisted flares or nonassisted flares that are designed and operated with an exit velocity of less than 18.3 m/s (60 ft/s), the exit velocity was determined by Method 2, 2A,2C, or 2D found in 40 CFR part 60. | 665.1033(4)(d)1. |
| U.255: For steam-assisted flares or nonassisted flares that are designed and operated with an exit velocity of >=18.3 m/s but < 122 m/s, the heating value of the vent stream > 37.3 MJ/scm (1,000 Btu/scf). | 665.1033(4)(d)2. |
| U.256: For steam-assisted flares or nonassisted flares that are designed and operated with an exit velocity of >=18.3 m/s (60 ft/s) but < 122 m/s (400 ft/s), the exit velocity was determined by Method 2, 2A,2C, or 2D found in 40 CFR part 60. | 665.1033(4)(d)2. |
| U.257: For steam-assisted flares that are designed and operated with an exit velocity <122 m/s (400 ft/s) the heat value of the vent stream >=11.2 MJ/scm (300 Btu/scf). | 665.1033(4)(d)3. |
| U.259: For steam-assisted flares and nonassisted flares that are designed and operated with an exit velocity <122 m/s (400 ft/s) the exit velocity was determined by Method 2, 2A,2C, or 2D found in 40 CFR part 60. | 665.1033(4)(d)3. |
| U.260: An air assisted flare that is design and operated with an exit velocity less than the velocity, Vmax, is determined by method listed in s. NR 665.1033(5)(e). | 665.1033(4)(e) |



Section U: Air Emission Standards CC H. CC: Closed-vent systems and control devices U.261: Demonstrating that a control device achieves the performance requirements s. NR NA₁ 665.1088(3)(a) (see item U.236) by using performance test or design analysis. If not applicable go to U.281. The following control devices are not subject to this section: 1. A Flare. 2. A boiler or process heater with a design heat input capacity of 44 megawatts or greater. 3. A boiler or process heater into which the vent stream is introduced with the primary fuel. 4. A boiler or industrial furnace burning hazardous waste for which the owner or operator has been issued an operating license under ch. NR 670 and has designed and operates the unit according to subch. H of ch. NR 666. 5. A boiler or industrial furnace burning hazardous waste which the owner or operator has designed and operates according to the interim license requirements of subch. H of ch. NR 666. U.262: If using a performance test. If not applicable go to U.273. NA1 U.263: For velocity and volumetric flow rate, the generator uses Method 2 in appendix A of 40 665.1034(3)(a)1. CFR part 60. U.264: For organic content, the generator uses Method 18 or Method 25A in Appendix A of 40 665.1034(3)(a)2. CFR part 60. If Method 25A is used, the organic HAP used as the calibration gas is the single organic HAP representing the largest percent by volume of the emissions. The use of Method 25A is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale. U.265: Each performance test consisted of 3 separate runs. Each run was conducted for at 665.1034(3)(a)3. least one hour under the conditions that exist when the unit is operating at the highest load or capacity level reasonably expected to occur. For the purpose of determining total organic compound concentrations and mass flow rates, average the results of all runs. Compute the average on a time-weighted basis U.266: For sources using Method 18 (see item U.271), the generator determined total organic 665.1034(3)(a)4.a mass flow rates by the equation is s. NR 665.1034(3)(a)4.a. U.267: For sources using Method 25A (see item U.271), the generator determined total 665.1034(3)(a)4.b organic mass flow rates by the equation is s. NR 665.1034(3)(a)4.b. U.268: The generator determined total organic emission rate by the equation is s. NR 665.1034(3)(a)5. 665.1034(3)(a)5. U.269: The generator determined total organic emissions from all affected process vents at 665.1034(3)(a)6. the facility by summing the hourly total organic mass emission rates (Eh. determined in items U.273 or U.274) and by summing the annual total organic mass emission rates (EA, determined in U.275) for all affected process vents at the facility. U.270: The generator recorded the process information as may be necessary to determine the 665.1034(3)(b) conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction may not constitute representative conditions for the purpose of a performance test.

