From:	Figgures, Sharon Mclin
To:	Vojin Janjic
Cc:	Water Permits; Kyle Mabry; Pierson, Callan; Pearman, Paul Jonathan
Subject:	[EXTERNAL] TVA - ALF D4 CGP NOI Update Submission
Date:	Monday, April 1, 2024 10:59:41 AM
Attachments:	image001.png image002.png image003.png image004.png image005.png image006.png image007.png image008.png

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Please find attached your copy of the subject.

Thanks

Sharon Figgures
Business Support Representative
Regulatory Environmental Programs

TENNESSEE VALLEY AUTHORITY

W. 423-751-7235 **M.** 706-639-7223 **E.** sdmclin@tva.gov
1101 Market Street, Chattanooga, TN 37402

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TENNESSEE VALLEY AUTHORITY

1101 Market Street, BR 2C, Chattanooga, Tennessee 37402

Sent Via Electronic Transmittal

April 1, 2024

Mr. Vojin Janjić (Vojin.Janjic@tn.gov)
Division of Water Resources (water.permits@tn.gov)
Tennessee Department of Environment
and Conservation
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243

Dear Mr. Janjić:

TENNESSEE VALLEY AUTHORITY (TVA) – ALLEN FOSSIL PLANT (ALF) – DECOMMISSIONING AND SITE RESTORATION – UPDATED NOTICE OF INTENT (NOI) FOR CONSTRUCTION STORMWATER GENERAL PERMIT – TNR192155 – SWPPP MODIFICATION

Per Section 5.4 of the Construction Stormwater General Permit, TVA is submitting an updated NOI and modified SWPPP for approval. Changes from the original SWPPP include:

1. The total disturbed area has decreased from 38.8 acres to 33.5 acres.
2. The addition of six internal outfalls with reduced drainage areas eliminating the need for the installation of temporary sediment basins. Storm water will drain to 8 outfall points (including internal outfall points), before discharging to four existing permitted multi-sector storm water outfalls. The revised drainage areas are described in Section 2.5 Drainage Area of the enclosed SWPPP.
3. A revision in the sequence of construction activity outlining that the basement void will not be filled to proposed finish grade until the area north of the void has reached final grades and has been sufficiently stabilized.

If you have questions or need additional information, please contact Callan Pierson by e-mail at cpierson@tva.gov.

Sincerely,

Paul Pearman

Paul Pearman
Senior Manager
Water Permits, Compliance, and Monitoring

Enclosures

Enclosures
cc (Electronic Distribution w/Enclosures):
Kyle Mabry (Kyle.Mabry@tn.gov)
Tennessee Department of Environment
and Conservation
Division of Water Resources
Memphis Environmental Field Office
8383 Wolf Lake Drive
Bartlett, Tennessee 38133

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES
William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor
Nashville, TN 37243
Toll Free Number: 1-888-891-8332 (TDEC)

NOTICE OF INTENT (NOI) FOR GENERAL NPDES PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES (TNR100000)

Site or Project Name: TVA Allen Fossil Plant D4 Decommissioning and Site Restoration		**NPDES Tracking Number: TNR** TNR192155
Street Address including city or zip code or Location: 2574 PLANT RD MEMPHISTN 38109		Construction Start Date: 08/01/2022
		Estimated End Date: 08/30/2024
Site Description: Building demolition and restoration of site to brownfield		Latitude (dd.dddd): 35.0726076
		Longitude (-dd.dddd): -90.1468254
County(ies): Shelby	MS4 Jurisdiction (if applicable):	Acres Disturbed: 33.5
		Total Acres: 46.91

Are there any streams ☑ and/or wetlands ☐ on or adjacent to the construction site?
If wetlands are located on-site and may be impacted, attach wetlands delineation report.
If an Aquatic Resource Alteration Permit has been obtained for this site, what is the permit number? ARAP Number: NRS21.020

Receiving waters: McKellar Lake

Include the SWPPP with the NOI ■ SWPPP Included | Include a site location map ■ Map Included

Name of Site Owner or Developer (Site-Wide Permittee): (correct legal name of person, company, or entity that has operational or design control over construction plans and specifications)
Tennessee Valley Authority (TVA)

For corporate entities only, provide the Tennessee Secretary of State (SOS) Control Number:

Site Owner or Developer Contact Name: (individual responsible for site) M. Scott Turnbow	Title or Position: (the party who signs the certification below): Vice President, Civil Projects, ESS & CCP		
Mailing Address: 1101 Market Street, LP 5E-C	City: Chattanooga	State: TN	Zip: 37402
Phone: 423-751-3031	E-mail: msturnbow@tva.gov		

Optional Contact Name: DeAnne Hardy	Title or Position: Manager, Environmental Regional Operations		
Mailing Address: 2574 Plant Road, ASP 1A-MET	City: Memphis	State: TN	Zip: 38109
Phone: 901-789-8862	E-mail: dahardy@tva.gov		

Owner or Developer Certification: (must be signed by president, vice-president or equivalent, or ranking elected official) (Primary Permittee)
Tennessee Valley Authority (TVA)

I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

Owner or Developer Name: (print or type):	Signature:	Date:
M. Scott Turnbow	M. Scott Turnbow	03/08/2024

Contractor(s) Certification: (must be signed by president, vice-president or equivalent, or ranking elected official) (Secondary Permittee)

I certify under penalty of law that I have reviewed this document, any attachments, and the SWPPP referenced above. Based on my inquiry of the construction site owner/developer identified above and/or my inquiry of the person directly responsible for assembling this NOI and SWPPP, I believe the information submitted is accurate. I am aware that this NOI, if approved, makes the above-described construction activity subject to NPDES permit number TNR100000, and that certain of my activities on-site are thereby regulated. I am aware that there are significant penalties, including the possibility of fine and imprisonment for knowing violations, and for failure to comply with these permit requirements. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

Primary contractor name, address, and SOS control number (if applicable): (print or type)	Signature:	Date:
Fisher Contracting Company 4960 Nashville Rd, Franklin, KY		3/20/24
Primary contractor name, address, and SOS control number (if applicable): (print or type) Brandenburg Industrial Service Company 501 W. Lake St. suite 204 Elmhurst IL 60126		3/20/24
Primary contractor name, address, and SOS control number (if applicable): (print or type)	Signature:	Date:

CN-0940 (Rev. 02-22) (Instructions on reverse) RDA 2366

Storm Water Pollution Prevention Plan
Revision 1

NPDES Permit Application
for Discharges of Storm Water Associated with
Construction Activities

D4 Plant Retirement / Decommissioning & Plant
Site Restoration
(TVA Project No. 609669)

Allen Fossil Plant
Shelby County, Tennessee

February 28, 2024

Prepared for:

Tennessee Valley Authority
Chattanooga, Tennessee

Prepared by:

Stantec Consulting Services Inc.
Nashville, Tennessee

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STORM WATER POLLUTION PREVENTION PLAN – REVISION 1
ALF D4 PLANT RETIREMENT / DECOMMISSIONING & PLANT SITE RESTORATION

February 28, 2024

0.0 SITE / OWNER INFORMATION

Project Name:	**Tennessee Valley Authority** **Allen Fossil Plant** **D4 Plant Retirement / Decommissioning & Plant Site Restoration**
TVA Project No.:	609669
Site Location (County):	Shelby County, Tennessee
Owner/Primary Permittee:	Tennessee Valley Authority
Owner/Primary Permittee Address & Phone:	Scott Turnbow 1101 Market Street, LP 5E-c Chattanooga, TN 37402 Phone: (423) 751-3031
General Contractor (Operator):	TBD
General Contractor Address & Phone:	TBD
Description of Proposed Project:	This project will involve demolition of the plant buildings and facilities, as well as site restoration and associated grading activities at the Allen Fossil Plant in Shelby County, Tennessee.
Standard that EPSC Measures Meet:	5–year / 24–hour Storm Event

Discharges to waters having unavailable parameters for siltation and/or habitat alteration:	**Yes**	Is project located within a watershed which maintains an approved TMDL for siltation and habitat alteration? If so, include the 8-digit Hydrologic Unit Code (HUC).	**No**
Discharges to Exceptional Tennessee Waters:	**Yes** **McKellar Lake**	Is project located within a sub-watershed which has a Waste Load Allocation (WLA)? If so, include the 12-digit HUC (or 4-digit sub-watershed code).	**N/A**
Discharges to MS4:	**Yes**	Does project have a direct discharge to a 303(d) listed stream for siltation or habitat alteration? If so, list stream name to the right.	**Yes** **McKellar Lake**

1.0 INTRODUCTION

This Storm Water Pollution Prevention Plan (SWPPP) has been developed and prepared in accordance with current engineering practices. This SWPPP identifies potential sources of pollution that one would reasonably expect to affect the quality of storm water discharges from the construction site. This SWPPP describes the implementation practices that will be used to effectively reduce pollutants in storm water associated with construction activities at the Tennessee Valley Authority (TVA) Allen Fossil Plant (ALF) D4 Plant Retirement / Decommissioning & Plant Site Restoration (D4) project site. The SWPPP has been designed to comply with the terms and conditions of the Tennessee General Permit No. TNR100000 (Discharges of Storm Water Associated with Construction Activities).

In accordance with Section 3.5. of the Tennessee Department of Environment and Conservation's (TDEC) National Pollutant Discharge Elimination System (NPDES) General Permit TNR100000 (Permit), the components of the SWPPP for the site have been included herein.

1.1 PERMITTING AUTHORITY

This SWPPP has been prepared to cover storm water runoff from a construction site owned by the Tennessee Valley Authority (TVA). Therefore, under Section 1.4.5 of the Permit, permitting of storm water runoff from this federal agency site will remain solely under the authority of TDEC and is exempt from the jurisdiction of the local NPDES-permitted municipal separate storm sewer system (MS4) of the city of Memphis.

1.2 DISCHARGES INTO EXCEPTIONAL TENNESSEE WATERS

A portion of the D4 project site outfalls to McKellar Lake, which is a listed Water with Unavailable Parameters for Siltation. Therefore, under the requirements of Section 6.4 of the Permit, the Erosion Prevention and Sediment Control (EPSC) measures used at the site are designed to control storm water runoff generated by a 5-year, 24-hour storm event and this SWPPP has been prepared by a licensed professional Engineer.

2.0 SITE DESCRIPTION

2.1 DESCRIPTION OF CONSTRUCTION ACTIVITIES

A description of all the construction activities at the site, not just grading and street construction.

The proposed ALF D4 Plant Retirement / Decommissioning & Plant Site Restoration (D4) project includes demolition of the plant buildings and facilities, followed by site restoration work. The demolition work will include removal of concrete, asphalt, and plant underground features (such as pilings under a foundation) to at least 3 feet below final grade. The subsequent site restoration work will include grading activities to ensure positive drainage to appropriate outfalls and final stabilization to prevent erosion at the decommissioned site.

See **Figure 1** for a USGS topographic map and a site vicinity map of the project.

2.2 SEQUENCE OF CONSTRUCTION ACTIVITY

The intended sequence of activities which disturb soils for major portions of the site (e.g., grubbing, excavation, grading, utilities, and infrastructure installation).

1. Installation of initial EPSC devices, including stabilized construction exits, temporary construction fencing, silt fence / sediment tube perimeter protection, inlet protection, rock check dams, dewatering station, and vehicle wash stations;
2. Clearing/grubbing and site demolition activities (no major site grading should take place during this phase, and any excavation will be solely for demolition and removal of existing buildings or concrete/asphalt paving);
3. Crushing of demolished concrete materials to use as on-site backfill (e.g. for below-grade / basement areas);
4. Begin grading site and filling in existing basement void, basement void not to be filled to proposed finished grades until area north of basement void has reached final grades and has been successfully stabilized, as shown on sheet SK-EC03.
5. Finish grading site, including basement void area, to provide surface positive drainage across the site (only after demolition work is complete).
6. Final stabilization of disturbed site areas (rip rap, gravel, paving, seeding/mulching, and/or sodding, as required);
7. Removal of all other EPSC devices once final stabilization has been established.

The general sequence of major activities described above may be replaced by a “Plan of Operation” provided by the Contractor prior to the start of Work. This “Plan of Operation” will indicate the Contractor’s intended sequence of construction activities at the site. However, the “Plan of Operation” shall require that the EPSC measures for each Stage must be in place and functional prior to earth disturbing operations. If provided by the Contractor, the “Plan of Operation” shall be attached to and included as part of the SWPPP.

2.3 PROJECT AREA

Estimates of the total area of the site and the total area that is expected to be disturbed by excavation, grading, filling or other construction activities.

- Total Project Area: ±46.91 acres
- Total Disturbed Area: ±33.5 acres

Areas to be left undisturbed are discussed further in Section 2.8.

2.4 SITE TOPOGRAPHY

A description of the topography of the site, including an estimation of percent slope and the variation in percent slope found on site. The estimate should be on a basis of a drainage area serving each outfall, rather than an entire project.

The site consists of a gently sloping flood plain with constructed earthen embankments and ALF plant site pad along the banks of McKellar Lake, situated just east of the Mississippi River. The crest of the existing constructed embankments and plant site pad ranges from approximately elevation 238 to 240 feet mean sea level (MSL). Final grades on the filled site vary from 0-2%, with side slopes at berms/embankments and drainage ditches of 3H:1V. McKellar Lake's elevation fluctuates, as it is hydraulically connected to the Mississippi River; however, the normal water surface elevation is approximately 210 feet MSL. Estimated slopes within each drainage basin are given in **Table 1** in the following section.

2.5 DRAINAGE AREA

An estimate of drainage area (acres) serving each outfall.

This project has 4 outfall points with a total of 6 internal outfall points which are depicted on **Figure 2** and the EPSC plans in **Appendix A**. Outfalls No. 1 and No. 2 drain to McKellar Lake, which is listed as "Waters with Unavailable Parameters". Outfall No. 1 has a combined drainage area of greater than 5.0 acres. Its on-site outfalls 1A and 1B both have drainage areas of less than 3.5 acres which does not require additional runoff treatment per Section 6.4.1 of the Tennessee General NPDES Permit No. TNR100000.

Table 1 below lists the locations of impacted drainage features that could transport pollutants off-site, their associated outfall numbers, drainage basin slopes and estimated drainage areas.

Table 1. Outfall Information

Outfall No.	Latitude / Longitude	Drainage Location Description	Impacted Drainage Feature	Drainage Area (ac.)	Estimated % Slope Within Drainage Basin
1A	35.0747 N 90.1497 W	West trench of dual concrete trench, discharging to permitted multi-sector storm water permit Outfall F9	McKellar Lake	±2.68	0-2%
1B	35.0747 N 90.1497 W	East trench of dual concrete trench, discharging to permitted multi-sector storm water permit Outfall F9	McKellar Lake	±3.21	0-2%
2	35.0748 N 90.1472 W	Existing headwall/pipe, discharging to permitted multi-sector storm water permit Outfall F4	McKellar Lake	±3.23	0-2%
3A	35.0740 N 90.1470 W	Existing inlet structure, discharging to permitted multi-sector storm water permit Outfall F6	Horn Lake Cutoff	±1.13	0-2%
3B	35.0738 N 90.1467 W	Existing inlet structure, discharging to permitted multi-sector storm water permit Outfall F6	Horn Lake Cutoff	±2.32	0-2%
3C	35.0738 N 90.1470 W	Existing inlet structure, discharging to permitted multi-sector storm water permit Outfall F6	Horn Lake Cutoff	±1.35	0-2%
3D	35.0735 N 90.1468 W	Existing inlet structure, discharging to permitted multi-sector storm water permit Outfall F6	Horn Lake Cutoff	±2.96	0-2%
4	35.0733 N 90.1498 W	Proposed headwall/inlet pipe tying into existing stormwater structure, discharging to permitted multi-sector storm water permit Outfall F7	McKellar Lake	±4.39	0-2%

The drainage area for the combined on-site outfalls of Outfall No. 1 is larger than 5 acres and its proximity to Waters with Unavailable Parameters for Siltation (McKellar Lake) require that a Site Assessment be performed as specified by the requirements of the NPDES Permit issued for this construction. At a minimum, Site Assessments will be performed per Section 3.1.2 of the Construction General Permit, TNR100000. See Section 4.4.1 below also.

