

Texas Commission on Environmental Quality

CHECKLIST WORKSHEET

IHW BOILER AND INDUSTRIAL FURNACE (BIF) ADDENDUM

Regulating Entity Name

Date :

Additional I D:

Investigator Name:

Item Number	Description	Answer	Citations	Notes
	SECTION A: DIRECT TRANSFER FACILITIES			
Item Number 1	Description			
		Is hazardous waste directly transferred as defined under 40 CFR 266.111(a) from a transport vehicle to a boiler industrial furnace without the use of a storage unit?		
	Answer			
Item Number 1A	Description			
		NOTE: If answer above is NO, remainder of this Section A does not apply.		
	Answer			
Item Number 2	Description			
		Does facility document description of Direct Transfer Equipment?		
	Answer			
Item Number 2A	Description			
		Note the equipment items to be observed during the site visit; the list includes designated piping, transfer pump, fittings, valves, flanges and other items.		
	Answer			
Item Number 2B	Description			
		What type of transport containers (e.g tanker truck, tanker trailer, rail tank cars, containers on or in a transport vehicle.) are used?		
	Answer			
Item Number 3	Description			
		Direct transfer of pumpable hazardous waste should not be conducted from open-top containers. Is this condition met?		
	Answer		266.111(c)(1)	
Item Number 4	Description			
		Is direct transfer equipment always kept closed except when adding or removing waste, and is it handled to prevent rupture or leak?		
	Answer		335.221(a)(22)	
Item Number 5	Description			
		Is the direct-transfer equipment designed and operated to prevent exposure due to following conditions?		
	Answer		335.221(a)(22)	
Item Number 5A	Description			
		Extreme heat or pressure generation, fire, explosion, or violent reaction;		
	Answer			
Item Number 5B	Description			
		Uncontrolled toxic mists, fumes, dusts, or gases;		
	Answer			
Item Number 5C	Description			
		Uncontrolled flammable fumes or gases;		
	Answer			
Item Number 5D	Description			
		Damage to structural integrity of container or direct transfer equipment.		
	Answer			
Item Number 6	Description			
		Is hazardous waste compatible with the direct transfer equipment?		
	Answer		335.221(a)(22)	
Item Number 7	Description			
		Are the following safety control measures present at the direct-transfer units?		
	Answer		335.221(a)(22)	
Item Number 7A	Description			
		Spill prevention controls?		
	Answer			
Item Number 7B	Description			
		Automatic waste feed cutoffs?		

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		Answer	Citations	Notes
Item Number 8	Description	For areas where direct transfer vehicles (containers) are located, evaluate the following conditions:		
		Answer	Citations	Notes
Item Number 8A	Description	Are containers in good condition? Referencing 265.171.		
		Answer	Citations	Notes
Item Number 8B	Description	Are the containers compatible with the wastes being stored? Referencing 265.172.		
		Answer	Citations	Notes
Item Number 8C	Description	Are containers kept closed except when adding waste? Referencing 265.173(a).		
		Answer	Citations	Notes
Item Number 8D	Description	Are containers stored in a safe manner? Referencing 265.173(b).		
		Answer	Citations	Notes
Item Number 8E	Description	Are containers holding ignitable or reactive wastes kept at least 15 meters (50 ft) from the facility property line or within the protective distance established by the NFPA? Referencing 265.176.		
		Answer	Citations	Notes
Item Number 8F	Description	Are containers holding incompatible wastes separated by a physical barrier or sufficient distance? Referencing 265.177(c).		
		Answer	Citations	Notes
Item Number 9	Description	Is the direct transfer equipment provided with a secondary containment?		
		Answer	Citations	Notes
Item Number 10	Description	Are the secondary containment requirements for the Direct Transfer Equipment met?		
		Answer	Citations	Notes
Item Number 10A	Description	Is the containment underlain by a base that is free of cracks or gaps and is sufficiently impervious to prevent migration of wastes out of the system? Referencing 264.175(b)(1) & 265.193(b)(1)&(2).		
		Answer	Citations	Notes
Item Number 10B	Description	Is the containment sloped to drain and remove liquids, unless containers are elevated to prevent contact with liquids? Referencing 264.175(b)(2) & 265.193(c)(4).		
		Answer	Citations	Notes
Item Number 10C	Description	Is the containment constructed of or lined with material that is compatible with waste? Referencing 265.193(c)(1).		
		Answer	Citations	Notes
Item Number 10D	Description	Is the containment foundation or base capable of providing support to secondary containment? Referencing 265.193(c)(2).		
		Answer	Citations	Notes
Item Number 10E	Description	Does the containment have a sufficient capacity to contain 10% of the liquid volume of all containers present or of the largest container, whichever is greater? Referencing 264.175(b)(3).		
		Answer	Citations	Notes
Item Number 10F	Description	Is the containment designed to prevent run-on, unless containment has sufficient capacity to contain run-on? Referencing 264.175(b)(4).		
		Answer	Citations	Notes
Item Number 10G	Description	Is the containment provided with a leak detection system that detects failure of containment and a release or accumulation of waste or liquid within 24 hours? Referencing 265.193(c)(3).		
		Answer	Citations	Notes

