



TVA Disposal Facility Assessment Phase 1 Plant Summary Gallatin Fossil Plant (GAF)

Location:	Gallatin Fossil Plant 1499 Steam Plant Road Gallatin, Sumner County, TN 37066
	Latitude: 36.315 N Longitude: 86.408 W
Plant Contact:	William B. Brock Technical Services Analyst Phone: 615-230-4065 Email: wbbrock@tva.gov
Facts and Figures:	The Gallatin Fossil Plant has four coal-fired generating units and eight combustion turbines. Construction began in 1953 and was completed in 1959. The plant consumes approximately 12,350 tons of coal per day. It is located on the north bank of the Cumberland River, about 30 miles northeast of Nashville, TN.
Coal Combustion Byproduct Disposal:	Approximately 185,000 dry tons of fly ash is wet-sluciced to Pond E each year. Approximately 45,000 dry tons of bottom ash is wet-sluciced to Pond A annually. There are no dry stacking operations currently at GAF.
Geology and Seismicity:	The Gallatin Fossil Plant is located in the northern portion of central Tennessee along the north bank of the Cumberland River, encompassing the Odom's Bend peninsula. As such, the geologic mapping depicts alluvial deposits consisting of clay, silt and very fine sand across large portions of the site. The mapping indicates the thickness of the alluvium is highly variable, but may be as much as 70 feet including terrace deposits. The remaining areas are underlain by residual clays resulting from the in-place weathering of the parent Ordovician age limestone and shale formations. The geologic mapping indicates the site is underlain by bedrock of the Bigby-Cannon Limestone, Hermitage Formation, Carters Limestone, and Lebanon Limestone in general order of descending lithology. The Bigby-Cannon Limestone is only mapped in the higher elevations at the site above approximate elevation 540 feet. The unit is described as consisting of medium to coarse grained limestone with phosphate pellets to a dark gray to brown-black microcrystalline limestone to a cryptocrystalline dove colored limestone depending on which of the three facies is the subject of observation. The Hermitage formation is primarily mapped within the interior of the peninsula between approximate elevations 510 feet o 540 feet above Mean



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Sea Level. The Hermitage Formation consists of silty, nodular to laminated, argillaceous limestone with fossiliferous and phosphatic zones and may contain calcarenite (i.e., sandstone derived from the erosion of older limestone). Residuum formed by the solution weathering of the Hermitage Formation is typically a sandy to silty lean clay generally underlain by a zone of extensively weathered parent rock including “floating” boulders in the soil overburden, as well as pinnacles and slots in the bedrock mass filled with soft, wet unconsolidated clay soils. The Carters Limestone is mapped between approximate elevations 445 feet and 510 feet and consists of a densely crystalline limestone with thin shale partings. In general, the Lebanon Limestone is mapped below elevation 445 feet and is a thin bedded, fossiliferous limestone with thin calcareous shale partings.

The USGS topographic mapping depicts several enclosed drainage basins indicative of karst activity within the vicinity of the plant. Correlation of the locations of these features with the geologic mapping suggests this karst activity is associated with the upper portions of the Carters Limestone near the contact with the overlying Hermitage Formation.

Seismic events affecting central Tennessee, and thus the plant site, primarily emanate from two zones of earthquake activity – the New Madrid Seismic Zone (NMSZ) or the Southern Appalachia Seismic Zone (SASZ). The most active zone of the SASZ, the East Tennessee Seismic Zone (ETSZ), extends from northwestern Georgia through east Tennessee. However, most earthquakes emanating from this zone are relatively low in magnitude, with the largest known event in the ETSZ registering a magnitude of 4.6, suggesting a low risk of damage at the subject plant site from a seismic event emanating from the ETSZ. In contrast, if a large earthquake were to occur within the New Madrid zone to the west, damage to middle Tennessee would be possible. The “Geologic Hazards Map of Tennessee – Environmental Geology Series No. 5” developed and published by the Tennessee Department of Environment and Conservation (TDEC), Division of Geology and compiled by Robert Miller (1978) shows the plant to be located in Seismic Risk Zone 1.



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Facilities Reviewed: Bottom Ash Pond A
 Fly Ash Pond E
 Stilling Ponds B, C and D
 Closed Disposal Area



**TVA Disposal Facility Assessment
Phase 1 Coal Combustion Product Disposal
Facility Summary
Gallatin Fossil Plant (GAF)
Bottom Ash Pond A (BAP-A)**

1. General Facility Information

Facility Status:	Active	NID Identification:	TN16520
Surface Area (inside dikes):	248 acres	Maximum Height (toe to top of dike):	20 to 25 feet (estimated)
Free Water Volume:	751,292 CY (Sept. 2008 data)	Maximum Water Storage:	2,164,530 CY (Sept. 2008 data)
Estimated CCB Storage:	4,951,409 CY (current)	Dike Length:	7,300 feet (estimated)
Plant Discharge to Facility:	20.4 MGD	Current Pool Elevation:	Approx. 470 feet

2. Site Visit Information

Stantec Assessment Team:	Randy Roberts, PE and Paul Cooper, EIT
TVA Staff Present:	Bill Brock provided tour of facilities prior to Stantec field walks.
Field Assessment Dates:	January 14, 2009 and February 17, 2009
Weather/Site Conditions:	Low-teens, sunny, frozen ground on January 14, 2009; mid-40 degrees F, partly cloudy, moist ground on February 17, 2009

3. History/Description of Usage

History and Operation: The main ash pond at GAF was initially commissioned in 1970. It covered both areas now known as Bottom Ash Pond A and Fly Ash Pond E. Bottom Ash Pond A was formed by constructing a bottom ash divider dike in mid-1980s to separate bottom ash area (Ash Pond A) from fly ash area (Ash Pond E). That dike was raised in late 1980's for additional storage. The raised dike was constructed inwardly over sluiced ash. The divider dike is estimated to now be about 20 to 25 feet tall (estimated from old drawings). Approximately 45,000 tons of dry ash are sluiced to Bottom Ash Pond A annually. Outlet for Bottom Ash Pond A is through three 48 inch RCP riser pipe/weirs that discharge through three 30 inch RCP sections into adjacent Stilling Pond B. The outlet pipes are submerged.



TVA Disposal Facility Assessment Phase 1 Coal Combustion Product Disposal Facility Summary Gallatin Fossil Plant (GAF) Bottom Ash Pond A (BAP-A)

Past Failures/Releases: Annual inspection reports indicate pond leakage through sinkhole on south side of pond in early to mid-1970's. Circular dike was built to isolate and protect sinkhole in 1979. Circular dike removed and sinkhole repaired in 1990 reportedly by excavating and capping.

4. Owner's Operations, Maintenance and Inspection Information

Emergency Action Plan: No EAP has been prepared for this facility.

Operations Manual: An operations manual is present for Gallatin Fossil Plant covering all active facilities.

TVA Maintenance: GAF personnel report that there is no maintenance performed for Bottom Ash Pond A.

TVA Inspections: TVA Engineering performs annual dike inspections and prepares reports. Plant personnel recently started making daily observations, with documented inspections made weekly.

Problems Previously Identified During Past TVA Inspections: Pond leakage through sinkhole in south side of pond; minor sloughing and erosion along divider dike.

5. Documents Reviewed

See attached Document Log for complete list of documents provided by TVA for review. In particular, the following provided pertinent information for the assessment of this facility:

TVA Design Drawings: Drawing numbers 10W271, 10N240, 10N243, 10N267, 10N272, 10N273-01 thru 03, 10N274, 10N278,

TVA As-Built Drawings: None available.

TVA Construction Testing Records: None available.

TVA Annual Inspection Reports: TVA Annual Inspection Reports 1967 to 1989, 1993 to 2004, and 2007 to 2008.

Geotechnical Data: "Gallatin Steam Plant, Ash Disposal Area 3, Deflector and Divider Dikes, SME-SOI-88-017", prepared by Singleton Materials Engineering Laboratory, September 8, 1988.



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Bottom Ash Pond A (BAP-A)**

Tennessee Valley Authority letter dated April 8, 1986, initialed CDS.

Results of TVA in-house static slope stability analysis for raising of the divider dike, dated 1988.

6. Stantec Field Observations

See attached Concerns/Photo Log, Photos, and Site Plan Drawing.

6.1. Interior Slopes

Vegetation:	Tall grass/cattail growth, adequate to sparse coverage.
Trees:	None observed.
Wave Wash Protection:	None observed.
Erosion:	A few areas of minor erosion noted along east end of divider dike.
Instabilities:	Two small/minor slough areas along east end of divider dike were noted. No other instabilities observed.
Animal Burrows:	None observed.
Freeboard:	Measured: 3.9 feet at both Sections 1 and 2 Design: 4 feet (from drawing 10W271)
Encroachments:	None observed.
Slope:	Measured: 2.0H:1V at Sect. 1; 1.2H:1V at Sect. 2 Design: Avg. of 1.4H:1V (from drawing 10W271)

6.2. Crest

Crest Cover and Slope:	Ash-covered access road, crest appears to be relatively flat.
Erosion:	None observed.
Alignment:	Alignment appears to agree with design drawings. No issues observed.
Settlement/Cracking:	None observed.
Bare Spots/Rutting:	Dike crest is ash-covered with no vegetation. No rutting observed.



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Bottom Ash Pond A (BAP-A)

Width: **Measured:** 70 feet at Section 1; 43 feet at Section 2.
Design: 40 feet minimum (from drawing 10W271)

6.3. Exterior Slopes

Vegetation: Tall grass/cattail growth, adequate to sparse coverage.

Trees: None observed.

Erosion: One small area of erosion noted near toe of slope adjacent to submerged outlet pipes.

Instabilities: None observed.

Uniform Appearance: Relatively good, slopes vary somewhat.

Seepage: One small area of red-water seepage observed at toe just above water surface of adjacent Stilling Pond B just east of submerged outlet pipes.

Benches: None observed.

Foundations, Drains, Relief Wells, Instrumentation: No provisions for drainage/seepage control, or instrumentation observed.

Animal Burrows: None observed.

