

# **2015 ANNUAL ENGINEERING INSPECTION REPORT**

## **ENERGY INDEPENDENCE PLANT CLASS 3N LANDFILL**

**PERMIT NO. 0200-S3N-R2  
AFIN: 32-00042**

**JANUARY 15, 2016**

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ENTERGY INDEPENDENCE PLANT  
CLASS 3N LANDFILL  
2015 ANNUAL ENGINEERING INSPECTION REPORT

PERMIT NO. 0200-S3N-R2  
AFIN: 32-00042

Prepared for

Entergy Independence Plant  
555 Point Ferry Road  
Newark, AR 72562

Prepared by

FTN Associates, Ltd.  
3 Innwood Circle, Suite 220  
Little Rock, AR 72211

FTN No. R06040-0991-001

January 15, 2016

## PROFESSIONAL ENGINEER'S CERTIFICATION

This report on the annual engineering inspection of the Entergy Independence Plant Class 3N Landfill and supporting documentation was prepared under the direction and supervision of a qualified, State of Arkansas-registered Professional Engineer. Mr. Nick Schoggin, PE, of FTN Associates, Ltd. (FTN), was responsible for the overall preparation of this report. The report has been prepared to fulfill the requirements of §257.84(b). Based on the inspection of the landfill facility and review of available landfill documents the design, construction, operation, and maintenance of the landfill is consistent with recognized and generally accepted good engineering standards.



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Nick Schoggin, PE, Arkansas License No. 14268

January 15, 2016  
Date

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## 1.0 INTRODUCTION

### 1.1 Purpose of Report

The purpose of this report is to document the annual inspection of the Entergy White Bluff Landfill facility in accordance with 40 CFR §257, *Subpart D - Disposal of Coal Combustion Residuals From Electric Utilities* (the CCR Rule). In particular, the report has been prepared to comply with §257.84(b), which requires an inspection to be conducted by a qualified professional engineer to ensure that the design, construction, operation, and maintenance of the landfill is consistent with recognized and generally accepted good engineering standards.

The report includes the following:

- Information on the current layout of the landfill,
- Waste volume estimates for the amount of waste contained in the landfill and remaining disposal capacity, and
- An assessment of the landfill including structural integrity and overall operations with respect to the CCR Rule and the facility permit requirements.

### 1.2 Independence Power Plant Information

The Plant is located on approximately 1,850 acres about 2-½ miles southeast of Newark in Independence County, Arkansas as shown on Figure 1 (all figures are included in Appendix A). The site is characterized by minimal topographic relief and is situated within the White River floodplain.

The Plant has been in operation since 1983 and has historically generated electricity through the combustion of Powder River Basin (PRB) (Wyoming) sub-bituminous coal. The ash, a coal combustion by-product (or residue) (CCR), is generally segregated into two categories, “fly” and “bottom” ash.

Approximately 80% of the ash produced is classified as fly ash that is derived from the boiler exhaust gas and collected in electrostatic precipitators. The fly ash is composed of very fine particles similar to glass and has the consistency of a powder. Collected fly ash is blown to silos for short-term storage. A subcategory of the fly ash is known as economizer ash. This

material is the coarsest fraction of the fly ash that drops out before the electrostatic precipitators, and represents approximately 2% of the total ash production.

The remaining 18% of coal ash produced from the coal combustion is comprised of bottom ash. It is composed of angular, glassy particles with a porous surface texture and has the consistency of coarse sand. The bottom ash is sluiced principally to dewatering hoppers for removal of water and for storage.

Historically, approximately 60 to 70% of the two types of ash have been marketed regionally to construction-related industries. The remaining amount of ash has been placed in the onsite Landfill for disposal.

### **1.3 Permit History**

In October 1982, Arkansas Power & Light Company (AP&L) was granted a permit (#200-S) from the Arkansas Department of Environmental Quality (ADEQ) to construct and operate a solid waste disposal facility at the Plant. Entergy Arkansas, Inc. became AP&L's successor in interest in April 1996. The permit was modified in 2002 to update the landfill to comply with Arkansas Pollution Control and Ecology Commission (APCEC) Regulation No. 22 (Solid Waste Management Code) design and operational standards for Class 4 (inert waste) Landfills. The current facility permit (0200-S3N-R2) was issued in December 2014 and includes design and operational modifications to the landfill facility to comply with Regulation No. 22 requirements for Class 3N (Industrial) Landfills.

## 2.0 LANDFILL LAYOUT

### 2.1 Existing Conditions of Landfill

The permitted landfill area consists of approximately 335 acres and is located in the northeastern portion of the plant site as shown on Figure 2. The Landfill is designed to be developed through three phases, which only Phases 1 and 2 are currently permitted for development. The current layout of the Landfill includes a total of 22 disposal cells and has a permitted waste capacity of approximately 13,000,000 cubic yards (cy). Waste Cells 1 through 15 have been constructed, and Waste Cells 12, 13, 14, and 15 currently comprise the active disposal area of the Landfill having received CCR materials after October 19, 2015.

Construction of the disposal cells has followed the numerical sequence of the cell numbers and have generally been designed, constructed, operated and maintained in compliance with the requirements of APCEC Regulation 22. Cells 1 through 11 were constructed, operated and closed prior to the effective date of the CCR Rule and are not covered by the requirements of the Rule. Cells 12 through 15 are existing landfill CCR units and will be operated in accordance with requirements of the CCR Rule.

Table 2.1 presents a summary of the existing CCR Unit disposal cells that have been constructed at the Independence Landfill.

Table 2.1. Construction Summary of Independence Plant Class 3N Landfill

Cell Number	Year Built	Bottom Liner System	Year Closed	Final Cover System	Status
12	Pre-1996	Original permit			Open and active disposal area
13	Pre-1996	Original permit			Open and active disposal area
14	2000;2006	Original permit; 2002 permit			Open and active disposal area
15	2011	Current permit			Open and active disposal area

## **2.2 Changes Made to Landfill Configuration During Reporting Period**

During the reporting period, no changes were made to the landfill configuration. Cells 12 through 15 are open and are actively receiving waste. No new cells were opened, and no existing cells were closed.



