

December 18, 2020

**2020 Annual Inspection of CCR Facilities
Gallatin Fossil Plant
Gallatin, Sumner County, Tennessee**

The 2020 Annual Inspection of CCR facilities at Tennessee Valley Authority's (TVA's) Gallatin Fossil Plant (GAF) included review of the following structures:

- Ash Pond A
- Ash Pond E
- Bottom Ash Pond
- Middle Pond A
- North Rail Loop Landfill

The field reconnaissance was performed on September 10, 2020, in accordance with the GAF Inspection Plan. The weather at the time of the inspection was sunny and 70 degrees Fahrenheit. Approximately 0.1-inch of rain was recorded at Gallatin seven days prior to the inspection. The results of the field inspection (inspection forms, photo logs, and site layout maps) and instrumentation review are included within this report and the attached documents. The report and attachments were prepared in accordance with TVA's Performance Monitoring of CCR Storage Facilities Guidance Document and applicable sections of the published EPA CCR Rules.

Data Review

Documents reviewed prior to performing the field work included:

- GAF Inspection Plan
- Previous Inspection Reports
- Monthly and Annual instrumentation reports
- Published CCR Rules established by the EPA
- CCR Rule Demonstrations available on TVA's publicly available CCR Rule website

These documents were reviewed for previously identified areas of interest, potential locations of structural weakness at each facility, instrumentation condition and readings, and documentation of any construction activities that occurred since the previous intermediate inspection.

General Conditions

The Bottom Ash Pond, Middle Pond A, and Ash Pond A ceased receiving CCR sluice waters in June 2019. The sluice waters are now sent to the Bottom Ash Dewatering Facility (BADW) to be treated prior to discharge through a permitted outfall. Ash Pond E is currently dewatered and contains dry scrubber CCR material and previously sluiced ash. Ash Pond A, Middle Pond A, Bottom Ash Pond, and Ash Pond E placed a Notification of Intent to Close on the Operations Record on July 19, 2019 along with updated closure and post closure care plans.

Dry scrubber CCR material (gypsum and fly ash) and bottom ash from the BADW are currently being placed in the North Rail Loop Landfill. The dry storage facility began accepting dry CCR material June 8, 2016. It should be noted that routine stacking operations are currently being performed in Cell 1 of the landfill. Cell 2 construction has been completed, however, no waste has been placed within the cell.

A general overview of site conditions is provided below. The inspection team did not observe any critical deficiencies or actual/potential structural weakness of the inspected facilities.

- A good stand of grass is generally maintained on the slopes of the perimeter dikes and slopes of all the facilities.
- Adequate impoundment freeboard was observed at Ash Pond A, Ash Pond E, Middle Pond A and the Bottom Ash Pond.
- Routine maintenance activities are ongoing including maintaining vegetation.
- No evidence of sinkholes or depressions were observed.
- No global slope instability was observed during this inspection.
- Outlet structures and drainage pipes were generally in good condition.
- Construction of a seepage collection system at Seep 13 was completed at Ash Pond E. The collection system conveys the flow to a treatment system for discharge through a permitted outfall.

Areas of Interest

No new areas of interest were identified during this inspection.

Minor leakage was observed in the spillway risers in Ash Pond A. It is recommended to monitor the structures and repair if conditions worsen.

Instrumentation

Instrumentation data was reviewed from September 26, 2019, through September 10, 2020. This data included automated and manual water level readings obtained at the piezometers. Instrumentation data is analyzed monthly by TVA for significant fluctuations in piezometer water levels. The maximum recorded water level reading at each piezometer during the aforementioned report period and an instrumentation layout are provided in Attachment C.

There are no instruments installed at the Bottom Ash Pond, Middle Pond A, or North Rail Loop Landfill.

The piezometer GAF_G_2C_PZ4 at Ash Pond E is under evaluation by TVA. It is recommended that upon completion of the evaluation, TVA follow appropriate corrective actions to repair the instruments, if required.

CCR Rule Compliance

Based on 40 CFR §257.83 and §257.84 from the published EPA CCR Rules, various metrics are required to be provided at each CCR impoundment and landfill facility for the annual inspection in addition to the visual assessment of the CCR units. A table of these metrics is presented in Attachment D.



Jason Curtsinger, PE

- Attachment A – Inspection Checklists
- Attachment B – Photo Log and Site Layout
- Attachment C – Instrumentation Readings and Layout
- Attachment D – CCR Rule Requirements Tables



Attachment A

Inspection Checklists

- Ash Pond A
- Ash Pond E
- Bottom Ash Pond
- Middle Pond A
- North Rail Loop Landfill



GALLATIN FOSSIL PLANT 2020 ANNUAL INSPECTION

1. Site Name: Gallatin Fossil Plant 2. Facility Name: Ash Pond A 3. Date: 9/10/2020
 4. Operator Name: Baker Construction 5. Hazard Classification: Significant
 6. Inspector's Names: Jason Curtsinger (LEAD), Marty Helton
 7. Weather Conditions / Temperature: Sunny, 70 Degrees F, 0.1" of rain received at GAF within 7 days of inspection

Check the appropriate box below. If not applicable, record "N/A". Provide comments when appropriate. Any other areas that should be investigated more closely should also be noted in the "Comments" section. Indicate the locations of any areas identified, and photograph and attach to the form. Previous observation forms should be reviewed and any NEW observations or degradation of previous conditions should be reported on this observation form.