Slope: **Measured:** 1.9H:1V at Sect. 1; 1.7H:1V at Sect. 2
Design: Avg. of 1.7H:1V (from drawing 10W271)

Height: **Measured:** Could not measure - Stilling Ponds B and C pool against divider dike on exterior side.
Design: 20 to 25 feet maximum height (estimated from TVA drawings)

6.4. Spillway Weirs/Riser Inlets

Number: Three (3), located at northeast portion of pond.

Size, Type and Material: 48 inch RCP push-together riser sections with standard TVA steel skimmers.

Height of Riser Inlets: 17 feet (from TVA drawing 10N273-02).

Access: At time of assessment, middle riser was accessible via catwalk.

Joints: Unable to observe below inlet for middle riser.
 Remaining two risers not accessible.



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Bottom Ash Pond A (BAP-A)**

Mis-Alignment: None reported or observed.

Closed/Abandoned Conduits: None reported or observed.

6.5. Outlet Pipes

Number: Three (3)

Size, Type and Material: 36 inch RCP

Headwall: None, outlet ends are submerged below Stilling Pond B pool level.

Joint Separations: Unknown, unable to observe.

Mis-Alignment: Unknown, unable to observe.

Closed/Abandoned Conduits: None reported or observed.

7. Notable Observations and Concerns

- Karst bedrock and sinkhole activity is present plant-wide and is a concern. There is also historical documentation in annual reports from late 1970's that discuss sinkhole leakage in Bottom Ash Pond A through a sinkhole located in the south portion of the pond.
- Lack of Emergency Action Plans, Operation and Maintenance Plans, as-built drawings, and construction testing records is a concern.
- Higher pool elevation in Bottom Ash Pond A relative to adjacent stilling ponds is a concern. Bottom Ash Pond A is separated from stilling ponds with bottom ash divider dike. Pool elevation is about 11 to 12 feet lower in stilling ponds. Concern is related to capacity of stilling ponds if divider dike were to fail or be overtopped.
- The bottom ash divider dike was raised in the mid-1980's by constructing inwardly over sluiced fly ash. In addition, slopes vary and are steeper than 2H:1V in some cases. This is a potential slope stability concern.
- RCP push-together riser spillways are a concern.
- Erosion and minor sloughing was noted at a few locations along the divider dike.
- A small red-water seepage area was observed at the divider dike toe at the north end, just north of the submerged pipe outlets.



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Bottom Ash Pond A (BAP-A)**

8. Recommendations

8.1. Phase 2 Engineering and Programmatic Recommendations

- Long-term strategies relative to plant-wide karst subsurface conditions should be developed, including consideration to installing lining systems beneath all ponds or converting to dry disposal operation where appropriate.
- It is recommended that a capacity analysis be performed for the Stilling Ponds adjacent to Bottom Ash Pond A to check if sufficient volume capacity exists in the event of a breach/failure of the divider dike separating the stilling ponds from the ash ponds. Further hydraulic and hydrologic analysis may be warranted pending outcome of capacity analysis. It is also recommended that divider dike undergo further engineering to evaluate dike materials, slope stability, and seepage. Conclusions relative to the adequacy of the divider dike will be made based on these Phase 2 engineering activities.
- It is recommended that the existing Operations and Maintenance Plan be updated.
- It is recommended that a program be established to develop as-built drawings and construction records for future maintenance and construction activities.

8.2. Maintenance Recommendations

- Cut and maintain heavy/tall cattail and grass growth on interior and exterior slopes of divider dike to allow better observation.
- Monitor minor seepage area located at dike toe just north of submerged outlet pipes. Any change in quantity or color should be reported to appropriate TVA personnel.
- Repair erosion areas and minor sloughed areas where noted on divider dike slopes. Establish vegetation on dike slopes where sparse areas exist. Monitor and make repairs or re-seed as needed.
- Line divider dike slopes with rip-rap on both sides at pool level to help reduce and control erosion.
- Monitor RCP spillway risers. These spillway systems may ultimately be modified or replaced, pending Stantec-TVA assessment of replacement system.
- Establish mowing program of this area.
- Continue annual dike and facility inspections and execute recommendations.



**TVA Disposal Facility Assessment
Phase 1 Coal Combustion Product Disposal
Facility Summary
Gallatin Fossil Plant (GAF)
Fly Ash Pond E (FAP-E)**

1. General Facility Information

Facility Status:	Active	NID Identification:	TN16524
Surface Area (inside dikes):	167 acres	Maximum Height (toe to top of dike):	25 to 30 feet (estimated)
Free Water Volume:	853,289 CY (2008 data)	Maximum Water Storage:	3,227,761
Estimated CCB Storage:	4,967,631 CY (current)	Dike Length:	7,000 feet (estimated)
Plant Discharge to Facility:	5.7 MGD	Current Pool Elevation:	Approx. 465 feet

2. Site Visit Information

Stantec Assessment Team:	Randy Roberts, PE and Paul Cooper, EIT
TVA Staff Present:	Bill Brock provided tour of facilities prior to Stantec field walks.
Field Assessment Dates:	January 14, 2009 and February 17, 2009
Weather/Site Conditions:	Low-teens, sunny, frozen ground on January 14, 2009; mid-40 degrees F, partly cloudy, moist ground on February 17, 2009

3. History/Description of Usage

History and Operation: The main ash pond at GAF was initially commissioned in 1970. It covered both areas now known as Bottom Ash Pond A and Fly Ash Pond E. Bottom Ash Pond A was formed by constructing a bottom ash divider dike in mid-1980s to separate bottom ash area (Ash Pond A) from fly ash area (Ash Pond E). That dike was raised in late 1980's for additional storage. In 2006, Fly Ash Pond E was expanded by constructing a new perimeter dike. The expansion was constructed over known sinkholes, which were mitigated. The new dike was also constructed over old saddle dikes, and inwardly over sluiced fly ash. Approximately 185,000 tons of dry fly ash are sluiced to Fly Ash Pond E annually. Outlet for Fly Ash Pond E is



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Fly Ash Pond E (FAP-E)**

through two 48 inch RCP riser pipe/weirs that discharge through three 30 inch pipe sections into adjacent Stilling Pond C.

Past Failures/Releases: Annual inspection reports indicate pond leakage through sinkhole on north side of pond in early to mid-1970's. This sinkhole was reportedly repaired in 1977.

4. Owner's Operations, Maintenance and Inspection Information

Emergency Action Plan: No EAP has been prepared for this facility.

Operations Manual: Document exists entitled "Pond Owner's Manual GAF Long Term Ash Disposal Gallatin Fossil Plant", dated April 21, 2006.

TVA Maintenance: Mowing beneath power lines near perimeter dike along river. No other maintenance reported to be performed.

TVA Inspections: TVA Engineering performs annual dike inspections and prepares reports. Plant personnel recently started making daily observations, with documented inspections made weekly.

Problems Previously Identified During Past TVA Inspections: Pond leakage through sinkhole in north side of pond; erosion and sparse vegetation along new dikes from 2006 expansion.

5. Documents Reviewed

See attached Document Log for complete list of documents provided by TVA for review. In particular, the following provided pertinent information for the assessment of this facility:

TVA Design Drawings: Drawing numbers 10W271, 306-320, 410, 411, 415, 416, 506-510.

TVA As-Built Drawings: None available.

TVA Construction Testing Records: None available.

TVA Annual Inspection Reports: TVA Annual Inspection Reports 1967 to 1989, 1993 to 2004, and 2007 to 2008.



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Fly Ash Pond E (FAP-E)**

Geotechnical Data: "Tennessee Valley Authority, Gallatin Fossil Plant, Ash Disposal Study. Phase 1 Report, Revision 0", prepared by Worley Parsons Resources and Energy, May 15, 2006.

"Gallatin Steam Plant - Ash Disposal Area - Soils Exploration", Memorandum from F.P. Lacy to J.C. McCraw dated September 24, 1969.

"Gallatin Fossil Plant Ash Disposal Ponds Dike Stability Analyses." prepared by Tennessee Valley Authority, May 13, 2005

6. Stantec Field Observations

See attached Concerns/Photo Log, Photos, and Site Plan Drawing.

6.1. Interior Slopes

Vegetation:	Tall grass/cattail growth, adequate to sparse coverage.
Trees:	None observed.
Wave Wash Protection:	None observed.
Erosion:	Several areas of erosion noted along interior slopes.
Instabilities:	None observed.
Animal Burrows:	None observed.
Freeboard:	Measured: 11.4 feet at Section 3, 11.5 feet at Section 6 Design: Varies, depending on expansion phase.
Encroachments:	None observed.
Slope:	Measured: 3.2H:1V at Sect. 3; 3.5H:1V at Sect. 6 Design: 3H:1V (from TVA design drawings)



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Fly Ash Pond E (FAP-E)**

6.2. Crest

Crest Cover and Slope:	Ash - covered access road, crest appears to be relatively flat.
Erosion:	None was observed.
Alignment:	Alignment appears to agree with design drawings. No issues observed.
Settlement/Cracking:	None was observed.
Bare Spots/Rutting:	Dike crest is ash-covered with no vegetation. Rutting observed along north portion of dike.
Width:	Measured: 52 feet at Section 3; 50 feet at Section 6. Design: 45 feet (from drawings at Stage 1E)

6.3. Exterior Slopes

Vegetation:	Grass, sparse to adequate coverage, some areas bare.
Trees:	None observed.
Erosion:	Several areas of erosion were noted, especially where vegetation is sparse.
Instabilities:	None observed.
Uniform Appearance:	Good.
Seepage:	None observed.
Benches:	None observed.
Foundations, Drains, Relief Wells, Instrumentation:	No provisions for drainage/seepage control, or instrumentation observed.
Animal Burrows:	None observed.
Slope:	Measured: 3.1H:1V at Sect. 3; 2.1H:1V at Sect. 6 Design: 3H:1V at Sect. 3 area (section J-J on drawing 10W271-312); 2.5H:1V at Sect. 6 area (section K-K on drawing 10W271-312)



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Facility Summary
Gallatin Fossil Plant (GAF)
Fly Ash Pond E (FAP-E)**

7. Notable Observations and Concerns

- Karst bedrock and sinkhole activity is present plant-wide and is a concern. There is also historical documentation in annual reports from late 1970's that discuss sinkhole leakage in Fly Ash Pond E through a sinkhole located in the north portion of the pond.
- Lack of Emergency Action Plans, Operation and Maintenance Plans, as-built drawings, and construction testing records is a concern.
- Higher pool elevation in Fly Ash Pond E relative to adjacent stilling ponds is a concern. Fly Ash Pond E is separated from stilling ponds with divider dike. Pool elevation is about 8 feet lower in stilling ponds. Concern is related to capacity of stilling ponds if divider dike were to fail or be overtopped. Also, CCB storage needs will require future raising of dikes four additional feet and corresponding higher pool elevation.
- Construction to raise perimeter dikes was performed in 2006 to increase long-term fly ash storage capacity. Project drawings indicate that portions of the dikes were constructed inwardly over sluiced fly ash, over old saddle dikes, and were potentially constructed using a bottom ash core. This presents concerns related to slope stability and potential for seepage paths to develop.
- RCP push-together riser spillways are a concern.
- An abandoned outlet pipe is located along southwest side of Fly Ash Pond E. Drawing 10W271 shows pipe was reportedly plugged by plant – date unknown, but probably in late 60's to early 70's.
- Erosion was noted at several areas along exterior and interior slopes. Some erosion areas are fairly widespread.
- Vegetative cover is sparse along exterior and interior slopes in several areas.