### 3.0 WASTE VOLUME CALCULATIONS

The landfill facility has been surveyed annually since 1996. Each year's survey is compared to the previous year to compute the amount of CCR disposed. The current survey is also compared to the ADEQ permitted top of waste elevations to determine remaining capacity, or airspace. Additionally, the current survey is compared to an estimated "operational" top of waste to determine the remaining operational capacity. The operational top of waste is the maximum disposal elevation that can be achieved within the open cells while maintaining the required 4:1 exterior and 3:1 interior slopes along with a top width sufficient for disposal activities. If additional operational capacity is needed, construction of an adjacent disposal cell will be required.

Disposal rates for the facility are calculated using the average of the disposal rates from the five most recent years. Disposal rates depend upon CCR production at the plant and sales of the ash. These can vary significantly year to year based upon the current economic climate, weather, and how much the plant is operational.

During the reporting period, there were four waste cells (Waste Cells 12 through 15) open at the site. These areas are shown on Figure 2.

Digital terrain modeling techniques were used to determine volumes of ash disposed during the current reporting period. Surface models were originally created for the Landfill's surface from aerial photography taken in June 1996 and for the originally permitted proposed final surfaces. The surface models were updated in 1997 through 2015 based on field and/or aerial survey data. For this report, the active areas were surveyed on December 17, 2015. The surface generated from the current survey was compared to the March 19, 2015, survey surface model utilizing AutoCAD Civil 3D software to estimate volume changes that have occurred over the reporting period. Table 3.1 summarizes volume changes for the current reporting period and estimated remaining capacity by waste cell.

Table 3.1 Summary of waste volume calculations.

Cell Number	Status	Area (ac)	ADEQ Permitted Waste Capacity (cy)	2015 Volume Placed (cy)	Total Volume Placed (cy)	Operational Remaining Disposal Capacity (cy)	Operational Remaining Life (years)
Cell 12	Active	5.7	434,800	6,300	316,500	118,300	0.9
Cell 13	Active	5.7	372,300	5,600	284,900	87,400	0.7
Cell 14	Active	15.0	807,400	28,800	752,100	55,300	0.4
Cell 15	Active	18.2	1,258,100	8,000	263,700	854,800	6.8
<b>Totals</b>		<b>44.6</b>	<b>2,872,600</b>	<b>48,700</b>	<b>1,617,200</b>	<b>1,115,800</b>	<b>8.9</b>

Based upon the digital terrain model, the net volume of material filled in Waste Cells 12 through 15 during the reporting period was calculated to be approximately 48,700 cubic yards (cy). Final permitted contours are shown in Figure 3. Based upon a 5-year historical annual average disposal rate of approximately 124,800 cy of material, there are about 8.9 years of capacity left in Waste Cells 12 through 15. This time frame is affected by the market for ash material and may be shorter or longer depending on market conditions.

## **4.0 ASSESSMENT OF LANDFILL FACILITY**

This section of the report provides a summary of the inspection of the Entergy Independence Plant Class 3N Landfill facility that was conducted on December 10, 2015. The assessment included an interview with the landfill operating company, Headwaters Resources Inc. (HRI) personnel, Entergy Services Inc. (Entergy) personnel, review of weekly inspections of the facility, review of documents pertaining to the operation and compliance of the landfill, and an onsite inspection of the landfill facility. Copies of the Weekly Inspection Reports are included in Appendix B. Photographs of the site inspection are included in Appendix C.

### **4.1 General Operations**

In general, the final and interim slopes of the active waste cells appeared to be stable. The side-slopes of the landfill are generally at the required 4:1 external and 3:1 interior slope requirements. No tension cracks, seeps, or other features that indicate a potential slope failure were observed during the site inspection. In addition, no active seeps were noted.

The general operations of the landfill facility are being done in a safe manner and the overall maintenance of the facility is in good condition.

### **4.2 Landfill Cover System**

None of the active cells, 12 through 15, are partially closed or have interim cover, however, HRI and Entergy are considering placing interim cover on the side slopes of Cell 14 in 2016.

### **4.3 Leachate Collection System**

As required by APCEC Regulation 22, Cell 15 is constructed with a leachate collection system. The system consists of a six-inch diameter high-density polyethylene (HDPE) perforated pipe installed in the center of Waste Cell 15. The pipe drains to a washed gravel-filled sump located on the toe of the eastern slope of the cell. From the sump, leachate is pumped via a dual-contained HDPE pipeline (4" diameter/8" diameter) to the discharge point at the plant's

Surge Pond south of the landfill in accordance with the facility's current National Pollutant Discharge Elimination System (NPDES) Permit.

Overall, the leachate collection system appeared to be in good working.

#### **4.4 Stormwater Control System**

No issues were found with the Stormwater control system during the inspection. In accordance with the facility's Operation Plan required by the current Class 3N solid waste permit, HRI conducts periodic inspections of the condition of the system and makes appropriate repairs as needed.

Temporary berms are used down gradient of the active area to help minimize the potential for sediment transport from the area. Perimeter ditches and drainage conveyances are used to direct stormwater around the landfill area. Culverts are installed at the southwest corner of the Landfill to allow drainage beneath the perimeter access road.

All stormwater run-on and runoff from the permitted landfill area is ultimately discharged to the Plant's Surge Pond. Water from the Surge Pond is pumped to sedimentation basins that are part of the Plant's wastewater treatment system. After treatment in the sedimentation basins, the water is either used as cooling water in the plant or discharged to the White River. Discharges to the White River are permitted under NPDES Permit No. AR0037451. Treated runoff from the Landfill is a listed source for this NPDES permit.

#### **4.5 Facility Roads**

The facility roads were well maintained at the time of the inspection. The disposal access road to the active cells is paved, and it was in excellent condition at the time of the inspection. The perimeter access road has an all-weather surface coarse and was in good condition.

