



State of Oregon
Department of
Environmental
Quality

DEQ Solid Waste Program

LANDFILL INSPECTION REPORT

FACILITY:	Riverbend Landfill				
COUNTY:	Yamhill		PERMIT NO:	345	
INSPECTOR(S):	Bob Schwarz		INSPECTION DATE:	Oct. 16, 2014	
	Start time:	10:20 am	End time:	1:05 pm	
Site Weather Conditions: Sunny, 57F at beginning of inspection; 72F at end of inspection.					
Facility Representatives:		Dave Adler, Ops Manager			
Inspection type:	Unannounced landfill inspection				
Facility Type:	MSW Landfill				
INSPECTION SUMMARY/KEY ITEMS: Erosion and sediment controls. Trackout of mud and gravel onto 18 is a primary operations issue. Highway 18 looked very good at start of the inspection. Upon leaving, I observed some mud and gravel on the acceleration lane. I called Dave Adler from the car and asked him to get the cleaning crew out there. MSE berm. Phase 1-A is completed. Phase 1-B construction is underway and is scheduled to be completed by end of 2014. Although weather was clear during the inspection, construction today was minor because of recent rains that made the soil too wet. Tie-in of liners for Modules 1 and 8. Waste Management (WM) has completed installation of the liner system connecting Module 1 overliner and Module 8 liner. Front entrance facility. Construction continues, as shown in attached photos.					

I.	OPERATIONS	In Compliance	Not in Compliance	N/A for this Inspection	Follow-up required
1.	Ownership. Facility ownership up to date?			x	
	Notes:				
2.	Waste Acceptance. Permittee accepts authorized waste only?			X	
3.	Special Waste Management. SWMP up to date?			X	
	Notes: WM recently submitted an updated SWMP. DEQ is currently reviewing.				
4.	Prohibited Waste. Permittee accepts no prohibited waste? a) hazardous waste b) liquid wastes, lead acid batteries, used oil, vehicles, waste tires c) source separated recyclables d) asbestos e) infectious waste f) large metal jacketed appliances g) explosives			x	
	Notes:				
5.	Prohibited Waste Discovery. Permittee complies with prohibited waste discovery and reporting requirements?			X	
	Notes:				
6.	Open Burning. Does it occur?	x			
	Notes:				
7.	Operational Methods. Operations comply with approved operations plan?	X			
	Notes:				
8.	Operations Plan. Operations plan up-to-date and DEQ-approved?			X	
	Notes:				
9.	Permittee Self-Reporting. Permittee reports and corrects non-compliance conditions?	X			
	Notes:				
10.	Permit. Copy of Permit displayed and accessible to facility personnel?	X			
	Notes:				

I.	OPERATIONS	In Compliance	Not in Compliance	N/A for this Inspection	Follow-up required
11.	Visual Screening. Landfill screened from public view?	X			
	Notes: Landfill extends above the perimeter trees. In any event, landfill is visible from higher elevations, and is a significant issue for neighbors. However, this is not prohibited in permit.				
12.	Waste Unloading. Signs, fences, barriers clearly define waste unloading areas?	X			
	Notes:				
13.	Litter. Litter controlled and picked up?	X			
	Notes:				
14.	Vector control. Active landfill area has minimal birds, insects, rodents?				X
	Notes: Falcons were not working today. A large number of birds were observed adjacent to the landfill's south side for some reason. Based on past years' observations, fall seems to be when bird numbers are highest.				
15.	Air Quality, Noise. Dust, odors and noise controlled?				x
	Efforts must continue to keep paved onsite roads and Highway 18 free from mud that generates dust.				
16.	Access. Efforts must continue to keep paved onsite roads and Highway 18 free from mud that generates dust.				X
	Notes:				
17.	Entrance Signs. Entrance signs indicate facility name, emergency phone #, schedule, acceptable and prohibited wastes, and restrict site access?	x			
	Notes:				
18.	Public Access. Adequate security, prevents unauthorized entry and dumping?			X	
	Notes:				
19.	Cover Methods. Cover (including ADC) complies with DEQ- approved operations plan?			X	
	Notes:				
20.	Records. Permittee keeps records and reports of waste types and amounts of recyclables received and types reported to DEQ			X	
	Notes: Record provided electronically to DEQ.				