2.6 SOILS DESCRIPTION

Data describing the soil, how the soil type will dictate the needed control measures and how the soil may affect the expected quality of runoff from the site. The data may be referenced or summarized.

INFORMATION TAKEN FROM THE LOCAL SOIL SURVEY: The project is located in Shelby County, Tennessee. According to maps provided by the Natural Resources Conservation Service (NRCS) on the Web Soil Survey internet site and the County Soil Conservation District, the project site consists mainly of sandy fill material and silt loam soils. See **Appendix B** for additional soils information.

Silt loam soils will require check dams to slow water in channels so that the heavy particles can settle out. Detention or ponding of water will be the preferred method to remove suspended sediment prior to discharging through the project outfalls.

The quality of discharge from properly implemented and maintained EPSC measures is expected to be sufficient to comply with the terms and conditions of this permit.

2.7 RUNOFF COEFFICIENTS

An estimate of the runoff coefficient of the site after construction activities are completed and a description of how the runoff will be handled to prevent erosion at the permanent outfall and receiving stream. An estimate of the percentage of impervious area before and after construction must also be provided.

The pre-construction (existing) runoff curve number (RCN) was calculated using the entire project area, with consideration to surface water areas within the project area. The pre-construction project area and weighted curve number is depicted in **Table 2** below.

Table 2. Runoff Curve Number – Pre-Construction (Existing) Conditions

Area Type	Area (acres)	Runoff Curve Number (RCN)
Impervious (concrete, asphalt, gravel drives, buildings, open water, etc.)	40.41	92
Pervious (grass, brush, etc.)	6.5	61
Preconstruction weighted curve number	**46.91**	**88**

The proposed project work includes demolition and removal of site concrete, asphalt, and plant underground features (such as building foundations) to at least 3 feet below final grade, followed by finish grading for positive surface drainage and final stabilization of the site with gravel and seeding, as required. Therefore, the proposed work will reduce the amount of impervious area, and the RCN will decrease from existing conditions. The post-construction runoff curve number was calculated using the entire project area, with consideration to surface water areas within the project area. The post-construction disturbed area is depicted in **Table 3**.

Table 3. Runoff Curve Number – Post-Construction Conditions

Area Type	Area (acres)	Runoff Curve Number (RCN)
Impervious (gravel)	40.51	88
Pervious (grass, brush, etc.)	6.4	61
Post-construction weighted curve number	**46.91**	**84**

Calculations for the runoff curve numbers depicted in the pre- and post-construction tables are found in **Appendix C**.

2.8 EROSION PREVENTION & SEDIMENT CONTROL PLAN

An erosion prevention and sediment control plan with the proposed construction area clearly outlined. The plan should indicate the boundaries of the permitted area, drainage patterns, approximate slopes anticipated

after major grading activities, areas of soil disturbance, an outline of areas which are not to be disturbed, the location of major structural and nonstructural controls identified in the SWPPP, the location of areas where stabilization practices are expected to occur, surface waters including wetlands and sinkholes, and identification on the erosion control plan of outfall points intended for coverage. The erosion control plan must meet requirements stated in Section 5.5.3 of the Permit (see Appendix I).

1. Please see the attached USGS map (**Figure 1**), drainage area map (**Figure 2**), and EPSC Plans (**Appendix A**) for the construction boundaries, EPSC plans, and drainage patterns.
2. The areas that will have soil disturbance are designated on the EPSC plans by the limits of construction. Sediment tubes or silt fence will be located along these lines/boundaries to protect receiving waters.
3. Areas to be left undisturbed include selected areas north and downslope of the D4 plant site along McKellar Lake, as well as the parking lot area in the southwest portion of the site. These areas are included in the construction limits since access is required for demolition / grading in adjacent areas; however, no disturbance will be required by the proposed work. Areas to be left undisturbed will be visibly delineated using perimeter EPSC controls, high-visibility temporary construction fencing, and/or other suitable measures,
4. Locations of structural erosion controls are shown on the EPSC plans in **Appendix A**. For calculations and details not provided on the EPSC plans, refer to the TDEC Erosion & Sediment Control Handbook for best management practices (BMPs).
5. Stabilization with erosion control measures will occur in selected areas. Seeding with mulch or erosion control blankets will be used to stabilize disturbed work areas. Temporary rock check dams will be used in ditches and swales throughout the project site to reduce the storm water velocities so that sediment will be removed prior to traveling off-site.
6. During the initial site clearing/grubbing and demolition activities within the D4 plant area, site runoff will follow existing drainage patterns, with mainly sheet flow and infiltration across the relatively flat site.
7. No wetland or other environmental features (i.e., sinkholes) are expected to be disturbed by the construction activities.
8. This project **does** discharge into waters with unavailable parameters for siltation and/or habitat alteration and into to an existing MS4; and **does not** discharge into waters with an approved TMDL for siltation and/or habitat alteration nor to Tennessee Exceptional Waters.
9. This project has 8 outfall points (including on-site outfall points) depicted on **Figure 2** and in the EPSC Plans in **Appendix A**. **Table 1** lists the locations of impacted drainage features and their associated outfall point numbers.

2.9 NON-STORMWATER DISCHARGES

A description of any discharge associated with industrial activity other than construction stormwater that originates on site and the location of that activity and its permit number.

No outside sources of water will enter the project area, and storm water that is collected from within the project area will drain to 8 outfall points (including on-site outfall points), before discharging to four (4) existing permitted multi-sector storm water outfalls.

No non-stormwater discharges are planned as part of this project. NPDES Permit No. TN0005355 regulates non-stormwater discharges from the Allen Fossil Plant, and all discharge water sampling (if required) should be completed in accordance with this permit.

2.10 PERMITTED ALTERATIONS

Identification of any stream or wetland on or adjacent to the project, a description of any anticipated alteration of these waters and the permit number or tracking number of the Aquatic Resources Alteration Permit (ARAP) or Section 401 Certification issued for the alteration.

No alterations of streams nor wetlands are proposed with this project. Outfall #2 does not directly impact the lake since the discharge is above the OHWM of elevation 210 ft MSL. The project shall be constructed in accordance with the permit conditions. Any disagreement between the project plans, the SWPPP, the project as constructed, and the permit or permits issued shall be brought to the attention of the Owner prior to finalization of the project. In general, permit conditions will prevail.

ALF currently has coverage under ARAP - NRS21.020 authorizing:

"Removal of mooring cells from McKellar Lake associated with activities related to the closure of the Allen Fossil Plant. Turbidity curtains will be employed during construction to minimize mobilization of sediments."

2.11 RECEIVING WATERS

The name of the receiving waters and identification if those receiving waters have unavailable parameters for siltation and habitat alterations due to in-channel erosion or are Exceptional Tennessee Waters.

The receiving water(s) are as follows:

- McKellar Lake
  - Mississippi River watershed (HUC #08010100)
  - 303(d) listed water TN0801010001_1200 (unavailable parameters for siltation)
  - Exceptional Tennessee Water
  - Siltation Impaired Waterbody
- Horn Lake Cutoff
  - Not Supporting
  - Siltation Impaired Stream

- This project will **not** affect any wetland areas.

2.12 BUFFER ZONES

Identify and outline the buffer zones established to protect waters of the state located within the boundaries of the project.

McKellar Lake, located in the project site vicinity, is listed as a water with unavailable parameters for siltation or habitat alteration. For the majority of the project area, there will be no direct discharge into this water body, and runoff from the site will discharge to McKellar Lake indirectly through the Allen Fossil Plant permitted storm water outfalls.

However, some of the proposed demolition and grading activities take place north of the plant area and/or USACE levee in areas which sheet flow into McKellar Lake. The work in these portions of the site is generally upstream of the 60-foot buffer zone for McKellar Lake (based on a normal water surface elevation of 210'). Therefore, wired-backed silt fence will be utilized along the entire downhill perimeter of these work areas to control sediment for stormwater runoff that may pass through these portions of the site.

For demolition activities for the overhead coal conveyors, walkway, intake structure and other infrastructure that will take place within the 60-foot-buffer zone, wire-backed silt fence, along with high-visibility temporary fencing, will be utilized along the entire downstream perimeter of these work areas.

For demolition work within the limits of McKellar Lake, floating turbidity curtains and/or other in-water sediment control measures will be utilized to contain sediment and allow for settlement of fine particles to minimize impacts to the surrounding water body during demolition activities.

2.13 CONSTRUCTION PHASING

A description of the construction phasing for projects of more than 50 acres.

This project does not require more than 50 acres of disturbed area. Therefore, phasing is not required.

2.14 UNDISTURBED AREAS

A description of the protections (e.g. caution fencing or stream side buffer zones) employed to limit the disturbance if only a portion of the total acreage of the construction site is to be disturbed. The areas to be undisturbed shall be clearly marked in the field before construction activities begin.

Areas to be left undisturbed include selected areas north and downslope of the D4 plant site along McKellar Lake, as well as the parking lot area in the southwest portion of the site. These areas are included in the construction limits where access is required for demolition / grading in adjacent areas; however, no disturbance will be required by the proposed work. Areas to be left undisturbed will be visibly delineated using perimeter EPSC controls, high-visibility temporary construction fencing, and/or other suitable measures, as shown on the EPSC plans, which can be found in **Appendix A**.

2.15 DISCHARGES TO PERMITTED MS4

The name and number of the previously permitted Municipal Separate Storm Sewer to which the project discharges.

This project will discharge into the Memphis municipal separate storm sewer system (MS4), permit number TNS068276.

3.0 EROSION PREVENTION AND SEDIMENT CONTROLS

The goal of this SWPPP is to maintain and protect the natural, physical, and biological characteristics and functions (e.g., no significant changes in the hydrological regime or pollutant input) of the receiving water by minimizing the dislodging and suspension of soil in runoff and by retaining mobilized sediment on-site. Construction activities will conform to the following general practices with regards to EPSC. Specific BMPs for this project are also described in **Appendix A** and in the Tennessee Erosion and Sediment Control Handbook.

3.1 PRECONSTRUCTION AND DURING CONSTRUCTION

Preconstruction planning should be used to sequence major grading activities to minimize the exposure time of graded or denuded areas. The EPSC measures and/or plans shall be modified as necessary so that they are effective at all times throughout the course of the project. The site Operator (Contractor) will be responsible for the implementation and execution of all storm water runoff controls. Preconstruction ground cover will not be destroyed, removed, or disturbed more than 14 days prior to grading or earth moving unless the area is seeded and/or mulched or other temporary cover is installed. Temporary erosion control measures may be removed at the beginning of the workday but will be replaced at the end of the day. Structural controls to be used on this project and their placement are identified on the EPSC plans in **Appendix A**.

3.2 STABILIZATION, STRUCTURAL, AND NON-STRUCTURAL CONTROLS

Storm water runoff controls for the proposed project will consist of the structural control measures themselves and the maintenance and inspection practices discussed later in this SWPPP. They have been designed to retain sediment on the project site. The following paragraphs describe the sequence of major construction activities that are planned for the site and the general stabilization and structural practices that will be associated with each activity. They also identify the party responsible for implementing the SWPPP.

3.2.1 Temporary Construction Exit

General Requirements: Off-site tracking of sediment must be controlled wherever equipment and construction vehicles exit the site. EPSC structures must be in place and functional before demolition, clearing, grubbing, excavation, grading, cutting or filling occurs, except as such work may be necessary to install EPSC measures. Project plans, proposal contract, and standard details referenced in the project plans provide additional information regarding requirements for EPSC and protection of waters of the State and the United States.

Stabilization: Stabilization practices include placing geotextile fabric beneath the stone pad and grading the area around the construction exit to direct storm water runoff back onto the project site. The temporary construction exit will be removed after construction is completed. Seed with straw mulch or erosion control blankets will be placed to revegetate disturbed areas, as needed, no later than 14 days after the structure is removed. Permanent or Temporary seeding will be accomplished by using seed groups adapted for germination and growth during the subject season. Avoid planting cover vegetation during winter months (December – March), if possible. Seeding requirements are provided in Section 3.3.

Structural Practices: Temporary construction exits will be constructed in accordance with the Tennessee Erosion and Sediment Control Handbook. The types of crushed stone selected to construct the structure will be based on TDEC's standard details. No temporary drainage pipes will be required.

Responsible Party: The site Operator (Contractor) will be responsible for the implementation, maintenance, and inspection of the SWPPP structural practices for the duration of construction. Inspections will be performed by personnel meeting the requirements provided in Section 4.4.5.

3.2.2 Clearing and Grubbing

General Requirements: Clearing and grubbing must be held to the minimum necessary for grading and equipment operation. EPSC structures must be in place and functional before demolition, clearing, grubbing, excavation, grading, cutting or filling occurs, except as such work may be necessary to install EPSC measures. Project plans, proposal contract, and standard details referenced in the project plans provide additional information regarding requirements for EPSC and protection of waters of the State and the United States.

Stabilization: Interim and permanent stabilization practices at site-specific locations are detailed on the EPSC plans in **Appendix A**. Only the areas where grading and earth-moving activities are planned within 14 days will be cleared unless they are to be subsequently seeded and/or mulched or other temporary cover is installed. Stabilization practices rely primarily on seeding with mulch of cleared and grubbed areas prior to other construction activities. Temporary seeding will be accomplished by using seed groups adapted for germination and growth during the subject season. Avoid planting cover vegetation during winter months (December – March), if possible. Seeding requirements are provided in Section 3.3.

Structural Practices: Structural practices include installation of silt fence, sediment tube checks, inlet and culvert protection, and construction of rock check dams in drainage ditches. These items will be installed prior to and during clearing operations. Silt fences, sediment tube checks, and rock check dams will generally be installed parallel to slopes, but the ends of the fences and checks may turn slightly perpendicular and run up the slope to prevent bypass flows and ensure protection at those locations.

During the Clearing and Grubbing phase, including the proposed demolition work, no major grading work is proposed, and site drainage will follow existing drainage patterns.

Responsible Party: The site Operator (Contractor) will be responsible for the implementation, maintenance, and inspection of the SWPPP structural practices during this construction activity. Inspections will be performed by personnel meeting the requirements provided in Section 4.4.5.

3.2.3 Grading and Excavation

General Requirements: Project plans, proposal contract, and standard details referenced in the project plans provide additional information regarding requirements for EPSC and protection of waters of the State and the United States.