#### **4.6 Fugitive Dust Control**

In accordance with the facility's CCR Fugitive Dust Control Plan, HRI routinely sprays the working face and haul roads using water trucks to control dust from the fly ash. Fly ash is deposited in the landfill by belly-dumping from the bottom of the tanker trucks in order to minimize the material drop distance. Bottom ash and economizer ash are in a moist condition

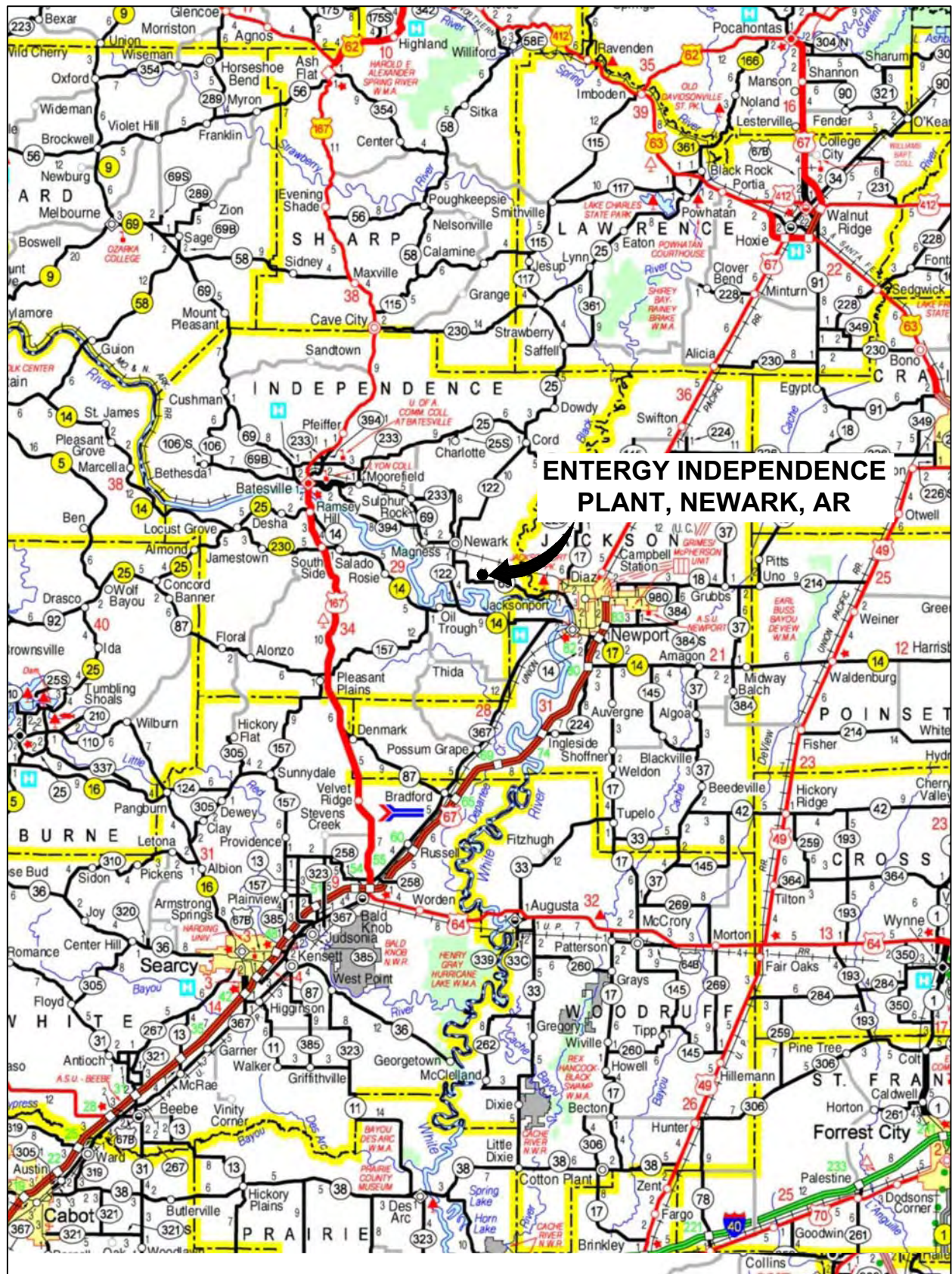
when transported to the landfill. The landfill access roads have enforced posted speed limit of 25 mph. Within the landfill boundary, a 5 mph speed limit is enforced.

During the inspection, minimal fugitive dust was observed.

# **APPENDIX A**

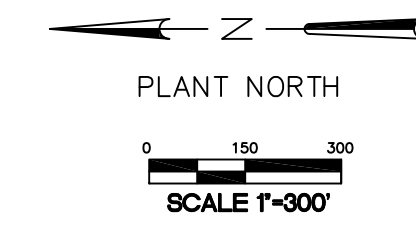
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**Figures**



**ENTERGY INDEPENDENCE  
PLANT, NEWARK, AR**

Figure 1. Site location map.



NOTES:

1. TOPOGRAPHIC INFORMATION IS FROM AN AERIAL SURVEY BY AMI ENGINEERING, INC. (MAY 2003) AND A FIELD SURVEY BY HARMON SURVEYING (DECEMBER 2015).
2. SURVEY CONTROL POINTS WERE ESTABLISHED IN AUGUST 1997 BY DESIGN, DRAFTING, SURVEYING, AND MAPPING, LLC.

