



**SUNFLOWER ELECTRIC  
POWER CORPORATION**

A Touchstone Energy® Cooperative 

*... energy done right*

# **ANNUAL LANDFILL INSPECTION REPORT**

**Sunflower Electric Power Corporation  
Holcomb Station Unit #1  
2440 Holcomb Lane / P.O. Box 430  
Holcomb, KS 67851**

January 9, 2018

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- Appendix A: Inspection Photos
- Appendix B: Weekly Inspection Form
- Appendix C: Annual Inspection Checklist

**LIST OF ACRONYMS**

- CCR Coal Combustion Residuals
- CFR Code of Federal Regulations
- EPRI Electric Power Research Institute
- FGD Flue Gas Desulfurization

## **1.0 INSPECTION**

The annual inspection of the Sunflower Electric CCR landfill was performed on January 9, 2018 by Emily Vsetecka, Manager, Environmental and Laboratory Services. The purpose of this inspection is to comply with the CCR rule.

## **2.0 DESCRIPTION AND HISTORY OF LANDFILL**

### **2.1 General Overview**

FGD materials, fly ash, and bottom ash produced by the plant are disposed of in the Holcomb Landfill. These materials are delivered to the landfill by truck.

### **2.2 Location**

The Landfill is located approximately 1.0 mile north of Holcomb Station. The plant is located five miles south of Holcomb, KS in the north Half of Section 29, Township 24S, Range 33W.

### **2.3 Landfill Description**

Holcomb Station operates (1) CCR industrial landfill called Holcomb Common Facilities, LLC. Holcomb has the only industrial landfill in the western part of the state. The Landfill accepts CCR material along with basin sludge, baghouse bags, and concrete. The landfill consists of multiple phases with Phase 3A as the current, active phase.

The Landfill includes an area of approximately 292 acres with a landfill footprint of 188 acres.

### **2.4 Performance History**

There are no reported incidences of slope failure on Phase 3A.

### **2.5 Construction History**

The plant has disposed of CCR in Phase 3A of the landfill since May, 2013.

### **2.6 Review of Operational Records**

Design, construction and the results of weekly inspection reports were reviewed for the annual inspection.

#### **2.6.1 Design and Construction Information**

The landfill area is approximately 292 acres with a landfill footprint of 188 acres and a volume of 17,792,000 cubic yards. Phases 1, 2A and 2B of the landfill no longer accept waste, Phase 3A is the current, active phase for disposal.

### **2.6.2 Results of Weekly Inspection by a Qualified Person**

The landfill is subject to periodic inspections by the Sunflower Electric environmental staff. The 2017 inspection reports were reviewed. The concerns noted in the weekly inspection reports indicated erosion on the inactive phase due to heavy fall rainfall. Material is being placed in between the waste pit and Phase 1. Repairs to the contact water ditch were completed in the summer 2017 after Holcomb was returned to service from the scheduled spring outage. These inspections are documented and retained by Sunflower Electric. The weekly inspections by the environmental staff are appropriate for compliance with the CCR rule. A sample of Sunflower's Inspection Form can be found in Appendix B.

### **2.6.3 Results of Previous Annual Inspections**

The previous annual inspection conducted under the CCR rules for Holcomb Landfill did not indicate any concerns other than the repair to the contact water ditch due to heavy summer rains. The contact water ditch was repaired in 2017. The repairs prevented any further erosion or displacement of rip rap after the heavy fall rains. This report and other pertinent reports and data will be available at the following website: <http://sunflownet.azurewebsites.net/sunflower-electric-documents/>.

## **3.0 FIELD INSPECTION OF HOLCOMB LANDFILL**

A field inspection was conducted on January 8, 2018 by Emily Vsetecka, Manager, Environmental & Laboratory Services of Sunflower Electric.

A photograph log documenting the landfill at the time of the inspection is presented in Appendix A. The Annual Inspection checklist is presented in Appendix C.

### **3.1 General**

The field inspection was performed by Emily Vsetecka. The inspection took place by driving around the active landfill to identify any areas of concern and to provide a baseline for future inspections.

### **3.2 Volume of CCR**

Sunflower estimates the amount of CCR in storage at the time of the inspection to be 242,412 tons and approximately 208,976 cubic yards.

### **3.3 Actual or Potential Structural Weaknesses**

There were no appearances of actual or potential structural weakness or existing conditions that are disrupting, or have the potential to disrupt the operation and safety of the CCR unit.

