APPLICATION REVIEW CHECKLIST LAND PROTECTION DIVISION HAZARDOUS WASTE PROGRAM	Facility ID No.:	ODEQ Permit No.:	Reference No.:	40 CFR 264 Subpart L <u>SURFACE</u> <u>IMPOUNDMENT</u>
OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY		Start Date: Start Date:		ODEQ Form Number XXX - XXX Shaded areas for ODEQ use only

ITEM #	FEDERAL REGULATIONS 40 CFR'S	STATE REGULATIONS OAC 252:200's	GENERAL DESCRIPTION	INFO LOCATION	ADMIN. COMPLETE	TECHNICALLY COMPLETE	REMARKS
					YES/NO/NA	YES/NO/NA	
APPLICABILITY - 264.220							
To all facilities that use surface impoundments (SIs) to treat, store, or dispose of hazardous waste except as 264.1 provides otherwise							

Facility Name Reference No.	

A. Reviewer's Initials	Tracking Date
T. Reviewer's Initials	Tracking Date

ITEM #	FEDERAL REGULATIONS 40 CFR'S	STATE REGULATIONS OAC 252:200'S	GENERAL DESCRIPTION	INFO LOCATION	ADMIN. COMPLETE YES/NO/NA	TECHNICALLY COMPLETE YES/NO/NA	REMARKS
DESIGN A	DESIGN AND OPERATING REQUIREMENTS - 264.221				123/110/111	123/10/11/1	
SI-1	264.221 (a)		All SI must have liners except as those are covered under paragraph (c) of this section: The liner must be designed, constructed and installed to prevent migration of wastes out the SI during the life of the SI (incl. the closure period). The liner may be of materials that allow wastes to migrate into the liner but not to the environment during the active life of the facility, provided the SI is closed under 264.228(a)(1). For SI to be closed under 264.228(a)(2), the liner must be of materials to prevent wastes from migrating into the liner during the active life of the facility. The liner must be:				
SI-2	264.221(a)(1)		Constructed of materials with chemical properties, sufficient strength and thickness to prevent failure				
SI-3	264.221(a)(2)		Placed upon a sound foundation				
SI-4	264.221(a)(3)		Installed to cover all surroundings that are likely to be in contact with the wastes or leachate				
SI-5	264.221(b)		Exemption from the requirements of paragraph (a) of this section based on a demonstration by the facility. Considerations to grant an exemption include:				
SI-6	264.221(b)(1)		The nature and quantity of wastes				
SI-7	264.221(b)(2)		The proposed alternate design and operation				
SI-8	264.221(b)(3)		The hydrogeologic setting				

Facility Name Reference No.	

A. Reviewer's Initials	Tracking Date
T. Reviewer's Initials	Tracking Date

ITEM #	FEDERAL REGULATIONS 40 CFR'S	STATE REGULATIONS OAC 252:200's	GENERAL DESCRIPTION	INFO LOCATION	ADMIN. COMPLETE	TECHNICALLY COMPLETE	Remarks
					YES/No/NA	YES/No/NA	
SI-9	264.221(b)(4)		All other factors relating to leachate and groundwater				
SI-10	264.221(c)		New SIs after 1/29/92 must have two or more liners and a leachate collection and removal system between such liners				
SI-11	264.221(c)(1)		 (i) The liner system must include: (A) A top liner made of materials to prevent migration of hazardous wastes into such liner during the active life and post closure care period (B) A composite bottom liner consisting of two components: a geomembrane and a 3-foot compacted soil with hydraulic conductivity of no more than 1x10⁻⁷ cm/sec. (ii) The liners must comply with paragraphs (a)(1), (2), and (3) of this section 				
SI-12	264.221(c)(2)		A leak detection system, at a minimum must be: (i) Constructed with a bottom slope of 1% or more (ii) Constructed of granular drainage materials with a minimum hydraulic conductivity of 1X10-1 cm/sec, a minimum thickness of 12 inches; or a geonet drainage materials with a minimum transmissivity of 3x10-4 m2/sec (iii) Constructed of materials with chemical resistance and strength (iv) Designed and operated to minimize clogging Constructed with sumps and liquid removal systems that are capable of measuring liquids present and removed				

Facility Name Reference No.	