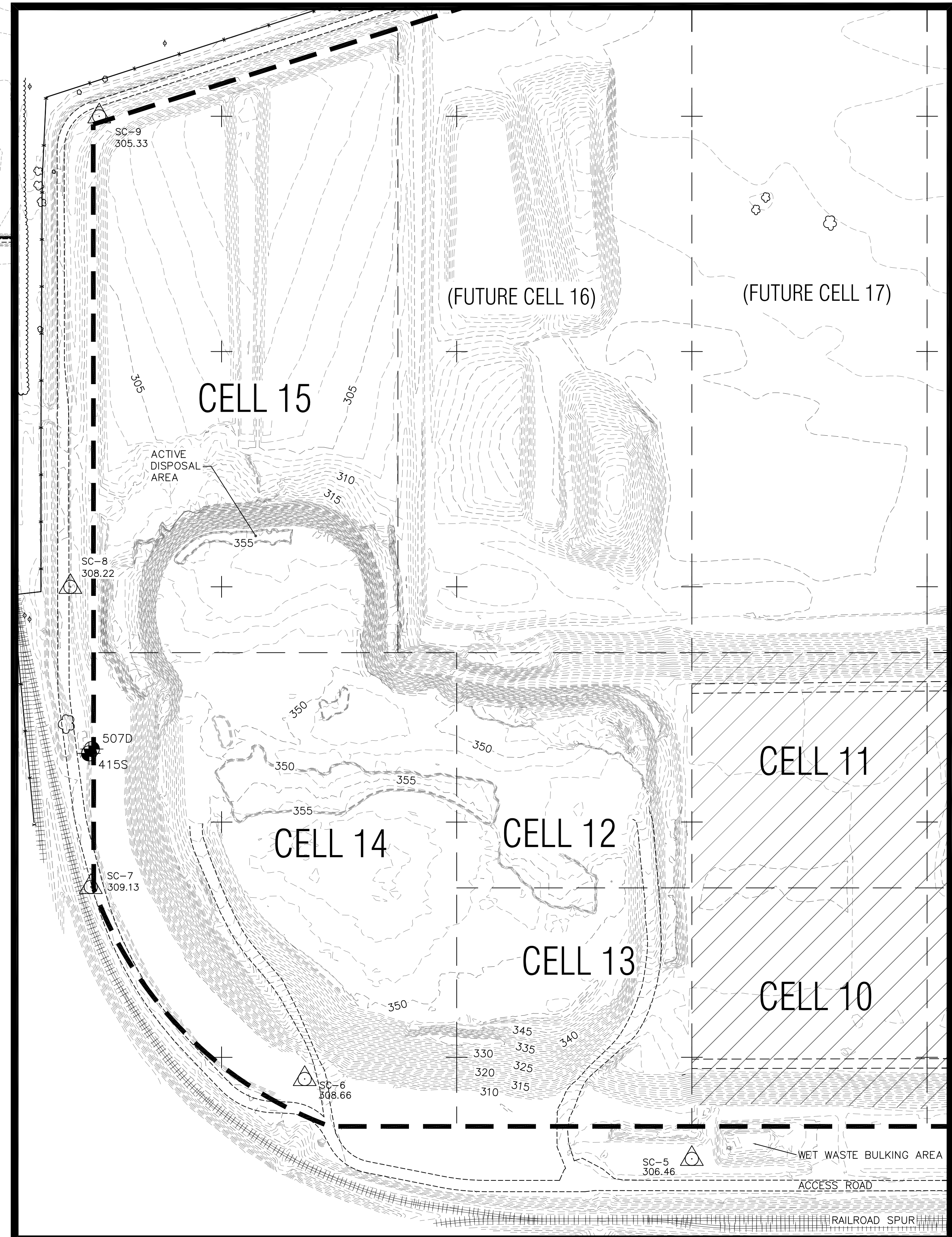


Janary 15, 2016

**ENTERGY INDEPENDENCE PLANT  
CLASS 3N LANDFILL  
2015 CCR REPORT  
NEWARK, ARKANSAS**

**FIGURE 2  
EXISTING CONDITIONS**

DRAWN BY:	FILE NAME:
JWM	FG2.DWG
APPROVED:	PROJECT NO.
NVS	06040-0991-001
SCALE:	DATE:
1" = 300'	01/15/16
SHEET NO.	
2 OF 3	