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Section U: Air Emission Standards CC

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| H. CC: Closed-vent systems and control devices | | | |
| U.271: For an affected facility, the generator provide, or cause to be provided, all of the following performance testing facilities: | | 665.1034(3)(c) | |
| Sampling ports adequate for the test methods specified in s. NR 665.1034(3)(a). A safe sampling platform or platforms. | | | |
| 3. Safe access to the sampling platform or platforms. 4. Utilities for sampling and testing equipment. | | | |
| U.272: For the purpose of making compliance determinations, the generator used the time-weighted average of the results of the 3 runs. In the event that a sample is accidentally | | 665.1034(3)(d) | |
| lost or conditions occur in which one of the 3 runs must be discontinued because of forced | | | |
| shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the owner or operator's control, compliance may, | | | |
| upon the department's approval, be determined using the average of the results of the 2 other runs. | | | |
| U.273: If using design analysis. If not applicable go to U.281. Per s. NR 665.1088(3)(f): If the generator and the department do not agree on a demonstration | | NA1 | |
| of control device performance using a design analysis, the disagreement can be resolved | | | |
| using the results of a performance test performed by the generator according to s. NR 665.1088(3)(e)3. The department may choose to have an authorized representative observe | | | |
| the performance test. | | | |
| U.274: For a thermal vapor incinerator, the design analysis shall consider the vent stream composition, constituent concentrations and flow rate. The design analysis also establishes the | | 665.1035(2)(d)3.a. | |
| design minimum and average temperature in the combustion zone and the combustion zone | | | |
| residence time. | | | |
| U.275: For a catalytic vapor incinerator, the design analysis shall consider the vent stream composition, constituent concentrations and flow rate. The design analysis also establishes the | | 665.1035(2)(d)3.b. | |
| design minimum and average temperatures across the catalyst bed inlet and outlet. | | | |
| U.276: For a boiler or process heater, the design analysis shall consider the vent stream composition, constituent concentrations and flow rate. The design analysis also establishes the | | 665.1035(2)(d)3.c. | |
| design minimum and average flame zone temperatures, combustion zone residence time, and | | | |
| description of method and location where the vent stream is introduced into the combustion | | | |
| zone. | | | |

WASTE & MATERIALS

Section U: Air Emission Standards CC H. CC: Closed-vent systems and control devices U.277: For a flare, the design analysis shall consider the vent stream composition, constituent 665.1035(2)(d)3.d. concentrations and flow rate. The design analysis also considers the following: 1. A flare is designed for and operated with no visible emissions as determined by the methods specified in s. NR 665.1033(5)(a), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. 2. Operate a flare with a flame present at all times, as determined by the methods specified in s. NR 665.1033(6)(b)3. 3. Use a flare only if the net heating value of the gas being combusted is 11.2 MJ/scm (300 Btu/scf) or greater, if the flare is steam-assisted or air-assisted, or if the net heating value of the gas being combusted is 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. Determine the net heating value of the gas being combusted by the methods specified in s. NR 665.1033(5)(b). 4.a. Design a steam-assisted or nonassisted flare for and operate it with an exit velocity, determined by the methods specified in s. NR 665.1033(5)(c), less than 18.3 m/s (60 ft/s), except as provided in 4.a and 4.b. 4.b. A steam-assisted or nonassisted flare designed for and operated with an exit velocity, determined by the methods specified in s. NR 665.1033(5)(c), equal to or greater than 18.3 m/s (60 ft/s) but less than 122 m/s (400 ft/s) is allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf). 4.c. A steam-assisted or nonassisted flare designed for and operated with an exit velocity, determined by the methods specified in sub. (5) (c), less than the velocity, Vmax, determined by the method specified in s. NR 665.1033(5)(d), and less than 122 m/s (400 ft/s) is allowed. 5. Design and operate an air-assisted flare with an exit velocity less than the velocity, Vmax, determined by the method specified in s. NR 665.1033(5)(e). 6. A flare used to comply with this section shall be steam-assisted, air-assisted or nonassisted. U.278: For a condenser, the design analysis considered the vent stream composition, 665.1035(2)(d)3.e. constituent concentrations, flow rate, relative humidity, and temperature. The design analysis also established the design outlet organic compound concentration level, design average temperature of the condenser exhaust vent stream, and design average temperatures of the coolant fluid at the condenser inlet and outlet. U.279: For a carbon adsorption system such as a fixed-bed adsorber that regenerates the 665.1035(2)(d)3.f. carbon bed directly onsite in the control device, the design analysis considered the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis also established the design exhaust vent stream organic compound concentration level, number, and capacity of carbon beds, type and working capacity of activated carbon used for carbon beds, design total steam flow over the period of each complete carbon bed regeneration cycle, duration of the carbon bed steaming and cooling or drying cycles, design carbon bed temperature after regeneration, design carbon bed regeneration time and design service life of carbon. U.280: For a carbon adsorption system such as a carbon canister that does not regenerate 665.1035(2)(d)3.g. the carbon bed directly onsite in the control device, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity and temperature. The design analysis shall also establish the design outlet organic concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule. U.281: Demonstrate the performance of each flare. If not applicable go to U.287. NA1 U.282: To determine the compliance of a flare with the visible emission provisions of 665.1033(5)(a) subchapter CC. The generator used Method 22 in appendix A of 40 CFR part 60 and used an observation period of 2 hours according to Method 22.