A. Reviewer's Initials	Tracking Date
T. Reviewer's Initials	Tracking Date

ITEM #	FEDERAL REGULATIONS 40 CFR'S	STATE REGULATIONS OAC 252:200's	GENERAL DESCRIPTION	INFO LOCATION	ADMIN. COMPLETE YES/NO/NA	TECHNICALLY COMPLETE YES/NO/NA	Remarks
SI-13	264.221(c)(3)		The facility shall collect and remove liquids in the sumps				
SI-14	264.221(c)(4)		The leak detection system must not be adversely affected by groundwater				
SI-15	264.221(d)		Approval of alternate design or operating practices to those specified in paragraph (c) of this section, if they:				
SI-16	264.221(d)(1)		Will prevent the migration of any hazardous constituent into the environment as effectively as those in paragraph (c) of this section; and				
SI-17	264.221(d)(2)		Will detect leaks through the top liner at least as effectively				
SI-18	264.221(e)		Waiving of the double liner requirement as specified in paragraph (c) of this section for any monofill, if:				
SI-19	264.221(e)(1)		The monofill is from foundry furnace emission controls or metal casting molding sand; and				
SI-20	264.221(e)(2)		 (i) (A) The monofill has at least one non-leaking liner (see the detailed definition of liner); (B) The monofill is located more than one-quarter mile from an underground source of drinking water (144.3); and (C) The monofill is in compliance with groundwater monitoring requirements; or (ii) Demonstration to assure that no migration of any hazardous constituent into the environment in the future 				
SI-21	264.221(f)		A replacement SI unit is exempt from paragraph (c) of this section, if:				

Facility Name Reference No.	

A. Reviewer's Initials	Tracking Date
T. Reviewer's Initials	Tracking Date

Ітем #	FEDERAL REGULATIONS 40 CFR'S	STATE REGULATIONS OAC 252:200's	GENERAL DESCRIPTION	INFO LOCATION	ADMIN. COMPLETE	TECHNICALLY COMPLETE	REMARKS
					YES/NO/NA	YES/NO/NA	
SI-22	264.221(f)(1)		The existing unit was constructed in compliance with Section 3004 (o)(1)(A)(i) and (o)(5) of RCRA; and				
SI-23	264.221(f)(2)		The liner is functioning as designed				
SI-24	264.221(g)		A SI must be designed, constructed, maintained, and operated to prevent overtopping				
SI-25	264.221(h)		Dikes must have structural integrity to prevent failure				
SI-26	264.221(i)		The Agency will specify in the permit all design and operating practices that are necessary to ensure that the requirements of this section are satisfied				
ACTION I	LEAKAGE RATE (AL	LR) - 264.222					
SI-27	264.222(a)		The Agency shall approve an ALR for SI units subject to 264.221(c) or (d). The ALR is the maximum design flow rate that the leak detection system can remove without the fluid head on the bottom liner exceeding 1 foot. The ALR must include an adequate safety margin				
SI-28	264.222(b)		To determine if the ALR has been exceeded, the facility must convert the weekly or monthly flow rate under 264.226(d) to an average daily flow rate (gal/acre/day) for each sump. The average daily flow rate must be calculated weekly during the active life and closure period, and monthly during the post closure care period as under 264.228(b) and 264.226(d)				
RESPONS	E ACTION - 264.223						

Facility Name Reference No.	