	Yes	No		Yes	No
8. Pre-Job Safety Briefing Performed	X		14. DIKE TOE AREAS		
9. Activity / Construction on / at facility		X	A. Seepage <input type="radio"/> New <input type="radio"/> Existing		X
10. DIKE CREST			<input type="radio"/> Clear or Muddy		N/A
A. Settlement / Cracking		X	<input type="radio"/> Flow Increase / Decrease		N/A
B. Rutting		X	<input type="radio"/> Aquatic Vegetation Growing		N/A
C. Lateral Displacement		X	<input type="radio"/> Ash or Clay Deposits Below Seep Outlet		N/A
D. Erosion		X	B. Boils <input type="radio"/> New <input type="radio"/> Existing		X
11. IMPOUNDMENT			<input type="radio"/> Clear or Muddy		N/A
A. Minimum Freeboard Required		5ft.	<input type="radio"/> Flow Increase / Decrease		N/A
B. Actual Minimum Freeboard		>5ft.	<input type="radio"/> Growing in Size		N/A
C. Pool Elevation Measurement		464.3 ft.	C. Sinkholes/Depressions <input type="radio"/> New <input type="radio"/> Existing		X
12. DIKE INTERIOR/EXTERIOR SLOPES			15. SEEPAGE COLLECTION SYSTEM		
A. Instabilities (Sloughs or Slides)		X	A. Estimated Flow Measurement		N/A
B. Erosion		X	B. Increased Flow		N/A
C. Sinkholes/Depressions <input type="radio"/> New <input type="radio"/> Existing		X	C. Emitting Clear or Dirty Water		N/A
D. Vegetation / Brush / Trees (excessive)		X	16. SPILLWAY WEIRS & OUTLETS		
E. Animal Burrows <input type="radio"/> New <input type="radio"/> Existing		X	A. Decant Riser Misaligned		X
F. Seepage <input type="radio"/> New <input type="radio"/> Existing		X	B. Decant Pipe Joints Leaking/Separated	X	
<input type="radio"/> Clear or Muddy		N/A	C. Headwall in Good Condition		N/A
<input type="radio"/> Increased Flow		N/A	D. Siphons/Emergency Spillway in Good Condition	X	
<input type="radio"/> Ash or Clay Deposits Below Seep Outlet		N/A	17. OPERATIONS & MAINTENANCE		
G. Seep around Drain Pipe (s)		X	A. Routine O&M Performed	X	
13. DEFICIENCIES			B. Changes in Operations		X
A. Prior Deficiencies Checked		N/A	18. INSTRUMENTATION		
B. New Deficiencies Identified / Flagged		X	A. Instrumentation readings reviewed	X	
C. Immediate Actions Taken (Note Below)		X	B. Instrumentation functioning properly	X	
D. Photos of deficiencies attached		X	C. Physical Damage to Instrumentation		X

19. Major adverse changes in these items could cause instability and should be investigated more closely as soon as possible for further evaluation. Adverse conditions noted in these items should normally be described (extent, location, etc.) in the space below. General Inspection comments and observations should also be noted below.

16B - Minor leakage was observed in the spillway risers. It is recommended to monitor and repair if conditions worsen.

20. Who was Notified of New Deficiency: (Date / Time) N/A

21. I hereby attest the above is based on actual field observations made during the period indicated, by either myself or an appointed representative and are accurate, complete, and correct to the best of my knowledge.

Period Covered:

From: September 2019 To: September 2020

Signature: 

Date: 12-18-20



GALLATIN FOSSIL PLANT 2020 ANNUAL INSPECTION

1. Site Name: Gallatin Fossil Plant 2. Facility Name: Ash Pond E 3. Date: 9/10/2020
 4. Operator Name: Baker Construction 5. Hazard Classification: Significant
 6. Inspector's Names: Jason Curtsinger (LEAD), Marty Helton
 7. Weather Conditions / Temperature: Sunny, 70 Degrees F, 0.1" of rain received at GAF within 7 days of inspection

Check the appropriate box below. If not applicable, record "N/A". Provide comments when appropriate. Any other areas that should be investigated more closely should also be noted in the "Comments" section. Indicate the locations of any areas identified, and photograph and attach to the form. Previous observation forms should be reviewed and any NEW observations or degradation of previous conditions should be reported on this observation form.