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Section U: Air Emission Standards CC H. CC: Closed-vent systems and control devices U.283: The generator calculated the net heating value of the gas being combusted in a flare 665.1033(5)(b) using the equation in s. NR 665.1033(5)(b). U.284: The generator determined the actual exit velocity of a flare by dividing the volumetric 665.1033(5)(c) flow rate (in units of standard temperature and pressure), determined by Methods 2, 2A, 2C or 2D in appendix A of 40 CFR part 60, as appropriate, by the unobstructed (free) cross-sectional area of the flare tip. U.285: The generator determined the maximum allowed velocity in m/s, Vmax, for a flare 665.1033(5)(d) complying with s. NR 665.1033(4)(d)3. by the equation in s. NR 665.1033(5)(d). U.286: The generator determine the maximum allowed velocity in m/s, Vmax, for an 665.1033(5)(e) air-assisted flare by the equation in s. NR 665.1033(5)(e). U.287: If using a closed-vent system and control device to comply with s. NR 665.1088. If not NA1 applicable go to U.292. U.288: Periods of planned routine maintenance of the control device, during which the control 665.1088(3)(b)1. device does not meet its design and operational requirements, do not exceed 240 hours per year. U.289: The generator demonstrated compliance with s. NR 665.1088(3)(b)1. (see item U.257) 665.1088(3)(b)4. by recording on a semiannual basis of the following information for those planned routine maintenance operations that would require the control device not to meet s. NR 665.1088(3)(a)1. to 3. (see item U.236), as applicable: 1. A description of the planned routine maintenance that is anticipated to be performed for the control device during the next 6-month period. This description includes the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods. A description of the planned routine maintenance that was performed for the control device during the previous 6-month period. The description includes the type of maintenance performed and the total number of hours during those 6 months that the control device did not meet s. NR 665.1088(3)(a)1. to 3. (see item U.236), as applicable, due to planned routine maintenance. U.290: The generator corrected control device system malfunctions as soon as practicable 665.1088(3)(b)5. after their occurrence in order to minimize excess emissions of air pollutants. U.291: The generator operated the closed-vent system such that gases, vapors, or fumes are 665.1088(3)(b)6. not actively vented to the control device during periods of planned maintenance or control device system malfunction (i.e., periods when the control device is not operating or not operating normally) except in cases when it is necessary to vent the gases, vapors, or fumes to avoid an unsafe condition or to implement malfunction corrective actions or planned maintenance actions. U.292: Inspecting and monitoring NA1

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Section U: Air Emission Standards CC