A. Reviewer's Initials	Tracking Date
	
T. Reviewer's Initials	Tracking Date

І тем #	FEDERAL REGULATIONS 40 CFR'S	STATE REGULATIONS OAC 252:200'S	GENERAL DESCRIPTION	INFO LOCATION	ADMIN. COMPLETE	TECHNICALLY COMPLETE	REMARKS
					YES/NO/NA	YES/NO/NA	
SI-29	264.223(a)		The facility must have an approved response action plan before receiving wastes. The response action plan at a minimum must be as described in paragraph (b) of this section:				
SI-30	264.223(b)		If the flow rate into the leak detection system exceeds the ALR for any sump, the facility must:				
SI-31	264.223(b)(1)		Notify the Agency in writing within 7 days				
SI-32	264.223(b)(2)		Submit a written assessment to the Agency within 14 days as to the amount of liquids, sources, location, size, cause, and short-term actions taken and planned				
SI-33	264.223(b)(3)		Determine the location, size, and cause of any leak				
SI-34	264.223(b)(4)		Determine whether waste receipt should be ceased or curtailed, whether any waste should be removed, and whether or not the unit should be closed				
SI-35	264.223(b)(5)		Determine any short-term and long-term actions				
SI-36	264.223(b)(6)		Within 30 days after the notification, submit to the Agency the results of analyses in paragraphs (b)(3), (4), and (5) of this section, the results of actions taken, and actions planned. Monthly thereafter, as long as problems still occur, the facility must submit a report summarizing the results of any remedial actions taken and actions planned				
SI-37	264.223(c)		To make the leak and/or remediation determinations in paragraphs (b)(3), (4), and (5) of this section, the facility must:				

Facility Name Reference No.	
1010101100 1101	

A. Reviewer's Initials	Tracking Date
T. Reviewer's Initials	Tracking Date

ITEM #	FEDERAL REGULATIONS 40 CFR's	STATE REGULATIONS OAC 252:200'S	GENERAL DESCRIPTION	INFO LOCATION	ADMIN. COMPLETE YES/NO/NA	TECHNICALLY COMPLETE YES/NO/NA	REMARKS
SI-38	264.222(a)(1)		(i) Assess the source of liquids and amount of liquids by		YES/NO/NA	Y ES/INO/INA	
31-36	264.223(c)(1)		(i) Assess the source of liquids and amount of liquids by source				
			(ii) Conduct a fingerprint of the liquids in the leak detection system to identify the source, location of any leaks, and the hazard and mobility of the liquid				
			(iii) Assess the potential impact to the environment				
SI-39	264.223(c)(2)		Document why such assessments are not needed				
264.224 -	264.224 - 264.225 [RESERVED]						
Monitor	RING AND INSPECTIO	N - 264.226					
SI-40	264.226(a)		During construction and installation, liners and cover systems must be inspected for uniformity, damage, and imperfections. Immediately after construction or installation:				
SI-41	264.226(a)(1)		Synthetic liners and covers must be inspected				
SI-42	264.226(a)(2)		Soil-based and admixed liners and covers must be inspected				
SI-43	264.226(b)		While in operation, the facility must inspect weekly and after storms for:				
SI-44	264.226(b)(1)		Deterioration, malfunctions, or improper operation of overtopping control systems				
SI-45	264.226(b)(2)		Sudden drops in the level of the impoundment's contents				
SI-46	264.226(b)(3)		Severe erosion or other signs of deterioration in dikes or other containment devices				

Facility Name Reference No.	