Stabilization Practices: Stabilization practices for this sequence includes backfilling excavated locations to final grade with approved backfill to final grade and stabilizing during construction with stone surfacing, seeding and mulching (if needed), and/or installation of erosion control blankets as operations allow. Stabilization measures shall be initiated as soon as practicable on portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity on that portion of the site has temporarily or permanently ceased, except in the following two situations:

1. Where the initiation of stabilization measures is precluded by snow cover or frozen ground conditions or adverse soggy conditions, stabilization measures shall be initiated as soon as practicable;
2. Where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within 14 working days, temporary stabilization measures do not have to be initiated on that portion of the site.

Temporary or permanent stabilization will be completed within 14 days of final grading or earth-moving activities; areas with steep slopes (≥ 35%) are to be stabilized within 7 days, if applicable. Permanent or Temporary seeding will be accomplished by using seed groups adapted for germination and growth during the subject season. Avoid planting cover vegetation during winter months (December – March), if possible.

Structural Practices: Structural practices for grading and excavation will include the installation of silt fence and sediment tube checks, inlet and culvert protection, and construction of rock check dams in drainage ditches. Silt fences, sediment tube checks and rock check dams will generally be installed parallel to slopes, but the ends of the fences and checks may turn slightly perpendicular and run up the slope to prevent bypass flows and ensure protection at those locations.

Sequence of Grading: During the initial site clearing/grubbing and demolition activities within the D4 plant area, site runoff will follow existing drainage patterns, with mainly sheet flow and infiltration across the relatively flat site. However, once grading operations begin, the site will be graded to direct runoff toward the 8 outfalls shown on Figure 2. During the interim grading and final (proposed) grading conditions, drainage areas to each outfall are not to exceed 5 acres. To limits drainages areas to each outfall from exceeding 5 acres, the basement void area is to be graded as follows:

1. Prior to filling in basement void area to final proposed grades, a dewatering structure is to be utilized on site to filter stormwater that ponds in the void and discharge water to either outfall DA-4, DA-3A, or DA-3C as shown in Figure 2.
2. Prior to redirecting stormwater from the basement void area to a different outfall, notice and approval to the TVA environmental representative must be completed before redirecting stormwater.
3. Only after all grading work has been completed and final stabilization has been achieved for the indicated areas on sheet SK-EC03, can the basement void area be filled to final grades and immediately stabilized.

Responsible Party: The site Operator (Contractor) will be responsible for the implementation, maintenance, and inspection of the SWPPP structural practices during this construction activity. Inspections will be performed by personnel meeting the requirements provided in Section 4.4.5.

3.3 FINAL STABILIZATION

General Requirements: Project plans, proposal contract, and standard details referenced in the project plans provide additional information regarding requirements for erosion and siltation control and protection of waters of the State and the United States.

Stabilization Practices: Final stabilization of disturbed site areas will be accomplished using rip rap, gravel, paving, seeding/mulching, and/or sodding, as directed by the plans and specifications and required by field conditions encountered.

Permanent or temporary seeding will be accomplished by using seed groups adapted for germination and growth during the subject season. Avoid planting cover vegetation during winter months (December – March), if possible. Stabilization will be completed within 14 days after final grading or earth moving activities have ceased.

Table 4. Acceptable Seeding Mixtures

Seed Mixtures	Hydroseed Rate (pounds/acre PLS*)
Application Period: February 1 to November 15	
German Millet (Annual)	15
Bermuda Grass	15
Alfalfa	20
White Sweet Clover	5
Red Clover	5
Perennial Rye	30
Fescue (Endophyte free)	25
Weeping Lovegrass	3
Application Period: November 15 to February 1	
Winter Wheat	60
Temporary Seed Mix	
Annual Rye	60

* PLS Pure Live Seed is determined by multiplying the percent germination of the seed times the percent purity.

Structural Practices: All permanent structural practices have been completed at this point of the project. After final stabilization has been achieved all silt fence, linear sediment tubes, rock check dams and/or sediment tube checks, and other applicable EPSC measures will be removed to prevent them from becoming pollutants.

Responsible Party: The site Operator (Contractor) will be responsible for the implementation, maintenance, and inspection of the SWPPP structural practices during this construction activity. Inspections will be performed by personnel meeting the requirements provided in Section 4.4.5.

3.4 POST-CONSTRUCTION

The Owner does not anticipate any project-derived pollutants will occur after construction operations have been completed. The stabilized site and grassed waterways should not present a significant increase in runoff or pollutants into the receiving waterway. Although the permit does not require maintenance and operation of the storm water management measures after discharges associated with construction activities have been eliminated from the site, the Owner will provide for routine maintenance of facilities.

3.4.1 Pollutant Controls

Procedures will include debris removal from drainage structures and trash removal and disposal from the installed facilities. Maintenance of drainage swales and conveyance pipes and structures will be the responsibility of the Owner.

3.4.2 Velocity Controls

The project includes the installation of rip rap slope protection and rip rap aprons at the site drainage outlets to reduce velocities of the flows exiting the site. Post-construction runoff will be lower than the existing runoff due to decreased CN of the gravel surface compared to the paved existing surfaces and structures.

4.0 STORM WATER MANAGEMENT

4.1 REQUIRED RECORDS

The site Operator (Contractor) will maintain at the site the following records of construction activities:

1. The dates when major grading activities occur;
3. The dates when construction activities temporarily or permanently cease on a portion of the site;
4. The dates when stabilization measures are initiated;
5. Records of inspections and corrective measures, including photographs of representative items requiring correction and the corrective action taken for it; and
6. Detailed records of rainfall events including dates, amounts of rainfall, and the approximate duration or starting and ending times (see **Appendix E** for sample form). Use of a reference site for a record of daily precipitation will be acceptable.

The site Operator (Contractor) shall maintain a copy of the SWPPP, including any modifications, at all times.

4.2 RAINFALL MONITORING PLAN

EPSC measures and devices are utilized to minimize the dislodging and suspension of soil in runoff and to retain mobilized sediment on-site. Storm water runoff is directly proportional to the intensity and duration of a given rainfall event. Rainfall monitoring is necessary to estimate the effectiveness of EPSC measures and devices at the construction site. The intent of the plan is to provide a means to record the volume of rainfall and the time in which it fell to estimate the intensity of the rainfall event. Permittees shall maintain a rain gauge and daily rainfall records at the site or use a reference site for a record of daily amount of precipitation.

4.2.1 Equipment

If an on-site rain gauge is used, the following requirements shall be met. At a minimum, a fence post type rain gauge will be used to measure rainfall. The standard fence post rain gauge shall be a wedge-shaped gauge that measures up to six (6) inches (150mm) of rainfall (e.g. Tru-Chek® Direct-Reading Rain Gauge). Both English and metric scales should be provided on the face, with graduations permanently molded in the body of the gauge. The minimum graduations shall be 0.05 inch (1 mm). An aluminum bracket with screws may be used for mounting the gauge on a wooden support.

4.2.2 Location

The rain gauge will be located at or along the project site, in an open area such that the measurement will not be influenced by outside factors (i.e. overhangs, gutters, trees, etc).

4.2.3 Methods

The rain gauge or reference site data shall be checked after every rainfall event occurring on the project site. Detailed records of the rainfall event(s) including dates, amounts of rainfall, and the approximate duration or starting and ending times shall be maintained.

4.3 MAINTENANCE

Maintenance activities will be undertaken to ensure that vegetation, erosion and sediment control measures, and other protective measures identified in the site EPSC Plans are kept in good and effective operating condition. Maintenance needs identified in inspections or by other means shall be accomplished before the next storm event, but in no case more than 7 days after the need is identified. The need for maintenance will be determined through the inspection procedures listed below and will include, but not be limited to, the following practices:

1. Observation of control measures to determine compliance with the manufacturer's specifications and good engineering practices for installation and use of the control;
2. Removal of off-site sediment accumulations from the project site that have not reached a sinkhole and/or stream such that off-site impacts are minimized (Note: Sediment accumulations from the project site that have reached sinkholes and/or streams must not be removed until after consultation with TDEC);
3. Removal of sediment from silt fence, and other sediment controls when the storage capacity has been reduced by 50 percent; and
4. Pickup or otherwise prevention of litter, construction debris, and construction chemicals from becoming a pollutant source prior to anticipated storm events.

In addition to the practices listed above, the project will be inspected as required by this SWPPP to ensure the maintenance and effectiveness of the EPSC measures. A Sequence of Control Measure Implementation, Maintenance, and Removal log is provided in **Appendix E**.

4.4 INSPECTION

The inspection schedule and documentation procedures have been designed to ensure that vegetation, erosion and sediment control measures, and other protective measures identified in the SWPPP are kept in good and effective operating condition. If the site description and pollution prevention measures in the SWPPP need to be revised based on the results of the inspection, those revisions will be completed as appropriate, but no later than 7 calendar days following the inspection identifying the need.

4.4.1 Schedule

Our review of the TDEC's current 303(d) List indicates that the project **will** discharge to bodies of water listed for siltation or habitat alteration and into an MS4 and **will not** discharge to waters with an approved TMDL **nor** into Exceptional Tennessee Water. The schedule for EPSC inspections will be as follows:

1. A site assessment shall be performed to verify the installation, functionality and performance of the EPSC measures described in the SWPPP. If structural BMPs (or equivalent EPSC measures) are not constructed or construction is in progress at the time of the site assessment, a follow-up monthly assessment(s) are required until the BMPs are constructed per the SWPPP. The site assessment should be performed with the inspector and should include a review and update (if applicable) of the SWPPP.
2. Since the area of the combined on-site drainage basins of Outfall No. 1 is larger than 5 acres and within proximity to waters with unavailable parameters for siltation (McKellar Lake), a Site Assessment must be performed as specified by the requirements of the General NPDES Permit issued for this construction. At a minimum, Site Assessments will be performed per Section 3.1.2 of the General Permit, TNR100000.

Each Site Assessment should verify installation, functionality, and performance of the SWPPP EPSC measures. Each Site Assessment should be performed with the appropriately certified inspector and include a review and update (if applicable) of the SWPPP. The Site Assessment findings should be documented and kept with the SWPPP at the site. The documentation should at least include the inspection form, printed name/signature of the individual performing the Site Assessment, and certification statement. Additional Site Assessments may be required if the inspection conditions have the potential of causing pollution to the waters of the State.

3. Inspections shall be performed at least twice per calendar week and at least 72 hours apart. Where sites or portions of construction sites have been temporarily stabilized, inspections only have to be conducted once per month until construction activity resumes. Written notification of the intent to change the inspection frequency and the justification for such request must be submitted to the division's Nashville Central Office for projects of the Tennessee Valley Authority (TVA). Should the division discover that monthly inspections of the site are not appropriate due to insufficient stabilization measures or otherwise, twice weekly inspection shall resume. The division may inspect the site to confirm or deny the notification to conduct monthly inspections.

Inspections shall continue until the site is fully constructed and all disturbed areas not paved, concreted, or covered by stone are permanently stabilized with a uniform (e.g., evenly distributed, without large bare areas) perennial vegetative cover with a density of 70 percent.

4.4.2 Documentation Requirements

Inspections will be documented in writing and include the following:

1. Scope of the inspection;
2. Name(s) and title or qualifications of personnel making the inspection;
3. The date(s) of the inspection;
4. Major observations relating to the implementation of the SWPPP, including the location(s) of discharges of sediment or other pollutants from the site and of any control devices that failed to operate as designated or proved inadequate for a particular location; and
5. Actions taken to replace, modify, or repair any control measures identified as inadequate or in disrepair during inspections.

All inspections shall be documented on the Construction Storm Water Inspection Certification form provided in **Appendix F** of this SWPPP.

4.4.3 Areas to be Inspected

Qualified personnel will inspect disturbed areas of the project site that have not been finally stabilized for evidence of, or the potential for, pollutants to enter the drainage system. These areas include, but are not limited to, the following:

1. Disturbed areas and areas used for storage of materials that are exposed to precipitation;
2. EPSC measures identified in the SWPPP;
3. Outfall points (where discharges leave the site or enter waters of the State). Where outfall locations are inaccessible, the nearest possible downstream locations shall be inspected;

4. Locations where vehicles enter or exit the site shall be inspected for evidence of off-site sediment tracking; and
5. Fueling station(s) on-site (if applicable – See Section 5.3).

These inspection requirements do not apply to definable areas of the site that have met the final stabilization requirement and have been noted in the SWPPP as described in Subpart 3.1 of the permit. Written notification of the intent to change the inspection frequency and the justification for such request must be submitted to the division's Nashville Central Office for projects of the TVA.

4.4.4 Repairs, Modifications, and Revisions

Based on the results of the inspection, any inadequate control measures or control measures in disrepair shall be replaced or modified, or repaired as necessary, before the next storm event, but in no case more than 7 days after the need is identified.

4.4.5 Inspector Training and Certification

Inspectors performing the required twice weekly inspections must meet one of the following qualifying requirements:

1. A person with a valid certification from the "Fundamentals of EPSC Level I" course;
2. A licensed professional engineer or landscape architect;
3. A Certified Professional in Erosion and Sediment Control (CPESC); or,
4. A person who has successfully completed the "Level II Design Principles for EPSC for Construction Sites" course.

A copy of the certification, or training record for inspector certification, must be kept on site with the SWPPP.

Personnel performing required Site Assessments must meet the requirements of either Item 2, 3, or 4 listed above.

5.0 OTHER ITEMS REQUIRING CONTROL

5.1 CONSTRUCTION MATERIALS

Construction materials that are anticipated to be present at this construction site include:

- Earth
- Rock
- Concrete/Grout
- Asphalt
- Seed and Mulch
- Construction Vehicles / Heavy Equipment
- Demolition Materials / Construction Waste
- Recycled Concrete

Stockpiled erodible construction materials will be protected by control measures down gradient of the stockpiles. Other materials necessary for this project will be placed in a staging area away from storm water conveyances until they are installed. The Operator may keep several portable storage units on the project site to store construction equipment.

5.2 WASTE MATERIALS

Waste material (earth, rock, asphalt, concrete, etc.) not required for the construction of the project shall be disposed of by the Operator. The Operator will be required to obtain all necessary permits.

5.3 OTHER MATERIALS

Other materials not used for construction but needed for construction at the proposed site must also be controlled to prevent pollution of the receiving waters. These items include, but are not limited to, the storage and dispensing of the following:

- Fertilizers and Lime
- Diesel and Gas
- Machinery Lubricants (oil and grease)
- Cleaning Solvents

Soils at fueling stations should be checked daily for signs of spillage or staining of the soil. A drip bucket and spill kit will be present at all times when fueling operations are taking place. Any fixed fueling station/tank storage shall have a containment system to prevent runoff by potential spills or tank rupture. Machinery should be serviced or repaired to prevent leaks of fluids.

The Operator will be responsible for compliance with all applicable Environmental Protection Agency (EPA) and United States Department of Transportation (USDOT) guidelines regarding equipment-related fluids as well as all

National Fire Protection Association regulations regarding flammable liquids. No construction materials or equipment are expected to produce pollutant runoff.