| . CC: Inspection and monitoring | |
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| J.293: The generator installs, calibrates, maintains, and operates according to the manufacturer's specifications a device to continuously monitor control device operation according to one of the following: 1. For a thermal vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of ±1 percent of the temperature being monitored in °C or ±0.5 °C, whichever is greater. Install the temperature sensor at a location in the combustion chamber downstream of the combustion zone. 2. For a catalytic vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature at 2 locations and have an accuracy of ±1 percent of the temperature being monitored in °C or ±0.5 °C, whichever is greater. Install one temperature sensor in the vent stream at the nearest feasible point to the catalyst bed inlet and install a second temperature sensor in the vent stream at the nearest feasible point to the catalyst bed outlet. 3. For a flare, a heat sensing monitoring device equipped with a continuous recorder that ndicates the continuous ignition of the pilot flame. 4. For a boiler or process heater having a design heat input capacity less than 44 MW, a temperature monitoring device equipped with a continuous recorder. The device shall have an | 665.1033(6)(b) |
| accuracy of ±1 percent of the temperature being monitored in °C or ±0.5 °C, whichever is greater. Install the temperature sensor at a location in the furnace downstream of the combustion zone. 5. For a boiler or process heater having a design heat input capacity greater than or equal to 44 MW, a monitoring device equipped with a continuous recorder to measure a parameter or parameters that indicates good combustion operating practices are being used. 6. For a condenser, any of the following: a. A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the condenser. b. A temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature with an accuracy of ±1 percent of the temperature being monitored in °C or ±0.5 °C, whichever is greater. Install the temperature sensor at a location in the exhaust vent stream from the condenser exit (i.e., product side). 7. For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly in the control device, any of the following: a. A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the carbon bed. b. A monitoring device equipped with a continuous recorder to measure a parameter that ndicates the carbon bed is regenerated on a regular, predetermined time cycle. | |
| U.294: The generator inspects the readings from each monitoring device required by s. NR 665.1033(6)(b) (see item U.297) at least once each operating day to check control device operation. | 665.1088(3)(g) |
| U.295: The generator immediately implements any necessary corrective measures to ensure the control device is operated in compliance with s. NR 665.1088. | 665.1088(3)(g) |
| U.296: The generator inspects and monitors the air emission control equipment used to comply with subchapter CC according to the applicable requirements in ss. NR 665.1085 to 665.1088. | 665.1089(1) |
| U.297: The generator developed and implemented a written plan and schedule to perform the nspections and monitoring required by s. NR 665.1089(1) (see item U.296). | 665.1089(2) |
| J. CC: Recordkeeping | |
| U.298: Recordkeeping. The generator subject to subchapter CC records and maintains the nformation in this section, as applicable to the facility. | NA1 |

Key: C or EV: Evaluated - no noncompliance detected at the time of inspection

CA: Compliance with Concern R: Returned to Compliance X or V: Non-Compliance

Y: Yes N: No UN: Unknown NA: Inspected, Not Applicable NE: Evaluation Determination will be Made at a Later Date NI: Not Inspected



WASTE & MATERIALS MANAGEMENT PROGRAM Section U: Air Emission Standards CC J. CC: Recordkeeping U.299: The generator, except for air emission control equipment design documentation and 665.1090(1) information required by s. NR 665.1090(9) and (10), maintains records required in this section in the operating record for a minimum of 3 years. U.300: The generator maintains air emission control equipment design documentation in the 665.1090(1) operating record until the air emission control equipment is replaced or otherwise no longer in service. U.301: The generator maintains the information required by s. NR 665.1090(9) and (10) in the 665.1090(1) operating record for as long as the waste management unit is not using air emission controls specified in ss. NR 665.1085 to 665.1088 according to the conditions in s. NR 665.1080 (4) or (2) (g), respectively. U.302: Record keeping requirements for tanks using air emission controls according to s. NR NA1 665.1085. If not applicable go to U.312 U.303: The generator records a tank identification number or description for each tank. 665.1090(2)(a)1. U.304: The generator records for each inspection required by s. NR 665.1085 the date 665.1090(2)(a)2.a. inspection was conducted. U.305: The generator records for each inspection required by s. NR 665.1085 all of the 665.1090(2)(a)2.b. following for each defect detected during the inspection: 1. The location of the defect. A description of the defect. The date of detection. 4. The corrective action taken to repair the defect. 5. In the event that repair of the defect is delayed according to s. NR 665.1085, also record the reason for the delay and the date that completion of repair of the defect is expected. U.306: If using a fixed roof to comply with the Tank Level 1 control requirements in s. NR 665.1090(2)(b)1. 665.1085(3), the generator prepared and maintained records for each determination for the maximum organic vapor pressure of the hazardous waste in the tank performed according to s. NR 665.1085(3). The records include the date and time the samples were collected, the analysis method used, and the analysis results. U.307: If using an internal floating roof to comply with the Tank Level 2 control requirements in 665.1090(2)(b)2. s. NR 665.1085 (5), the generator prepared and maintained documentation describing the floating roof design. U.308: If using an external floating roof to comply with the Tank Level 2 control requirements. 665.1090(2)(b)3.a. the generator prepared and maintained a document describing the floating roof design and the dimensions of the tank. U.309: If using an external floating roof to comply with the Tank Level 2 control requirements, 665.1090(2)(b)3.b. the generator records each seal gap inspection required by s. NR 665.1085(6)(c) describing the results of the seal gap measurements. The records include the date that the measurements were performed, the raw data obtained for the measurements, and the calculations of the total gap surface area. In the event that the seal gap measurements do not conform to the specifications in s. NR 665.1085(6)(a), the records include a description of the repairs that were made, the date the repairs were made and the date the tank was emptied, if necessary. U.310: If using an enclosure to comply with the Tank Level 2 control requirements in s. NR 665.1090(2)(b)4.a. 665.1085(9), the generator prepared and maintained records for the most recent set of calculations and measurements performed by the generator to verify that the enclosure meets the criteria for a permanent total enclosure in Method 204-"Criteria for and Verification of a