A. Reviewer's Initials	Tracking Date
T. Reviewer's Initials	Tracking Date

І тем #	FEDERAL REGULATIONS 40 CFR'S	STATE REGULATIONS OAC 252:200'S	GENERAL DESCRIPTION	INFO LOCATION	ADMIN. COMPLETE	TECHNICALLY COMPLETE	REMARKS
					YES/NO/NA	YES/NO/NA	
SI-47	264.226(c)		Prior to a permit issuance, and after a period of inactive service (at least 6 months), the facility must obtain a qualified engineer's certification on the structural integrity of the dike. The certification must establish that the dike:				
SI-48	264.226(c)(1)		Will withstand the stress exerted by the wastes				
SI-49	264.226(c)(2)		Will not fail due to scouring or piping				
SI-50	264.226(d)(1)		If the facility must meet the requirements under 264.221(c) or (d), the facility must record the liquids removed from each sump weekly during the active and closure periods				
SI-51	264.226(d)(2)		After the installation of the final cover, the facility must record the liquids removed from each sump monthly. If the liquid level is below the pump operating level for two consecutive months, the amount of liquids in the sump must be recorded quarterly. If the liquid level is below the pump operating level for two consecutive quarters, the amount of liquids in the sump must be recorded semi-annually. If the pump operating level is exceeded on quarterly or semi-annual schedule, the facility must return to monthly schedule.				
SI-52	264.226(d)(3)		"Pump operating level" is a liquid level based on pump activation level, sump dimensions, and level that avoids backup into the drainage layer and minimizes head				
		_					
EMERGE	NCY REPAIRS; CONT	INGENCY PLANS - 26	4.227				
SI-53	264.227(a)		AN SI must be removed from service in accordance with paragraph (b) of this section when:				

Facility Name Reference No.	

A. Reviewer's Initials	Tracking Date
	
T. Reviewer's Initials	Tracking Date

ITEM #	FEDERAL REGULATIONS 40 CFR'S	STATE REGULATIONS OAC 252:200'S	GENERAL DESCRIPTION	INFO LOCATION	ADMIN. COMPLETE	TECHNICALLY COMPLETE	REMARKS
					YES/NO/NA	YES/NO/NA	
SI-54	264.227(a)(1)		The liquid level in the SI drops and the reason for dropping is unknown				
SI-55	264.227(a)(2)		The dike leaks				
SI-56	264.227(b)		When an SI is removed due to paragraph (a) of this section, the facility must:				
SI-57	264.227(b)(1)		Immediately stop all the wastes going into the SI				
SI-58	264.227(b)(2)		Immediately contain any leakage				
SI-59	264.227(b)(3)		Immediately stop the leak				
SI-60	264.227(b)(4)		Take steps to stop or prevent catastrophic failure				
SI-61	264.227(b)(5)		If a leak cannot be stopped, empty the SI				
SI-62	264.227(b)(6)		Notify the Agency in writing within seven days				
SI-63	264.227(c)		As part of the contingency plan, the facility must specify a procedure for complying with paragraph (b) of this section				
SI-64	264.227(d)		No SI that has been removed from service (under this section) may be restored to service unless the SI is repaired and the following steps are taken:				
SI-65	264.227(d)(1)		If due to dike failure, the dike's structural integrity must be recertified in acc. with 264.226(c)				
SI-66	264.227(d)(2)		If due to a sudden drop in liquid level, then: (i) A liner must be installed in compliance with 264.221(a); and (ii) The repaired liner system must be certified by a qualified engineer to meet the specifications in the permit				

Facility Name Reference No.	

A. Reviewer's Initials	Tracking Date
	
T. Reviewer's Initials	Tracking Date

ITEM #	FEDERAL REGULATIONS 40 CFR'S	STATE REGULATIONS OAC 252:200's	GENERAL DESCRIPTION	INFO LOCATION	ADMIN. COMPLETE	TECHNICALLY COMPLETE	REMARKS
					YES/No/NA	YES/NO/NA	
SI-67	264.227(e)		A SI that has been removed (under this section) and that is not being repaired must be closed in acc. with 264.228				
CLOSURE	E AND POST CLOSURI	E CARE - 264.228					
SI-68	264.228(a)		At closure, the facility must:				
SI-69	264.228(a)(1)		Remove or decontaminate all wastes, containment system, contaminated subsoils, and structures unless 261.3(d) applies.				
			*** The ODEQ may approve risk-based closure standards as an option for closure of a unit if requested by the facility.				
SI-70	264.228(a)(2)		(i) Eliminate free liquids				
			(ii) Stabilize remaining wastes				
			(iii) Cover the SI with a final cover designed and constructed to:				
			(A) Minimize the migrations of liquids				
			(B) Minimize maintenance				
			(C) Promote drainage and minimize erosion				
			(D) Accommodate settling and subsidence				
			(E) Have a permeability equal or lesser than the permeability of the bottom liner				
SI-71	264.228(b)		If close in place, the facility must comply with post-closure req. in 264.117 through 120, including post closure care requirements. The facility must:				
SI-72	264.228(b)(1)		Maintain the final cover				

Facility Name Reference No.	