**VIEW A  
SCALE: 1"=150'**

**LEGEND**

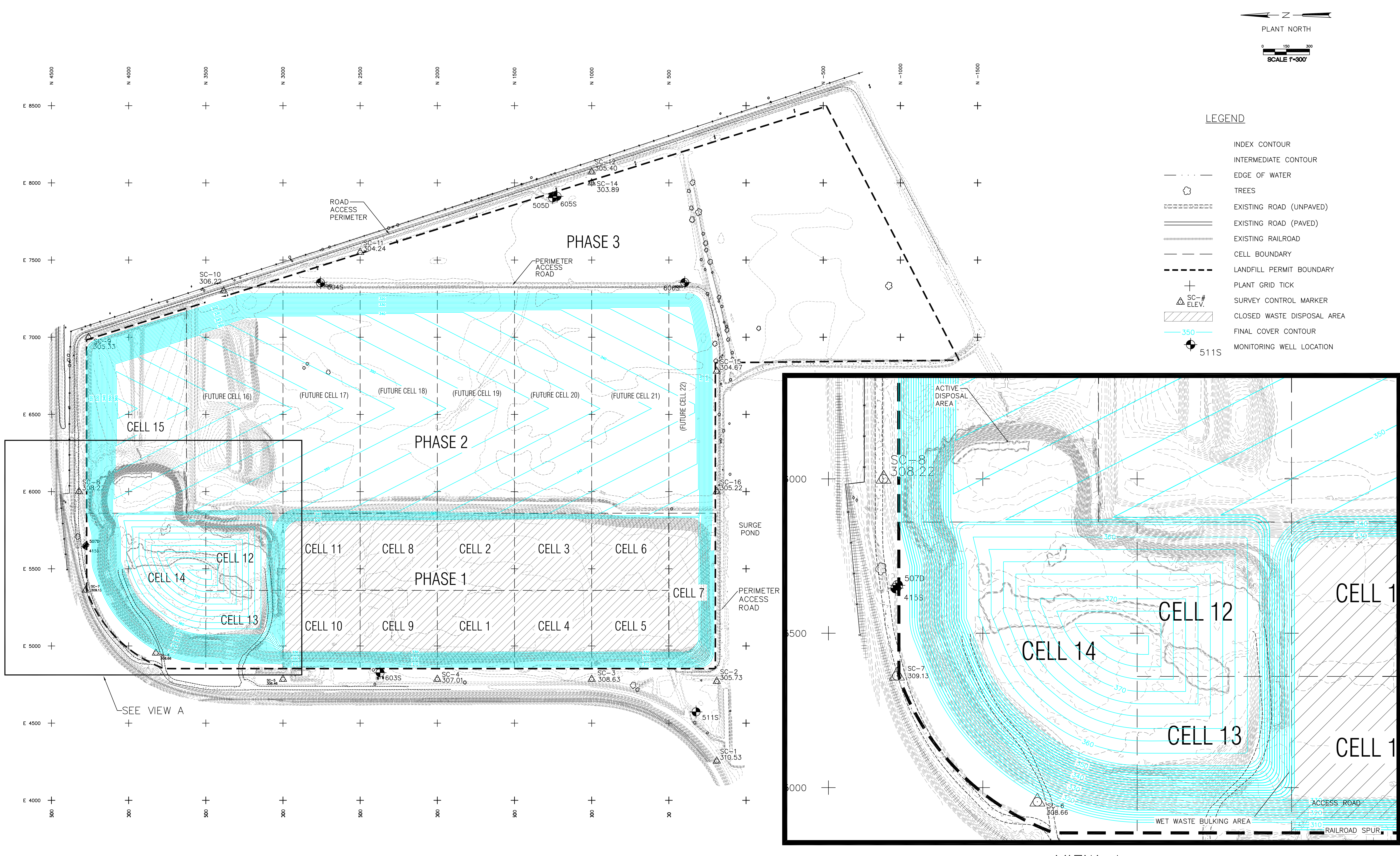
	INDEX CONTOUR
	INTERMEDIATE CONTOUR
	EDGE OF WATER
	TREES
	EXISTING ROAD (UNPAVED)
	EXISTING ROAD (PAVED)
	EXISTING RAILROAD
	CELL BOUNDARY
	LANDFILL PERMIT BOUNDARY
	PLANT GRID TICK
	SURVEY CONTROL MARKER
	CLOSED WASTE DISPOSAL AREA
	MONITORING WELL LOCATION



**ENTERGY INDEPENDENCE PLANT  
CLASS 3N LANDFILL  
2015 CCR REPORT  
NEWARK, ARKANSAS**

**FIGURE 3  
FINAL PERMIT CONTOURS**

DRAWN BY: JWM	FILE NAME: FG03.DWG
APPROVED: NVS	PROJECT NO. 06040-0991-001
SCALE: 1" = 300'	DATE: 01/15/16
SHEET NO. 3 OF 3	



- NOTES:**
1. TOPOGRAPHIC INFORMATION IS FROM AN AERIAL SURVEY BY AMI ENGINEERING, INC. (MAY 2003) AND A FIELD SURVEY BY HARMON SURVEYING (DECEMBER 2015).
  2. FINAL COVER CONTOURS ARE BASED ON EXISTING PERMIT.
  3. SURVEY CONTROL POINTS WERE ESTABLISHED IN AUGUST 1997 BY DESIGN, DRAFTING, SURVEYING, AND MAPPING, LLC.

# **APPENDIX B**

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**Copies of Weekly Landfill Inspections**

Entergy Facility: Independence

## WEEKLY LANDFILL INSPECTION

### Instructions:

- Inspection applies to CCR Rule affected CCR units or cells only
- Provide detailed description of location, site sketches, and pictures of any noted deficiencies or issues
- Use additional sheets as necessary
- Following inspection, send electronic copy of Inspection Form and any attachments to Entergy facility Environmental Analyst and Entergy State Lead

Inspected by: Jeremy Stauffer  
[Must be performed by a qualified person per 257.84(a)(1)]

Inspection Date: 10.20.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

1. Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit? [Inspection criteria per 257.84(a)(1)(i)]

a. Any signs of sliding or sloughing of the soil layer or waste material that might indicate a slope failure?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Recommended Corrective Action/Responsible Party: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_

[Sign and Date]

Corrective Action Completed: \_\_\_\_\_

[Sign and Date]

b. Any signs of tension or other types of cracks or separation at the surface or slopes?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Energy Facility: Independence

Inspection Date: 10.20.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_

[Sign and Date]

Corrective Action Completed: \_\_\_\_\_

[Sign and Date]

c. Any signs of erosion from storm water runoff or damage to stormwater control facilities (e.g. ditches, culverts, berms, and letdowns)?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_

[Sign and Date]

Corrective Action Completed: \_\_\_\_\_

[Sign and Date]

d. Any signs of burrowing or tunneling mammals that could lead to stability issues?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Energy Facility: Independence

Inspection Date: 10.20.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

e. Any signs of damage or operational issues with the leachate collection and transmission system (i.e., check pump and control panel, walk transmission line to see if there are any leaks, assess outlet)?

- No
- Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

f. If applicable, any signs of damage or operational issues with the final cover system - erosion, ponded water, settlement, leachate seeps, and vegetation?

- No
- Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

Energy Facility: Independence

Inspection Date: 10.20.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

2. Were there any issues or recommended corrective actions from the previous weekly inspection left to address?

No

Yes (if yes, follow-up on any corrective actions taken)

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

Entergy Facility: Independence

## WEEKLY LANDFILL INSPECTION

### Instructions:

- Inspection applies to CCR Rule affected CCR units or cells only
- Provide detailed description of location, site sketches, and pictures of any noted deficiencies or issues
- Use additional sheets as necessary
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Inspected by: Jeremy Stauffer  
[Must be performed by a qualified person per 257.84(a)(1)]

Inspection Date: 10.27.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

1. Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit? [Inspection criteria per 257.84(a)(1)(i)]

- a. Any signs of sliding or sloughing of the soil layer or waste material that might indicate a slope failure?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Recommended Corrective Action/Responsible Party: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_

[Sign and Date]

Corrective Action Completed: \_\_\_\_\_

[Sign and Date]

- b. Any signs of tension or other types of cracks or separation at the surface or slopes?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Energy Facility: Independence

Inspection Date: 10.27.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

c. Any signs of erosion from storm water runoff or damage to stormwater control facilities (e.g. ditches, culverts, berms, and letdowns)?