Key: C or EV: Evaluated - no noncompliance detected at the time of inspection

Permanent or Temporary Total Enclosure" in appendix M of 40 CFR part 51.

A: Compliance with Concern R: Returned to Compliance

X or V: Non-Compliance

Y: Yes N: No UN: Unknown NA: Inspected, Not Applicable NE: Evaluation Determination will be Made at a Later Date NI: Not Inspected

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Section U: Air Emission Standards CC

| J. CC: Recordkeeping | |
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| u. oo. Necorakeeping | |
| U.311: If using an enclosure to comply with the Tank Level 2 control requirements in s. NR 665.1090(5), the generator recorded the information required for the closed-vent system and control device according to s. NR 665.1090(5). | 665.1090(2)(b)4.b. |
| U.312: Record keeping requirements for level 3 containers using air emission controls according to s. NR 665.1087. If not applicable go to U.315 | NA1 |
| U.313: The generator records for the most recent set of calculations and measurements performed to verify that the enclosure meets the criteria for a permanent total enclosure in Method 204-"Criteria for and Verification of a Permanent or Temporary Total Enclosure" in appendix M of 40 CFR part 51. | 665.1090(4)(a) |
| U.314: The generator recorded the information required for the closed-vent system and control device according to s. NR 665.1090(5). | 665.1090(4)(b) |
| U.315: Recordkeeping for closed-vent system and control device | NA1 |
| U.316: There is a certification statement that is signed and dated by the generator stating that the control device is designed to operate at the performance level documented by a design analysis as specified in s. NR 665.1090(5)(b) (see section U.317) or by performance tests as specified in s. NR 665.1090(5)(c) (see section U.324) when the tank, surface impoundment, or container is or would be operating at capacity or the highest level reasonably expected to occur. | 665.1090(5)(a) |
| U.317: If a design analysis is used it contains all of the following. If not applicable go to U.324 | NA1 |
| U.318: A list of all information references and sources used in preparing the documentation. | 665.1035(2)(d)1. |
| U.319: Records, including the dates, of each compliance test required by s. NR 665.1033(10). | 665.1035(2)(d)2. |



MANAGEMENT PROGRAM

Section U: Air Emission Standards CC

J. CC: Recordkeeping

zone residence time.

U.320: If engineering calculations are used, a design analysis, specifications, drawings, schematics and piping and instrumentation diagrams based on the appropriate sections of "APTI Course 415: Control of Gaseous Emissions", or other engineering texts acceptable to the department that present basic control device design information. Documentation provided by the control device manufacturer or vendor that describes the control device design according to items 1 to 7 below may be used to comply with this requirement. The design analysis must address the vent stream characteristics and control device operation parameters as follows:

- as follows:

 1. For a thermal vapor incinerator, the design analysis shall consider the vent stream composition, constituent concentrations and flow rate. The design analysis shall also establish the design minimum and average temperature in the combustion zone and the combustion
- 2. For a catalytic vapor incinerator, the design analysis shall consider the vent stream composition, constituent concentrations and flow rate. The design analysis shall also establish the design minimum and average temperatures across the catalyst bed inlet and outlet.
- 3. For a boiler or process heater, the design analysis shall consider the vent stream composition, constituent concentrations and flow rate. The design analysis shall also establish the design minimum and average flame zone temperatures, combustion zone residence time and description of method and location where the vent stream is introduced into the combustion zone.
- 4. For a flare, the design analysis shall consider the vent stream composition, constituent concentrations and flow rate. The design analysis shall also consider the requirements in s. NR 665.1033 (4).
- 5. For a condenser, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity and temperature. The design analysis shall also establish the design outlet organic compound concentration level, design average temperature of the condenser exhaust vent stream and design average temperatures of the coolant fluid at the condenser inlet and outlet.
- 6. For a carbon adsorption system such as a fixed-bed adsorber that regenerates the carbon bed directly onsite in the control device, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity and temperature. The design analysis shall also establish the design exhaust vent stream organic compound concentration level, number and capacity of carbon beds, type and working capacity of activated carbon used for carbon beds, design total steam flow over the period of each complete carbon bed regeneration cycle, duration of the carbon bed steaming and cooling or drying cycles, design carbon bed temperature after regeneration, design carbon bed regeneration time and design service life of carbon.
- 7. For a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly onsite in the control device, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity and temperature. The design analysis shall also establish the design outlet organic concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule.