A. Reviewer's Initials	Tracking Date
T. Reviewer's Initials	Tracking Date

ITEM #	FEDERAL REGULATIONS 40 CFR'S	STATE REGULATIONS OAC 252:200's	GENERAL DESCRIPTION	INFO LOCATION	ADMIN. COMPLETE	TECHNICALLY COMPLETE	REMARKS
					YES/NO/NA	YES/NO/NA	
SI-73	264.228(b)(2)		Maintain and monitor the leak detection system in acc. with 264.221(c)(2)(iv) and (3) and 264.226(d), and comply with all leak detection system requirements				
SI-74	264.228(b)(3)		Maintain and monitor the groundwater monitoring system and comply with all req. of Subpart F				
SI-75	264.228(b)(4)		Prevent run on and run off				
SI-76	264.228(c)(1)		If a SI is closed in acc. with paragraph (a)(1) of this section, and the SI does not comply with liner req. of 264.221(a) and is not exempt from them in acc. with 264.221(b), then:				
			(i) The closure plan under 264.112 must include a plan in compliance with paragraph (a)(1) of this section and a contingency plan in compliance with paragraph (a)(2) of this section; and				
			(ii) The facility must prepare a contingent post-closure plan under 264.118 for complying with paragraph (b) of this section				
SI-77	264.228(c)(2)		Cost estimates under 264.142 and 144 for closure and post closure care including the contingent closure and post closure plans, but excluding the closure cost under paragraph (a)(1) of this section				
SPECIAL REQUIREMENTS FOR IGNITABLE OR REACTIVE (IR)WASTES - 264,229							
IR wastes	must not be placed	in an SI, unless the w	aste and SI satisfy all requirements of 40CFR268, and:				
SI-78	264.229(a)		The waste is treated before or immediately after placement in the SI so that:				
SI-79	264.229(a)(1)		The resulting waste no longer meets the definition of IR under 261.21 or 23; and				

Facility Name Reference No.	

A. Reviewer's Initials	Tracking Date
T. Reviewer's Initials	Tracking Date

ITEM #	FEDERAL REGULATIONS 40 CFR'S	STATE REGULATIONS OAC 252:200'S	GENERAL DESCRIPTION	INFO LOCATION	ADMIN. COMPLETE	TECHNICALLY COMPLETE	REMARKS
					YES/No/NA	YES/NO/NA	
SI-80	264.229(a)(2)		Section 264.17(b) is complied with; or				
SI-81	264.229(b)		The waste is managed to be protected from any material or conditions which may cause it to ignite or react; or				
SI-82	264.229(c)		The SI is used solely for emergencies.				
		R INCOMPATIBLE WAS	STES - 264.230 e SI , unless 264.17(b) is complied with.				
SPECIAL	REQUIREMENTS FOR	R HAZARDOUS WASTI	ES F020 THROUGH F027 - 264.231				
SI-83	264.231(a)		Hazardous wastes F027 through F027 must not be placed in an SI unless a management plan for theses wastes is approved by the Agency. Factors to be considered are:				
SI-84	264.231(a)(1)		The volume, physical, and chemical characteristics of the wastes, including the potential to migrate to the environment;				
SI-85	264.231(a)(2)		The attenuative properties of the soils or other materials;				
SI-86	264.231(a)(3)		The mobilizing properties of other materials co-disposed with these wastes; and				
SI-87	264.231(a)(4)		The effectiveness of additional treatment, design, or monitoring techniques				
SI-88	264.231(b)		The Agency may impose additional requirements in order to reduce the possibility of migration of these wastes to the environment				

Facility Name Reference No.	

A. Reviewer's Initials	Tracking Date
T. Reviewer's Initials	Tracking Date