8. Recommendations

8.1. Phase 2 Engineering and Programmatic Recommendations

- Long-term strategies relative to plant-wide karst subsurface conditions should be developed, including consideration to installing lining systems beneath all ponds or converting to dry disposal operation where appropriate.
- It is recommended that a capacity analysis be performed for the Stilling Ponds adjacent to Fly Ash Pond E to check if sufficient volume capacity exists in the event of a breach and/or failure of the divider dike separating the stilling ponds from the



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Fly Ash Pond E (FAP-E)**

ash ponds. Further hydraulic and hydrologic analysis may be warranted pending outcome of capacity analysis. It is also recommended that Fly Ash Pond E dikes undergo further engineering to evaluate dike materials, slope stability, and seepage. Conclusions relative to the adequacy of the dikes will be made based on these Phase 2 engineering activities.

- It is recommended that the Operations and Maintenance Plan be updated for the facility.
- It is recommended that a program be established to develop as-built drawings and construction records for future maintenance and construction activities.

8.2. Maintenance Recommendations

- Cut and maintain heavy/tall cattail and grass growth on interior and exterior dikes to allow better observation.
- Repair erosion areas on slopes. Establish vegetation where sparse areas exist. Monitor and make repairs or re-seed as needed.
- Line interior slopes with rip-rap at pool level to help reduce and control erosion.
- Monitor RCP spillway risers. These spillway systems may ultimately be modified or replaced, pending Stantec-TVA assessment of replacement system.
- Establish mowing program of this area.
- Continue annual dike and facility inspections and execute recommendations.



**TVA Disposal Facility Assessment
Phase 1 Coal Combustion Product Disposal
Facility Summary
Gallatin Fossil Plant (GAF)
Stilling Ponds B, C and D (P-B, P-C, P-D)**

1. General Facility Information

Facility Status:	Active	NID Identification:	TN16521 (P-B), TN16522 (P-C), TN16523 (P-D)
Surface Area (inside dikes)	61 acres (estimated)	Maximum Height (toe to top of dike):	11 feet (Pond C); 8 feet (Pond D)
Free Water Volume:	330,039 CY (Sept. 2008 data)	Maximum Water Storage:	Not provided.
Estimated CCB Storage:	Pond does not store CCB.	Dike Length:	450 feet. on N side of Pond C, 150 feet. at outlet of Pond D.
Plant Discharge to Facility:	None. Ponds are stilling basins for Ponds A and E.	Current Pool Elevation:	Approximately 457 feet

2. Site Visit Information

Stantec Assessment Team:	Randy Roberts, PE and Paul Cooper, EIT
TVA Staff Present:	Bill Brock provided tour of facilities prior to Stantec field walks.
Field Assessment Dates:	January 14, 2009 and February 17, 2009
Weather/Site Conditions:	Low-teens, sunny, frozen ground on January 14, 2009; mid-40 degrees F, partly cloudy, moist ground on February 17, 2009.

3. History/Description of Usage

History and Operation:	Stilling Ponds B, C and D are essentially all part of the same pond. Each designated area is separated by narrower pond sections/channels, but all areas are hydraulically connected and are at the same pool elevation. Pond B receives decant water from Bottom Ash Pond A, and flows to Pond B. Pond B receives decant water from Fly Ash Pond E and flows into Pond D. The stilling pond outlet is located at the west end of Pond D. The outlet consists of four 48 inch RCP riser/weir sections that discharge though four 36 inch RCP sections
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Stilling Ponds B, C and D (P-B, P-C, P-D)**

into an adjacent small discharge pool. From here, water discharges through four 36 inch corrugated metal pipes into the adjacent reservoir. The Pond D area and outlet were initially commissioned in 1970 when the main ash pond area (formerly Disposal Area 3) was placed into operation. Pond B and C areas to the east were formed when the divider dike construction extended to the north to separate Bottom Ash Pond A and Fly Ash Pond E. The entire stilling pond area is naturally low-lying, and only two short saddle dike sections exist. One is at the outlet area of Pond D, and one is to the north of the Pond C area. The pool elevation is about 11 to 12 feet lower than adjacent Bottom Ash Pond A, and about 7 to 8 feet lower than adjacent Fly Ash Pond E.

Past Failures/Releases: No failures or releases reported.

4. Owner's Operations, Maintenance and Inspection Information

Emergency Action Plan: No EAP has been prepared for this facility.

Operations Manual: An operations manual is present for Gallatin Fossil Plant covering all active facilities.

TVA Maintenance: TVA GAF personnel report that no maintenance is performed at stilling ponds.

TVA Inspections: TVA Engineering performs annual dike inspections and prepares reports. Plant personnel recently started making daily observations, with documented inspections made weekly.

Problems Previously Identified During Past TVA Inspections: Trees on dike slope at outlet area.

5. Documents Reviewed

See attached Document Log for complete list of documents provided by TVA for review. In particular, the following provided pertinent information for the assessment of this facility:

TVA Design Drawings: 10W271, 10N240, 10N243, 10N267, 10N271, 10N273-01 to 03, 10N274, 10N278



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Stilling Ponds B, C and D (P-B, P-C, P-D)

TVA As-Built Drawings:	None available.
TVA Construction Testing Records:	None available.
TVA Annual Inspection Reports:	TVA Annual Inspection Reports 1967 to 1989, 1993 to 2004, and 2007 to 2008.
Geotechnical Data:	None available.

6. Stantec Field Observations

See attached Concerns/Photo Log, Photos, and Site Plan Drawing.

6.1. Interior Slopes

Vegetation:	Tall grass, cattails on both dikes. Coverage is sparse on Pond C bottom ash saddle dike. Dense coverage on Pond D dike at outlet.
Trees:	Yes. Tree growth exists on Pond D dike at outlet.
Wave Wash Protection:	None observed.
Erosion:	Widespread erosion noted on Pond C bottom ash saddle dike.
Instabilities:	None observed.
Animal Burrows:	None observed.
Freeboard:	Measured: 4.3 feet at Section 4, 4.5 feet at Section 5 Design: Not available on drawings.
Encroachments:	None observed.
Slope:	Measured: 2.9H:1V at Section 4, 4.5H:1V at Section 5 Design: 3H:1V at Section 4 area of Pond D (from Drawing 10N273-01); No drawings provided for Pond C dike.

6.2. Crest

Crest Cover and Slope:	Bottom ash (Pond C); Gravel and grass-covered access road (Pond D). Crests appeared relatively flat.
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Stilling Ponds B, C and D (P-B, P-C, P-D)**

Erosion:	Erosion noted at edges of crest on bottom ash saddle dike at Pond C.
Alignment:	Alignment appeared to agree with design drawings. No issues observed.
Settlement/Cracking:	None observed.
Bare Spots/Rutting:	No rutting observed. Bottom ash dike at Pond C is bare with no vegetative cover.
Width:	Measured: 22 feet at Section 4, 13 feet at Section 5 Design: 26 feet at Section 4 area of Pond D (from Drawing 10N273-1); No drawings provided for Pond C dike.

6.3. Exterior Slopes

Vegetation:	Sparse to no vegetation for Pond C dike; thick coverage of grass, brush and trees for Pond D dike.
Trees:	Yes, numerous trees located on exterior slope of Pond D dike.
Erosion:	Widespread erosion noted on slope of Pond C bottom ash dike.
Instabilities:	No evidence of instability observed.
Uniform Appearance:	Good.
Seepage:	Seepage noted just beyond toe area of Pond C bottom ash dike.
Benches:	None observed.
Foundations, Drains, Relief Wells, Instrumentation:	No provisions for drainage/seepage control, or instrumentation observed.
Animal Burrows:	None were visible.
Slope:	Measured: 3.1H:1V at Section 4, 2.2H:1V at Section 5 Design: 3H:1V at Section 4 area of Pond D (from Drawing 10N273-1); No drawings provided for Pond C dike.



**TVA Disposal Facility Assessment
Phase 1 Coal Combustion Product Disposal
Facility Summary
Gallatin Fossil Plant (GAF)
Stilling Ponds B, C and D (P-B, P-C, P-D)**

Height:	Measured: 8.1 feet at Section 4, 10.2 feet at Section 5
	Design: 11 feet at Section 4 area of Pond D (from Drawing 10N273-1); No drawings available for Pond C dike.

6.4. Spillway Weirs/Riser Inlets

Number:	Four at Pond D
Size, Type and Material:	48 inch RCP
Height of Riser Inlets:	6 to 7 feet (from drawing 10N273-01).
Access:	Spillways are accessed via walkway to each spillway.
Joints:	Unable to observe below inlet level any joint leakage or sealant.
Mis-Alignment:	None reported or observed.
Closed/Abandoned Conduits:	None reported or observed.

6.5. Outlet Pipes

Number:	Four at Pond D
Size, Type and Material:	36 inch RCP into small discharge pool; then four (4) 36 inch corrugated metal pipes into adjacent reservoir.
Headwall:	Riprap around outlets.
Joint Separations:	Unknown, unable to observe.
Mis-Alignment:	Unknown, unable to observe.
Closed/Abandoned Conduits:	None reported or observed.