- No
- Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

d. Any signs of burrowing or tunneling mammals that could lead to stability issues?

- No
- Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



Energy Facility: Independence

Inspection Date: 10.27.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

- e. Any signs of damage or operational issues with the leachate collection and transmission system (i.e., check pump and control panel, walk transmission line to see if there are any leaks, assess outlet)?

- No  
 Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

- f. If applicable, any signs of damage or operational issues with the final cover system - erosion, ponded water, settlement, leachate seeps, and vegetation?

- No  
 Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

Energy Facility: Independence

Inspection Date: 10.27.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

2. Were there any issues or recommended corrective actions from the previous weekly inspection left to address?

- No
- Yes (if yes, follow-up on any corrective actions taken)

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

Entergy Facility: Independence

## WEEKLY LANDFILL INSPECTION

### Instructions:

- Inspection applies to CCR Rule affected CCR units or cells only
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Inspected by: Jeremy Stauffer  
[Must be performed by a qualified person per 257.84(a)(1)]

Inspection Date: 11.3.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

1. Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit? [Inspection criteria per 257.84(a)(1)(i)]

a. Any signs of sliding or sloughing of the soil layer or waste material that might indicate a slope failure?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Recommended Corrective Action/Responsible Party: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_

[Sign and Date]

Corrective Action Completed: \_\_\_\_\_

[Sign and Date]

b. Any signs of tension or other types of cracks or separation at the surface or slopes?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Energy Facility: Independence

Inspection Date: 11.3.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

c. Any signs of erosion from storm water runoff or damage to stormwater control facilities (e.g. ditches, culverts, berms, and letdowns)?

- No
- Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

d. Any signs of burrowing or tunneling mammals that could lead to stability issues?

- No
- Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Energy Facility: Independence

Inspection Date: 11.3.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

e. Any signs of damage or operational issues with the leachate collection and transmission system (i.e., check pump and control panel, walk transmission line to see if there are any leaks, assess outlet)?

- No
- Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

f. If applicable, any signs of damage or operational issues with the final cover system - erosion, ponded water, settlement, leachate seeps, and vegetation?

- No
- Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

Energy Facility: Independence

Inspection Date: 11.3.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

2. Were there any issues or recommended corrective actions from the previous weekly inspection left to address?

No

Yes (if yes, follow-up on any corrective actions taken)

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

Entergy Facility: Independence

### WEEKLY LANDFILL INSPECTION

**Instructions:**

- Inspection applies to CCR Rule affected CCR units or cells only
- Provide detailed description of location, site sketches, and pictures of any noted deficiencies or issues
- Use additional sheets as necessary
- Following inspection, send electronic copy of Inspection Form and any attachments to Entergy facility Environmental Analyst and Entergy State Lead

Inspected by: Jeremy Stauffer  
[Must be performed by a qualified person per 257.84(a)(1)]

Inspection Date: 11/10/2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

1. Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit? [Inspection criteria per 257.84(a)(1)(i)]

- a. Any signs of sliding or sloughing of the soil layer or waste material that might indicate a slope failure?
- No
  - Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action/Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

- b. Any signs of tension or other types of cracks or separation at the surface or slopes?
- No
  - Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Energy Facility: Independence

Inspection Date: 11.10.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

Recommended Corrective Action and Responsible Party: \_\_\_\_\_

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

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

c. Any signs of erosion from storm water runoff or damage to stormwater control facilities (e.g. ditches, culverts, berms, and letdowns)?

- No
- Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_

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

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

d. Any signs of burrowing or tunneling mammals that could lead to stability issues?

- No
- Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_

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



Energy Facility: Independence

Inspection Date: 11.10.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

- e. Any signs of damage or operational issues with the leachate collection and transmission system (i.e., check pump and control panel, walk transmission line to see if there are any leaks, assess outlet)?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

- f. If applicable, any signs of damage or operational issues with the final cover system - erosion, ponded water, settlement, leachate seeps, and vegetation?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

Energy Facility: Independence

Inspection Date: 11.10.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

2. Were there any issues or recommended corrective actions from the previous weekly inspection left to address?

No

Yes (*if yes, follow-up on any corrective actions taken*)

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

Entergy Facility: Independence

## WEEKLY LANDFILL INSPECTION

### Instructions:

- Inspection applies to CCR Rule affected CCR units or cells only
- Provide detailed description of location, site sketches, and pictures of any noted deficiencies or issues
- Use additional sheets as necessary
- Following inspection, send electronic copy of Inspection Form and any attachments to Entergy facility Environmental Analyst and Entergy State Lead

Inspected by: Jeremy Stauffer  
[Must be performed by a qualified person per 257.84(a)(1)]

Inspection Date: 11.17.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

1. Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit? [Inspection criteria per 257.84(a)(1)(i)]

a. Any signs of sliding or sloughing of the soil layer or waste material that might indicate a slope failure?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action/Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

b. Any signs of tension or other types of cracks or separation at the surface or slopes?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Energy Facility: Independence

Inspection Date: 11.17.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

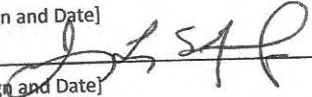
c. Any signs of erosion from storm water runoff or damage to stormwater control facilities (e.g. ditches, culverts, berms, and letdowns)?

- No
- Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: Some erosion on haul road has washed some material into ditch on North side of active landfill cell. (Pictures attached.)

Recommended Corrective Action and Responsible Party: Can use excavator to remove material from ditch and push material back up slope. Slope may need re shaped to stop erosion in this area.