U.321: A statement signed and dated by the generator certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous waste management unit is or would be operating at the highest load or capacity level reasonably expected to occur.

665.1035(2)(d)3.

665.1035(2)(d)4.

N: No UN: Unknown NA: Inspected, Not Applicable NE: Evaluation Determination will be Made at a Later Date NI: Not Inspected



Section U: Air Emission Standards CC J. CC: Recordkeeping U.322: A statement signed and dated by the generator certifying that the control device is 665.1035(2)(d)5. designed to operate at an efficiency of 95 percent or greater, unless the total organic concentration limit of s. NR 665.1032(1) is achieved at an efficiency less than 95 weight percent or the total organic emission limits of s. NR 665.1032(1) for affected process vents at the facility can be attained by a control device involving vapor recovery at an efficiency less than 95 weight percent. A statement provided by the control device manufacturer or vendor certifying that the control equipment meets the design specifications may be used to comply with this requirement. U.323: If performance tests are used to demonstrate compliance, all test results. 665.1035(2)(d)6. U.324: If a performance testing is used it contains all of the following. If not applicable go to NA1 U.338. U.335: A description of how it is determined that the planned test is going to be conducted 665.1035(2)(c)1. when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur. This must include the estimated or design flow rate and organic content of each vent stream and define the acceptable operating ranges of key process and control device parameters during the test program. U.336: A detailed engineering description of the closed-vent system and control device 665.1035(2)(c)2. including all of the following: 1. Manufacturer's name and model number of control device. Type of control device. 3. Dimensions of the control device. Capacity. Construction materials. U.337: A detailed description of sampling and monitoring procedures, including sampling and 665.1035(2)(c)3. monitoring locations in the system, the equipment to be used, sampling and monitoring frequency and planned analytical procedures for sample analysis. U.338: A description and date of each modification that is made to the closed-vent system or 665.1035(3)(a) control device design. U.339: Identification of operating parameter, description of monitoring device, and diagram of 665.1035(3)(a) monitoring sensor location(s) for flow indicators that provides a record of vent stream flow from each affected process vent to the control device at least once every hour.

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N: No UN: Unknown NA: Inspected, Not Applicable NE: Evaluation Determination will be Made at a Later Date NI: Not Inspected