7. Notable Observations and Concerns

- Karst bedrock and sinkhole activity is present plant-wide and is a concern. There is also historical documentation in annual reports from late 1970's that discuss sinkhole leakage in adjacent ash ponds.
- Lack of Emergency Action Plans, Operation and Maintenance Plans, as-built drawings, and construction testing records is a concern.



**TVA Disposal Facility Assessment
Phase 1 Coal Combustion Product Disposal
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Gallatin Fossil Plant (GAF)
Stilling Ponds B, C and D (P-B, P-C, P-D)**

- The pool elevation of the stilling basins is 11 to 12 feet lower than the pool in Bottom Ash Pond A and 7 to 8 feet lower than the pool in Fly Ash Pond E. The lower pool elevation relative to adjacent ash ponds is a concern. The concern is related to the capacity of the stilling ponds if divider dikes between stilling pond area and Bottom Ash Pond A and/or Fly Ash Pond E were to fail or be overtopped.
- A short length, low-height saddle dike is located along the north perimeter of Pond C. It is constructed of bottom ash, and is eroding. It currently pools approximately 2 to 3 feet of water. The dike appears to protect an adjacent sinkhole. If saddle dike failure occurred, or if adjacent dikes separating Stilling Ponds from Ash Ponds failed causing capacity of stilling ponds to be exceeded, water and/or sluiced ash could be released into adjacent land/sinkhole. A small amount of seepage was also observed just beyond the exterior toe of this saddle dike.
- RCP push-together riser structure spillways at outlet of Stilling Pond D are a concern.
- Erosion was noted at a few locations along stilling basin perimeter access road below Fly Ash Pond E.
- Widespread erosion was noted along sparsely vegetated bottom ash saddle dike on north side of Pond C.
- Trees were noted along exterior dike slope at outlet end of Stilling Pond D.

8. Recommendations

8.1. Phase 2 Engineering and Programmatic Recommendations

- Long-term strategies relative to plant-wide karst subsurface conditions should be developed, including consideration to installing lining systems beneath all ponds or converting to dry disposal operation where appropriate.
- As described in the Phase 2 recommendations for Bottom Ash Pond A and Fly ash Pond E, a capacity analysis is being recommended for the Stilling Ponds to check if sufficient volume capacity exists in the event of a breach and/or failure of the divider dikes separating the stilling ponds from the ash ponds. Further hydraulic and hydrologic analysis may be warranted pending outcome of capacity analysis. Geotechnical investigations are also being recommended for the divider dikes (see Bottom Ash Pond A and Fly Ash Pond E recommendations). Conclusions relative to the adequacy and need for modifications to the stilling pond-ash pond divider dikes, and stilling pond saddle dikes will be made based on these Phase 2 engineering activities.



**TVA Disposal Facility Assessment
Phase 1 Coal Combustion Product Disposal
Facility Summary
Gallatin Fossil Plant (GAF)
Stilling Ponds B, C and D (P-B, P-C, P-D)**

- It is recommended that the existing Operations and Maintenance Plan be updated for the facility.
- It is recommended that a program be established to develop as-built drawings and construction records for future maintenance and construction activities.

8.2. Maintenance Recommendations

- Cut and maintain heavy/tall cattail and grass growth on interior slopes of ponds to allow better observation.
- Remove trees/brush from downstream dike slope of Stilling Pond D outlet area.
- Repair erosion areas where noted on dike slopes.
- Line interior pond slopes with rip-rap to help reduce erosion.
- Continue to monitor RCP spillway risers. These spillway systems may ultimately be modified or replaced, pending Stantec-TVA assessment of replacement system.
- Establish mowing program of ponds and disposal areas.
- Continue annual dike and facility inspections.



TVA Disposal Facility Assessment
Phase 1 Coal Combustion Product Disposal
Facility Summary
Gallatin Fossil Plant (GAF)
Closed Disposal Area (CDA-1)

1. General Facility Information

Facility Status:	Closed	NID Identification:	Not Available
Surface Area (inside dikes):	73 acres (estimated)	Maximum Height (toe to top of dike):	25 feet (estimated)
Free Water Volume:	N/A	Maximum Water Storage:	N/A
Estimated CCB Storage:	Unknown; disposal area is abandoned and closed.	Dike Length:	5,100 feet (estimated)
Plant Discharge to Facility:	None. Disposal area is closed.	Current Pool Elevation:	N/A

2. Site Visit Information

Stantec Assessment Team:	Randy Roberts, PE and Paul Cooper, EIT
TVA Staff Present:	Bill Brock provided tour of facilities prior to Stantec field walks.
Field Assessment Dates:	January 13, 2009 and February 17, 2009
Weather/Site Conditions:	Low-20 degrees F, sunny, frozen ground on January 13, 2009; mid-40 degrees F, partly cloudy, moist ground on February 17, 2009.

3. History/Description of Usage

History and Operation:	This disposal area was the first at GAF. It was in operation until usage was discontinued in 1970. The facility had four cells, referred to as A, B, C, and D. Ash was sluiced to the cells. In 1967, two slides occurred along exterior dikes adjacent to cells A and C. These two cells were drained and abandoned, but Cell B (middle cell) remained in operation until 1970 when disposal shifted to what was then called Area 3 (now known as Bottom Ash Pond A and Fly Ash Pond E). Cell B contained water until it was drained in 1973. Over time, vegetation developed in the abandoned cells, and the slide areas were monitored. Storm water continued to
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TVA Disposal Facility Assessment Phase 1 Coal Combustion Product Disposal Facility Summary Gallatin Fossil Plant (GAF) Closed Disposal Area (CDA-1)

collect in Cell B where a skimmer was left in place to prevent loss of ash through the outlet pipe. In 1985, new slides began to develop and in 1986 the entire perimeter dike length was reconstructed and flattened to 2H:1V. In 1995 a formal closure plan was developed and submitted to TDEC, and was approved in 1997. The closure construction work was completed in 1998. GAF personnel are required to monitor toe seepage areas on a quarterly basis to comply with TDEC-approved closure plan.

Past Failures/Releases: The 1974 inspection report indicates some ash washing through the spillway pipe and into adjacent river from Cell B. This cell was not being used for disposal, but was still collecting storm water and the spillway pipe was not yet abandoned.

4. Owner's Operations, Maintenance and Inspection Information

Emergency Action Plan: No EAP has been prepared for this facility.

Operations Manual: No OM has been prepared for this facility.

TVA Maintenance: Erosion control BMP's and efforts to establish/maintain vegetation are being performed annually at active seeps at toes of dikes.

TVA Inspections: TVA Engineering performs annual dike inspections and prepares reports. GAF personnel perform quarterly inspections of toe seepage areas. Plant personnel recently started making daily observations, with documented inspections made weekly.

Problems Previously Identified During Past TVA Inspections: Dike instability and erosion; toe seepage areas and difficulty establishing vegetation at seeps.

5. Documents Reviewed

See attached Document Log for complete list of documents provided by TVA for review. In particular, the following provided pertinent information for the assessment of this facility:

TVA Design Drawings: 10N211, 212, 10W204, 10W215-2, 3



TVA Disposal Facility Assessment
Phase 1 Coal Combustion Product Disposal
Facility Summary
Gallatin Fossil Plant (GAF)
Closed Disposal Area (CDA-1)

TVA As-Built Drawings:	None available.
TVA Construction Testing Records:	None available.
TVA Annual Inspection Reports:	TVA Annual Inspection Reports 1967 to 1989, 1993 to 2004, 2007 to 2008.
Geotechnical Data:	None available.

6. Stantec Field Observations

See attached Concerns/Photo Log, Photos, and Site Plan Drawing.

6.1. Interior Slopes

Vegetation:	N/A, interior portion of closed disposal area has been filled/graded and contains thick vegetation and wooded areas.	
Trees:	N/A	
Wave Wash Protection:	N/A	
Erosion:	N/A	
Instabilities:	N/A	
Animal Burrows:	N/A	
Freeboard:	Measured:	N/A
	Design:	N/A
Encroachments:	N/A	
Slope:	Measured:	N/A
	Design:	N/A

6.2. Crest

Crest Cover and Slope:	Gravel and grass-covered access road along old crest of perimeter dike, crest appeared relatively flat.
Erosion:	None observed.
Alignment:	Alignment appeared to agree with design drawings. No problem.



**TVA Disposal Facility Assessment
Phase 1 Coal Combustion Product Disposal
Facility Summary
Gallatin Fossil Plant (GAF)
Closed Disposal Area (CDA-1)**

Settlement/Cracking: None observed.

Bare Spots/Rutting: None observed.

Width: **Measured:** 25 feet at Sections 8 and 9
Design: 30 feet (from drawing 10W204)

6.3. Exterior Slopes

Vegetation: Trees, brush and woody growth noted throughout. Dense coverage.

Trees: Yes. Numerous trees noted.

Erosion: Minor areas around active seeps where establishing vegetation has been difficult.

Instabilities: This disposal facility has a history of exterior dike slope instability. Inspection reports indicate that two slides occurred in 1967, and that one occurred in 1984. The slopes were steep at those times. In 1986, dike slopes were flattened to 2H:1V and no instabilities have reportedly occurred since. Stantec observed no instabilities during this assessment, and the slopes had a uniform appearance.

Uniform Appearance: Good.

Seepage: Yes, seepage areas at several toe locations are being monitored quarterly by GAF personnel to comply with TDEC-approved closure. Seepage areas are identified as Area 1A, 1B, 1C, 2A, 2B, 2C, 2D, 2E (2E1 and 2E2), and 2F. Stantec observed seepage at only three of these designated locations (1A, 2E, and 2F). The remaining areas were dry and no seepage was observed. Ground surface was wet and saturated at active locations, with minimum to no flow.

Benches: None observed.

Foundations, Drains, Relief Wells, Instrumentation: No provisions for drainage/seepage control, or instrumentation were observed.

Animal Burrows: None observed.

Slope: **Measured:** 2H:1V at Sections 8 and 9



TVA Disposal Facility Assessment
Phase 1 Coal Combustion Product Disposal
Facility Summary
Gallatin Fossil Plant (GAF)
Closed Disposal Area (CDA-1)

Design: 2H:1V (from TVA drawing 10W204)

Height: **Measured:** Not measured.
Design: Approximately 25 feet, as estimated from TVA drawings. Stantec observations agree with drawings relative to slope height.

