



June 26, 2024

GREAT RIVER REGIONAL WASTE AUTHORITY ATTN AUSTIN BANKS 2092 303rd AVENUE FORT MADISON, IA 52627

RE: SDP Compliance Inspection; FOCD Inspection #95245 SDP Permit #56-SDP-07-80P; GRRWA, Fort Madison, Lee County, Iowa

Dear Mr. Banks:

On June 19, 2024 I conducted a compliance inspection of the Great River Regional Waste Authority (GRRWA) Landfill located in Fort Madison, Iowa. We discussed the current status of the facility and observed the landfill conditions. Enclosed you will find the detailed report including my observations made at the time of the inspection. The new cell portion was also reviewed at the time of this inspection. A separate form will be submitted to the DNR Solid Waste Section outlining a review of the new cell components.

No compliance issues were determined at the time of the inspection. However, concern was expressed regarding the slope of waste observed at the working face. A steep slope of waste was observed along the haul road. Landfill equipment did not appear to be able to safely traverse the slope of waste on the southwest corner of the active working face. Equipment should be able to safely traverse all slopes of waste, past the toe of the slope.

Furthermore, construction of the new cell continues on the north side of this site. Significant bare area exists and very few sediment or erosion control measures were observed. Stabilizing any idle bare areas with seeding/and or straw cover is recommended at this time. Future run-on and runoff controls around the new cell appear to be partially installed and will be addressed.

If you have any questions or would like further explanation of any part of this report, please contact me at this office at 319-653-2135 or via email ryan.stouder@dnr.iowa.gov .

Sincerely,

FIELD SERVICES & COMPLIANCE BUREAU

Brian Lee

Environmental Specialist

Encl. SDP Insp Report

Phone: 319-653-2135

N:FO6\BLEE\SW\2024\GRRWA SDP cover 061924 N:FO6\BLEE\SW\2024\GRRWA SDP insp 061924

N:FO6\PICTURES\2024\June\GRRWA SDP new cell 061924 (1-41)

xc: Becky Jolly, IDNR Solid Waste Section, via email FOCD: GRRWA Landfill #56-SDP-07-80P