5.4 NON-STORM WATER DISCHARGES

The following non-storm water discharges have potential for occurring from the site during the construction period:

1. Groundwater may be intercepted during the construction of this project. While these locations are yet unknown, the SWPPP will be modified to incorporate these areas should they arise;
2. The use of wash waters to clean and remove construction generated soils from roadways (where there have been no spills or leaks of toxic or hazardous materials);
3. Dust suppression water used on haul routes and exposed soils;
4. Water used to wash vehicles (where detergents are not used, and detention and/or filtering are provided before the water leaves the site).

All non-storm water discharges will be directed to appropriate BMPs, if required, prior to leaving the site. Wash down or waste discharge of concrete trucks will not be permitted on-site unless a proper settlement area has been constructed in accordance with both state and federal regulations.

6.0 REQUIREMENTS FOR PLANS AND REPORTS

6.1 KEEPING SWPPP CURRENT

The Owner will amend the SWPPP when any of the following conditions apply:

1. Whenever there is a change in the scope of the project that would be expected to have a significant effect on the discharge of pollutants to the waters of the State and which has not otherwise been addressed in the SWPPP;
2. Whenever inspections or investigations by site Operators, local, state, or federal officials indicate the SWPPP is proving ineffective in eliminating or significantly minimizing pollutants from construction activity sources, or is otherwise not achieving the general objectives of controlling pollutants in storm water discharges associated with construction activity;
3. When any new Operator (Contractor) and/or sub-Operator (Subcontractor) is assigned or relieved of their responsibility to implement a portion of the SWPPP; and
4. When the SWPPP must be modified to prevent a negative impact to legally protected state or federally listed or proposed threatened or endangered aquatic fauna.

6.2 MAKING PLANS ACCESSIBLE

The Operator (Contractor) will retain a copy of this SWPPP (including a copy of the permit language and all reports) at the construction site (or other local location accessible to TDEC and the public) from the date construction commences to the date of final stabilization. The Operator (Contractor) who will have operations control over daily pollution prevention plan implementation will have a copy of the SWPPP available at the location where work is occurring on-site for the use of operators and those identified as having responsibilities under the SWPPP whenever they are on the construction site.

Prior to the initiation of land disturbing activities and until the site has met the final stabilization criteria, the Operator (Contractor) will post a notice near the main entrance of the construction site with the following information:

1. A copy of the Notice of Coverage (NOC) with the NPDES permit number for the project - see **Appendix G**;
2. The name, telephone number, and address of a local TVA contact person – see **Appendix H**;
3. A brief description of the project; and
4. The location of the SWPPP (especially important if the site is inactive or does not have an on-site location at which to store the SWPPP).

If posting this information near a main entrance is infeasible due to safety concerns, the notice shall be posted in a local building and maintained in a legible condition. The notice must be placed in a publicly accessible location where construction is actively underway and moved as necessary. The Owner understands that this permit does not provide the public with any right to trespass or require that the Owner allow members of the public to access a construction site for any reason, including inspection of a site.

6.3 NOTICE OF TERMINATION

When all storm water discharges from construction activities that are authorized by the permit are eliminated by final stabilization, the Owner will submit a Notice of Termination (NOT) that is signed in accordance with the permit. For the purposes of the certification required by the NOT, the elimination of storm water discharges associated with the construction activity is understood to mean the following:

1. That all disturbed soils at the portion of the construction site where the Operator (Contractor) had control have been finally stabilized;
2. Temporary erosion and sediment control measures are no longer necessary and have been removed; or
3. That all storm water discharges associated with construction activities from the identified site that are authorized by an NPDES general permit have otherwise been eliminated from the portion of the construction site where the Operator (Contractor) had control.

The NOT will be submitted on the TDEC's NOT form provided in **Appendix G** of this SWPPP.

6.4 RETENTION OF RECORDS

The Owner will retain copies of the SWPPP, all reports required by the permit, and records of all data used to complete the Notice of Intent for the project for a period of at least three (3) years from the date the NOT was filed. The Owner is aware the period may be extended by written request of the Director.

7.0 CERTIFICATIONS

OWNER'S CERTIFICATION

"I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16- 702(a)(4), this declaration is made under penalty of perjury."

OWNER – Tennessee Valley Authority

Signed: _____ 03/08/2024
Date

Print: M. Scott Turnbow

STORM WATER POLLUTION PREVENTION PLAN – REVISION 1
ALF D4 PLANT RETIREMENT / DECOMMISSIONING & PLANT SITE RESTORATION

February 28, 2024

OPERATOR'S CERTIFICATION

"I certify under penalty of law that that I have reviewed this document, any attachments, and the SWPPP referenced above. Based on my inquiry of the construction site owner/developer identified above and/or my inquiry of the person directly responsible for assembling this NOI and SWPPP, I believe the information submitted is accurate. I am aware that this NOI, if approved, makes the above-described construction activity subject to NPDES permit number TNR100000, and that certain of my activities on-site are thereby regulated. I am aware that there are significant penalties, including the possibility of fine and imprisonment for knowing violations, and for failure to comply with these permit requirements. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury."

General Contractor: Fisher Contracting — Richard Crowe

Signed: _____ 3/20/24
Date

General Contractor: Brandenburg Industrial Service Company

Signed: _____ 3/20/24
Date

General Contractor: _____

Signed: _____ _____
Date

General Contractor: _____

Signed: _____ _____
Date

STORM WATER POLLUTION PREVENTION PLAN – REVISION 1
ALF D4 PLANT RETIREMENT / DECOMMISSIONING & PLANT SITE RESTORATION

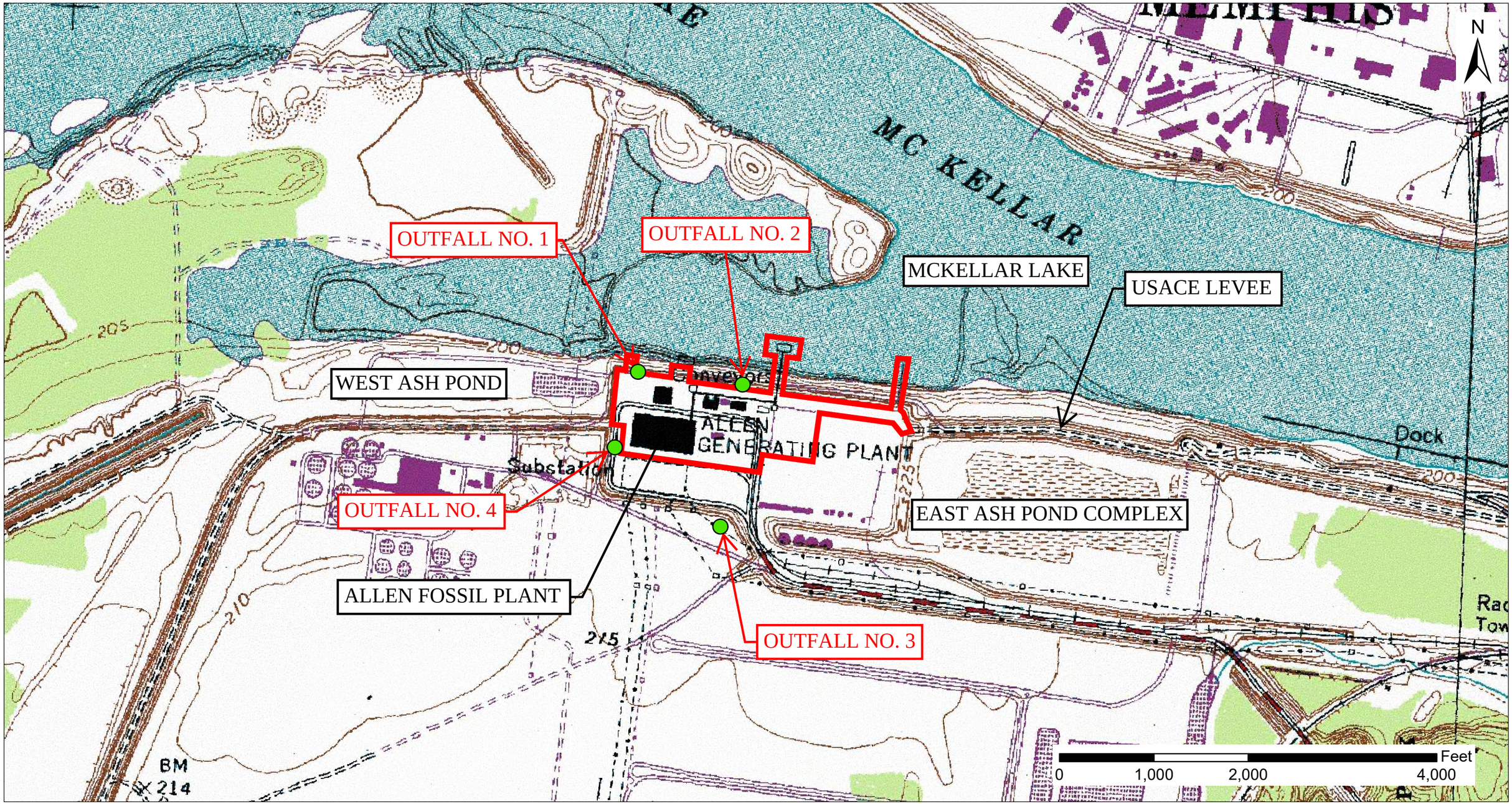
February 28, 2024

ENGINEER'S CERTIFICATION

I, Bradley Polanco, certify that this SWPPP and accompanying drawings were prepared under my responsible charge.

Signature	TN License No.	Date
Bradley Polanco	125937	3/5/2024

Figure 1
USGS TOPOGRAPHIC MAP



\\US0229-PPFS01\work_group\175S\active\175578052\gis\mxds\TVA Allen Fossil Plant - D4_c1-site.mxd
Revised: 2024-01-25 By: jucampbell

January 2024
Project No. 172676009

Stantec

Notes

1. Coordinate System: NAD 1983 NSRS2007 StatePlane Tennessee FIPS 4100 Ft US
2. Topographic data: USGS (24K)

Legend

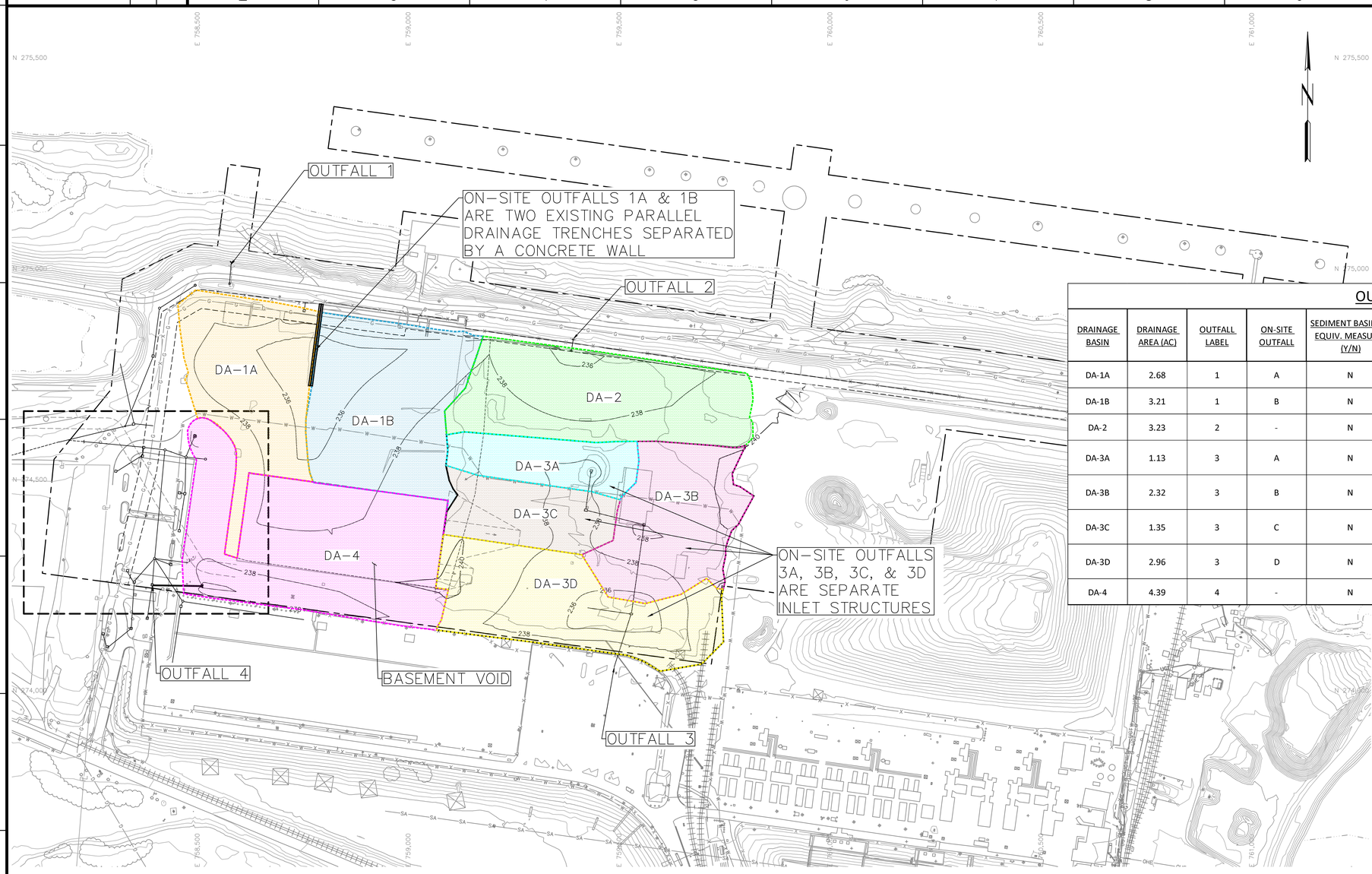
- Outfall Points
- Limits of Construction

Client/Project
Tennessee Valley Authority
Allen Fossil Plant
Shelby County, Tennessee

Figure No.
01

Title
TVA Allen Fossil Plant
D4 Plant Decommissioning /
Site Restoration SWPPP

Figure 2
DRAINAGE AREA MAP



OUTFALL INFORMATION

DRAINAGE BASIN	DRAINAGE AREA (AC)	OUTFALL LABEL	ON-SITE OUTFALL	SEDIMENT BASIN OR EQUIV. MEASURES (Y/N)	SEDIMENT TRAP (Y/N)	RECEIVING NATURAL RESOURCE (CLASSIFICATION)	COMMENTS
DA-1A	2.68	1	A	N	N	McKELLAR LAKE (IMPAIRED WATERS)	DRAINING TO WEST TRENCH THEN TO EXISTING STORMWATER POND
DA-1B	3.21	1	B	N	N	McKELLAR LAKE (IMPAIRED WATERS)	DRAINING TO EAST TRENCH THEN TO EXISTING STORMWATER POND
DA-2	3.23	2	-	N	N	McKELLAR LAKE (IMPAIRED WATERS)	NONE
DA-3A	1.13	3	A	N	N	HORN LAKE CUTOFF (NON-IMPAIRED WATERS)	MULTIPLE INLET STRUCTURES WITHIN DA-3 TO HAVE INLET PROTECTION THROUGHOUT CONSTRUCTION
DA-3B	2.32	3	B	N	N	HORN LAKE CUTOFF (NON-IMPAIRED WATERS)	MULTIPLE INLET STRUCTURES WITHIN DA-3 TO HAVE INLET PROTECTION THROUGHOUT CONSTRUCTION
DA-3C	1.35	3	C	N	N	HORN LAKE CUTOFF (NON-IMPAIRED WATERS)	MULTIPLE INLET STRUCTURES WITHIN DA-3 TO HAVE INLET PROTECTION THROUGHOUT CONSTRUCTION
DA-3D	2.96	3	D	N	N	HORN LAKE CUTOFF (NON-IMPAIRED WATERS)	MULTIPLE INLET STRUCTURES WITHIN DA-3 TO HAVE INLET PROTECTION THROUGHOUT CONSTRUCTION
DA-4	4.39	4	-	N	N	McKELLAR LAKE (IMPAIRED WATERS)	DEWATERING FROM EXISTING BASEMENT VOID TO BE DISCHARGED TO OUTFALL 4