6.4. Spillway Weirs/Riser Inlets

Number: N/A, disposal area is closed.
 Size, Type and Material: N/A
 Height of Riser Inlets: N/A
 Access: N/A
 Joints: N/A
 Mis-Alignment: N/A

Closed/Abandoned Conduits: One weir structure has reportedly been abandoned within old Cell B. Drawing 10W215-2 of closure plan shows that concrete plug was to be placed at inlet end.

6.5. Outlet Pipes

Number: N/A, disposal area is closed.
 Size, Type and Material: N/A
 Headwall: N/A
 Joint Separations: N/A
 Mis-Alignment: N/A

Closed/Abandoned Conduits: One outlet pipe has reportedly been abandoned within old Cell B. Drawing 10W215-2 of closure plan shows that concrete plug was to be placed at outlet end.

7. Notable Observations and Concerns

- Indications of on-going seepage were observed at Seepage Areas 1A, 2E, and 2F



**TVA Disposal Facility Assessment
Phase 1 Coal Combustion Product Disposal
Facility Summary
Gallatin Fossil Plant (GAF)
Closed Disposal Area (CDA-1)**

located just beyond the toes of the exterior dikes. Other designated seepage areas were noted to be dry. These areas are being monitored on a quarterly basis by GAF personnel and reported to TDEC to comply with the closure plan. Annual inspection reports indicate that these seeps were first noted in the mid 1980's. GAF is making efforts to establish vegetation and minimize erosion at active seeps. Stantec's judgment is that seeps are related to groundwater flow/seepage along shallow bedrock which is surfacing beyond toe of dike slopes (rock outcrops were observed at some seepage areas).

- Abandoned spillway riser/outlet pipe is located along east side of closed disposal area. TVA drawings show that weir inlet and pipe outlet were to be filled with concrete during closure of disposal area.

8. Recommendations

8.1. Phase 2 Engineering and Programmatic Recommendations

- Phase 2 engineering is not recommended at this time for this closed facility.

8.2. Maintenance Recommendations

- Continue to monitor seepage areas at dike toe areas. Any change should be reported to TVA engineering staff. Consider installing collection system at active seeps to control seepage.
- Repair erosion areas as they become prevalent near active seeps.
- Continue annual dike and facility inspections.



Drawing Mark AP-A-1 Submerged pipe outlet for Bottom Ash Pond A to Stilling Pond B, only two of the three observed.



Drawing Mark AP-A-3 Isolated erosion along intermediate dike between Bottom Ash Pond A and Stilling Bond B (typical of a few locations along north end of dike).



Drawing Mark AP-A-5 Unbalanced pool level between Bottom Ash Pond A and Stilling Ponds B, C, and D (Stilling Pool B on left, Bottom Ash Pond A on right).



Drawing Mark AP-A-6 Seepage area located east of outlet structures.



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TVA Disposal Facility Assessment
Phase 1 Coal Combustion Product Disposal Facility Summary
Gallatin Fossil Plant (GAF)
Bottom Ash Pond A
Photos, Concerns/Photo Log

Concerns/Photo Log		
Drawing Mark	Comments	Photo/GPS ID
AP-A-1	Submerged pipe outlet for Bottom Ash Pond A to Stilling Pond B, only two of the three observed.	Photo 1B
AP-A-2	Weir structures at Bottom Ash Pond A to Stilling Pond B.	No Photo
AP-A-3	Isolated erosion along intermediate dike between Bottom Ash Pond A and Stilling Pond B (typical of a few locations along north end of dike).	Photo 87A
AP-A-4	Sinkhole reportedly repaired by plant personnel.	No Photo
AP-A-5	Unbalanced pool level between Bottom Ash Pond A and Stilling Ponds B, C, and D (Stilling Pool B on left, Bottom Ash Pond A on right).	Photo 82A
AP-A-6	Seepage area located east of outlet structures.	Photo 85A



Drawing Mark AP-E-1 Erosion on exterior slope of dike.



Drawing Mark AP-E-2 Rock outcrop and erosion on inner portion of pond.



Drawing Mark AP-E-3 Weir structures at Fly Ash Pond E to Stilling Pond C



Drawing Mark AP-E-4 Sinkhole reportedly repaired by plant personnel (approximate area).



Drawing Mark AP-E-5 Sparse vegetation and erosion on inner face of dike (typical of several locations)



Drawing Mark AP-E-6 Sparse vegetation and erosion on inner face of dike (typical of several locations).



Drawing Mark AP-E-7 Erosion rill/gully on inner face of dike (typical of several locations).



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TVA Disposal Facility Assessment
Phase 1 Coal Combustion Product Disposal Facility Summary
Gallatin Fossil Plant (GAF)
Fly Ash Pond E
Photos, Concerns/Photo Log

Concerns/Photo Log		
Drawing Mark	Comments	Photo/GPS ID
AP-E-1	Erosion on exterior slope of dike (typical).	Photo 68A
AP-E-2	Rock outcrop and erosion on inner portion of pond.	Photo 66A
AP-E-3	Weir structures at Fly Ash Pond E to Stilling Pond C.	Photo 73A
AP-E-4	Sinkhole reportedly repaired by plant personnel (approximate area).	Photo 70A
AP-E-5	Sparse vegetation and erosion on inner face of dike (typical of several locations).	Photo 63A
AP-E-6	Sparse vegetation and erosion on inner face of dike (typical of several locations).	Photo 67A
AP-E-7	Erosion rill/gully on inner face of dike (typical of several locations)	Photo 61A



Drawing Mark P-C-1 Erosion on inner face of saddle dike at Pond C.



Drawing Mark P-C-2 Possible toe seepage near exterior toe of saddle dike at Pond C.



Drawing Mark P-C-3 Bottom ash saddle dike at Pond C (Pond C on right).



Drawing Mark P-D-1 Weir structures at Stilling Pond D.



Drawing Mark P-D-2 Tree growth on exterior slope of Pond D outlet.



Drawing Mark CDA-1-1 Seepage Area 2E.



Drawing Mark CDA-1-2 Seepage Area 1A.



Drawing Mark CDA-1-3 Seepage Area 2B. No seepage observed (note the pipe outlet).



Drawing Mark CDA-1-4 Seepage Area 1B. No seepage observed.



**Coal Combustion Product Disposal Facility Assessment
Phase 1 Document Review Form
Gallatin Fossil Plant (GAF)**

Date Reviewed	Reviewed by	File Name	File Type
2/11/2009	PJC	Assumed 657B Pan For Haul Road Design.pdf	PDF
2/11/2009	PJC	Dike Construction Dredge Operations Sequence Dike Construction Bottom Ash.pdf	PDF
2/11/2009	PJC	Exhibits.pdf	PDF
2/11/2009	PJC	GAF April 20 2005 Letter To Div Of Water Pollution Control.pdf	PDF
2/11/2009	PJC	GAF April 20 2006 Letter To Div Of Water Pollution Control.pdf	PDF
3/30/2009	PJC	GAF Ash Disposal Area 3 Deflector And Divider Dikes Smesoi88017 Sept 8 1988.pdf	PDF
3/3/2009	PJC	GAF Ash Disposal Area Soils Exploration Memo From Fflacy To Jcmccraw Dated Sept 24 1969.pdf	PDF
3/30/2009	PJC	GAF Ash Disposal Area Soils Exploration Memo From Fflacy To Jcmccraw Dated Sept 24 1969.pdf	PDF
3/30/2009	PJC	GAF Ash Disposal Study Phase 1 Report Revision 0 May 15 2006.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY 2000.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY 2001.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY 2002.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY 2003.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY 2004.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY 2007.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY67.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY68.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY69.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY70.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY71.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY72.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY73.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY74.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY75.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY76.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY77.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY78.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY79.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY80.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY81.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY82.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY83.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY84.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY85.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY86.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY87.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY88.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY89.pdf	PDF



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Gallatin Fossil Plant (GAF)**

Date Reviewed	Reviewed by	File Name	File Type
2/11/2009	PJC	GAF Ash Pond Insp FY91.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY93.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY94.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY95.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY96.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY97.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY98.pdf	PDF
2/11/2009	PJC	GAF Ash Pond Insp FY99.pdf	PDF
2/11/2009	PJC	GAF Ash RP 2008 Summary.doc	DOC
3/3/2009	PJC	GAF calculation Dike Stability Analyses Cdx003002006002.pdf	PDF
2/11/2009	PJC	GAF Dike Raising - Stage 1 Bop & Major Earthwork.pdf	PDF
2/11/2009	PJC	GAF First Quarter 2002 Red Water Seep Inspection Checksheet.pdf	PDF
2/11/2009	PJC	GAF Fourth Quarter 1994 Red Water Seep Inspection Checksheet.pdf	PDF
2/11/2009	PJC	GAF Fourth Quarter 1995 Red Water Seep Inspection Checksheet.pdf	PDF
2/11/2009	PJC	GAF Fourth Quarter 1996 Red Water Seep Inspection Checksheet.pdf	PDF
2/11/2009	PJC	GAF Fourth Quarter 1997 Red Water Seep Inspection Checksheet.pdf	PDF
2/11/2009	PJC	GAF Fourth Quarter 1998 Red Water Seep Inspection Checksheet.pdf	PDF
2/11/2009	PJC	GAF Fourth Quarter 1999 Red Water Seep Inspection Checksheet.pdf	PDF
2/11/2009	PJC	GAF Fourth Quarter 2000 Red Water Seep Inspection Checksheet.pdf	PDF
2/11/2009	PJC	GAF Fourth Quarter 2001 Red Water Seep Inspection Checksheet.pdf	PDF
2/11/2009	PJC	GAF Fourth Quarter 2002 Red Water Seep Inspection Checksheet.pdf	PDF
2/11/2009	PJC	GAF Fourth Quarter 2003 Red Water Seep Inspection Checksheet.pdf	PDF
2/11/2009	PJC	GAF Fourth Quarter 2004 Red Water Seep Inspection Checksheet.pdf	PDF
2/11/2009	PJC	GAF Fourth Quarter 2005 Red Water Seep Inspection Checksheet.pdf	PDF
2/11/2009	PJC	GAF Fourth Quarter 2006 Red Water Seep Inspection Checksheet.pdf	PDF
2/11/2009	PJC	GAF Fourth Quarter 2007 Red Water Seep Inspection Checksheet.pdf	PDF
2/11/2009	PJC	GAF Fourth Quarter 2008 Red Water Seep Inspection Checksheet.pdf	PDF
3/30/2009	PJC	GAF Geology Of The GAF Site Division Of Water Control Planning Geologic Branch June 1953.pdf	PDF
2/11/2009	PJC	GAF June 20 1995 Letter To Div Of Water Pollution Control.pdf	PDF
2/11/2009	PJC	GAF June 23 1994 Letter To Div Of Water Pollution Control.pdf	PDF
2/11/2009	PJC	GAF May 12 2003 Letter To Div Of Water Pollution Control.pdf	PDF
2/11/2009	PJC	GAF May 14 2008 Letter To Div Of Water Pollution Control.pdf	PDF
2/11/2009	PJC	GAF May 15 1997 Letter To Div Of Water Pollution Control.pdf	PDF
2/11/2009	PJC	GAF May 16 2002 Letter To Div Of Water Pollution Control.pdf	PDF
2/11/2009	PJC	GAF May 21 1998 Letter To Div Of Water Pollution Control.pdf	PDF
2/11/2009	PJC	GAF May 22 1996 Letter To Div Of Water Pollution Control.pdf	PDF
2/11/2009	PJC	GAF May 24 2004 Letter To Div Of Water Pollution Control.pdf	PDF
2/11/2009	PJC	GAF May 3 2007 Letter To Div Of Water Pollution Control.pdf	PDF