Section U: Air Emission Standards CC

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| J. CC: Recordkeeping | | |
| U.340: Identification of operating parameter, description of monitoring device, and diagram of | 665.1035(3)(a) | ٦ |
| monitoring sensor location(s) for devices that continuously monitor control device operation | | 1 |
| according to one of the following: | | _ |
| 1. For a thermal vapor incinerator, a temperature monitoring device equipped with a | | |
| continuous recorder. The device shall have an accuracy of ±1 percent of the temperature being | | |
| monitored in °C or ±0.5 °C, whichever is greater. Install the temperature sensor at a location in | | |
| the combustion chamber downstream of the combustion zone. | | |
| 2. For a catalytic vapor incinerator, a temperature monitoring device equipped with a | | |
| continuous recorder. The device shall be capable of monitoring temperature at 2 locations and | | |
| have an accuracy of ±1 percent of the temperature being monitored in °C or ±0.5 °C, | | |
| whichever is greater. Install one temperature sensor in the vent stream at the nearest feasible point to the catalyst bed inlet and install a second temperature sensor in the vent stream at the | | |
| nearest feasible point to the catalyst bed outlet. | | |
| 3. For a flare, a heat sensing monitoring device equipped with a continuous recorder that | | |
| indicates the continuous ignition of the pilot flame. | | |
| 4. For a boiler or process heater having a design heat input capacity less than 44 MW, a | | |
| temperature monitoring device equipped with a continuous recorder. The device shall have an | | |
| accuracy of ±1 percent of the temperature being monitored in °C or ±0.5 °C, whichever is | | |
| greater. Install the temperature sensor at a location in the furnace downstream of the | | |
| combustion zone. | | |
| 5. For a boiler or process heater having a design heat input capacity greater than or equal to | | |
| 44 MW, a monitoring device equipped with a continuous recorder to measure a parameter or | | |
| parameters that indicates good combustion operating practices are being used. | | |
| 6. For a condenser, any of the following: | | |
| a. A monitoring device equipped with a continuous recorder to measure the concentration level | | |
| of the organic compounds in the exhaust vent stream from the condenser. b. A temperature monitoring device equipped with a continuous recorder. The device shall be | | |
| capable of monitoring temperature with an accuracy of ±1 percent of the temperature being | | |
| monitored in °C or ±0.5 °C, whichever is greater. Install the temperature sensor at a location in | | |
| the exhaust vent stream from the condenser exit (i.e., product side). | | |
| 7. For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the | | |
| carbon bed directly in the control device, any of the following: | | |
| a. A monitoring device equipped with a continuous recorder to measure the concentration level | | |
| of the organic compounds in the exhaust vent stream from the carbon bed. | | |
| b. A monitoring device equipped with a continuous recorder to measure a parameter that | | |
| indicates the carbon bed is regenerated on a regular, predetermined time cycle. | | |
| U.341: On a semiannual basis, the generator records the following information for those | 665.1090(5)(e)1. | |
| planned routine maintenance operations that would require the control device not to meet s. | | ٦ |
| NR 665.1088(3)(a) (see item U.236, as applicable: A description of the planned routine | | _ |
| maintenance that is anticipated to be performed for the control device during the next 6-month | | |
| period. This description includes the type of maintenance necessary, planned frequency of maintenance and lengths of maintenance periods. | | |
| U.342: On a semiannual basis, the generator records the following information for those | 665.1090(5)(e)2. | _ |
| planned routine maintenance operations that would require the control device not to meet s. | 005.1090(5)(e)2. | _ |
| NR 665.1088(3)(a) (see item U.236, as applicable: A description of the planned routine | | |
| maintenance that was performed for the control device during the previous 6-month period. | | |
| The description includes the type of maintenance performed and the total number of hours | | |
| during those 6 months that the control device did not meet s. NR 665.1088(3)(a), as | | |
| applicable, due to planned routine maintenance. | | |
| U.343: The generator records the following information for those unexpected control device | 665.1090(5)(f)1. | ٦ |
| system malfunctions that would require the control device not to meet s. NR 665.1088(3)(a), as | (-)(-) | 1 |
| applicable. The occurrence and duration of each malfunction of the control device system | | |

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| Section U: Air Emission Standards CC | |
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| J. CC: Recordkeeping | |
| U.344: The generator records the following information for those unexpected control device system malfunctions that would require the control device not to meet s. NR 665.1088(3)(a), as applicable: The duration of each period during a malfunction when gases, vapors or fumes are vented from the waste management unit through the closed-vent system to the control device while the control device is not properly functioning. | 665.1090(5)(f)2. |
| U.345: The generator records the following information for those unexpected control device system malfunctions that would require the control device not to meet s. NR 665.1088(3)(a), as applicable: Actions taken during periods of malfunction to restore a malfunctioning control device to its normal or usual manner of operation. | 665.1090(5)(f)3. |
| U.346: The generator records of the management of carbon removed from a carbon adsorption system conducted according to s. NR 665.1088(3)(c)2. | 665.1090(5)(g) |
| U.347: Tanks, surface impoundments, or containers exempted from standards of according to s. NR 665.1083(3). If not applicable go to U.350 | NA1 |
| U.348: For tanks, surface impoundments, or containers exempted under the hazardous waste organic concentration conditions specified in s. NR 665.1083(3)(a) or (b)1. to 6., the generator recorded the information used for each waste determination (e.g., test results, measurements, calculations and other documentation) in the facility operating log. If analysis results for waste samples are used for the waste determination, the generator recorded the date, time, and location that each waste sample is collected according to the applicable requirements of s. NR 665.1084. | 665.1090(6)(a) |
| U.349: For tanks, surface impoundments, or containers exempted under s. NR 665.1083(3)(b)7. or 8., the generator recorded the identification number for the incinerator, boiler, or industrial furnace in which the hazardous waste is treated. | 665.1090(6)(b) |
| U.350: A generator designating a cover as "unsafe to inspect and monitor" pursuant to s. NR 665.1085(12) or 665.1086(7) must record in a log that is kept in the facility operating record the identification numbers for waste management units with covers that are designated as "unsafe to inspect and monitor", the explanation for each cover stating why the cover is unsafe to | 665.1090(7) |
| U.351: The generator of a facility that is subject to subchapter CC and to the control device standards in 40 CFR part 60, subpart VV or 40 CFR part 61, subpart V, may demonstrate compliance with the applicable sections of subchapter CC by documentation either pursuant to subchapter CC, or pursuant to 40 CFR part 60, subpart VV, or 40 CFR part 61, subpart V, to the extent that the documentation required by 40 CFR part 60 or 61 duplicates the documentation required by s. NR 665.1090. | 665.1090(8) |
| U.352: Tanks or containers not using air emission controls specified in ss. NR 665.1085 to 665.1088 according to the conditions in s. NR 665.1080(4) (i.e., organic peroxide manufacturing). If not applicable go to U.358. | NA1 |
| U.353: The generator records and maintains a list of the individual organic peroxide compounds manufactured at the facility that meet the conditions in s. NR 665.1080(4)(a). | 665.1090(9)(a) |
| U.354: The generator records and maintains a description of how the hazardous waste containing the organic peroxide compounds identified in s. NR 665.1090(9)(a) (see item U.353) is managed at the facility. For tanks this description provides sufficient information to describe for each tank a facility identification number for the tank, the purpose and placement of this tank in the management train of this hazardous waste and the procedures used to ultimately dispose of the hazardous waste managed in the tanks. | 665.1090(9)(b)1. |