### **3.4 Observed Changes**

This is the third annual inspection conducted under the CCR rules for the Holcomb Landfill. There were no activities on the landfill at the time of the inspection. The landfill has had 31,800 tons of CCR placed in the landfill since the last inspection. The significant rainfall that occurred during the fall months resulted in slope erosion on the inactive phases to be repaired in 2018. The contact water ditch was repaired in 2017 and the area between the waste pit and Phase 1 is being filled in along with increasing the size of the waste pit for maintenance activities in 2018.

#### 4.0 ENGINEERING CERTIFICATION

Pursuant to 40 CFR 257.84 and by means of this certification, I attest that:

- (i) I am familiar with the requirements of the CCR Rule (40 CFR 257);
- (ii) I, or my agent, have visited and examined the Holcomb Station;
- (iii) the Annual Inspection Report has been prepared in accordance with good engineering practice, including consideration of applicable industry standards, and with the requirements of the CCR Rule.

Emily D. Vsetecka

Printed Name of Qualified Professional Engineer



Emily Vsetecka

Signature of Qualified Professional Engineer

Registration/License No. 20380 State: Kansas

## **Appendix A**

### **Inspection Photographs**



Photo 1: Entrance road to Phase 3A



Photo 2: Phase 3A looking east. On top of waste pit.



Photo 3: East side of Phase 3A looking west



Photo 4: East side of Phase 3A looking east at contact water ditch



Photo 5: East end of contact water ditch for Landfill looking west



Photo 6: East end of contact water ditch to evaporation basin



Photo 7: Access road around Phase 3A



Photo 8: Looking south from access road around Phase 3A

**Appendix B**  
**Weekly Inspection Form**

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CCR Landfill  
Weekly Inspection Report

Name of CCR Landfill: <u>Holcomb Common Facilities, LLC</u>	Qualified Inspector: _____
Landfill ID Number: <u>Kansas Permit No. 420</u>	Date: _____ Time: _____
Owner: <u>Sunflower Electric Power Corporation</u>	Weather: _____
Operator: <u>Sunflower Electric Power Corporation</u>	Precipitation (since last inspection): _____ in.
Site Conditions: _____	

**I. Perimeter Slope**

1. Is there an access road around the perimeter slope?  Yes  No  
If 'Yes', describe (good condition, numerous cracks, newly paved, stone uniformly distributed, etc.) \_\_\_\_\_
2. Are there any depressions, ruts, or holes on the access road?  Yes  No  
If 'Yes', describe (size, location, etc.) \_\_\_\_\_

**II. Landfill Conditions**

1. Describe operations in the landfill (disposal, reclamation, general operational activities): \_\_\_\_\_
2. Are any stormwater controls obstructed?  Yes  No  
If 'Yes', describe (type of debris, reason for obstruction, etc.) \_\_\_\_\_
3. Are there indications of erosion on the landfill slopes?  Yes  No  
If 'Yes', describe what type and its condition (rill, gully, dimensions, etc.) \_\_\_\_\_
4. Other observations around the landfill (changes since last inspection, etc.): \_\_\_\_\_

**III. Repairs, Maintenance, Action Items**

1. Has any routine maintenance been conducted since the last inspection?  Yes  No  
If 'Yes', describe. \_\_\_\_\_
2. Have any repairs been made since the last inspection?  Yes  No  
If 'Yes', describe. \_\_\_\_\_

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CCR Landfill  
Weekly Inspection Report

\_\_\_\_\_

3. Are there any areas of potential concern?  Yes  No

If 'Yes', describe. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. Has this inspection identified any need for repair or maintenance?  Yes  No

If 'Yes', describe and state the urgency of maintenance. "Urgent" for maintenance that should be conducted as soon as possible, "Moderate" for maintenance that should be conducted within three months, and "Not Urgent" for maintenance that can be conducted in a year. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**IV. Photographs**

Photographs can be taken of notable features. List of photographs:

	Location	Direction of Photo	Description
i.	_____	_____	_____
ii.	_____	_____	_____
iii.	_____	_____	_____
iv.	_____	_____	_____
v.	_____	_____	_____
vi.	_____	_____	_____
vii.	_____	_____	_____
viii.	_____	_____	_____
ix.	_____	_____	_____
x.	_____	_____	_____

**V. General Notes**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Appendix C**  
**Annual Inspection Checklist**



Annual Inspection Report 2018

Any other changes which may have affected the stability or operation of the CCR Landfill since the previous annual inspection.

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Name of Qualified Professional Engineer: \_\_\_\_\_

License Number: \_\_\_\_\_

Date of Inspection: \_\_\_\_\_

Signature: \_\_\_\_\_