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Gallatin Fossil Plant (GAF)**

Date Reviewed	Reviewed by	File Name	File Type
2/11/2009	PJC	GAF May 4 2001 Letter To Div Of Water Pollution Control.pdf	PDF
2/11/2009	PJC	GAF May 5 1999 Letter To Div Of Water Pollution Control.pdf	PDF
2/11/2009	PJC	GAF May 8 2000 Letter To Div Of Water Pollution Control.pdf	PDF
3/3/2009	PJC	GAF Memo For Record Feb 17 1997 From Robert Chantome On Job No. 13523 Geotechnical Recommendations.pdf	PDF
3/30/2009	PJC	GAF Memo For Record Feb 17 1997 From Robert Chantome On Job No. 13523 Geotechnical Recommendations.pdf	PDF
2/11/2009	PJC	GAF Quarterly Red Water Inspection Checksheet Memo Dated Dec 4 1991.pdf	PDF
2/11/2009	PJC	GAF Quarterly Red Water Inspection Checksheet Memo Dated Nov 13 1992.pdf	PDF
2/11/2009	PJC	GAF Quarterly Red Water Inspection Checksheet Memo Dated Nov 5 1993.pdf	PDF
2/11/2009	PJC	GAF Red Water Inspection Sheets.pdf	PDF
2/23/2009	PJC	GAF Redwater Identificaiton Program June 27 1986.pdf	PDF
2/11/2009	PJC	GAF Second Quarter 1999 Red Water Seep Inspection Checksheet.pdf	PDF
2/11/2009	PJC	GAF Second Quarter 2000 Red Water Seep Inspection Checksheet.pdf	PDF
2/11/2009	PJC	GAF Third Quarter 2000 Red Water Seep Inspection Checksheet.pdf	PDF
2/11/2009	PJC	GAF Third Quarter 2002 Red Water Seep Inspection Checksheet.pdf	PDF
2/23/2009	PJC	GAF_Ashpondinsp_FY09_Draft.pdf	PDF
1/30/2009	RLR/PJC	GAF-10B620-Sht -Rev 0 Yard Coal Barge Unloader System Soil And Rock-Boring Location Plan.cal	CAL
1/30/2009	RLR/PJC	GAF-10Ds400-Sht 1-Rev 0 Conc Ash Disposal Trench.cal	CAL
2/23/2009	PJC	GAF-10E200-1-Sht -Rev 3.cal	CAL
2/23/2009	PJC	GAF-10E201-1-Sht -Rev 5.cal	CAL
2/23/2009	PJC	GAF-10H729-Sht -Rev 1.cal	CAL
1/30/2009	RLR/PJC	GAF-10L239-Sht -Rev 0 Gen Grdg Coal Yd X-Sect.cal	CAL
1/30/2009	RLR/PJC	GAF-10L240-Sht -Rev 0 Gen Grdg Coal Yd X-Sect.cal	CAL
1/30/2009	RLR/PJC	GAF-10L241-Sht -Rev 1 Gen Grdg Coal Yd X-Sect.cal	CAL
1/30/2009	RLR/PJC	GAF-10L242-Sht -Rev 1 Gen Grdg Coal Yd X-Sect.cal	CAL
1/30/2009	RLR/PJC	GAF-10L243-Sht -Rev 0 Gen Grdg Coal Yd X-Sect.cal	CAL
1/30/2009	RLR/PJC	GAF-10L244-Sht -Rev 1 Gen Grdg Coal Yd X-Sect.cal	CAL
1/30/2009	RLR/PJC	GAF-10L245-Sht -Rev 1 Gen Grdg Coal Yd X-Sect.cal	CAL
1/30/2009	RLR/PJC	GAF-10L246-Sht -Rev 1 Gen Grdg Coal Yd X-Sect.cal	CAL
1/30/2009	RLR/PJC	GAF-10L247-Sht -Rev 1 Gen Grdg Coal Yd X-Sect.cal	CAL
1/30/2009	RLR/PJC	GAF-10L248-Sht -Rev 1 Gen Grdg Coal Yd X-Sect.cal	CAL
1/30/2009	RLR/PJC	GAF-10L249-Sht -Rev 1 Gen Grdg Coal Yd X-Sect.cal	CAL
1/30/2009	RLR/PJC	GAF-10L251-Sht -Rev 1 Gen Grdg Coal Yd X-Sect.cal	CAL
1/30/2009	RLR/PJC	GAF-10L252-Sht -Rev 1 Gen Grdg Coal Yd X-Sect.cal	CAL
1/30/2009	RLR/PJC	GAF-10L253-Sht -Rev 1 Gen Grdg Coal Yd X-Sect.cal	CAL
1/30/2009	RLR/PJC	GAF-10L254-Sht -Rev 1 Gen Grdg Coal Yd X-Sect.cal	CAL
1/30/2009	RLR/PJC	GAF-10L255-Sht -Rev 1 Gen Grdg Coal Yd X-Sect.cal	CAL
1/30/2009	RLR/PJC	GAF-10L256-Sht -Rev 1 Gen Grdg Coal Yd X-Sect.cal	CAL
1/30/2009	RLR/PJC	GAF-10L257-Sht -Rev 1 Gen Grdg Coal Yd X-Sect.cal	CAL



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Gallatin Fossil Plant (GAF)**

