

Federal CCR Annual Inspection Form

Station: <u>Red Hills Power Generation</u>	CCR Unit: <u>AMU</u>
Date: <u>4 November 2019</u>	Inspector(s): <u>J. Breedlove</u>
Weather Conditions: <u>Sunny, mild</u>	Ground Conditions: <u>Clear</u>

Purpose of Inspection: Per the CCR Rule published by the USEPA and entered into the federal register on April 17, 2015, existing and new CCR landfills are required to be inspected annually by a qualified professional engineer to ensure that the design, construction, operation, and maintenance of the CCR facility is in good condition and conforms to standard engineering practices for this type of facility.

Please refer to the attached figure to mark location of any identified conditions.

CCR Unit Feature	Yes	No	N/A	Location ID # or Map Identifier
CCR Placement				
1) Is waste being handled or placed differently than standard station practices?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Bench Conditions				
2) Any signs of surface cracking?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3) Any signs of depressions or sunken areas?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Slope Conditions (final cover and permanent slopes)				
4) Any signs of surface cracking?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5) Any signs of surface movement? If yes, please categorize	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
a) Sloughing (sliding of materials in sheets)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b) Sliding	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
c) Sinking	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6) Any signs of erosion rills greater than 3 inches?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
7) Any signs of erosion gullies greater than 6 inches?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

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8) Any signs of holes or animal burrows?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Haul Road Conditions				
9) Any obstructions?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
10) Any noticeable damage? If yes, please categorize	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
a) Rutting	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b) Sinking	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
c) Potholes	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Erosion Controls				
11) Any areas of active construction lacking erosion controls (silt fence)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
12) Any signs that existing erosion controls are not properly functioning?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13) Any evidence of insufficient vegetative cover?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Liner System Conditions (prior to CCR placement or during active liner construction)				
14) Any damage to liner protective cover?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
15) Any damage to liner system observed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Unknown – perimeter ditch erosion
Leachate Collection/Detection System				
16) Any signs of obstruction to leachate collection/detection pipe outlets?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
17) Any signs of obstruction to leachate flow(s) to storage lagoon(s)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surface Water Controls (Diversion Channels/Collection Channels/Sedimentation Ponds)				
18) Any signs of uncontrolled run-on to the landfill?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
19) Any signs of uncontrolled run-off from the landfill?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
20) Any signs of obstruction in surface water conveyance channels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
21) Any cracking or separation in surface water conveyance channels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Erosion in perimeter ditch

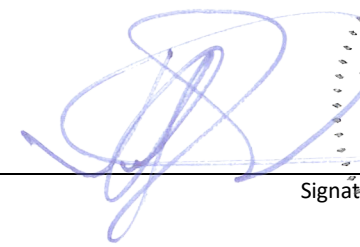
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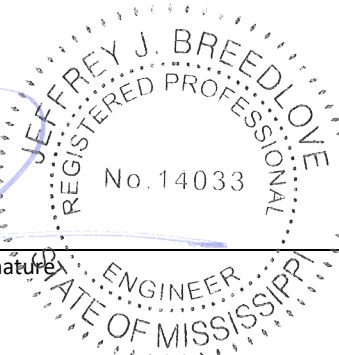
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22) Any signs of heaving or sinking of surface water conveyance channels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Erosion noted above
23) Any signs of obstruction in culverts, drop boxes, or sumps?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
24) Any signs of sedimentation pond malfunction (excessive sediment buildup)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
25) Any signs of excessive sedimentation pond water loss (leaking)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
26) Any signs of obstruction to sedimentation pond outlet structure (in pond)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Emergency spillway temp. blocked; discharge by manual pumping only
27) Any signs of obstruction to sedimentation pond effluent discharge?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See above
Fugitive Dust Controls				
28) Any evidence that fugitive dust controls are not being used?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Other				
29) Any nontypical operation occurring at facility? If yes, please describe:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Additional Comments: Perimeter contact water conveyance ditch (discharge to AMU Basin 1) has eroded on the eastern and northern 1/3 of the conveyance to the AMU Basin. The slopes of the waste mass also have erosion rills greater than 3" and in some cases greater than 6". A design effort is underway to mitigate the perimeter drainage ditch and to install a temporary exposed geomembrane cover over the sloped portion of the waste to minimize future erosion. I understand this mitigation will begin in the year 2020.

Individual Completing Form: Jeffrey J. Breedlove, P.E.
Print


 Signature


 REGISTERED PROFESSIONAL ENGINEER
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