	Yes	No		Yes	No
8. Pre-Job Safety Briefing Performed	X		14. DIKE TOE AREAS		
9. Activity / Construction on / at facility	X		A. Seepage <input type="radio"/> New <input type="radio"/> Existing		X
10. DIKE CREST			<input type="radio"/> Clear or Muddy		N/A
A. Settlement / Cracking		X	<input type="radio"/> Flow Increase / Decrease		N/A
B. Rutting		X	<input type="radio"/> Aquatic Vegetation Growing		N/A
C. Lateral Displacement		X	<input type="radio"/> Ash or Clay Deposits Below Seep Outlet		N/A
D. Erosion		X	B. Boils <input type="radio"/> New <input type="radio"/> Existing		X
11. IMPOUNDMENT			<input type="radio"/> Clear or Muddy		N/A
A. Minimum Freeboard Required		5ft.	<input type="radio"/> Flow Increase / Decrease		N/A
B. Actual Minimum Freeboard		>5ft.	<input type="radio"/> Growing in Size		N/A
C. Pool Elevation Measurement		N/A	C. Sinkholes/Depressions <input type="radio"/> New <input type="radio"/> Existing		X
12. DIKE INTERIOR/EXTERIOR SLOPES			15. SEEPAGE COLLECTION SYSTEM		
A. Instabilities (Sloughs or Slides)		X	A. Estimated Flow Measurement		N/A
B. Erosion		X	B. Increased Flow		N/A
C. Sinkholes/Depressions <input type="radio"/> New <input type="radio"/> Existing		X	C. Emitting Clear or Dirty Water		N/A
D. Vegetation / Brush / Trees (excessive)		X	16. SPILLWAY WEIRS & OUTLETS		
E. Animal Burrows <input type="radio"/> New <input type="radio"/> Existing		X	A. Decant Riser Misaligned		N/A
F. Seepage <input type="radio"/> New <input type="radio"/> Existing		X	B. Decant Pipe Joints Leaking/Separated		N/A
<input type="radio"/> Clear or Muddy		N/A	C. Headwall in Good Condition		N/A
<input type="radio"/> Increased Flow		N/A	D. Siphons/Emergency Spillway in Good Condition		N/A
<input type="radio"/> Ash or Clay Deposits Below Seep Outlet		N/A	17. OPERATIONS & MAINTENANCE		
G. Seep around Drain Pipe (s)		X	A. Routine O&M Performed	X	
13. DEFICIENCIES			B. Changes in Operations		X
A. Prior Deficiencies Checked	X		18. INSTRUMENTATION		
B. New Deficiencies Identified / Flagged		X	A. Instrumentation readings reviewed	X	
C. Immediate Actions Taken (Note Below)		X	B. Instrumentation functioning properly		X
D. Photos of deficiencies attached	X		C. Physical Damage to Instrumentation		X

19. Major adverse changes in these items could cause instability and should be investigated more closely as soon as possible for further evaluation. Adverse conditions noted in these items should normally be described (extent, location, etc.) in the space below. General Inspection comments and observations should also be noted below.

9 - Removal of a temporary stockpile within Ash Pond E was on-going.

11C - The pond has been decanted of free water.

13A/14A - Construction of the collection system at Seep 13 was completed.

16 - Spillway no longer in operation since the pond has been decanted.

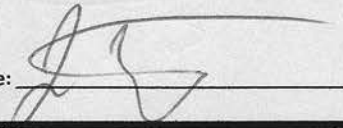
18B - The piezometer GAF_G_2C_PZ4 is under evaluation by TVA.

20. Who was Notified of New Deficiency: (Date / Time) N/A

21. I hereby attest the above is based on actual field observations made during the period indicated, by either myself or an appointed representative and are accurate, complete, and correct to the best of my knowledge.

Period Covered:

From: September 2019 To: September 2020

Signature: 

Date: 12-18-20



GALLATIN FOSSIL PLANT 2020 ANNUAL INSPECTION

1. Site Name: Gallatin Fossil Plant 2. Facility Name: Bottom Ash Pond 3. Date: 9/10/2020
 4. Operator Name: Baker Construction 5. Hazard Classification: Low
 6. Inspector's Names: Jason Curtsinger (LEAD), Marty Helton
 7. Weather Conditions / Temperature: Sunny, 70 Degrees F, 0.1" of rain received at GAF within 7 days of inspection

Check the appropriate box below. If not applicable, record "N/A". Provide comments when appropriate. Any other areas that should be investigated more closely should also be noted in the "Comments" section. Indicate the locations of any areas identified, and photograph and attach to the form. Previous observation forms should be reviewed and any NEW observations or degradation of previous conditions should be reported on this observation form.

	Yes	No		Yes	No
8. Pre-Job Safety Briefing Performed	X		14. DIKE TOE AREAS		
9. Activity / Construction on / at facility		X	A. Seepage	<input type="radio"/> New <input type="radio"/> Existing	X
10. DIKE CREST			<input type="radio"/> Clear or Muddy		N/A
A. Settlement / Cracking		X	<input type="radio"/> Flow Increase / Decrease		N/A
B. Rutting		X	<input type="radio"/> Aquatic Vegetation Growing		N/A
C. Lateral Displacement		X	<input type="radio"/> Ash or Clay Deposits Below Seep Outlet		N/A
D. Erosion		X	B. Boils	<input type="radio"/> New <input type="radio"/> Existing	X
11. IMPOUNDMENT			<input type="radio"/> Clear or Muddy		N/A
A. Minimum Freeboard Required		2 ft	<input type="radio"/> Flow Increase / Decrease		N/A
B. Actual Minimum Freeboard		>2 ft	<input type="radio"/> Growing in Size		N/A
C. Pool Elevation Measurement		N/A	C. Sinkholes/Depressions	<input type="radio"/> New <input type="radio"/> Existing	X
12. DIKE INTERIOR/EXTERIOR SLOPES			15. SEEPAGE COLLECTION SYSTEM		
A. Instabilities (Sloughs or Slides)		X	A. Estimated Flow Measurement		N/A
B. Erosion		X	B. Increased Flow		N/A
C. Sinkholes/Depressions		X	C. Emitting Clear or Dirty Water		N/A
D. Vegetation / Brush / Trees (excessive)		X	16. SPILLWAY WEIRS & OUTLETS		
E. Animal Burrows		X	A. Decant Riser Misaligned		N/A
F. Seepage		X	B. Decant Pipe Joints Leaking/Separated		N/A
<input type="radio"/> Clear or Muddy		N/A	C. Headwall in Good Condition		N/A
<input type="radio"/> Increased Flow		N/A	D. Siphons/Emergency Spillway in Good Condition		N/A
<input type="radio"/> Ash or Clay Deposits Below Seep Outlet		N/A	17. OPERATIONS & MAINTENANCE		
G. Seep around Drain Pipe (s)		X	A. Routine O&M Performed	X	
13. DEFICIENCIES			B. Changes in Operations		X
A. Prior Deficiencies Checked		N/A	18. INSTRUMENTATION		
B. New Deficiencies Identified / Flagged		X	A. Instrumentation readings reviewed		N/A
C. Immediate Actions Taken (Note Below)		X	B. Instrumentation functioning properly		N/A
D. Photos of deficiencies attached		X	C. Physical Damage to Instrumentation		N/A

19. Major adverse changes in these items could cause instability and should be investigated more closely as soon as possible for further evaluation. Adverse conditions noted in these items should normally be described (extent, location, etc.) in the space below. General Inspection comments and observations should also be noted below.