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: 11.24.2015   
[Sign and Date]

d. Any signs of burrowing or tunneling mammals that could lead to stability issues?

- No
- Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Entergy Facility: Independence

Inspection Date: 11.17.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

- e. Any signs of damage or operational issues with the leachate collection and transmission system (i.e., check pump and control panel, walk transmission line to see if there are any leaks, assess outlet)?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

- f. If applicable, any signs of damage or operational issues with the final cover system - erosion, ponded water, settlement, leachate seeps, and vegetation?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

Entergy Facility: Independence

Inspection Date: 11.17.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

2. Were there any issues or recommended corrective actions from the previous weekly inspection left to address?

No

Yes (if yes, follow-up on any corrective actions taken)

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

Entergy Facility: Independence

### WEEKLY LANDFILL INSPECTION

**Instructions:**

- Inspection applies to CCR Rule affected CCR units or cells only
- Provide detailed description of location, site sketches, and pictures of any noted deficiencies or issues
- Use additional sheets as necessary
- Following inspection, send electronic copy of Inspection Form and any attachments to Entergy facility Environmental Analyst and Entergy State Lead

Inspected by: Jeremy Stauffer  
[Must be performed by a qualified person per 257.84(a)(1)]

Inspection Date: 11.24.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

1. Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit? [Inspection criteria per 257.84(a)(1)(i)]

a. Any signs of sliding or sloughing of the soil layer or waste material that might indicate a slope failure?

- No
- Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action/Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

b. Any signs of tension or other types of cracks or separation at the surface or slopes?

- No
- Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Energy Facility: Independence

Inspection Date: 11.24.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

c. Any signs of erosion from storm water runoff or damage to stormwater control facilities (e.g. ditches, culverts, berms, and letdowns)?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

d. Any signs of burrowing or tunneling mammals that could lead to stability issues?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



Entergy Facility: Independence

Inspection Date: 11.24.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

e. Any signs of damage or operational issues with the leachate collection and transmission system (i.e., check pump and control panel, walk transmission line to see if there are any leaks, assess outlet)?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

f. If applicable, any signs of damage or operational issues with the final cover system - erosion, ponded water, settlement, leachate seeps, and vegetation?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

Energy Facility: Independence

Inspection Date: 11.24.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

2. Were there any issues or recommended corrective actions from the previous weekly inspection left to address?

No

Yes (if yes, follow-up on any corrective actions taken)

Comments: CCR had washed into ditch. Ditch has been cleared of C.C.R., and road reshaped to direct any future washouts inside of the cell berm. (Picture attached)

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Entergy Facility: Independence

## WEEKLY LANDFILL INSPECTION

### Instructions:

- Inspection applies to CCR Rule affected CCR units or cells only
- Provide detailed description of location, site sketches, and pictures of any noted deficiencies or issues
- Use additional sheets as necessary
- Following inspection, send electronic copy of Inspection Form and any attachments to Entergy facility Environmental Analyst and Entergy State Lead

Inspected by: Jeremy Stauffer  
[Must be performed by a qualified person per 257.84(a)(1)]

Inspection Date: 12.1.15  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

1. Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit? [Inspection criteria per 257.84(a)(1)(i)]

a. Any signs of sliding or sloughing of the soil layer or waste material that might indicate a slope failure?

- No
- Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action/Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

b. Any signs of tension or other types of cracks or separation at the surface or slopes?

- No
- Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Energy Facility: Independence

Inspection Date: 12.1.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

c. Any signs of erosion from storm water runoff or damage to stormwater control facilities (e.g. ditches, culverts, berms, and letdowns)?

- No
- Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

d. Any signs of burrowing or tunneling mammals that could lead to stability issues?

- No
- Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Entergy Facility: Independence

Inspection Date: 12.1.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

- e. Any signs of damage or operational issues with the leachate collection and transmission system (i.e., check pump and control panel, walk transmission line to see if there are any leaks, assess outlet)?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

- f. If applicable, any signs of damage or operational issues with the final cover system - erosion, ponded water, settlement, leachate seeps, and vegetation?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

Energy Facility: Independence

Inspection Date: 12.1.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

2. Were there any issues or recommended corrective actions from the previous weekly inspection left to address?

No

Yes (*if yes, follow-up on any corrective actions taken*)

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

Entergy Facility: Independence

## WEEKLY LANDFILL INSPECTION

### Instructions:

- Inspection applies to CCR Rule affected CCR units or cells only
- Provide detailed description of location, site sketches, and pictures of any noted deficiencies or issues
- Use additional sheets as necessary
- Following inspection, send electronic copy of Inspection Form and any attachments to Entergy facility Environmental Analyst and Entergy State Lead

Inspected by: Jeremy Stauffer  
[Must be performed by a qualified person per 257.84(a)(1)]

Inspection Date: 12.8.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

1. Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit? [Inspection criteria per 257.84(a)(1)(i)]

a. Any signs of sliding or sloughing of the soil layer or waste material that might indicate a slope failure?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action/Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

b. Any signs of tension or other types of cracks or separation at the surface or slopes?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Energy Facility: Independence

Inspection Date: 12.8.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

c. Any signs of erosion from storm water runoff or damage to stormwater control facilities (e.g. ditches, culverts, berms, and letdowns)?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

d. Any signs of burrowing or tunneling mammals that could lead to stability issues?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



Energy Facility: Independence

Inspection Date: 12.8.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

e. Any signs of damage or operational issues with the leachate collection and transmission system (i.e., check pump and control panel, walk transmission line to see if there are any leaks, assess outlet)?

- No
- Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

f. If applicable, any signs of damage or operational issues with the final cover system - erosion, ponded water, settlement, leachate seeps, and vegetation?