Section U: Air Emission Standards CC J. CC: Recordkeeping U.355: The generator records and maintains a description of how the hazardous waste 665.1090(9)(b)2. containing the organic peroxide compounds identified in s. NR 665.1090(9)(a) (see item U.353) is managed at the facility. For containers this description provides sufficient information to describe a facility identification number for the container or group of containers, the purpose and placement of this container, or group of containers, in the management train of this hazardous waste and the procedures used to ultimately dispose of the hazardous waste handled in the containers. U.356: The generator records and maintains an explanation of why managing the hazardous 665.1090(9)(c)1. waste containing the organic peroxide compounds identified in s. NR 665.1090(9)(a) (see item U.353) in the tanks as described in s. NR 665.1090(9)(b)1. (see item U.354) would create an undue safety hazard if the air emission controls, required under ss. NR 665.1085 to 665.1088, were installed and operated on these waste management units. This explanation includes all of the following information: 1. Provide sufficient information to explain how use of the required air emission controls on the tanks would affect the tank design features and facility operating procedures currently used to prevent an undue safety hazard during the management of this hazardous waste in the tanks. 2. Why installation of safety devices on the required air emission controls, as allowed under subchapter CC, will not address those situations in which evacuation of tanks equipped with these air emission controls is necessary and consistent with good engineering and safety practices for handling organic peroxides. U.357: The generator records and maintains an explanation of why managing the hazardous 665.1090(9)(c)2. waste containing the organic peroxide compounds identified in s. NR 665.1090(9)(a) (see item U.353) in the tanks as described in s. NR 665.1090(9)(b)2. (see item U.355) would create an undue safety hazard if the air emission controls, required under ss. NR 665.1085 to 665.1088, were installed and operated on these waste management units. This explanation includes all of the following information: 1. Provide sufficient information to explain how use of the required air emission controls on the containers would affect the container design features and handling procedures used to prevent an undue safety hazard during the management of this hazardous waste in the containers. 2. Why installation of safety devices on the required air emission controls, as allowed under subchapter CC, will not address those situations in which evacuation of containers equipped with these air emission controls is necessary and consistent with good engineering and safety practices for handling organic peroxides. U.358: Hazardous waste management unit not using air emission controls as specified in ss. NA1 NR 665.1085 to 665.1088 according to s. NR 665.1080(2)(g). U.359: The generator records and maintains a certification that the waste management unit is 665.1090(10)(a) equipped with and operating air emission controls according to 40 CFR part 60, 61 or 63. U.360: The generator records and maintains Identification of the specific requirements in 40 665.1090(10)(b)

N: No UN: Unknown NA: Inspected, Not Applicable NE: Evaluation Determination will be Made at a Later Date NI: Not Inspected

CFR part 60, 61 or 63 with which the waste management unit is in compliance.