13A - No deficiencies identified during previous intermediate inspection.

16 - Outlet from the unit is through three pipes installed horizontally. Pipes appeared to be in good condition.

18- No instrumentation is installed at this unit.

20. Who was Notified of New Deficiency: (Date / Time) N/A

21. I hereby attest the above is based on actual field observations made during the period indicated, by either myself or an appointed representative and are accurate, complete, and correct to the best of my knowledge.

Period Covered:

From: September 2019 To: September 2020

Signature: 

Date: 12-18-20



GALLATIN FOSSIL PLANT 2020 ANNUAL INSPECTION

1. Site Name: Gallatin Fossil Plant 2. Facility Name: Middle Pond A 3. Date: 9/10/2020
 4. Operator Name: Baker Construction 5. Hazard Classification: Low
 6. Inspector's Names: Jason Curtsinger (LEAD), Marty Helton
 7. Weather Conditions / Temperature: Sunny, 70 Degrees F, 0.1" of rain received at GAF within 7 days of inspection

Check the appropriate box below. If not applicable, record "N/A". Provide comments when appropriate. Any other areas that should be investigated more closely should also be noted in the "Comments" section. Indicate the locations of any areas identified, and photograph and attach to the form. Previous observation forms should be reviewed and any NEW observations or degradation of previous conditions should be reported on this observation form.

	Yes	No		Yes	No
8. Pre-Job Safety Briefing Performed	X		14. DIKE TOE AREAS		
9. Activity / Construction on / at facility		X	A. Seepage <input type="radio"/> New <input type="radio"/> Existing		X
10. DIKE CREST			<input type="radio"/> Clear or Muddy		N/A
A. Settlement / Cracking		X	<input type="radio"/> Flow Increase / Decrease		N/A
B. Rutting		X	<input type="radio"/> Aquatic Vegetation Growing		N/A
C. Lateral Displacement		X	<input type="radio"/> Ash or Clay Deposits Below Seep Outlet		N/A
D. Erosion		X	B. Boils <input type="radio"/> New <input type="radio"/> Existing		X
11. IMPOUNDMENT			<input type="radio"/> Clear or Muddy		N/A
A. Minimum Freeboard Required		2 ft	<input type="radio"/> Flow Increase / Decrease		N/A
B. Actual Minimum Freeboard		>2 ft	<input type="radio"/> Growing in Size		N/A
C. Pool Elevation Measurement		N/A	C. Sinkholes/Depressions <input type="radio"/> New <input type="radio"/> Existing		X
12. DIKE INTERIOR/EXTERIOR SLOPES			15. SEEPAGE COLLECTION SYSTEM		
A. Instabilities (Sloughs or Slides)		X	A. Estimated Flow Measurement		N/A
B. Erosion		X	B. Increased Flow		N/A
C. Sinkholes/Depressions <input type="radio"/> New <input type="radio"/> Existing		X	C. Emitting Clear or Dirty Water		N/A
D. Vegetation / Brush / Trees (excessive)		X	16. SPILLWAY WEIRS & OUTLETS		
E. Animal Burrows <input type="radio"/> New <input type="radio"/> Existing		X	A. Decant Riser Misaligned		N/A
F. Seepage <input type="radio"/> New <input type="radio"/> Existing		X	B. Decant Pipe Joints Leaking/Separated		N/A
<input type="radio"/> Clear or Muddy		N/A	C. Headwall in Good Condition		N/A
<input type="radio"/> Increased Flow		N/A	D. Siphons/Emergency Spillway in Good Condition		N/A
<input type="radio"/> Ash or Clay Deposits Below Seep Outlet		N/A	17. OPERATIONS & MAINTENANCE		
G. Seep around Drain Pipe (s)		X	A. Routine O&M Performed	X	
13. DEFICIENCIES			B. Changes in Operations		X
A. Prior Deficiencies Checked		N/A	18. INSTRUMENTATION		
B. New Deficiencies Identified / Flagged		X	A. Instrumentation readings reviewed		N/A
C. Immediate Actions Taken (Note Below)		X	B. Instrumentation functioning properly		N/A
D. Photos of deficiencies attached		X	C. Physical Damage to Instrumentation		N/A

19. Major adverse changes in these items could cause instability and should be investigated more closely as soon as possible for further evaluation. Adverse conditions noted in these items should normally be described (extent, location, etc.) in the space below. General Inspection comments and observations should also be noted below.

13A - No deficiencies identified during the previous intermediate inspection.

16 - Outlet from the unit is through two pipes installed horizontally. Pipes appeared to be in good condition.

18 - No instrumentation is installed at this unit.

20. Who was Notified of New Deficiency: (Date / Time) N/A

21. I hereby attest the above is based on actual field observations made during the period indicated, by either myself or an appointed representative and are accurate, complete, and correct to the best of my knowledge.