www.lowaDNR.gov Fax: 319-653-2856

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Permit	t #: 56	-SDP-0	7-80P		Page	e 1			
Facility	v Nam	ie:	Great R	iver Regional Waste Authority			Official:	: Aus	stin Banks
County		Lee							nue Fort Madison
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			Aust	iii Ddiiks	-		9-372-6		20.4.1.0.0.0
Addre	_	Same			-		pection		31/2023
Phone	: _Sa	me			_ Date Ti	his Ins	pection	: <u>06/</u>	19/24
					Waste	Amou	nt:	~6800	tons per month
		· · · · · ·		At the Time of t	his Inspec	tion:			
• facili	ity per	sonnel	present	t: AustinBanks	• surf	ace co	nditions	s: Dry	/dusty
• activ	e unit	(s):	Phase 2	Region 1, R2-3, R2-1			emperat		
		`					-	-	: S 10-15 mph
					.=				
				Yes – compliance was being achieved; No				_	•
				N/A – not applicable or not observed; PN	ID – previ	iously i	noted de	eficiency	y (PND).
				I. Documents and	Record K	eeping	:		
Yes	No	N/A	PND	ltem	Yes	No	N/A	PND	ltem
\boxtimes		П		1. Permit/Amendment documents		ΪĨ	П		9. Financial assurance
Ħ	Ħ	M	一门	2. Site exploration report		Ħ	Ħ	Ħ	10. Storm water permit
Π	Ħ	П	Ħ	3. Plans/Specs and QC&A Reports	Ħ	Ħ	X		11. SWA/SWAC documentation
$\overline{\boxtimes}$	Ħ	Ħ	一一	4. Waste screening inspection records		Ħ	Ħ	Ħ	12. Operator Certification
		X	Ħ	5. Leachate recirculation authorization		Ħ	Ħ		13. DOPs
	Ħ		\Box	6. Gas monitoring/remediation results		Ħ	Ħ	Ħ	14. ERRAP
Ħ	一	П	Ħ	7. Groundwater monitoring results		Ħ	一一	一	15. Other
Ħ	Ħ		П	8. Closure/Postclosure plans/results			ш	Ш	25. 5
				II. Operating I	Procedure	es:			
Yes	No	N/A	PND	ltem	Yes	No	N/A	PND	Item
	Ц	Щ.	<u> </u>	1. All weather access road to facility		Ш			10. Scavenging and Salvaging
	Щ	Ц	Ц	2. Controlled Access at facility		Ш		Ц	a. scavenging prohibited
\boxtimes	Ц	Ц	빌	a. fencing or other perimeter barriers		Щ		Ц	b. salvaging authorized
	빌	빝	닏	b. entrance gate with lock		빌		Ц	c. salvaged material orderly
	Ц		- -	c. safe/proper on-site traffic patterns		<u>Ц</u>	<u> </u>	<u> </u>	d. salvage removal adequate
			H	3. Signage		Н		<u></u>	11. Animal feeding and grazing
X	H	Н	H	a. facility name and permit number	\parallel	H			a. animal feeding prohibited
\boxtimes	片	Н	片	b. days and hours of operation		ᆜ	<u> </u>		b. grazing on final cover limited
	<u> </u>	L J		c. wastes accepted/not accepted			Ш	Ш	12. Survey controls and monuments
\boxtimes				d. telephone # of resp. official	\boxtimes				a. facility and waste boundaries surveyed and marked
\boxtimes	П	П		4. All weather access road in facility			\Box		b. survey monuments established
ă	H	H	౼Ħ	5. Adequate vehicle queuing		Ħ		H	c. stakes clearly marked
			H	6. Certified scale used		片	<u> </u>	౼	13. Fill Sequencing
X	H	H		7. Waste Screening				님	a. liner system protected
X	Ħ	H	H	a. random inspections performed		H	H	H	b. slope failure controlled
	Ħ	\Box	Ħ	b. inspection records		H	Ħ	H	c. differential settlement controlled
\square	Ħ	Ħ	Ħ	c. trained personnel		Ħ	Ħ	H	d. run-on and runoff controlled
\boxtimes	Ħ	Ħ	Ħ	d. EPA notification procedures		一		一一	14. Control of Workface
\boxtimes		П		8. Prohibited materials listing		П	П	Ħ	a. size of area controlled
	一一	甫	Ħ	9. Open Burning and Fire Hazards		\boxtimes	Ħ	Ħ	b. slope is stable
\boxtimes				a. open burning prohibited				Ħ	c. litter control devices used
	$\overline{}$		_	b. vehicle fueling prohibited within 50					
\boxtimes	Ш			feet of workface					d. vectors controlled
									e. operator at workface

					15. Special Waste Handling a. operator familiar with SWAC 16. Waste Fill Cover				23. Run-on/Runoff Control Systemsa. ponding controlledb. dikes, ditches, berms & terraces
	\boxtimes				a. daily cover adequate b. alternative cover authorized		\boxtimes		c. tile lines maintained 24. Landfill Equipment
					d. intermediate cover adequate (30/180				
	\boxtimes				17. Leachate seeps		\boxtimes		a. wells intact
□ □ □ □ □ □ c. personnel protected □ □ □ c. personnel protected □ □ □ □ c. personnel protected □ □ □ □ c. personnel protected □ □ □ c. p					18. Leachate recirculation	-	\boxtimes		26. Gas Monitoring Wells/Points
			\boxtimes		b. RD&D authorization		\boxtimes		a. ERRAP available to staff
□ □ b. offsite litter picked up daily □ □ c. record of why litter not picked up □ □ 20. Dust Control □ □ a. dust controlled as vehicles enter/exit facility □ □ b. dust controlled on internal roads □ □ c. dust controlled at the workface □ □ 21. Mud Control □ a. mud controlled as vehicles enter/exit facility □ □ 22. Leachate Control and Treatment □ □ a. system operational □ □ b. head measurement device □ □ d. leachate tank maintained □ □ e. leachate lagoon maintained □ □ e. leachate lagoon maintained □ □ g. sanitary sewer discharge □ □ h. NPDES discharge permit					e. vegetation maintained		\boxtimes		a. final cover over completed areas
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Comments:

The facility permit was reviewed and recent updates and changes discussed. Unused ADCs have been removed and the facility will utilize soil and tarps for cover at this time. Pesticide container recycling remains in the permit but largely not utilized/implemented at this time. The storm water permit sampling has been conducted but the annual documented inspection has not yet been conducted. We discussed updating the SWPPP, DOPS, and ERRAP documents once the new cell is complete. The facility has 9 certified operators and renewal was just completed. Random waste screen documentation was discussed. Screens take place at the working face and are kept in a binder. We discussed ensuring the screening process is indeed random and follows the DOPs. The facility is reminded to document if any issues were found or not. Not all permit documentation was reviewed. The permit expires in September 2025 and renewal paperwork will be sent to the facility engineer in the near future. Documentation will need submitted and will be reviewed at the time of renewal.

