



STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR
KIM REYNOLDS, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
CHUCK GIPP, DIRECTOR

May 6, 2015

Stephen Cramer
Twin Rivers Holding Company
c/o Glencore Ltd.
Three Stamford Plaza
301 Tresser Blvd.
Stamford, CT 06901

Subject: Keokuk Ferro-Sil Sanitary Landfill Compliance Visit
Permit No: 56-SDP-17-91

Dear Mr. Cramer:

On April 29, 2015 I conducted a compliance inspection of the Ferro-Sil closed industrial landfill. We believe you will find the enclosed report self-explanatory.

If you have any questions or would like further explanation of any part of this report, please contact me at 319-653-2135.

Sincerely,

FIELD SERVICES & COMPLIANCE BUREAU

A handwritten signature in black ink that reads "Bert Noll".

Bert Noll
Environmental Specialist

bnoll\SW\landfill 2015\Ferro-Sil cover 4-15
Encl: Inspection Report
cc: Ferro-Sil SDP File
email copy: Becky Jolly

IOWA DEPARTMENT OF NATURAL RESOURCES

Field Office 6

1023 West Madison, Washington, IA 52353

319-653-2135

Sanitary Landfill Compliance Follow Up

Permit #: 56-SDP-17-91

Date this Follow Up: 4/23/15

Previous Inspection Date: 4/6/13

Facility Name: Keokuk Ferro-Sil Inc. Industrial Landfill

Weather Conditions at Time of Visit: Sunny, 60° F

Person(s) Contacted: None

Were deficiencies noted or significant observations made during this inspection?

Yes – See Comments Sec., No – No deficiencies noted, Blank – Not applicable or observed, PND – Previously Noted Deficiency

Observations				Observations			
Yes	No	PND	Item	Yes	No	PND	Item
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. Fill Cover: daily; intermediate; final	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10. Special Waste Handling
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. Control of Face: slope; width; location	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11. Recycling Activities
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. Compaction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12. Operator Certification
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4. Cover erosion; Ponding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13. Staffing
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5. Drainage into fill	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14. Equipment Backup/Maintenance
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6. Leachate Mgmt. & Control	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	15. Interior Roads
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7. Litter	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	16. Perimeter fence, gate, signs
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8. Wet Weather Area	<input checked="" type="checkbox"/>	<input type="checkbox"/>		17. Photos taken
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9. Construction & Demolition Area	<input type="checkbox"/>	<input checked="" type="checkbox"/>		18. Follow-up needed

Comments: On April 23, 2015 I visited the Keokuk Ferro-Sil closed Industrial Landfill to conduct a routine compliance inspection.

The gates were locked and the correct signage was posted at the entrance.

The road into the leachate basin area was in good shape. The basin itself was not overflowing and appeared to have adequate freeboard and the water was clear to a considerable depth. Vegetation was thick and established but also short enough to allow for observation of the basins berms and surrounding area.

The vegetation on steep letdown to the NE of the basin is now completely covered with thick vegetation. There were no signs of erosion on the hillside which has had issues with extreme erosion in the past. Efforts for this improvement should be commended.

The vegetation on the landfill area itself was also thick and well established save for a few small areas in the southeast corner. These few small spots were barren but did not pose a threat of erosion development and further damage to the cap. There were also areas on the slope to the basin and on the east end of the drainage swale where the dominant vegetation was last year's dead vegetation and did not appear to have much new growth underneath as did the majority of the remainder of the landfill. It did not appear as if this was due to leachate but possibly standing water or wet conditions. In any case these areas should be monitored as to whether re-vegetation is necessary in the future.

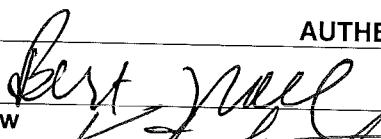
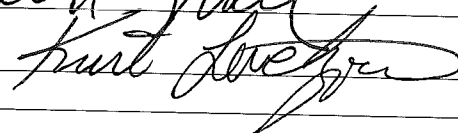
Saplings have established on the south border of the landfill some of which are close to the fill area. These were also noted in a compilation of inspection issues sent to Mick Leat in the IDNR Des Moines office in November and December of 2014. It would appear that either Chem-Eco Environmental or Shoemaker & Haaland are conducting on site inspections on a monthly basis. In any case any woody vegetation established over the landfill cover should be removed as it may compromise its' integrity.

The monitoring wells observed were all capped and locked.

AUTHENTICATION

INSPECTOR: Bert Noll

REVIEWER: Kurt Levetzow

5/14/15
5/6/15