I.	OPERATIONS	In Compliance	Not in Compliance	N/A for this Inspection	Follow-up required
		In Compliance	Not in Compliance	N/A for this Inspection	Follow-up required
21.	Records retention. Permittee keeps all records for at least 5 years?			X	
	Notes:				
22.	Tire Storage. Permittee stores no more than 100 whole tires on site? No more than 2000 tires with continuous contract with removal contractor?	X			
	Notes: see photo.				
23.	Fire Protection. Permittee provides adequate on-site fire control measures? Has arranged for assistance from local Fire Department if needed?			X	
	Notes:				
24.	DEQ Fees. Permittee pays annual per-ton fees to DEQ?			X	
	Notes:				

II.	SITE DESIGN AND DEVELOPMENT	In Compliance	Not in Compliance	N/A for this Inspection	Follow-up required
		In Compliance	Not in Compliance	N/A for this Inspection	Follow-up required
25.	Site Development. Landfill development meets DEQ-approved site development plan?	X			
	Notes:				
26.	Engineering Plans. Permittee submitted engineering plans for DEQ review and approval at least 6-months before constructing new cells, final closure features, environmental control systems or ancillary facilities?	x			
	Notes:				

III	FACILITY CONSTRUCTION	In Compliance	Not in Compliance	N/A for this Inspection	Follow-up required
		In Compliance	Not in Compliance	N/A for this Inspection	Follow-up required
27.	Design Conformance. All landfill facility construction conforms to DEQ-approved plans and specifications?	x			
	Notes:				

III	FACILITY CONSTRUCTION	In Compliance	Not in Compliance	N/A for this Inspection	Follow-up required
28.	Construction CQA. Facility Construction complies with DEQ-approved CQA plan?	x			
	Notes: Construction quality assurance documents for MSE berm Phase 1-A were submitted in September. DEQ reviewed and approved them on 9/24/2014.				
29.	Construction Certification. Permittee submitted construction certification reports to DEQ for review and approval after constructing new facilities?	x			
	Notes: see preceding item.				
30.	New Approved Disposal Units. DEQ approved placement of waste in new cell?	X			
	Notes: Disposal in new module 9 (MSE berm Phase 1-A) approved by letter on 9-24-2014.				

IV	<u>LEACHATE MANAGEMENT</u>	In Compliance	Not in Compliance	N/A for this Inspection	Follow-up required
31.	Leachate Prevention. Permittee effectively minimizes leachate generation in active and inactive cells through systematic use of daily cover, intermediate (plastic) cover and phased final closure (close-as-you-go) strategies?			X	
	Notes:				
32.	Leachate Seeps. No leachate seeps present beyond lined cell footprints?	x			
	Notes: Some seeps are being collected near anchor trench on north slope. The source is unclear because this area is capped. Geosyntec is evaluating and will submit a report with recommendations for correcting this problem. Leachate was not observed outside the landfill footprint. This week, WM installed a sump to capture the liquid and route it to the leachate collection system (see photo).				
33.	Leachate collection system (LCS). Permittee maintains 1-foot or less hydraulic head in primary leachate collection system and continuously removes leachate from collection systems? All LCS systems and equipment in good condition and well maintained?			x	
	Notes: Daily sump level readings are provided quarterly.				

<u>IV</u>	<u>LEACHATE MANAGEMENT</u>	In Compliance	Not in Compliance	N/A for this Inspection	Follow-up required
34.	Leak Detection system (LDS). No leachate or other fluids detected in LDS? Permittee reports to DEQ any incidents of leakage through the primary liner system? LDS Systems well maintained?			X	
	Notes: This is documented in the annual report.				
35.	Leachate Storage/Treatment Ponds. Permittee maintains at least 3-feet of pond-dike freeboard above liquid surface? Access restricted by fencing and locked gates? Signs posted indicating pond contents and “no trespassing”? Ponds well maintained, structurally stable, no significant soil erosion, slope failures leaks or seeps? Odor control measures effective?			x	
	Notes:				
36.	Leachate Treatment/Disposal. Leachate treatment methods comply with DEQ-approved leachate management plan? Existing facilities adequate or plans in development to address long-term leachate treatment and disposal? Treatment systems well maintained and functional?			x	
	Notes:				