Period Covered:

From: September 2019 To: September 2020

Signature: 

Date: 12-8-20



GALLATIN FOSSIL PLANT 2020 ANNUAL INSPECTION

1. Site Name: Gallatin Fossil Plant 2. Facility Name: North Rail Loop Landfill 3. Date: 9/10/2020
 4. Operator Name: Baker Construction 5. Hazard Classification: Significant
 6. Inspector's Names: Jason Curtsinger (LEAD), Marty Helton
 7. Weather Conditions / Temperature: Sunny, 70 Degrees F, 0.1" of rain received at GAF within 7 days of the inspection

Check the appropriate box below. If not applicable, record "N/A". Provide comments when appropriate. Any other areas that should be investigated more closely should also be noted in the "Comments" section. Indicate the locations of any areas identified, and photograph and attach to the form. Previous observation forms should be reviewed and any NEW observations or degradation of previous conditions should be reported on this observation form.

	Yes	No		Yes	No
8. Pre-Job Safety Briefing Performed	X		14. LEACHATE COLLECTION SYSTEM		
9. Activity / Construction on / at facility	X		A. Operating Properly	X	
10. STACK CREST & SLOPES			o Pumps	X	
A. Settlement / Cracking		X	o Less than 1 foot (30 cm) of head on liner	X	
B. Rutting		X	o Piping	X	
C. Lateral Displacement		X	o Tanks		N/A
D. Erosion		X	15. PERIMETER DRAINAGE DITCHES & DOWNDRAINS		
E. Instabilities (Sloughs or Slides)		X	A. Erosion in Ditches or Downdrains		X
12. DIKE SLOPES & TOE AREA			B. Vegetation Maintained	X	
A. Instabilities (Sloughs or Slides)		X	C. Adequate Riprap Protection Provided	X	
B. Erosion		X	D. Drainage Pipes Silted/Impeded		X
C. Sinkholes/Depressions o New o Existing		X	16. OPERATIONS & MAINTENANCE		
D. Vegetation / Brush / Trees (excessive)		X	A. Routine O&M Performed	X	
E. Animal Burrows o New o Existing		X	B. Changes in Operations		X
F. Seepage o New o Existing		X	C. Adequate Dust Control	X	
o Clear or Muddy		X	D. Excessive standing/ponding water		X
o Increased Flow		X	17. INSTRUMENTATION		
o Ash or Clay Deposits Below Seep Outlet		X	A. Instrumentation readings reviewed		N/A
G. Seep around Drain Pipe (s)		X	B. Instrumentation functioning properly		N/A
13. DEFICIENCIES			C. Physical Damage to Instrumentation		N/A
A. Prior Deficiencies Checked	X				
B. New Deficiencies Identified / Flagged		X			
C. Immediate Actions Taken (Note Below)		X			
D. Photos of deficiencies attached		X			

18. Major adverse changes in these items could cause instability and should be investigated more closely as soon as possible for further evaluation. Adverse conditions noted in these items should normally be described (extent, location, etc.) in the space below. General inspection comments and observations should also be noted below.

9 - Routine stacking was taking place at the time of the inspection.

17 - No instrumentation is installed at this unit.

19. Who was Notified of New Deficiency: (Date / Time) N/A

20. I hereby attest the above is based on actual field observations made during the period indicated, by either myself or an appointed representative and are accurate, complete, and correct to the best of my knowledge.

Period Covered:

From: September 2019 To: September 2020

Signature: 

Date: 12-18-20

Attachment B

Photo Log and Site Layout

- Ash Pond A
- Ash Pond E
- Bottom Ash Pond
- Middle Pond A
- North Rail Loop Landfill

**Gallatin Fossil Plant (GAF) 2020 Annual Inspection
Photo Log**



Photo 1	General view of perimeter dike at Ash Pond E looking south. No deficiency pictured.
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Photo 2	Collection system at Seep 13 at Ash Pond E. No deficiency pictured.
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**Gallatin Fossil Plant (GAF) 2020 Annual Inspection
Photo Log**



Photo 3

General view of Bottom Ash Pond looking southeast. No deficiency pictured.



Photo 4

General view of Middle Pond A looking north. No deficiency pictured.

**Gallatin Fossil Plant (GAF) 2020 Annual Inspection
Photo Log**



Photo 5

General picture of stacking area at North Rail Loop Landfill Cell 1 looking southwest. No deficiency pictured.