Date Reviewed	Reviewed by	File Name	File Type
1/30/2009	RLR/PJC	GAF-10L258-Sht -Rev 1 Gen Grdg Coal Yd X-Sect.cal	CAL
1/30/2009	RLR/PJC	GAF-10L259-Sht -Rev 1 Gen Grdg Coal Yd X-Sect.cal	CAL
1/30/2009	RLR/PJC	GAF-10L260-Sht -Rev 0 Gen Grdg Coal Yd X-Sect.cal	CAL
1/30/2009	RLR/PJC	GAF-10N1400-Sht -Rev 3 Yard Units 3 & 4 Concrete Ash Disposal Trench Outline & Reinf - Sheet 1.cal	CAL
1/30/2009	RLR/PJC	GAF-10N1401-Sht -Rev 1 Yard Units 3 & 4 Concrete Ash Disposal Trench Outline & Reinf - Sheet 2.cal	CAL
1/30/2009	RLR/PJC	GAF-10N1405-Sht -Rev 0Yard Concrete Fly Ash Reclaiming System Outline & Reinforcement.cal	CAL
2/23/2009	PJC	GAF-10N207-Sht -Rev 6.cal	CAL
1/30/2009	RLR/PJC	GAF-10N209-Sht -Rev 1 Main Plant Surfacing Coal Yard & Utility Building Areas.cal	CAL
1/30/2009	RLR/PJC	GAF-10N211-Sht -Rev 14 Main Plant General Grading Plan Coal Yard Sheet 1.cal	CAL
1/30/2009	RLR/PJC	GAF-10N212-Sht -Rev 7 Main Plant General Grading Plan Coal Yard Sheet 2.cal	CAL
1/30/2009	RLR/PJC	GAF-10N240-Sht -Rev 0 Main Plant Plan Ash Disposal Area No. 3.cal	CAL
1/30/2009	RLR/PJC	GAF-10N241-Sht -Rev 0 Mn Plnt Ash Dspsl Area 3 Sects & Dets.Tif	TIF
1/30/2009	RLR/PJC	GAF-10N242-Sht -Rev 0 Mn Plnt Ash Dspsl Area 3 Sects & Dets.Tif	TIF
1/30/2009	RLR/PJC	GAF-10N243-Sht -Rev 0 Standard Drawing Ash Disposal Spillway.cal	CAL
1/30/2009	RLR/PJC	GAF-10N267-Sht -Rev 0 Main Plant Ash Disposal Area No. 3 Divider Dike.cal	CAL
1/30/2009	RLR/PJC	GAF-10N271-Sht -Rev 6 Main Plant Plan Ash Disposal Area No 3 Ss By Cad Dwg 10W271 R7.tif	TIF
1/30/2009	RLR/PJC	GAF-10N272-Sht -Rev 2 Main Plant Ash Disposal Area No. 3 Sections And Details Sheet 1.cal	CAL
1/30/2009	RLR/PJC	GAF-10N273-1-Sht -Rev 3 Main Plant Ash Disposal Area No. 3 Sections And Details Sheet 2.cal	CAL
1/30/2009	RLR/PJC	GAF-10N273-2-Sht -Rev 1 Main Plant Ash Disposal Area No. 3 Plan, Sections & Details Sheet 3.cal	CAL
1/30/2009	RLR/PJC	GAF-10N273-3-Sht -Rev 1 Yard - Ash Disposal Area Outlet Pipe - Storm Drainage From RR Loop Area To Old Hickory Reservoir.cal	CAL
1/30/2009	RLR/PJC	GAF-10N274-Sht -Rev 2 Standard Drawing Ash Disposal Spillway.cal	CAL
1/30/2009	RLR/PJC	GAF-10N278-Sht -Rev 0 Main Plant Ash Disposal Area Divider Dike & Floating Boom.cal	CAL
1/30/2009	RLR/PJC	GAF-10N390-1-Sht -Rev 0 Yard Concrete Ash Disposal Lines Supports Outline & Reinforcement - Sheet 1.cal	CAL
1/30/2009	RLR/PJC	GAF-10N390-2-Sht -Rev 0 Yard Concrete Ash Disposal Lines Supports Outline & Reinforcement - Sheet 2.cal	CAL
1/30/2009	RLR/PJC	GAF-10N390-3-Sht -Rev 0 Yard Concrete Ash Disposal Lines Supports Outline & Reinforcement - Sheet 3.cal	CAL
1/30/2009	RLR/PJC	GAF-10N390-4-Sht -Rev 0 Yard Concrete Ash Disposal Lines Supports Outline & Reinforcement - Sheet 4.cal	CAL
1/30/2009	RLR/PJC	GAF-10N400-Sht -Rev 2 Yard Units 1 & 2 Concrete Ash Disposal Trench Outline & Reinf Sheet 1.cal	CAL
1/30/2009	RLR/PJC	GAF-10N401-Sht -Rev 1 Yard Units 1 & 2 Concrete Ash Disposal Trench Outline & Reinf - Sheet 2.cal	CAL
1/30/2009	RLR/PJC	GAF-10N402-Sht -Rev 3 Yard Units 1-4 Concrete Ash Disposal Trench For Precipitators-Outl & Reinf - Sh 1.cal	CAL
1/30/2009	RLR/PJC	GAF-10N403-Sht -Rev 1 Yard Units 1-4 Concrete Ash Disposal Trench For Precipitators - Outl & Reinf - Sh 2.cal	CAL
1/30/2009	RLR/PJC	GAF-10N404-Sht -Rev 1 Yard Units 1 - 4 Concrete Ash Disposal Trench For Precipitators - Outline & Reinf Sh3.cal	CAL
1/30/2009	RLR/PJC	GAF-10N409-Sht -Rev 0 Yard Units 1 - 4 Concrete Ash Disposal Trench For Precipitators - Outl & Reinf - Sh4.cal	CAL
1/30/2009	RLR/PJC	GAF-10N440-1-Sht -Rev 0 Yard Civil Bridge Across Ash Pipes Superstructure - Sheet 1.cal	CAL
1/30/2009	RLR/PJC	GAF-10N440-2-Sht -Rev 0 Yard Civil Bridge Across Ash Pipes Superstructure - Sheet 2.cal	CAL
1/30/2009	RLR/PJC	GAF-10N440-3-Sht -Rev 0 Yard Civil Bridge Across Ash Pipes Substructure.cal	CAL
1/30/2009	RLR/PJC	GAF-10W203-Sht -Rev 1 Main Plant Fly Ash Collecting System Areas Available For Contractor Use During Const.cal	CAL
1/30/2009	RLR/PJC	GAF-10W204-Sht -Rev 2 Main Plant Coal Yard & Reclaimed Ash Disposal Areas 1 & 2 Sections & Details.cal	CAL
1/30/2009	RLR/PJC	GAF-10W215-1-Sht -Rev 0 Main Plant Abandoned Ash Disposal Area Closure - Grading Plan.cal	CAL



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Date Reviewed	Reviewed by	File Name	File Type
1/30/2009	RLR/PJC	GAF-10W215-2-Sht -Rev 0 Main Plant Abandoned Ash Disposal Area Closure - Sections & Details.cal	CAL
1/30/2009	RLR/PJC	GAF-10W215-3-Sht -Rev 0 Yard Abandoned Ash Pond - Closure Concrete Endwalls & Inlets For Pipe Culverts.cal	CAL
2/23/2009	PJC	GAF-10W260-1-Sht -Rev 2.cal	CAL
1/30/2009	RLR/PJC	GAF-10W270-1-Sht -Rev 0 Coal Handling Facilities - Barge Unloader Tva Contract 95P6G-79124H, Rd No. 1102856 Plot Plan Barge Unloading System.cal	CAL
1/30/2009	RLR/PJC	GAF-10W271-306-Sht -Rev 0 Yard Pond E Site Plan & Key Plan.cal	CAL
1/30/2009	RLR/PJC	GAF-10W271-307-Sht -Rev 0 Yard Pond E Dike 2 (East Part) Plan.cal	CAL
1/30/2009	RLR/PJC	GAF-10W271-308-Sht -Rev 0 Yard Pond E Dikes 1.4 & 2 (West Part) Plan.cal	CAL
1/30/2009	RLR/PJC	GAF-10W271-309-Sht -Rev 0 Yard Pond E Dike 2 Profile.cal	CAL
1/30/2009	RLR/PJC	GAF-10W271-310-Sht -Rev 0 Yard Pond E Dikes 1A, 1B, 1.1, 1.2 & 1.3 Plan.cal	CAL
1/30/2009	RLR/PJC	GAF-10W271-311-Sht -Rev 0 Yard Pond E Sinkhole Areas Remediation Plan.cal	CAL
1/30/2009	RLR/PJC	GAF-10W271-312-Sht -Rev 0 Yard Pond E Dike Sections Sheet 1.cal	CAL
1/30/2009	RLR/PJC	GAF-10W271-313-Sht -Rev 0 Yard Pond E Dike Sections Sheet 2.cal	CAL
1/30/2009	RLR/PJC	GAF-10W271-314-Sht -Rev 0 Yard Pond E Dikes Sections-Sheet 3.cal	CAL
1/30/2009	RLR/PJC	GAF-10W271-315-Sht -Rev 0 Yard Pond E Precast Outlet Boxes Structural Details.cal	CAL
1/30/2009	RLR/PJC	GAF-10W271-316-Sht -Rev 0 Yard Pond E Sinkhole Remediation & Misc. Dike 2 Details.cal	CAL
1/30/2009	RLR/PJC	GAF-10W271-317-Sht -Rev 0 Yard Pond E Site Details Sheet 1.cal	CAL
1/30/2009	RLR/PJC	GAF-10W271-318-Sht -Rev 0 Yard Pond E Dike Plan North Half (3-Dimensional).cal	CAL
1/30/2009	RLR/PJC	GAF-10W271-319-Sht -Rev 0 Yard Pond E Dike Plan South Half (3-Dimensional).cal	CAL
1/30/2009	RLR/PJC	GAF-10W271-320-Sht -Rev 0 Yard Pond E Sinkhole Areas Investigation Remediation Plan.cal	CAL
1/30/2009	RLR/PJC	GAF-10W271-410-Sht -Rev 0 Yard Pond E Dike 1C Plan.cal	CAL
1/30/2009	RLR/PJC	GAF-10W271-411-Sht -Rev 0 Yard Pond E Dike 1C Profile.cal	CAL
1/30/2009	RLR/PJC	GAF-10W271-415-Sht -Rev 0 Yard Pond E Rock Chute Inlet Plan, Sections & Details.cal	CAL
1/30/2009	RLR/PJC	GAF-10W271-416-Sht -Rev 0 Yard Pond E Rock Chute & Misc Structural Details.cal	CAL
1/30/2009	RLR/PJC	GAF-10W271-502-Sht -Rev 0 Yard Flume & Detention Pond Dike Site Plan.cal	CAL
1/30/2009	RLR/PJC	GAF-10W271-503-Sht -Rev 0 Yard Detention Pond Dike Area Plan.cal	CAL
1/30/2009	RLR/PJC	GAF-10W271-504-Sht -Rev 0 Yard Detention Pond Dike Profile, Sections & Details.cal	CAL
1/30/2009	RLR/PJC	GAF-10W271-506-Sht -Rev 0 Yard Pond E As-Constructed Survey August 2007 Sheet 1.cal	CAL
1/30/2009	RLR/PJC	GAF-10W271-507-Sht -Rev 0 Yard Pond E As-Constructed Survey August 2007 Sheet 2.cal	CAL
1/30/2009	RLR/PJC	GAF-10W271-508-Sht -Rev 0 Yard Pond E As-Constructed Survey August 2007 Sheet 3.cal	CAL
1/30/2009	RLR/PJC	GAF-10W271-509-Sht -Rev 0 Yard Pond E As-Constructed Survey August 2007 Sheet 4.cal	CAL
1/30/2009	RLR/PJC	GAF-10W271-510-Sht -Rev 0 Yard Pond E As-Constructed Survey August 2007 Sheet 5.cal	CAL
1/30/2009	RLR/PJC	GAF-10W271-Sht -Rev 7 Main Plant Plan Ash Disposal Area No. 3.cal	CAL
2/23/2009	PJC	GAF-10W271-Sht -Rev 7.cal	CAL
1/30/2009	RLR/PJC	GAF-10W316-Sht -Rev 0 Yard Units 1 - 4 Concrete Chemical Treatment Pond Sump Outline & Reinforcement (NLDF).cal	CAL
1/30/2009	RLR/PJC	GAF-10W380-1-Sht -Rev 5 Yard Units 1 - 4 Concrete Ash Disposal Trenches Fdn Plan & Details.cal	CAL
1/30/2009	RLR/PJC	GAF-10W380-2-Sht -Rev 3 Yard Units 1 - 4 Concrete Ash Disposal Trenches Part Plans & Dets - Sheet 1.cal	CAL
1/30/2009	RLR/PJC	GAF-10W380-3-Sht -Rev 5 Yard Units 1 - 4 Concrete Ash Disposal Trenches Part Plans & Dets - Sheet 2.cal	CAL