<u>V</u>	<u>STORMWATER MANAGEMENT</u>	In Compliance	Not in Compliance	N/A for this Inspection	Follow-up required
37.	Stormwater Pollution Control Plan (SPCP). Up-to-date SPCP maintained in the Operating Record. Plan reflects site-specific conditions at the landfill?	x			
	Notes:				
38.	Stormwater Drainage Structures. Pipes, culverts, ditches, swales, berms, dikes, straw bales, erosion control matting, riprap, and other structures are well maintained, constructed per DEQ-approved design plans and specifications?	x			
	Notes:				
39.	Flood Control Structures. Perimeter flood control dikes are well maintained, structurally sound, in good condition?			x	
	Notes:				

<u>VI</u>	<u>LANDFILL GAS MANAGEMENT</u>	In Compliance	Not in Compliance	N/A for this Inspection	Follow-up required
40.	Landfill Gas Extraction System. Vertical wells and horizontal collectors are well maintained and sufficient in number to prevent excessive odors and subsurface gas migration? Header pipes, valves and associated equipment are functional and well maintained? Landfill-wide odors not excessive?	x			
	Notes:				
41.	Condensate Collection/Disposal. Condensate collection system well maintained, functional? Condensate sumps and storage tank(s) well maintained, no fluid leaks, odors not excessive? Permittee has records of condensate volumes and its chemical characteristics? Permittee routinely tests underground condensate sumps for subsurface leakage?			X	
	Notes:				
42.	Landfill Gas Blower/Flare station. Blower/flare station equipment functional and well maintained? Equipment installed reflects DEQ-approved design? No fluid leaks from condensate knockout tanks or other sources, no excessive odors?			X	
	Notes:				
43.	Equipment safety. Landfill gas system test equipment and ancillary structures are intrinsically safe (no confined spaces susceptible to landfill gas accumulation)?			x	
	Notes:				
44.	On-site, buildings offices. On-site structures setback adequately from the landfill or have engineering controls and monitoring to prevent and detect landfill gas intrusion and explosion hazards?			x	
	Notes:				
45.	Landfill Gas to Energy Facilities. Facilities are well maintained, no excessive odors, no fluid leaks from pipes or other equipment?			x	
	Notes:				

<u>VII</u>	<u>ENVIRONMENTAL MONITORING</u>	In Compliance	Not in Compliance	N/A for this Inspection	Follow-up required
46.	Groundwater Monitoring Program. Permittee conducts groundwater monitoring program in accordance with the DEQ-approved EMP? a) EMP updated to incorporate new or replacement monitoring wells? b) Site characterization reports for new disposal cells submitted for DEQ review and approval? c) Permit specific concentration limits established for the site? d) Annual Environmental Monitoring Reports (AEMR) submitted to DEQ on schedule?			x	
	Notes:				
47.	Groundwater Sampling Program. Sampling techniques comply with DEQ-approved EMP? a) DEQ notified at least 10 working days before scheduled sampling event? b) DEQ lab notified at least 45 days before split-sampling event? c) DEQ Lab split-sampling report supports permittee's results?			x	
	Notes:				
48.	Groundwater Monitoring Well Network. All DEQ-approved detection and compliance wells are properly constructed, functional, and well maintained? a) Well casings vertical, in good condition and stable? b) Concrete pads in good condition, sealed to casings, and stable? c) Well caps on and locked? d) Wells properly identified and labeled? e) Any evidence of surface water ponding or erosion around well locations? f) Any damage to wells? Was it reported appropriately to DEQ within 14 days? g) Any unused wells are properly decommissioned?			x	
	Notes:				
49.	Stormwater Monitoring Program. Established stormwater monitoring stations have identifiable field markings, and are maintained for repeat monitoring events per NPDES stormwater permit requirements and DEQ-approved EMP?			x	
	Notes:				
50.	Leak detection System. Access risers and collection sumps and pumps are functional and well maintained? No fluids present in the leak detection system? Permittee has reported to DEQ and investigated the source of any seepage into the leak detection system?			x	
	Notes:				