50 0 100 200 FEET
GRAPHIC SCALE: 1" = 100'
CONTOUR INTERVAL = 2 FEET

FOR SUPPORTING DESIGN CALCULATIONS SEE GENERALFGENCDX0003002021000003

Stantec
601 Grassmere Park Road, Suite 22
Nashville, Tennessee 37211
www.stantec.com

R – | R B 02/28/2024 | HCE | MH | JCP | TMM | N/A | N/A | TVA | 609669 | – | D

SCALE: 1"=100' EXCEPT AS NOTED

YARD
D4 PLANT SITE

PLANT SITE RESTORATION
DRAINAGE BASINS

DESIGNED BY: | DRAWN BY: | CHECKED BY: | SUPERVISED BY: | REVIEWED BY: | APPROVED BY: | ISSUED BY:

ALLEN FOSSIL PLANT
TENNESSEE VALLEY AUTHORITY
FOSSIL AND HYDRO ENGINEERING

AUTOCAD R | DATE | 38 | C | DA001 | R B

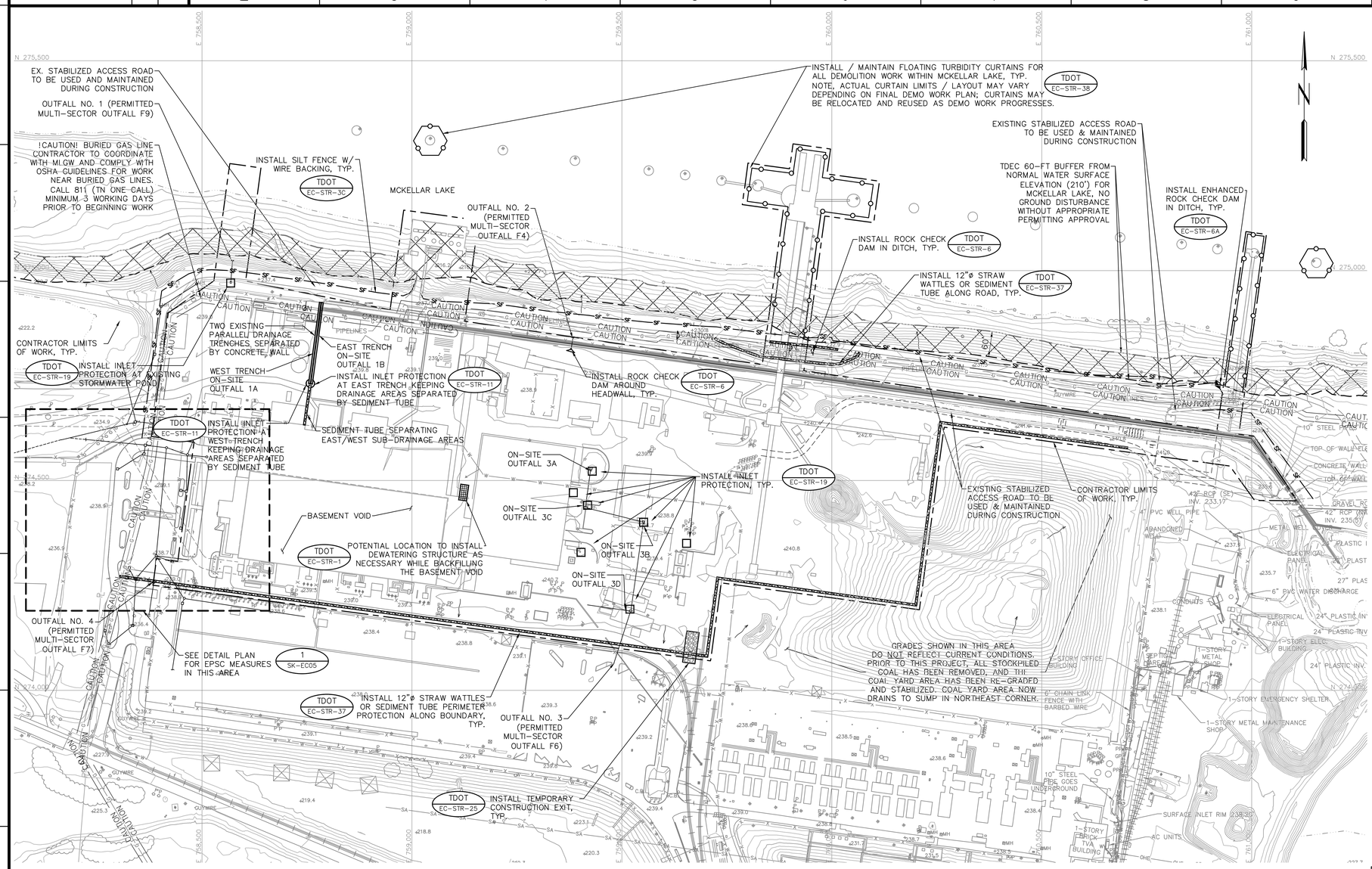
STANTEC | B
TASK COMPLETED BY: | REV NO.

PLOT FACTOR:1
W_TVA

C.A.D. DRAWING
DO NOT ALTER MANUALLY

PLOT DATE: 01/23/2024 USER: RDLANIG, BRAD
\\USR2229-PPSS01\SHARED_PROJECTS\376784251\TECHNICAL_PRODUCTION\DRAWINGS\SHEET_FILES\ALT7\VIEWS\SK-ECOD_DA.DWG

Appendix A
EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) PLANS



SURVEY CONTROL NOTE:

A GLOBAL POSITIONING SYSTEM (GPS) BASE STATION HAS BEEN ESTABLISHED AND TRANSFORMATION PARAMETERS DETERMINED BY TVA USING SELECTED SURVEY CONTROL MONUMENTS. CONTACT WITH TVA SURVEYING DEPARTMENT (423)751-8416 OR (423)751-2571 SHALL BE MADE BEFORE ANY SURVEY OR CONSTRUCTION WORK IS COMMENCED. BASE STATION FREQUENCIES AND TRANSFORMATION PARAMETERS WILL BE PROVIDED TO THE CONTRACTOR FOR USE IN CONSTRUCTION ACTIVITIES AT THE SITE. PREVIOUSLY USED OR ESTABLISHED CONTROL POINTS AND MONUMENTS SHALL NOT BE USED BY THE CONTRACTOR WITHOUT PRIOR APPROVAL BY TVA SURVEYING DEPARTMENT.

METADATA:

HORIZONTAL PROJECTION: PLANT LOCAL GROUND
PLANT LOCAL GROUND COORDINATES ARE BASED ON THE TENNESSEE NAD 27 STATE PLANE COORDINATE SYSTEM, BUT REPRESENT LOCATIONS ON THE GROUND. THEY ARE NOT EQUIVALENT TO GRID POSITIONS.
HORIZONTAL DATUM: LOCAL
VERTICAL DATUM: NGVD 29
H&V ACCURACY: GPS RTK
UNITS: US SURVEY FEET (SFT)

MAPPING SOURCE NOTE:

TOPOGRAPHIC MAPPING WAS OBTAINED FROM TUCK MAPPING SOLUTIONS, INC.
FLIGHT DATE: 03/11/2014; COMPLETION DATE: 08/25/2014
ADDITIONAL TOPOGRAPHIC INFORMATION WAS OBTAINED/CONFIRMED BY ALLEN & HOSHALL, INC. DATED 06/29/2016

ADDITIONAL (NON-SURVEYED) TOPOGRAPHIC AND PLANIMETRICS FOR THE EXISTING RIP-RAP SEDIMENT BASIN ARE TAKEN FROM DESIGN INFORMATION PER TVA DRAWING 10W230-03. APPROXIMATE LIMITS AND ELEVATIONS OF EXISTING PLANT BUILDING BASEMENT ARE TAKEN FROM TVA-PROVIDED BUILDING ARCHITECTURAL PLANS DATED 11/16/1958. STORMSEWER PIPES FROM TVA DRAWING 10W247-1 HAVE BEEN ADDED TO THE PLANIMETRICS.

DATA FOR THE "DOZER" BUILDING, DISCHARGE CHANNEL, AND CONCRETE PADS WEST OF THE DISCHARGE CHANNEL WAS PROVIDED IN CAD AND POINT DATA FORMAT BY OTHERS (9/7/23). THE DATA HAS BEEN ADDED TO THE TOPOGRAPHIC DIGITAL MODEL THAT PRODUCES THE EXISTING CONTOURS AND PROFILE LINEWORK.

RAMPS HAVE BEEN INSTALLED TO ACCESS THE BASEMENT. NO MEASUREMENTS ARE AVAILABLE, HOWEVER ESTIMATES FROM VISUAL OBSERVATION HAVE BEEN USED TO ESTIMATE THE APPROXIMATE OUTLINE OF THE EXCAVATED RAMP ON THE EAST SIDE OF THE BUILDING.

STAGE I EPSC NOTES:

1. PROJECT DISTURBED AREA = ±33.5 AC
2. STAKE OUT CLEARING LIMITS, BUFFERS, WETLANDS, ETC.
3. INSTALL FIRST: EROSION PREVENTION AND CONTROL MEASURES MUST BE IN PLACE AND FUNCTIONAL BEFORE ANY EARTH-MOVING OPERATIONS BEGIN.
4. INSTALL CONSTRUCTION EXITS, PERIMETER SILT FENCE, INLET PROTECTION, AND DEWATERING STRUCTURE IF NECESSARY.
5. CONDUCT INITIAL SITE ASSESSMENT MEETING WITH EROSION CONTROL INSPECTOR.
6. PROVIDE SITE ASSESSMENT FOR OUTFALL NO. 1 AS SPECIFIED BY THE REQUIREMENTS OF THE NPDES PERMIT ISSUED FOR THIS CONSTRUCTION, AT MINIMUM PER SECTION 3.2.1 OF THE CGP TNR100000.
7. PROVIDE TEMPORARY GRASSING/MULCHING @ 14 DAY INTERVALS.

LEGEND

- GAS VALVE
- GUYWIRE
- LIGHT POLE
- MANHOLE
- POST
- SANITARY MANHOLE
- SIGN
- SPOT ELEVATION
- TREE/SHRUB
- UTILITY POLE
- WATER METER
- WATER VALVE
- EDGE OF PAVED ROAD
- EDGE OF GRAVEL ROAD
- EDGE OF WATER
- FENCE LINE
- INDEX CONTOUR
- INTERMEDIATE CONTOUR
- RAILROAD TRACK
- OVERHEAD ELECTRIC LINE
- SANITARY LINE
- TELEPHONE LINE
- TREE LINE
- UNDERGROUND ELECTRIC LINE
- UNDERGROUND TELEPHONE LINE
- WATER LINE
- GAS LINE
- LIMITS OF CONSTRUCTION
- UTILITY/PROJECT BASELINE
- PROP. INDEX CONTOUR
- PROP. INTERMEDIATE CONTOUR
- DITCHLINE/EDGE OF WATER
- PROPOSED SEEDED AREA
- EROSION CONTROL BLANKET
- EROSION CONTROL BLANKET
- RIP RAP APRON
- GRAVEL ROAD / DRIVEWAY
- HIGH-VISIBILITY SAFETY FENCING
- SILT FENCE
- SEDIMENT TUBE
- ROCK CHECK DAM
- ENHANCED CHECK DAM
- INLET PROTECTION
- DEWATERING STRUCTURE

100% ISSUE FOR BID

50 0 100 200 FEET
GRAPHIC SCALE: 1" = 100'
CONTOUR INTERVAL = 2 FEET

SECTION OR DETAIL NO.
SHEET WHERE SHOWN
REFERENCE KEY

FOR SUPPORTING DESIGN CALCULATIONS SEE GENERALFGENCDX0003002021000003

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REV NO.	–	–	–	–	–	–	–	–	–	–	–
R B	02/28/2024	HCE	MH	XXX	TMM	N/A	N/A	TVA	609669	–	D

ISSUE FOR CONSTRUCTION

REV. NO.	DATE	DSGN	DRWN	CHKD	SUPV	RVWD	APPD	ISSD	PROJECT ID	AS CONST	REV ID

SCALE: 1"=100' EXCEPT AS NOTED

YARD
D4 PLANT SITE

PLANT SITE RESTORATION
EPSC PLAN
STAGE I – INITIAL

DESIGNED BY:	DRAWN BY:	CHECKED BY:	SUPERVISED BY:	REVIEWED BY:	APPROVED BY:	ISSUED BY:

ALLEN FOSSIL PLANT
TENNESSEE VALLEY AUTHORITY
FOSSIL AND HYDRO ENGINEERING

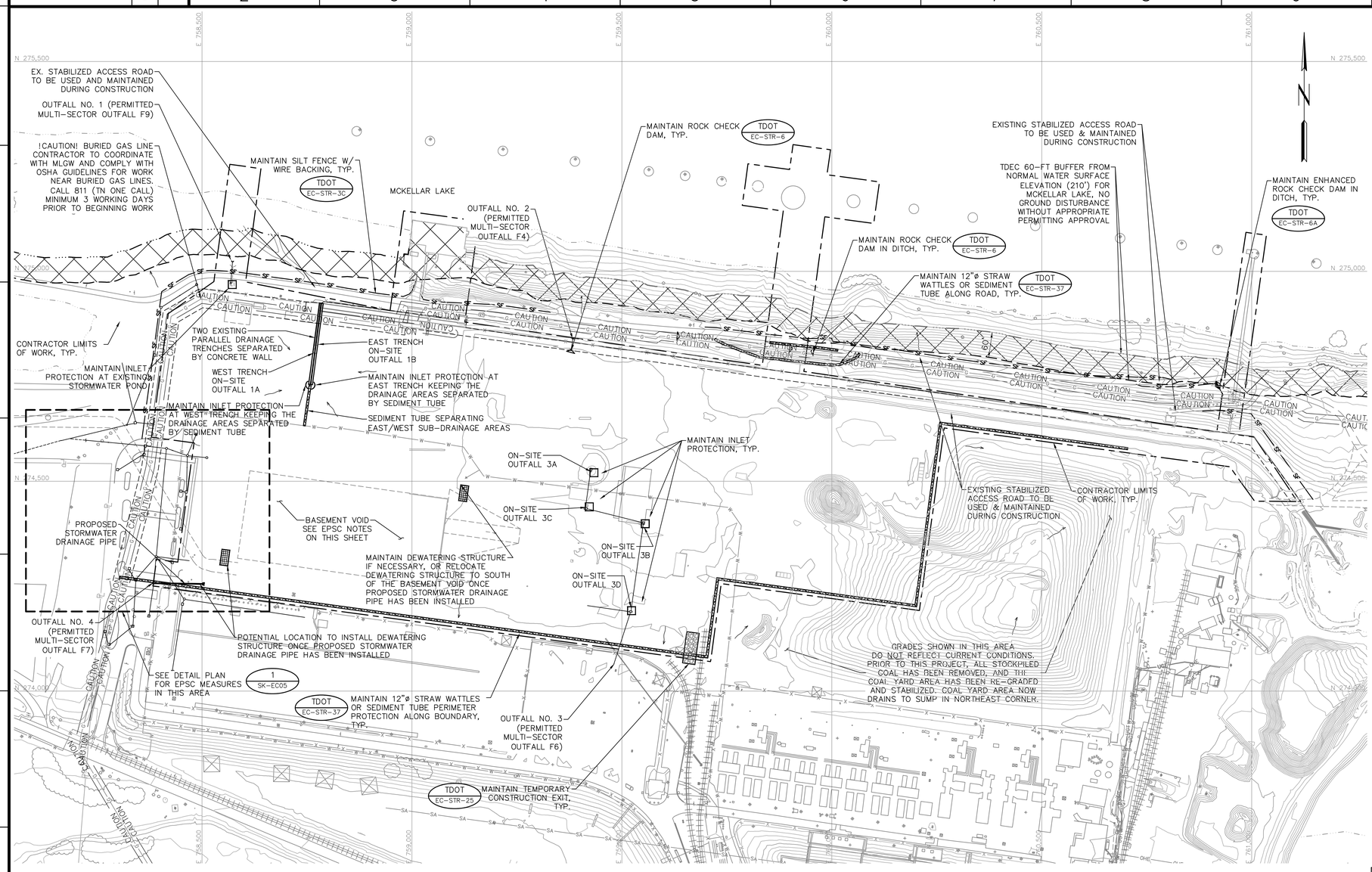
AUTOCAD R	DATE	38	C	SK-EC01	R B

PLOT FACTOR:1
W_TVA

C.A.D. DRAWING
DO NOT ALTER MANUALLY

STANTEC	B
TASK COMPLETED BY:	REV NO.