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Item Number 10H	Description Are accumulated liquids removed in a timely manner to prevent overflow of collection system?		
	Answer	Citations 264.175(b)(5)	Notes
Item Number 11	Description Based on the operating records, does the owner/operator inspects the following items at least once each operating hour when hazardous waste is being transferred from the transport container to a boiler or industrial furnace:		
	Answer	Citations	Notes
Item Number 11A	Description Is overfill/spill control equipment (e.g., waste-feed cutoff, bypass, and drainage systems) inspected to ensure that it is operational?		
	Answer	Citations 335.221(a)(22)	Notes
Item Number 11B	Description Are above ground portions of equipment inspected for corrosion, erosion, or releases?		
	Answer	Citations 335.221(a)(21)	Notes
Item Number 11C	Description Is monitoring and leak detection equipment data gathered to ensure that transfer equipment is being operated properly?		
	Answer	Citations 335.221(a)(22)	Notes
Item Number 12	Description Are records of these investigation maintained at the facility for at least 3 years?		
	Answer	Citations 335.221(a)(22)	Notes
Item Number 13	Description If a release or spill has occurred into the secondary containment or it is unfit for use, was the system removed from service immediately and further complied with 40 CFR 265.196?		
	Answer	Citations 335.221(a)(22)	Notes
Item Number	Description SECTION B: ASSESSMENT OF RESIDUES		
	Answer	Citations	Notes
Item Number 1	Description Most BIF units do not qualify for exclusion of the residues from solid waste definition. Residues like fly ash waste, bottom ash waste, slag waste, flue gas emission control waste are not solid wastes [excluded from the solid waste definition per 261.4(b)(4), (b)(7) and (b)(8) when these residues are generated by devices like coal or fossil fired combustion units. However, BIF regulation 266.112(a) and (b) may override this exclusion as follows:		
	Answer	Citations	Notes
Item Number 1A	Description If a boiler burns less than 50 % coal on a total heat input or mass input basis, residues generated during combustion are solid wastes. Based on this criteria, are BIF residues solid wastes?		
	Answer	Citations	Notes
Item Number 1B	Description If a cement kiln uses less than 50 % by weight of normal cement manufacturing raw materials, residues generated during combustion are solid wastes. Based on this criteria, are BIF residues solid wastes?		
	Answer	Citations	Notes
Item Number 1C	Description Are BIF residues that are not excluded (example: liner bricks generated during maintenance) from the solid waste definition adequately classified?		
	Answer	Citations 262.11	Notes
Item Number 2	Description Criteria for residues to be excluded from the hazardous waste definition are noted as follows [266.112(b) and Appendix IX section 7.0]: The facility may demonstrate that burning hazardous waste does not significantly affect the residue by either: Option A - comparison of waste derived residue with normal residue or, Option B - comparison of waste-derived residue with concentrations with health based limits. Which option does the facility use?		
	Answer	Citations	Notes

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Item Number 2A	Description	If the facility uses Option A, does facility meet requirements in the following steps?	
	Answer	Citations	Notes
		266.112(b)(1)	
Item Number 2AI	Description	Has the owner analyzed at least 10 composite normal residue (residue generated by a facility without burning) samples representing 10 days of operation for Appendix VIII constituents?	
	Answer	Citations	Notes
Item Number 2AII	Description	Has the facility calculated an upper tolerance limit (UTL) of the concentration for each Appendix VIII constituent in the normal residue?	
	Answer	Citations	Notes
Item Number 2AIII	Description	Does the facility document that there have not been any changes in raw materials or process operations that would affect the UTL for the normal residue?	
	Answer	Citations	Notes
Item Number 2AIV	Description	Are waste-derived samples composited and analyzed during each 24-hour period when hazardous waste is burned? (Note: Compositing period cannot exceed 24 hours. There must be a minimum of 10 composite samples.)	
	Answer	Citations	Notes
Item Number 2AV	Description	Have concentrations of constituents in waste-derived residues been shown to be less than the statistically-derived concentrations of constituents in the normal residue?	
	Answer	Citations	Notes
Item Number 2AVI	Description	Does the facility have on record all waste analysis data from each composite sample?	
	Answer	Citations	Notes
Item Number 2B	Description	If the facility uses Option B, does facility meet requirements in the following steps?	
	Answer	Citations	Notes
		266.112(b)(2)	
Item Number 2BI	Description	Are waste-derived residues samples composited and analyzed during each 24-hour period when hazardous waste is burned?	
	Answer	Citations	Notes
Item Number 2BII	Description	Are organic in Part 261 Appendix VIII constituents less than or equal to the concentrations in Part 266 Appendix VII?	
	Answer	Citations	Notes
Item Number 2BIII	Description	Are metals (based on TCLP analysis) less than or equal to the concentrations in Part 266 Appendix VIII?	
	Answer	Citations	Notes
Item Number B3	Description	Facility should determine whether solid waste residue is hazardous waste by using the criteria under 266.112 (b), option A or B as well as 262.11-hazardous waste determination. Has facility taken all steps to perform complete hazardous waste determination?	
	Answer	Citations	Notes
		262.11	
Item Number B4	Description	Does the facility keep records of BIF residue determinations until the closure of the facility?	
	Answer	Citations	Notes
		266.112(c)	