Photo 6

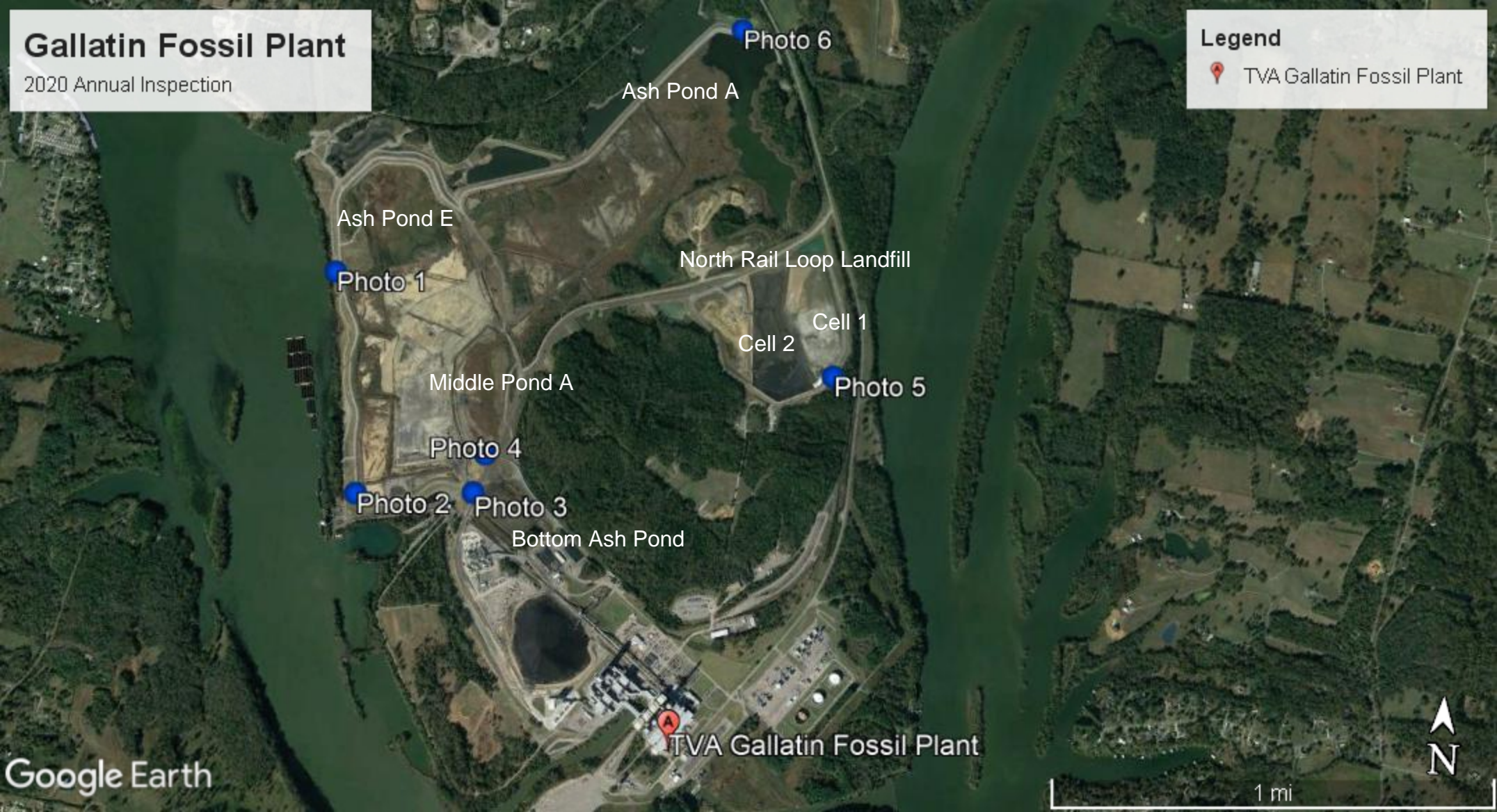
General view of Ash Pond A looking south. No deficiency pictured.

Gallatin Fossil Plant

2020 Annual Inspection

Legend

 TVA Gallatin Fossil Plant



Ash Pond A

Photo 6

Ash Pond E

Photo 1

North Rail Loop Landfill

Cell 2
Cell 1

Photo 5

Middle Pond A

Photo 4

Photo 2

Photo 3

Bottom Ash Pond

TVA Gallatin Fossil Plant

Google Earth

1 mi



Attachment C

Instrumentation Readings and Layout

- Ash Pond A
- Ash Pond E

G:\Inspections\Annual Inspections\F17\GAF\Instrumentation Layout\GAF Piezometer Location Plan - Copy.dwg User:RCLURISI Feb 27, 2017 - 2:10pm



INSTRUMENTATION LOCATION TABLE			
Boring No.	Northing	Eastng	Elevation (ft)
GAF_PZA5	708368.74	1881417.01	473.7
GAF_PZA9	709132.64	1882470.74	472.4
GAF_PZ2B	708353.18	1881435.67	474.4
GAF_PZ4B	707518.78	1880739.20	474.8
GAF_PZ5B	706980.73	1879812.24	473.2
GAF_PZK2B	708952.57	1881959.80	475.0
GAF_K_2A	708966.76	1881971.32	475.0
GAF_K_2B	708982.37	1881955.32	475.1
GAF_O_2B	708153.23	1881242.06	474.0
GAF_PZC1	707402.48	1879680.01	462.0
GAF_PZD1	707207.49	1877231.21	462.0
GAF_PZE2	703007.37	1879022.21	475.7
GAF_PZE6	702733.38	1878070.14	459.6
GAF_PZE8	703835.47	1877934.64	476.5
GAF_PZE12	704854.47	1877754.46	455.3
GAF_PZE14	706343.79	1877425.50	477.0
GAF_PZE18	707190.77	1877765.92	461.6
GAF_PZE20	706856.53	1878704.54	476.0
GAF_PZ6B	706876.29	1878741.41	464.7
GAF_PZ8B	707141.99	1878703.25	467.5
GAF_PZ9B	706879.05	1877572.38	476.2
GAF_PZ9C	706906.86	1788543.69	463.9
GAF_PZ10B	703827.36	1877881.93	456.2
GAF_PZ11A	702757.09	1878642.82	478.5
GAF_PZ11B	702709.90	1878657.40	460.0
GAF_PZ12B	702956.94	1879038.84	461.8
GAF_B_2A	702808.34	1878084.96	476.8
GAF_B_2B	702711.24	1878056.80	459.9
GAF_C_2A	703768.53	1877944.72	476.4
GAF_C_2C	703776.28	1877875.62	452.8
GAF_G_2A	706884.58	1878686.41	476.4
GAF_G_2C	706904.64	1878737.40	461.4