- No
- Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

Energy Facility: Independence

Inspection Date: 12.8.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

2. Were there any issues or recommended corrective actions from the previous weekly inspection left to address?

No

Yes (*if yes, follow-up on any corrective actions taken*)

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

Entergy Facility: Independence

### WEEKLY LANDFILL INSPECTION

**Instructions:**

- Inspection applies to CCR Rule affected CCR units or cells only
- Provide detailed description of location, site sketches, and pictures of any noted deficiencies or issues
- Use additional sheets as necessary
- Following inspection, send electronic copy of Inspection Form and any attachments to Entergy facility Environmental Analyst and Entergy State Lead

Inspected by: Jeremy Stauffer  
[Must be performed by a qualified person per 257.84(a)(1)]

Inspection Date: 12.15.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

1. Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit? [Inspection criteria per 257.84(a)(1)(i)]

- a. Any signs of sliding or sloughing of the soil layer or waste material that might indicate a slope failure?  
 No  
 Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action/Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

- b. Any signs of tension or other types of cracks or separation at the surface or slopes?  
 No  
 Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Energy Facility: Independence

Inspection Date: 12.15.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

c. Any signs of erosion from storm water runoff or damage to stormwater control facilities (e.g. ditches, culverts, berms, and letdowns)?

- No
- Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

d. Any signs of burrowing or tunneling mammals that could lead to stability issues?

- No
- Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Energy Facility: Independence

Inspection Date: 12.15.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

- e. Any signs of damage or operational issues with the leachate collection and transmission system (i.e., check pump and control panel, walk transmission line to see if there are any leaks, assess outlet)?

- No  
 Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

- f. If applicable, any signs of damage or operational issues with the final cover system - erosion, ponded water, settlement, leachate seeps, and vegetation?

- No  
 Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

Energy Facility: Independence

Inspection Date: 12.15-2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

2. Were there any issues or recommended corrective actions from the previous weekly inspection left to address?

No

Yes (*if yes, follow-up on any corrective actions taken*)

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

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Entergy Facility: Independence

## WEEKLY LANDFILL INSPECTION

### Instructions:

- Inspection applies to CCR Rule affected CCR units or cells only
- Provide detailed description of location, site sketches, and pictures of any noted deficiencies or issues
- Use additional sheets as necessary
- Following inspection, send electronic copy of Inspection Form and any attachments to Entergy facility Environmental Analyst and Entergy State Lead

Inspected by: Jeremy Stauffer  
[Must be performed by a qualified person per 257.84(a)(1)]

Inspection Date: 12.22.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

1. Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit? [Inspection criteria per 257.84(a)(1)(i)]

a. Any signs of sliding or sloughing of the soil layer or waste material that might indicate a slope failure?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Recommended Corrective Action/Responsible Party: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_

[Sign and Date]

Corrective Action Completed: \_\_\_\_\_

[Sign and Date]

b. Any signs of tension or other types of cracks or separation at the surface or slopes?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Energy Facility: Independence

Inspection Date: 12.22.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

- c. Any signs of erosion from storm water runoff or damage to stormwater control facilities (e.g. ditches, culverts, berms, and letdowns)?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

- d. Any signs of burrowing or tunneling mammals that could lead to stability issues?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



Entergy Facility: Independence

Inspection Date: 12.21.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

- e. Any signs of damage or operational issues with the leachate collection and transmission system (i.e., check pump and control panel, walk transmission line to see if there are any leaks, assess outlet)?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

- f. If applicable, any signs of damage or operational issues with the final cover system - erosion, ponded water, settlement, leachate seeps, and vegetation?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

Energy Facility: Independence

Inspection Date: 12.22.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

2. Were there any issues or recommended corrective actions from the previous weekly inspection left to address?

No

Yes (*if yes, follow-up on any corrective actions taken*)

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

Entergy Facility: Independence

## WEEKLY LANDFILL INSPECTION

### Instructions:

- Inspection applies to CCR Rule affected CCR units or cells only
- Provide detailed description of location, site sketches, and pictures of any noted deficiencies or issues
- Use additional sheets as necessary
- Following inspection, send electronic copy of Inspection Form and any attachments to Entergy facility Environmental Analyst and Entergy State Lead

Inspected by: Jeremy Stauffer  
[Must be performed by a qualified person per 257.84(a)(1)]

Inspection Date: 12/29/15  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

1. Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit? [Inspection criteria per 257.84(a)(1)(i)]

a. Any signs of sliding or sloughing of the soil layer or waste material that might indicate a slope failure?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action/Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

b. Any signs of tension or other types of cracks or separation at the surface or slopes?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Energy Facility: Independence

Inspection Date: 12.29.2015  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

- c. Any signs of erosion from storm water runoff or damage to stormwater control facilities (e.g. ditches, culverts, berms, and letdowns)?

- No  
 Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

- d. Any signs of burrowing or tunneling mammals that could lead to stability issues?

- No  
 Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Entergy Facility: Independence

Inspection Date: 12.29.15  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

- e. Any signs of damage or operational issues with the leachate collection and transmission system (i.e., check pump and control panel, walk transmission line to see if there are any leaks, assess outlet)?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

- f. If applicable, any signs of damage or operational issues with the final cover system - erosion, ponded water, settlement, leachate seeps, and vegetation?

No

Yes (if yes, make photographs, describe and recommend a corrective action)

Location/Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommended Corrective Action and Responsible Party: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer Approval of Corrective Action (if required): \_\_\_\_\_  
[Sign and Date]

Corrective Action Completed: \_\_\_\_\_  
[Sign and Date]

Energy Facility: Independence

Inspection Date: 12.29.15  
[Inspection interval must not exceed 7 days per 257.84(a)(1)(i)]

2. Were there any issues or recommended corrective actions from the previous weekly inspection left to address?

- No
- Yes (*if yes, follow-up on any corrective actions taken*)

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

# **APPENDIX C**

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**Photos of Annual Engineering Inspection**



Photo 1. Active working face in Cell 15 looking southeast.



Photo 2. Cells 12, 13, 14 and 15 looking southwest.





Photo 3. Leachate sump in Cell 15 looking west.



Photo 4. Landfill perimeter access road looking west.