PLOT DATE: 02/28/2024, USER: RDLANCI, BRAD
\\US0229-PPFSS01\SHARED_PROJECTS\175378423\TECHNICAL_PRODUCTION\DRAWING\SHEET_FILES\ALT1\TVEVLVSK-EC01.DWG



SURVEY CONTROL NOTE:

A GLOBAL POSITIONING SYSTEM (GPS) BASE STATION HAS BEEN ESTABLISHED AND TRANSFORMATION PARAMETERS DETERMINED BY TVA USING SELECTED SURVEY CONTROL MONUMENTS. CONTACT WITH TVA SURVEYING DEPARTMENT (423)751-8416 OR (423)751-2571 SHALL BE MADE BEFORE ANY SURVEY OR CONSTRUCTION WORK IS COMMENCED. BASE STATION FREQUENCIES AND TRANSFORMATION PARAMETERS WILL BE PROVIDED TO THE CONTRACTOR FOR USE IN CONSTRUCTION ACTIVITIES AT THE SITE. PREVIOUSLY USED OR ESTABLISHED CONTROL POINTS AND MONUMENTS SHALL NOT BE USED BY THE CONTRACTOR WITHOUT PRIOR APPROVAL BY TVA SURVEYING DEPARTMENT.

METADATA:

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VERTICAL DATUM: NGVD 29
H&V ACCURACY: GPS RTK
UNITS: US SURVEY FEET (SFT)

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RAMPS HAVE BEEN INSTALLED TO ACCESS THE BASEMENT. NO MEASUREMENTS ARE AVAILABLE, HOWEVER ESTIMATES FROM VISUAL OBSERVATION HAVE BEEN USED TO ESTIMATE THE APPROXIMATE OUTLINE OF THE EXCAVATED RAMP ON THE EAST SIDE OF THE BUILDING.

STAGE II EPSC NOTES:

1. INSTALL APPROPRIATE TEMPORARY INLET/OUTLET PROTECTION AND MAINTAIN EPSC MEASURES FROM STAGE 1 – INITIAL EPSC PLAN.
2. BEGIN SITE DEMOLITION AND GRADING.
3. EXISTING BASEMENT VOID AREA NOT TO BE FILLED TO FINAL GRADES DURING THIS PHASE, ALLOWING THE CONTRIBUTING DRAINAGE AREA OF THE BASEMENT VOID BE PUMPED TO A DEWATERING STATION THAT DRAINS TO EITHER A) EXISTING STORMWATER INLETS OR B) TO THE PROPOSED STORMWATER DRAINAGE PIPE TO THE SOUTHWEST CORNER OF THE LIMITS OF DISTURBANCE. SEE NOTES ON PLAN VIEW FOR ADDITIONAL INFORMATION.
4. PRIOR TO REDIRECTING STORMWATER FROM THE BASEMENT VOID AREA TO A DIFFERENT OUTFALL, NOTICE AND APPROVAL TO THE TVA ENVIRONMENTAL REPRESENTATIVE MUST BE COMPLETED BEFORE REDIRECTING STORMWATER.
5. MAINTAIN TEMPORARY GRASSING @14 DAY INTERVALS, SILT FENCE, AND CONSTRUCTION ENTRANCE PER THIS PLAN AS THE WORK PROGRESSES.

LEGEND

- GAS VALVE
- GUYWIRE
- LIGHT POLE
- MANHOLE
- POST
- SANITARY MANHOLE
- SIGN
- 240.8 SPOT ELEVATION
- TREE/SHRUB
- UTILITY POLE
- WATER METER
- WATER VALVE
- EDGE OF PAVED ROAD
- EDGE OF GRAVEL ROAD
- EDGE OF WATER
- FENCE LINE
- 600 INDEX CONTOUR
- INTERMEDIATE CONTOUR
- RAILROAD TRACK
- OHE OVERHEAD ELECTRIC LINE
- SA SANITARY LINE
- T TELEPHONE LINE
- TREE LINE
- UGE UNDERGROUND ELECTRIC LINE
- UGT UNDERGROUND TELEPHONE LINE
- W WATER LINE
- G GAS LINE
- LIMITS OF CONSTRUCTION
- 390 PROP. INDEX CONTOUR
- PROP. INTERMEDIATE CONTOUR
- DITCHLINE/EDGE OF WATER
- PROPOSED SEEDED AREA
- EROSION CONTROL BLANKET
- TCE EROSION CONTROL BLANKET
- RIP RAP APRON
- GRAVEL ROAD / DRIVEWAY
- HIGH-VISIBILITY SAFETY FENCING
- SILT FENCE
- SEDIMENT TUBE
- ROCK CHECK DAM
- ENHANCED CHECK DAM
- INLET PROTECTION
- DEWATERING STRUCTURE

50 0 100 200 FEET
GRAPHIC SCALE: 1" = 100'
CONTOUR INTERVAL = 2 FEET

100% ISSUE FOR BID

SECTION OR DETAIL NO.
SHEET WHERE SHOWN
REFERENCE KEY

FOR SUPPORTING DESIGN CALCULATIONS SEE GENERALFGENCDX0003002021000003

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Nashville, Tennessee 37211
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REV	DATE	DSGN	DRWN	CHKD	SUPV	RVWD	APPD	ISSD	PROJECT ID	AS CONST
R B	02/28/2024	HCE	MH	XXX	TMM	N/A	N/A	TVA	609669	–

ISSUE FOR CONSTRUCTION

SCALE: 1"=100' EXCEPT AS NOTED

YARD
D4 PLANT SITE

PLANT SITE RESTORATION
EPSC PLAN
STAGE II – INTERMEDIATE

DESIGNED BY:	DRAWN BY:	CHECKED BY:	SUPERVISED BY:	REVIEWED BY:	APPROVED BY:	ISSUED BY:

ALLEN FOSSIL PLANT
TENNESSEE VALLEY AUTHORITY
FOSSIL AND HYDRO ENGINEERING

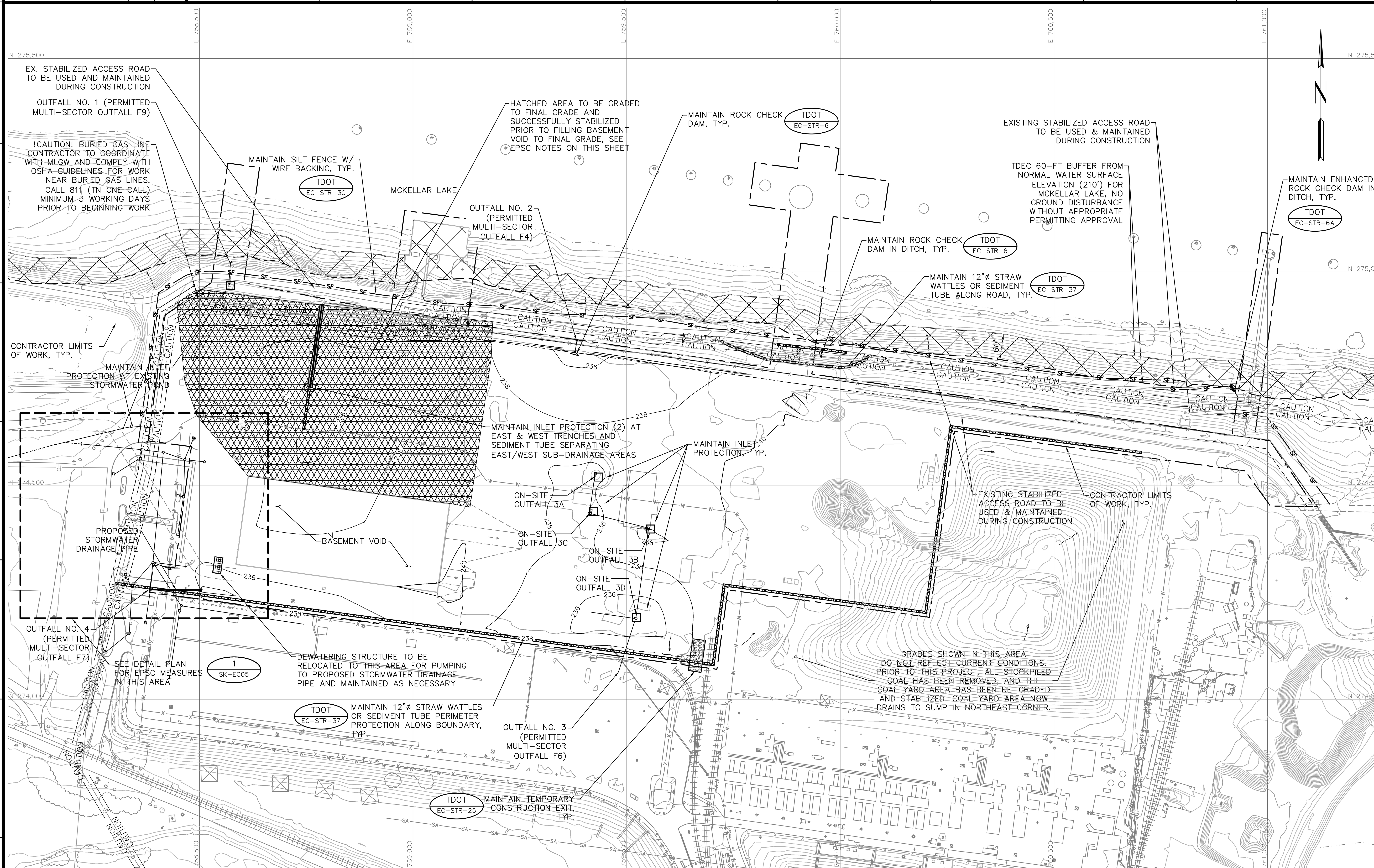
AUTOCAD R | DATE | 38 | C | SK-EC02 | R B

PLOT FACTOR:1
W_TVA

C.A.D. DRAWING
DO NOT ALTER MANUALLY

STANTEC | B
TASK COMPLETED BY: | REV NO.

PLOT DATE: 02/28/2024 USER: RDLANCE, BRAD
\\VA5CD229-PPSS01\SHARED_PROJECTS\175379425\TECHNICAL_PRODUCTION\DRAWINGS\SHEET_FILES\MLP17VER01\SK-EC02.DWG



SURVEY CONTROL NOTE:

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METADATA:

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HORIZONTAL DATUM: LOCAL
VERTICAL DATUM: NGVD 29
H&V ACCURACY: GPS RTK
UNITS: US SURVEY FEET (SFT)

MAPPING SOURCE NOTE:

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RAMPS HAVE BEEN INSTALLED TO ACCESS THE BASEMENT. NO MEASUREMENTS ARE AVAILABLE, HOWEVER ESTIMATES FROM VISUAL OBSERVATION HAVE BEEN USED TO ESTIMATE THE APPROXIMATE OUTLINE OF THE EXCAVATED RAMP ON THE EAST SIDE OF THE BUILDING.

STAGE III EPSC NOTES:

1. MAINTAIN APPROPRIATE TEMPORARY INLET/OUTLET PROTECTION AND MAINTAIN EPSC MEASURES FROM STAGE I - INITIAL EPSC PLAN AND II - INTERMEDIATE EPSC PLAN.
2. CONTINUE SITE DEMOLITION AND GRADING
3. PRIOR TO FILLING BASEMENT VOID TO FINAL GRADE, HATCHED AREA NORTH OF BASEMENT VOID TO BE GRADED TO FINAL GRADE AND SUCCESSFULLY STABILIZED WITH CRUSHED STONE
4. MAINTAIN TEMPORARY GRASSING @14 DAY INTERVALS, SILT FENCE, AND CONSTRUCTION ENTRANCE PER THIS PLAN AS THE WORK PROGRESSES.