INSTRUMENTATION LOCATION TABLE (TEMPORARY STOCKPILE)			
Boring No.	Northing	Eastng	Elevation (ft)
VWP-1	703628.60	1878853.93	476.2
VWP-2	704375.97	1878665.46	476.7
SNDX-1/INCL-1	703755.15	1878839.82	477.8
INCL-3	703694.04	1878438.76	470.6
SP-1	703734.48	1878648.01	474.2
SP-2	704300.87	1878794.39	479.2

NOTES:
1. TOPOGRAPHIC AND SURVEY INFORMATION PROVIDED BY TENNESSEE VALLEY AUTHORITY

LEGEND	
	PIEZOMETER LOCATION
	VIBRATING WIRE PIEZOMETER LOCATION
	BORING LOCATION
	STABILITY SECTION
	TEMPORARY STOCKPILE BOUNDARY
	VIBRATING WIRE PIEZOMETER
	SONDEX SETTLEMENT SYSTEM
	SLOPE INCLINOMETER
	SETTLEMENT PLATE

REV. NO.	DATE	DSGN	DRWN	CHKD	SUPV	RVID	APPD	ISSD	PROJECT	AS CONST.	REV. NO.	DISCIPLINE
												INTERFACE
SCALE: 1" = 250'											EXCEPT AS NOTED	
INSTRUMENTATION AND STABILITY SECTION LAYOUT												
GALLATIN FOSSIL PLANT ASH POND/STILLING POND COMPLEX												
DESIGNED BY:	DRAWN BY:	CHECKED BY:	SUPERVISED BY:	REVIEWED BY:	APPROVED BY:	ISSUED BY:						
GALLATIN FOSSIL PLANT TENNESSEE VALLEY AUTHORITY FOSSIL AND HYDRO ENGINEERING												
AUTOCAD	2010	DATE	2/27/17	39	c	10W277-02	R	A				

GAF Instrumentation Data			
Facility: Ash Pond A			
Instrument¹	Instrument Type	Maximum Water Elevation Since Previous Inspection (ft)	Date Maximum Water Elevation Recorded
GAF_PZA5	Piezometer	457.9	4/23/2020
GAF_PZA9	Piezometer	459.9	2/13/2020
GAF_PZ2B	Piezometer	Dry	11/2/2019
GAF_PZ4B	Piezometer	456.4	3/26/2020
GAF_PZ5B	Piezometer	465.1	3/26/2020
GAF_PZK2B	Piezometer	462.2	2/14/2020
GAF_PZ02KA_1	Piezometer	Dry	1/5/2020
GAF_PZ02KA_2	Piezometer	471.9	9/2/2020
GAF_PZ02KA_3	Piezometer	469.6	9/2/2020
GAF_PZ02KB_1	Piezometer	Dry	1/10/2019
GAF_PZ02KB_2	Piezometer	464.2	9/2/2020
GAF_PZ02KB_3	Piezometer	462.9	9/2/2020
GAF_Q_2B_PZ1	Piezometer	454.8	8/3/2020
GAF_Q_2B_PZ2	Piezometer	455.1	8/3/2020
GAF_Q_2B_PZ3	Piezometer	Dry	8/3/2020
GAF_Q_2B_PZ4	Piezometer	Dry	8/3/2020

1: See Instrumentation Layout for location of instruments.

GAF Instrumentation Data			
Facility: Ash Pond E			
Instrument¹	Instrument Type	Maximum Water Elevation Since Previous Inspection (ft)	Date Maximum Water Elevation Recorded
GAF_PZE2	Piezometer	460.8	3/24/2020
GAF_PZE6	Piezometer	458.6	2/13/2020
GAF_PZE8	Piezometer	462.6	1/4/2020
GAF_PZE12	Piezometer	458.6	1/4/2020
GAF_PZE14	Piezometer	448.7	2/14/2020
GAF_PZE18	Piezometer	456.5	3/25/2020
GAF_PZE20	Piezometer	453.6	2/15/2020
GAF_PZ6B	Piezometer	455.4	1/5/2020
GAF_PZ8B	Piezometer	456.4	3/26/2020
GAF_PZ9B	Piezometer	456.1	2/19/2020
GAF_PZ9C	Piezometer	456.3	2/13/2020
GAF_PZ10B	Piezometer	450.8	2/14/2020
GAF_PZ11A	Piezometer	458.1	3/24/2020
GAF_PZ11B	Piezometer	457.2	3/24/2020
GAF_PZ12B	Piezometer	458.8	12/29/2020
GAF_PZ02BA_1	Piezometer	459.3	2/13/2020
GAF_PZ02BA_2	Piezometer	458.4	2/13/2020
GAF_PZ02BA_3	Piezometer	455.0	2/13/2020
GAF_PZ02B_1	Piezometer	458.5	2/13/2020
GAF_PZ02B_2	Piezometer	458.0	9/2/2020
GAF_PZ02B_3	Piezometer	454.1	2/14/2020
GAF_C_2A_PZ1	Piezometer	450.3	8/3/2020
GAF_C_2A_PZ2	Piezometer	450.4	8/3/2020
GAF_C_2A_PZ3	Piezometer	451.3	8/3/2020
GAF_C_2A_PZ4	Piezometer	456.8	8/3/2020
GAF_C_2A_PZ5	Piezometer	458.5	8/3/2020
GAF_C_2C_PZ1	Piezometer	447.8	8/3/2020
GAF_C_2C_PZ2	Piezometer	447.8	8/3/2020
GAF_C_2C_PZ3	Piezometer	447.7	8/3/2020
GAF_C_2C_PZ4	Piezometer	447.6	8/3/2020
GAF_G_2A_PZ1	Piezometer	454.7	8/3/2020
GAF_G_2A_PZ2	Piezometer	Dry	8/3/2020
GAF_G_2A_PZ3	Piezometer	454.6	8/3/2020
GAF_G_2A_PZ4	Piezometer	Dry	8/3/2020
GAF_G_2C_PZ1	Piezometer	449.1	8/3/2020
GAF_G_2C_PZ2	Piezometer	453.5	8/3/2020
GAF_G_2C_PZ3	Piezometer	Dry	8/3/2020
GAF_G_2C_PZ4*	Piezometer	475.3	8/3/2020

1: See Instrumentation Layout for location of instruments.