<u>VII</u>	<u>ENVIRONMENTAL MONITORING</u>	In Compliance	Not in Compliance	N/A for this Inspection	Follow-up required
51.	Surface Water Monitoring. Designated monitoring stations established and maintained for streams, ponds, lakes or other water bodies of interest per the DEQ-approved EMP?			x	
	Notes:				
52.	Landfill Gas Monitoring Program. Methane gas monitored in accordance with DEQ approved EMP? a) Monitoring results reported in AEMR and maintained in facility operating record? b) Probes are adequately placed and designed to monitor gas migration toward onsite and off-site structures and confined spaces? c) Permittee has inventoried susceptible confined spaces on and near the landfill, identified their locations on a site map, described their characteristics, and monitored for methane at these locations. d) Permittee monitors for landfill gas in liner leak detection system?			x	
	Notes:				
53.	Landfill Gas Monitoring Probes or Devices. All gas monitoring probes or sensors are properly constructed, labeled and maintained? a) Probes casings are vertical, in good condition, have locked security caps? b) Gas testing meter is properly calibrated before each monitoring event and maintained by manufacturer. c) Gas monitoring procedures conform to DEQ-approved EMP?			x	
	Notes:				

<u>VIII</u>	<u>LANDFILL CLOSURE</u>	In Compliance	Not in Compliance	N/A for this Inspection	Follow-up required
54.	Closure Process. Permittee has DEQ-approved closure plan and implements plan appropriately and effectively? Phased closure conforms to DEQ approved plans and schedule?			x	
	Notes:				

55.	Final Landfill Cover. Final cover system constructed in conformance with DEQ-approved plans and specs? a) Cover system in good condition and well maintained? b) Maintenance procedures consistent with DEQ approved O&M manual? c) Surface contours promote efficient drainage, prevent storm-water ponding?			X	
	Notes:				

<u>IX</u>	<u>FINANCIAL ASSURANCE</u>	In Compliance	Not in Compliance	N/A for this Inspection	Follow-up required
56.	Financial Assurance Plan. Has permittee updated the FA plan and documented the update in the facility operating record?			X	
	Notes:				
57.	Annual Certification. Has permittee submitted annual update certification to DEQ by the annual review date?			X	
	Notes:				
58.	Financial Assurance Expenditures. FA funds used only for closure, post-closure and corrective action?			X	
	Notes:				
59.	Continuous Financial Assurance. Permittee maintains continuous FA for the landfill?			X	
	Notes:				

Bob Schwarz

Oct. 17, 2014

DEQ Representative

Date

PHOTOS



1 Enviro Cover is spreading an alternative daily cover on a trial basis. Waste Management has not decided whether to purchase this product.



2 Waste disposal cell above new module 9.



3 Waste disposal cell above new module 9; leachate lagoon is in background. Liquid levels are lower than those observed during recent inspections, as site prepares for rainy season.



4 Waste tire disposal area. Number of tires is below the allowable amount. 2,000 tires are allowed to be stored onsite because WM has a contract with a tire contractor.



5 Sump to divert contaminated water to leachate collection system. The discolored water was discovered on top of the cap on the north side of the landfill. According to Dave Adler, WM, this sump was installed on October 13, 2014.



6 South side of landfill, looking NW.



7 South side of landfill, looking NE.



8 Litter observed along south litter fence. None was observed beyond the litter fence.



9 Stormwater channel on landfill's south slope.



10 New leachate control panel in module 4/5 leachate shed.



11 Lined stormwater drainage chute at southern end of MSE berm.



12 Southern end of MSE berm. The unlined portion of the berm is outside the waste disposal cell, and serves as a transition to surrounding ground elevation.



13 Floor of new module 9 (area made available by construction of the MSE berm). The line of hay bales will be covered by plastic sheet. This will divide the cell in two and waste will be disposed of south of this hay bale berm. Rain that falls on the uphill (north) side will therefore not be contaminated by waste and can be disposed of as storm water during the initial use of this cell. The pipeline shown is a perforated gas collection line.



14 Inside slope of MSE berm (1:1 slope). Leachate collection riser pipes are seen in background.



15 Former north poplar field, which is now being used for soil stockpiling. Waste Management plans to use this area for its lateral expansion. (This and following three pictures show this area from south to north.)



16 Soil stockpile area (2 of 4).



17 Soil stockpile area (3 of 4).



18 Soil stockpile area (4 of 4).



19 MSE berm Phase 1B, reinforced fill zone, looking north.



20 Relocated scale house, looking west.