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Date Reviewed	Reviewed by	File Name	File Type
1/30/2009	RLR/PJC	GAF-10W380-4-Sht -Rev 2 Yard Units 1 - 4 Concrete Ash Disposal Piping Crossover Plans & Details.cal	CAL
1/30/2009	RLR/PJC	GAF-10W381-1-Sht -Rev 5 Yard - Units 1 To 4 Dry Fly Ash Collection Facility Site Plan Finished Grading & Paving.cal	CAL
1/30/2009	RLR/PJC	GAF-10W385-1-Sht -Rev 4 Yard - Units 1 Thru 4 Dry Fly Ash Collection Facilities Concrete Dry Fly Ash Silo Foundation.cal	CAL
1/30/2009	RLR/PJC	GAF-10W385-2-Sht -Rev 6 Yard Units 1 - 4 Dry Dust Pa Collection Facility Concrete Fly Ash Silo Floor, Plinths And Pipe Trench.cal	CAL
1/30/2009	RLR/PJC	GAF-10W385-3-Sht -Rev 3 Yard Units 1 - 4 Dry Fly-Ash Collection Facility Concrete Truck Scale Pit & Sump Pit.cal	CAL
1/30/2009	RLR/PJC	GAF-10W385-4-Sht -Rev 6 Yard Units 1 - 4 Dry Fly-Ash Collection Facility Concrete Foundations For Compressor Bldg Scale Hours, Silo Filter.cal	CAL
1/30/2009	RLR/PJC	GAF-10W385-5-Sht -Rev 5 Powerhouse Units 1 - 4 Dry Fly Ash Collection Facility Concrete Foundations For Surge Bin Structure No. 1 & No. 2.cal	CAL
1/30/2009	RLR/PJC	GAF-10W385-6-Sht -Rev 3 Yard - Units 1 - 4 Dry Fly-Ash Collection Facility Concrete Truss Bridge Foundation And Abutments.cal	CAL
1/30/2009	RLR/PJC	GAF-10W385-7-Sht -Rev 3 Yard Units 1 - 4 Dry Fly Ash Collection Facility Concrete Foundations For Compressor Bldg.cal	CAL
1/30/2009	RLR/PJC	GAF-10W385-8-Sht -Rev 4 Yard Units 1 - 4 Dry Fly Ash Collection Facility Concrete Foundations For Compressor Bldg.cal	CAL
2/23/2009	PJC	GAF-10W502-1-Sht -Rev 0.cal	CAL
2/23/2009	PJC	GAF-10W502-2-Sht -Rev 0.cal	CAL
3/3/2009	PJC	Gallatinfossilplantadvanceauthorizationformjuly182005.pdf	PDF
3/3/2009	PJC	Gallatinfossilplantaerialphotosofplantdisposal.pdf	PDF
3/30/2009	PJC	Gallatinfossilplantaerialphotosofplantdisposal.pdf	PDF
3/3/2009	PJC	Gallatinfossilplantashdisposalarea3Notesandmemocdungatetowatersysdevbranchfilesjune131977MagnitudeofAshDisposalPondLeakage Problem.pdf	PDF
3/30/2009	PJC	Gallatinfossilplantashdisposalarea3Notesandmemocdungatetowatersysdevbranchfilesjune131977MagnitudeOfAshDisposalPondLeakage Problem.pdf	PDF
3/3/2009	PJC	Gallatinfossilplantattachment4Ashdisposalprojectsupplementalgeotechnicaltestingdatanove2004Toseptember2005.pdf	PDF
3/30/2009	PJC	GallatinFossilPlantAttachment4AshDisposalProjectSupplementalGeotechnicalTestingDataNove2004ToSeptember2005.pdf	PDF
3/3/2009	PJC	Gallatinfossilplantclosurepostclosureplanabandonedashpondareaseptember1995.pdf	PDF
3/30/2009	PJC	Gallatinfossilplantclosurepostclosureplanabandonedashpondareaseptember1995.pdf	PDF
3/30/2009	PJC	GallatinfossilplantGAF228Longtermashdisposalkellyevansreport.pdf	PDF
3/3/2009	PJC	Gallatinfossilplantheavyequipmentdivisionestimateforashpondemay162006.pdf	PDF
3/3/2009	PJC	Gallatinfossilplantmactecletternov162004Laboratorytestresultsforlimestabilizedbottomashdisposalarea.pdf	PDF
3/30/2009	PJC	GallatinFossilPlantMACTECLetterNov162004LaboratoryTestResultsForLimeStabilizedbottomAshDisposalArea.pdf	PDF
3/3/2009	PJC	Gallatinfossilplantmactecletteronpurkeymay312005ResultsofgeotechtestbottomashtestfillsoffsiteborrowAreaAndOnsiteBorrowAreaL.pdf	PDF
3/30/2009	PJC	GallatinFossilPlantMACTECLetterToRonPurkeyMay312005ResultsOfGeotechTestBottomAshTestFillsOffsiteborrowAreaAndOnsite BorrowAreaL.pdf	PDF
3/3/2009	PJC	GallatinfossilplantmactecreportofgeotechnicalexplorationashdisposalareaandpotentialonsiteandoffsiteborrowAreasAtt3.pdf	PDF
3/30/2009	PJC	GallatinFossilPlantMACTECLetterOfgeotechnicalexplorationashdisposalareaandpotentialonsiteandoffsiteborrowAreasAtt3.pdf	PDF
3/3/2009	PJC	Gallatinfossilplantmactecreportofgeotechnicalexplorationcoalyardareajune162005.pdf	PDF
3/30/2009	PJC	GallatinFossilPlantMACTECLetterOfgeotechnicalexplorationcoalyardAreaJune162005.pdf	PDF
3/3/2009	PJC	Gallatinfossilplantmactecreportofgeotechnicalinvestigationboyscoutborrowareajuly202005.pdf	PDF
3/30/2009	PJC	GallatinFossilPlantMACTECLetterOfgeotechnicalinvestigationBoyScoutBorrowAreaJuly202005.pdf	PDF



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Gallatin Fossil Plant (GAF)**

Date Reviewed	Reviewed by	File Name	File Type
3/3/2009	PJC	Gallatinfossilplantmemorandumfromwncalverttowcboopjune261967Ashdikes.pdf	PDF
3/30/2009	PJC	Gallatinfossilplantmemorandumfromwncalverttowcboopjune261967Ashdikes.pdf	PDF
3/3/2009	PJC	Gallatinfossilplantmemorandumjrparrishoeffthomasannualashponddikeinspectionaugust201970.pdf	PDF
3/30/2009	PJC	Gallatinfossilplantmemorandumjrparrishoeffthomasannualashponddikeinspectionaugust201970.pdf	PDF
3/3/2009	PJC	Gallatinfossilplantmemorandumwallycarpentertokenburnettfebruary31991.pdf	PDF
3/30/2009	PJC	Gallatinfossilplantmemorandumwallycarpentertokenburnettfebruary31991.pdf	PDF
3/3/2009	PJC	Gallatinfossilplantmemorandumwncalverttoplacyannualashdikeinspectionoctober91969.pdf	PDF
3/30/2009	PJC	Gallatinfossilplantmemorandumwncalverttoplacyannualashdikeinspectionoctober91969.pdf	PDF
3/3/2009	PJC	Gallatinfossilplantmemorandumwncalverttowcboopashdikesoctober241968.pdf	PDF
3/30/2009	PJC	Gallatinfossilplantmemorandumwncalverttowcboopashdikesoctober241968.pdf	PDF
3/3/2009	PJC	Gallatinfossilplantphotogeology1951Sinkholes.pdf	PDF
3/30/2009	PJC	GallatinFossilPlantPhotogeology1951Sinkholes.pdf	PDF
3/3/2009	PJC	Gallatinfossilplantpondowner'SmanualGAFlongtermashdisposalapril212006Rev0.pdf	PDF
3/3/2009	PJC	Gallatinfossilplantsketchskta00027301R0Pondepeninsulaareasiteplan.pdf	PDF
3/30/2009	PJC	Gallatinfossilplantsketchskta00027301R0Pondepeninsulaareasiteplan.pdf	PDF
3/3/2009	PJC	Gallatinfossilplantskta00027200Topographicalmapsinkholes.pdf	PDF
3/30/2009	PJC	Gallatinfossilplantskta00027200Topographicalmapsinkholes.pdf	PDF
3/30/2009	PJC	GallatinFossilPlantSTANTECPArtialRDPWorkbook.pdf	PDF
3/3/2009	PJC	Gallatinfossilplantteleconferencekarstinvestigationronpurkeysofficefridayjune242005Meetingminutes.pdf	PDF
3/30/2009	PJC	Gallatinfossilplantteleconferencekarstinvestigationronpurkeysofficefridayjune242005Meetingminutes.pdf	PDF
2/11/2009	PJC	Holes 1 And 3.pdf	PDF
2/11/2009	PJC	Img_1473.Jpg	JPG
2/11/2009	PJC	Img_1474.Jpg	JPG
2/11/2009	PJC	Img_1475.Jpg	JPG
2/11/2009	PJC	Img_1476.Jpg	JPG
2/11/2009	PJC	Img_1477.Jpg	JPG
2/11/2009	PJC	Img_1478.Jpg	JPG
2/11/2009	PJC	Img_1479.Jpg	JPG
2/11/2009	PJC	Img_1480.Jpg	JPG
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2/11/2009	PJC	Img_1488.Jpg	JPG
2/11/2009	PJC	Img_1489.Jpg	JPG
2/11/2009	PJC	Img_1490.Jpg	JPG



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Date Reviewed	Reviewed by	File Name	File Type
2/11/2009	PJC	Img_1491.Jpg	JPG
2/11/2009	PJC	Img_1492.Jpg	JPG
2/11/2009	PJC	Img_1493.Jpg	JPG
2/11/2009	PJC	Img_1494.Jpg	JPG
2/11/2009	PJC	Img_1495.Jpg	JPG
2/11/2009	PJC	Img_1496.Jpg	JPG
2/11/2009	PJC	Img_1497.Jpg	JPG
2/11/2009	PJC	Img_1498.Jpg	JPG
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2/11/2009	PJC	Img_1506.Jpg	JPG
2/11/2009	PJC	Img_1507.Jpg	JPG
2/11/2009	PJC	Img_1508.Jpg	JPG
2/11/2009	PJC	Qrwsj Chk2 08.doc	DOC
2/11/2009	PJC	Qrwsj Chk3 08.doc	DOC
2/11/2009	PJC	Qrwsj Chk4 08.doc	DOC
2/11/2009	PJC	Wiedwards Memo On Stability Inspection Of Waste Disposal Areas Dated March 28 2002.pdf	PDF