*Denotes instruments that are under evaluation by TVA.

Attachment D

CCR Rule Requirements Tables

- Ash Pond A
- Ash Pond E
- Bottom Ash Pond
- Middle Pond A
- North Rail Loop Landfill

Gallatin Fossil Plant 2020 Annual Inspection		
CCR Rule Section §257.83 - Inspection Requirements for CCR Surface Impoundments		
Ash Pond A, Middle Pond A, Bottom Ash Pond, and Ash Pond E		
	Ash Pond A	Ash Pond E
Any changes in geometry of the impounding structure since the previous annual inspection	No	No
Location and type of existing instrumentation and the maximum recorded readings of each instrument since the previous annual inspection	See Attachment C	See Attachment C
Approximate minimum depth (elevation) of the impounded water since the previous annual inspection ¹	11.9 ft (464.3 ft)	Pond is dewatered of free water
Approximate maximum depth (elevation) of the impounded water since the previous annual inspection ¹	11.9 ft (464.3 ft)	Pond is dewatered of free water
Approximate present depth (elevation) of the impounded water ¹	11.9 ft (464.3 ft)	Pond is dewatered of free water
Approximate minimum depth (elevation) of the CCR material since the previous annual inspection ²	7.2 ft (452.2 ft)	0 ft (445 ft)
Approximate maximum depth (elevation) of the CCR material since the previous annual inspection ²	25 ft (470 ft)	33 ft (478 ft)
Approximate present depth (elevation) of the CCR material ²	7.2 to 25 ft (452.2 to 470 ft)	0 to 33 ft (445 to 478 ft)
Storage capacity of the impounding structure at the time of the inspection ³	636,600 CY	933,500 CY
Approximate volume of impounded water at the time of the inspection ¹	242,000 CY	Pond is dewatered of free water
Approximate volume of CCR material at the time of the inspection ²	5,500,000 CY	4,470,000 CY
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	None observed, See Attachment A	None observed, See Attachment A
Any other changes which may have affected the stability or operation of the impounding structure since the previous annual inspection	None observed, See Attachment A	None observed, See Attachment A

1 - Based on lowest elevation of free water from August 2017 hydrographic survey.

2 -The CCR depth and quantities provided were estimated based on available boring data, cross-sections, and survey information. TVA is currently performing a project to verify these estimated values.

3 - Based on the lowest top of dike elevation.

Gallatin Fossil Plant 2020 Annual Inspection		
CCR Rule Section §257.83 - Inspection Requirements for CCR Surface Impoundments		
Ash Pond A, Middle Pond A, Bottom Ash Pond, and Ash Pond E		
	Bottom Ash Pond	Middle Pond A
Any changes in geometry of the impounding structure since the previous annual inspection	No	No
Location and type of existing instrumentation and the maximum recorded readings of each instrument since the previous annual inspection	See Attachment C	See Attachment C
Approximate minimum depth (elevation) of the impounded water since the previous annual inspection	No free water	No free water
Approximate maximum depth (elevation) of the impounded water since the previous annual inspection	No free water	No free water
Approximate present depth (elevation) of the impounded water	No free water	No free water
Approximate minimum depth (elevation) of the CCR material since the previous annual inspection ²	12 ft (472 ft)	13 ft (473 ft)
Approximate maximum depth (elevation) of the CCR material since the previous annual inspection ²	23 ft (483 ft)	21 ft (481 ft)
Approximate present depth (elevation) of the CCR material ²	12 to 23 ft (472 to 483 ft)	13 to 21 ft (473 to 481 ft)
Storage capacity of the impounding structure at the time of the inspection	12,700 CY	15,700 CY
Approximate volume of impounded water at the time of the inspection	No free water	No free water
Approximate volume of CCR material at the time of the inspection ²	452,000 CY	1,128,000 CY
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	None observed, See Attachment A	None observed, See Attachment A
Any other changes which may have affected the stability or operation of the impounding structure since the previous annual inspection	None observed, See Attachment A	None observed, See Attachment A

1 - Based on lowest elevation of free water from September 2016 hydrographic survey.

2 -The CCR depth and quantities provided were estimated based on available boring data, cross-sections, and survey information. TVA is currently performing a project to verify these estimated values.

3 - Based on the lowest top of dike elevation.

Gallatin Fossil Plant 2020 Annual Inspection
CCR Rule Section §257.84 - Inspection Requirements for CCR Landfills

	North Rail Loop Landfill
Any changes in geometry of the structure since the previous annual inspection	No
The approximate volume of CCR contained in the unit at the time of the inspection (CY)	700,000 CY
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	None observed, See Attachment A
Any other changes which may have affected the stability or operation of the CCR unit since the previous annual inspection	None observed, See Attachment A