LEGEND

GAS VALVE
GUYWIRE
LIGHT POLE
MANHOLE
POST
SANITARY MANHOLE
SIGN
SPOT ELEVATION
TREE/SHRUB
UTILITY POLE
WATER METER
WATER VALVE
EDGE OF PAVED ROAD
EDGE OF GRAVEL ROAD
EDGE OF WATER
FENCE LINE
INDEX CONTOUR
INTERMEDIATE CONTOUR
RAILROAD TRACK
OVERHEAD ELECTRIC LINE
SANITARY LINE
TELEPHONE LINE
TREE LINE
UNDERGROUND ELECTRIC LINE
UNDERGROUND TELEPHONE LINE
WATER LINE
GAS LINE
LIMITS OF CONSTRUCTION
UTILITY/PROJECT BASELINE
PROP. INDEX CONTOUR
PROP. INTERMEDIATE CONTOUR
DITCHLINE/EDGE OF WATER
PROPOSED SEEDED AREA
EROSION CONTROL BLANKET
EROSION CONTROL BLANKET
RIP RAP APRON
GRAVEL ROAD / DRIVEWAY
HIGH-VISIBILITY SAFETY FENCING
SILT FENCE
SEDIMENT TUBE
ROCK CHECK DAM
ENHANCED CHECK DAM
INLET PROTECTION
DEWATERING STRUCTURE
HATCHED AREA TO BE GRADED TO FINAL GRADE AND SUCCESSFULLY STABILIZED PRIOR TO FILLING BASEMENT VOID TO FINAL GRADE

100% ISSUE FOR BID

GRAPHIC SCALE: 1" = 100'
CONTOUR INTERVAL = 2 FEET

SECTION OR DETAIL NO.
SHEET WHERE SHOWN
REFERENCE KEY

FOR SUPPORTING DESIGN CALCULATIONS SEE GENERALFGENCDX0003002021000003

REV. NO.	DATE	DSGN	DRWN	CHKD	SUPV	RVWD	APPD	ISSD	PROJECT ID	AS CONST	REV
R B	02/28/2024	HCE	MH	JP	TMM	N/A	N/A	TVA	609669	-	D

ISSUE FOR CONSTRUCTION

SCALE: 1"=100' EXCEPT AS NOTED

YARD
D4 PLANT SITE

PLANT SITE RESTORATION
EPSC PLAN
STAGE III - INTERMEDIATE

DESIGNED BY: DRAWN BY: CHECKED BY: SUPERVISED BY: REVIEWED BY: APPROVED BY: ISSUED BY:

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Nashville, Tennessee 37211
www.stantec.com

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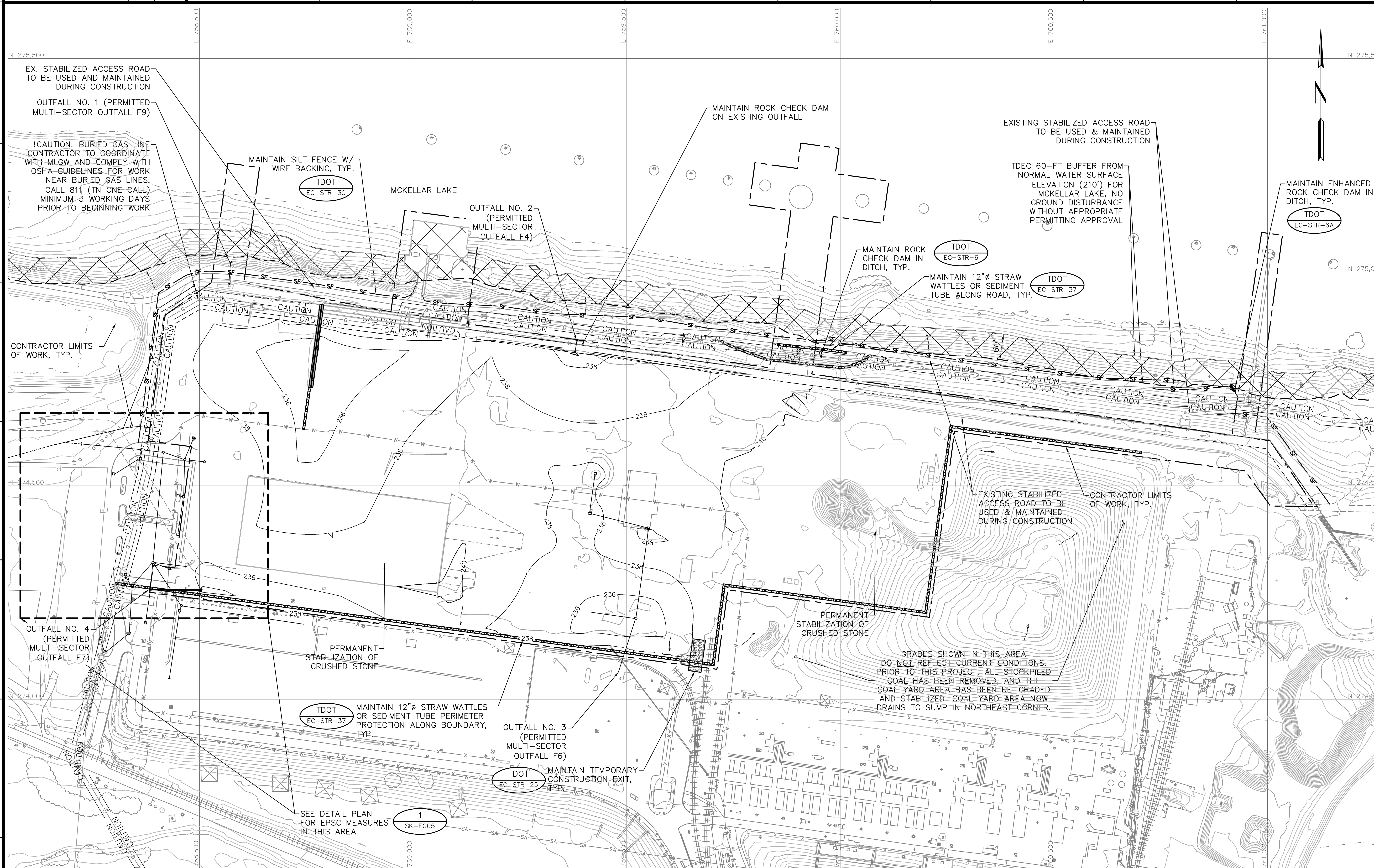
TENNESSEE VALLEY AUTHORITY
FOSSIL AND HYDRO ENGINEERING

AUTOCAD R | DATE | 38 | C | SK-EC03 | R B

STANTEC | B
TASK COMPLETED BY: | REV NO.

PLOT FACTOR:1
W_TVA

C.A.D. DRAWING DO NOT ALTER MANUALLY



SURVEY CONTROL NOTE:

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METADATA:

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HORIZONTAL DATUM: LOCAL
VERTICAL DATUM: NGVD 29
H&V ACCURACY: GPS RTK
UNITS: US SURVEY FEET (SFT)

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STAGE IV EPSC NOTES:

1. INSTALL PERMANENT STABILIZATION OF CRUSHED STONE
2. CLEAN STORM STRUCTURES
3. DEMULCH ALL STRUCTURAL BMPs AND SAFELY DISPOSE OF MATERIAL. REMOVE ALL TEMPORARY BMPs AS SHOWN ON THE PLANS
4. REMOVE SILT FENCING AND OTHER TEMPORARY SEDIMENT/EROSION CONTROL BMPs

LEGEND

- GAS VALVE
- GUYWIRE
- LIGHT POLE
- MANHOLE
- POST
- SANITARY MANHOLE
- SIGN
- SPOT ELEVATION
- TREE/SHRUB
- UTILITY POLE
- WATER METER
- WATER VALVE
- EDGE OF PAVED ROAD
- EDGE OF GRAVEL ROAD
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- FENCE LINE
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- WATER LINE
- GAS LINE
- LIMITS OF CONSTRUCTION
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100% ISSUE FOR BID

50 0 100 200 FEET
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R B	02/28/2024	HCE	MH	JP	TMM	N/A	N/A	TVA	609669	–	D

ISSUE FOR CONSTRUCTION

SCALE: 1"=100' EXCEPT AS NOTED

YARD
D4 PLANT SITE

PLANT SITE RESTORATION
EPSC PLAN
STAGE IV – FINAL

DESIGNED BY: DRAWN BY: CHECKED BY: SUPERVISED BY: REVIEWED BY: APPROVED BY: ISSUED BY:

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Nashville, Tennessee 37211
www.stantec.com

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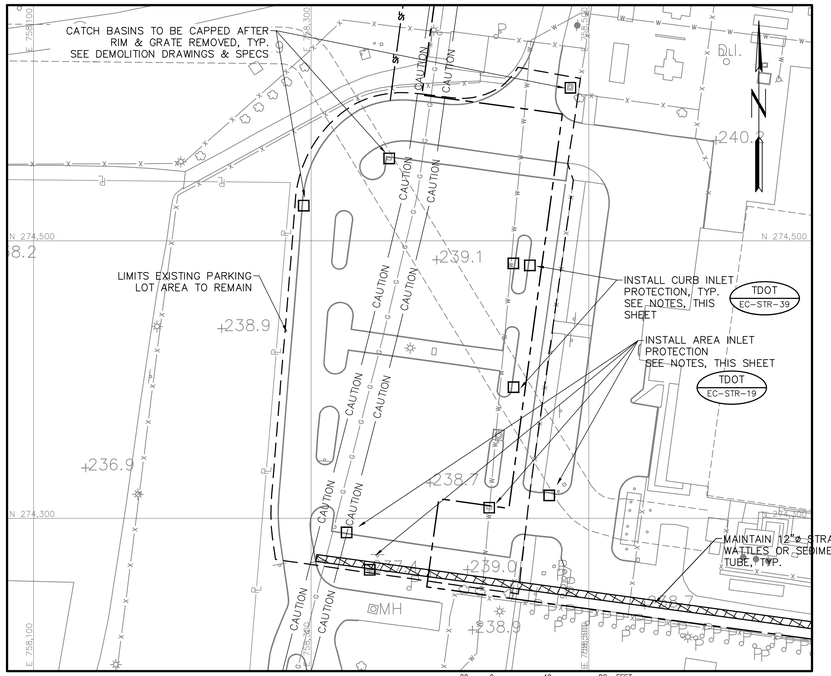
TENNESSEE VALLEY AUTHORITY
FOSSIL AND HYDRO ENGINEERING

AUTOCAD R | DATE | 38 | C | SK-EC04 | R B

STANTEC | B
TASK COMPLETED BY: | REV NO.

PLOT FACTOR:1
W_TVA

C.A.D. DRAWING DO NOT ALTER MANUALLY



1 / SK-EC05 DETAIL PLAN – PARKING AREA EPSC
SCALE: 1"=40'

GRAPHIC SCALE: 1" = 40'
CONTOUR INTERVAL = N/A

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ADDITIONAL (NON-SURVEYED) TOPOGRAPHIC AND PLANIMETRICS FOR THE EXISTING RIP-RAP SEDIMENT BASIN ARE TAKEN FROM DESIGN INFORMATION PER TVA DRAWING 10W230-03. APPROXIMATE LIMITS AND ELEVATIONS OF EXISTING PLANT BUILDING BASEMENT ARE TAKEN FROM TVA-PROVIDED BUILDING ARCHITECTURAL PLANS DATED 11/16/1958. STORMSEWER PIPES FROM TVA DRAWING 10W247-1 HAVE BEEN ADDED TO THE PLANIMETRICS.

DATA FOR THE "DOZER" BUILDING, DISCHARGE CHANNEL, AND CONCRETE PADS WEST OF THE DISCHARGE CHANNEL WAS PROVIDED IN CAD AND POINT DATA FORMAT BY OTHERS (9/7/23). THE DATA HAS BEEN ADDED TO THE TOPOGRAPHIC DIGITAL MODEL THAT PRODUCES THE EXISTING CONTOURS AND PROFILE LINEWORK.

RAMPS HAVE BEEN INSTALLED TO ACCESS THE BASEMENT. NO MEASUREMENTS ARE AVAILABLE, HOWEVER ESTIMATES FROM VISUAL OBSERVATION HAVE BEEN USED TO ESTIMATE THE APPROXIMATE OUTLINE OF THE EXCAVATED RAMP ON THE EAST SIDE OF THE BUILDING.

EPSC NOTES:

1. NO PROPOSED DEMOLITION OR GRADING WORK IS PROPOSED WITHIN THE EXISTING PARKING LOT LIMITS AS SHOWN IN THE DETAIL PLAN, THIS SHEET.
2. ALL INLET PROTECTION SHALL BE INSTALLED PRIOR TO PROPOSED DEMOLITION AND GRADING WORK AND SHALL REMAIN IN PLACE FOR DURATION OF THE PROJECT (I.E. EPSC STAGES I–IV) UNTIL FINAL STABILIZATION IS COMPLETE.
3. CATCH BASINS / DRAINAGE STRUCTURES ENCOUNTERED ELSEWHERE ON THE PROJECT WILL BE REMOVED OR ABANDONED IN PLACE DURING THE DEMOLITION WORK. SEE DEMOLITION PLANS AND SPECIFICATIONS FOR DETAILS.

LEGEND

- GAS VALVE
- GUYWIRE
- LIGHT POLE
- MANHOLE
- POST
- SANITARY MANHOLE
- SIGN
- +240.8 SPOT ELEVATION
- TREE/SHRUB
- UTILITY POLE
- WATER METER
- WATER VALVE
- EDGE OF PAVED ROAD
- EDGE OF GRAVEL ROAD
- EDGE OF WATER
- FENCE LINE
- 600 INDEX CONTOUR
- INTERMEDIATE CONTOUR
- RAILROAD TRACK
- OHE OVERHEAD ELECTRIC LINE
- SA SANITARY LINE
- T TELEPHONE LINE
- TREE LINE
- UGE UNDERGROUND ELECTRIC LINE
- UGT UNDERGROUND TELEPHONE LINE
- W WATER LINE
- G GAS LINE
- LIMITS OF CONSTRUCTION
- 390 PROP. INDEX CONTOUR
- PROP. INTERMEDIATE CONTOUR
- DITCHLINE/EDGE OF WATER
- PROPOSED SEEDED AREA
- EROSION CONTROL BLANKET
- TCE EROSION CONTROL BLANKET
- RIP RAP APRON
- GRAVEL ROAD / DRIVEWAY
- HIGH-VISIBILITY SAFETY FENCING
- SILT FENCE
- SEDIMENT TUBE
- ROCK CHECK DAM
- ENHANCED CHECK DAM
- INLET PROTECTION
- DEWATERING STRUCTURE

100% ISSUE FOR BID

SECTION OR DETAIL NO.
SHEET WHERE SHOWN
REFERENCE KEY

FOR SUPPORTING DESIGN CALCULATIONS SEE GENERALFGENCDX0003002021000003

Stantec
601 Grassmere Park Road, Suite 22
Nashville, Tennessee 37211
www.stantec.com

REV NO.	DATE	DSGN	DRWN	CHKD	SUPV	RVWD	APPD	ISSD	PROJECT ID	AS CONST	REV CD
R –	–	–	–	–	–	–	–	–	–	–	–
R B	02/28/2024	HCE	MH	XXX	TMM	N/A	N/A	TVA	609669	–	D

ISSUE FOR CONSTRUCTION

DISCIPLINE INTERFACE

SCALE: AS SHOWN EXCEPT AS NOTED

YARD
D4 PLANT SITE

PLANT SITE RESTORATION
EPSC PLAN
DETAILS

DESIGNED BY:	DRAWN BY:	CHECKED BY:	SUPERVISED BY:	REVIEWED BY:	APPROVED BY:	ISSUED BY:

ALLEN FOSSIL PLANT
TENNESSEE VALLEY AUTHORITY
FOSSIL AND HYDRO ENGINEERING

AUTOCAD R	DATE	38	C	SK-EC05	R B

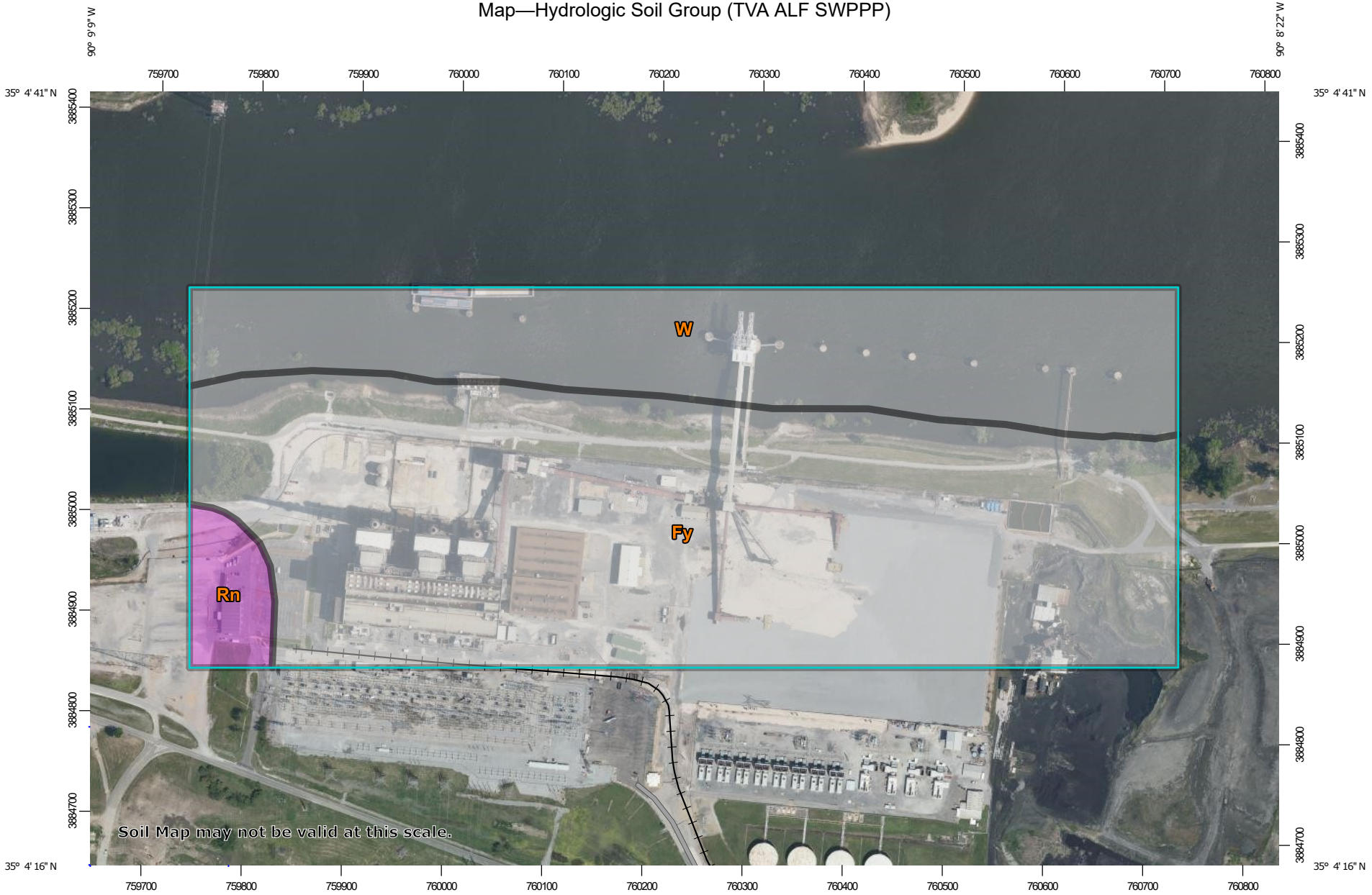
PLOT FACTOR:1
W_TVA

C.A.D. DRAWING
DO NOT ALTER MANUALLY

STANTEC	B
TASK COMPLETED BY:	REV NO.

PLOT DATE: 02/28/2024 USER: ROLANCO, BRAD
\\VS0229-PPFSS01\SHARED_PROJECTS\175379425\TECHNICAL_PRODUCTION\DRAWING\SHEET_FILES\ALF\TYVER\VS0K-EC05.DWG

Appendix B
SOILS INFORMATION



Map Scale: 1:5,430 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 250 500 1000 1500

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Lines

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Points

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Shelby County, Tennessee
Survey Area Data: Version 17, Sep 14, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 1, 2020—May 9, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydrologic Soil Group (TVA ALF SWPPP)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Fy	Filled land, sandy (udorthent, loamy)		62.0	67.0%
Rn	Robinsonville silt loam	A	3.0	3.2%
W	Water		27.5	29.8%
Totals for Area of Interest			**92.6**	**100.0%**

Rating Options—Hydrologic Soil Group (TVA ALF SWPPP)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Appendix C
RUNOFF CURVE NUMBER CALCULATIONS (TR-55)

RUNOFF CURVE NUMBER – EXISTING CONDITIONS

(TR-55 Worksheet 2)

Existing Conditions

Runoff Curve Number (CN)

Soil Name and Hydrologic Group	Cover Description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN [1] Table 2-2	CN [1] Figure 2-3	CN [1] Figure 2-4	Area (acres)	Product of CN x Area
Fy Fill B	Open space (lawns, parks), good condition (soil fill w/ established veg.)	61			6.54	398.9
Fill B	Gravel – roads, rip rap slopes / ditches	85			19.67	1672.0
—	Buildings / Concrete Paving	98			15.06	1475.9
—	Open Water	100			5.64	564.0
[1] Use only one CN source per line				**Totals**	46.91	4110.8
weighted CN = $\frac{\text{total Product}}{\text{total Area}}$				**Use CN**		**87.6**

Source: (210-VI-TR-55, Second Ed., June 1986)

Avg. curve number for pervious areas:

$$CN = \frac{398.9}{6.54}$$

$$= 61$$

Avg. curve number for impervious areas:

$$CN = \frac{1672.0 + 1475.9 + 564.0}{19.67 + 15.06 + 5.64}$$

$$= 91.9$$

RUNOFF CURVE NUMBER – POST-CONSTRUCTION

(TR-55 Worksheet 2)

Post-Construction Conditions

Runoff Curve Number (CN)

Soil Name and Hydrologic Group	Cover Description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN [1] Table 2-2	CN [1] Figure 2-3	CN [1] Figure 2-4	Area (acres)	Product of CN x Area
Fy Fill B	Open space (lawns, parks), good condition (soil fill w/ established veg.)	61			6.40	390.4
Fill B	Gravel – roads, rip rap slopes / ditches	85			32.15	2732.75
—	Buildings / Concrete Paving	98			2.17	212.7
—	Open Water	100			6.19	619.0
[1] Use only one CN source per line				**Totals**	46.91	3954.85
weighted CN = $\frac{\text{total Product}}{\text{total Area}}$					**Use CN**	**84.3**

Source: (210-VI-TR-55, Second Ed., June 1986)

Avg. curve number for pervious areas:

$$CN = \frac{390.4}{6.40}$$

$$= 61$$

Avg. curve number for impervious areas:

$$CN = \frac{2732.75 + 212.7 + 619.0}{32.15 + 2.17 + 6.19}$$

$$= 88.2$$

Appendix D
CONSTRUCTION MONITORING FORMS

Inspect rainfall gage(s) and record daily inches of rain or “none” in measured rainfall column. Sign sheet for each day and present to designated TVA site representative when sheet has been filled and/or construction is complete. If prolonged storm event occurs, it is recommended that erosion control device checks be performed and results recorded on inspection form. Maintain a copy of this form and provide a copy to the Plant Environmental Scientist when the form is complete.

Gage Number	Date	Measured Rainfall (inches)	Inspector's Signature

Sequence of Control Measure Implementation, Maintenance, and Removal Log Form

Log to be maintained onsite and completed each time a control measure is implemented, maintained, or removed

Contractor:_____**Contract No.**:_____ Page_____ of _____

Control Measure and Location	Implementation, Maintenance, or Removal	Receiving Water (Channel #, etc.)	Foreman Initials	Date

MAJOR ACTIVITIES LOG

At a minimum the construction manager or designee shall record dates below for beginning of major grading, dates temporarily cease construction, dates re-commence construction, dates permanently cease construction and dates seeding and or stabilization begins. Include name of person recording activity. It is recommended that activity descriptions be recorded each day. Provide a copy of the form to the site Environmental Scientist when sheet is filled out or on a monthly basis.

Description of Major Activity	Date	Name

Provide to Plant Program Administrator (Environmental) monthly or as completed.

Appendix E
INSPECTION FORMS

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC)
DIVISION OF WATER RESOURCES
William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243
1-888-891-8332 (TDEC)

General NPDES Permit for Stormwater Discharges from Construction Activities (CGP)

Construction Stormwater Inspection Certification (Inspection Form)

Site or Project Name:		**NPDES Tracking Number: TNR**
Primary Permittee Name:		Date of Inspection:
Current approximate <u>disturbed</u> acreage:	Has rainfall been checked/documented daily? ☐ Yes ☐ No	Name of Inspector:
Current weather/ground conditions:	Rainfall total since last inspection:	Inspector's TNEPSC Certification Number:
Site Assessment ☐ Yes ☐ No	Assessor's TN PE registration number:	Assessor's TNEPSC Level II/CPESC number:

Check the box if the following items are on-site:	
☐	Notice of Coverage (NOC)
☐	Stormwater Pollution Prevention Plan (SWPPP)
☐	Weekly inspection documentation
☐	Site contact information
☐	Rain Gage
Off-site Reference Rain Gage Location	

Best Management Practices (BMPs):

Are the Erosion Prevention and Sediment Controls (EPSCs) functioning correctly? If "No," describe below in Comment Section				
1.	Are all applicable EPSCs installed and maintained per the SWPPP per the current phase?		☐ Yes	☐ No
2.	Are EPSCs functioning correctly at all disturbed areas/material storage areas? (permit section 5.5.3)		☐ Yes	☐ No
3.	Are EPSCs functioning correctly at outfall/discharge points such that there is no objectionable color contrast in the receiving stream, and no other water quality impacts? (permit section 5.5.3.5 and 6.3.2)		☐ Yes	☐ No
4.	Are EPSCs functioning correctly at ingress/egress points such that there is no evidence of track-out? (permit section 5.5.3.1)		☐ Yes	☐ No
5.	If applicable, have discharges from dewatering activities been managed by appropriate controls? (permit section 4.1.3) If "No," describe below the measure to be implemented to address deficiencies.	☐ N/A	☐ Yes	☐ No
6.	If construction activity at any location on-site has temporarily/permanently ceased, was the area stabilized within 14 days? (permit section 5.5.3.4) If "No," describe below each location and measures taken to stabilize the area(s).	☐ N/A	☐ Yes	☐ No
7.	Have pollution prevention measures been installed, implemented, and maintained to minimize the discharge of pollutants from wash waters, exposure of materials and discharges from spills and leaks per section 4.1.4? If "No," describe below the measure to be implemented to address deficiencies.	☐ N/A	☐ Yes	☐ No

Site or Project Name:	**NPDES Tracking Number: TNR**
Primary Permittee Name:	Date of Inspection:

8.	If a concrete washout facility is located on site, is it clearly identified on the project and maintained? If "No," describe below the measures to be implemented to address deficiencies. (permit section 1.2.2)	☐ N/A	☐ Yes	☐ No
9.	Have all previous deficiencies been addressed? If "No," describe the remaining deficiencies in the Comments section. ☐ Check if deficiencies/corrective measures have been reported on a previous form.	☐ N/A	☐ Yes	☐ No

Comment Section. If the answer is "No" for any of the above, describe the problem and summarize corrective actions to be taken. Otherwise, describe any pertinent observations:

Certification and Signature (must be signed by the certified inspector and the permittee per Sections 5.5.3.11 (g) and 8.7.2 of the CGP)

I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

Inspector Name and Title :	Signature:	Date:
Primary Permittee Name and Title:	Signature:	Date:

Construction Stormwater Inspection Certification Form (Inspection Form)

Purpose of this form / Instructions

An inspection, as described in subsection 5.5.3.9. of the General Permit for Stormwater Discharges from Construction Activities ("Permit"), shall be performed at the specified frequency and documented on this form. Inspections shall be performed at least 72 hours apart. Where sites or portion(s) of construction sites have been temporarily stabilized, or runoff is unlikely due to winter conditions (e.g., site covered with snow or ice), such inspection only has to be conducted once per month until thawing results in runoff or construction activity resumes.

Inspections can be performed by:

a) a person with a valid certification from the "Fundamentals of Erosion Prevention and Sediment Control Level I" course,
b) a licensed professional engineer or landscape architect,
c) a Certified Professional in Erosion and Sediment Control (CPESC), or
d) a person who has successfully completed the "Level II Design Principles for Erosion Prevention and Sediment Control for Construction Sites" course.

Qualified personnel, as defined in subsection 5.5.3.10 of the Permit (provided by the permittee or cooperatively by multiple permittees) shall inspect disturbed areas of the construction site that have not been permanently stabilized, areas used for storage of materials that are exposed to precipitation, structural control measures, locations where vehicles enter or exit the site, and each outfall.

Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the site's drainage system. Erosion prevention and sediment control measures shall be observed to ensure that they are operating correctly.

Outfall points (where discharges leave the site and/or enter waters of the state) shall be inspected to determine whether erosion prevention and sediment control measures are effective in preventing significant impacts to receiving waters. Where discharge locations are inaccessible, nearby downstream locations shall be inspected. Locations where vehicles enter or exit the site shall be inspected for evidence of offsite sediment tracking.

Based on the results of the inspection, any inadequate control measures or control measures in disrepair shall be replaced or modified, or repaired as necessary, before the next rain event if possible, but in no case more than 7 days after the need is identified.

Based on the results of the inspection, the site description identified in the SWPPP in accordance with section 5.5.1 of the Permit and pollution prevention measures identified in the SWPPP in accordance with section 5.5.2 of the Permit, shall be revised as appropriate, but in no case later than 7 days following the inspection. Such modifications shall provide for timely implementation of any changes to the SWPPP, but in no case later than 14 days following the inspection.

All inspections shall be documented on this Construction Stormwater Inspection Certification form. Alternative inspection forms may be used as long as the form contents and the inspection certification language are, at a minimum, equivalent to the Division's form and the permittee has obtained a written approval from the Division to use the alternative form. Inspection documentation will be maintained on site and made available to the Division upon request. Inspection reports must be submitted to the Division within 10 days of the request.

Trained certified inspectors shall complete inspection documentation to the best of their ability. Falsifying inspection records or other documentation or failure to complete inspection documentation shall result in a violation of this permit and any other applicable acts or rules.

Appendix F
NOTICE OF COVERAGE (NOC) AND NOTICE OF TERMINATION (NOT) FORM

NOC Forms

Insert copies of NOC for project Owner and active site Operators.

Appendix G
SWPPP CONTACT NOTICE

TVA
ALLEN FOSSIL PLANT
D4 PLANT RETIREMENT / DECOMMISSIONING & PLANT SITE RESTORATION (D4)

Description:
Construction activities associated with site include demolition work – removal of all concrete, asphalt, and plant underground features (such as pilings under a foundation) to at least 3 feet below final grade – and subsequent site restoration work, grading activities to ensure positive drainage to appropriate outfalls, and final stabilization to prevent erosion at the decommissioned site.

CONTACT:

For Storm Water Pollution Prevention Plan located at

Allen Fossil Plant

Deanne Hardy
2574 Plant Road
Memphis TN, 38019
PHONE: (901) 212-7135

Appendix H
TENNESSEE GENERAL NPDES PERMIT NO. TNR100000