The facility has updated the signage to include scale hours in addition to the normal operating hours. The scale will close earlier than the overall facility to allow staff adequate time to cover the cell at the end of the working day. No issues were determined with the interior roads. Dust control (water) was being applied by the new cell contractor. Traffic has increased within the facility, but no issues at the scale or impact to the public roadway were determined. The recycling area appeared well managed with containers accessible and signage posted. No issues were determined with the public drop off area. Trash, landscape waste, scrap metal, and tires each had their own dumpsters.

The working face was located along the upper/elevated portions of the active cells. The working face was located somewhat over the peak of a couple current cells. No flat area/flat fill operation was able to be conducted. Some uncovered waste was observed along the haul road and it should be recovered. Winds are typically from the south this time of year and portable litter fence/cages were located north/northeast of the

active cell. Minor litter was observed around the active cell area. No off-site litter was observed. The litter vac unit continues to be utilized but was down with a flat tire. The main dozer is down and a rented one is being utilized. The dozer was pushing soil and covering waste. The compactor was traversing most slopes with ease. Overall compaction appeared adequate, but some of the edges of waste were steep and did not appear to be easily traversed by landfill equipment. A couple tires/tire sections were observed in the waste. No other prohibited waste was observed. One leachate seep was observed on the south side of the working face, but leachate was not migrating far. That seep should still be addressed as soon as feasible. The current working face is the active and wet weather area. The area where waste can be initially dumped/pushed is small, but traffic should be able to adequately enter and exit the cell through the haul road loop (exit road is different that entrance road to the cell). Some trucks closing doors or securing vehicles after dumping waste may need to migrate farther from the working face during busy times to not cause congestion.

The shingles pile appeared clean/uniform and will continue to be utilized for a compost pad base and road base in the cell. The tire pile and landscape waste/compost areas were observed an no issues were determined. The grinder is now mainly utilized for tires and landscape waste. The leachate lagoon and storm water pond were also observed. The landfill lagoon is now managed under the City of Fort Madison's wastewater pretreatment program. The leachate pond had plenty of capacity. Pumping is generally consistent, but the landfill will communicate with the City if additional volume needs pumped. The storm water pond was recently discharged and will be cleaned out once the new cell is complete. The soil excavated will be dried out and reutilized.

The south facing slope of the landfill, north of the storm water pond, had some bare areas, but also rock and a few terraces had been placed to limit erosion. Vegetation will plan to be reestablished where needed this fall. The closed cell appeared to have a thick uniform vegetative cover. The annual report for the last year was received on time and a few areas of erosion were noted. The area has not been mowed yet this year, but is planned to be soon. Some additional areas of erosion may be found during the mowing. All erosion issues should be addressed as soon as feasible. A few monitoring wells were observed while driving around the site, but none appeared unlocked. Facility must ensure all monitoring wells are locked.

The facility has started construction of a new cell on the northeast corner of the site. The cell has been excavated and groundwater drains are in. Half of the cell was lined and the leachate collection line was being installed at the time of my inspection. A new leachate pump station has been installed as well and will also be monitored via the SCADA system. Mick Leat (DNR Engineer) was consulted with at the time of this inspection and it was determined that an additional visit for the new cell was not necessary. All pertinent components appeared to be able to be assessed at the time of this inspection. A new cell assessment form will be completed and sent to Mr. Leat.

Due to the new cell construction and overburden, significant bare soil areas exist north and west of the new cell. Some areas have had been top-soiled and plan to be seeded when feasible. Other areas will remain fill/borrow soil. Few erosion and sediment controls were in place and adding more is recommended at this time. Controls will be placed in the drainage areas around the new cell. The sand drainage layer material for the new cell was observed stockpiled and will be placed once the liner is complete. The new cell will plan to be utilized in early July and waste will be placed over the slopes to begin with. C&D/rough material will be placed in the current active cells until the first lift is placed as needed in the new cell.

A gas collection process will be installed over the next year within the landfill area. Collection lines will be installed and gas will be collected and then refined elsewhere

	AUTHENTICATION	
INSPECTOR	Brian Lee	Date: 6/26/24
REVIEWER	Ryan Stouder Lyan Stand	06/27/2024