



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES

William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243-1102

August 21, 2015

Ms. Angela S. Austin
Assistant Plant Manager
TVA Allen Steam Plant
2574 Plant Road
Memphis, TN 38109

Subject: General Permit for Maintenance Activities

File # NRS15.216

Tennessee Valley Authority (TVA), TVA - Allen Fossil Plant, Memphis, Shelby County, Tennessee

Dear Ms. Austin:

We have reviewed your proposal to refurbish the barge mooring cells (1, 7, 9, 10, 11, 13 and 14) at the Allen Fossil Plant in Mckellar Lake. This permit is for the maintenance of existing serviceable structures where they are currently located. If relocation of the existing mooring cell is required for repair then that activity would require an individual permit and is not permitted under this General Permit coverage. The attached Notice of Coverage authorizes the in place maintenance work as proposed.

Pursuant to the *Tennessee Water Quality Control Act of 1977* (T.C.A. § 69-3-101 et seq.) and supporting regulations the Division of Water Resources is required to determine whether the activity described in the attached notice of coverage will violate applicable water quality standards. This permit may also serve as a federal §401 water quality certification (pursuant to 40 C.F.R. §121.2).

This activity is governed by the *General Permit for Maintenance Activities*. The work must be accomplished in conformance with accepted plans and information submitted in support of application NRS15.216 and the limitations and conditions set forth in the *General Permit for Maintenance Activities* (enclosed). It is the responsibility of the permittee to ensure that all contractors involved with this project have read and understand the permit conditions before the project begins.

Please note that dredging or excavation of sediment shall be limited to the *minimum necessary* to restore the waterway in the immediate vicinity of the structure to the approximate dimensions that existed when the structure was built. Excavation cannot in any circumstance exceed a cumulative maximum of 100 linear feet in any direction of the structure. In addition, adequate erosion controls must be installed prior to construction and maintained during construction of the project. All disturbed areas must be revegetated or otherwise stabilized upon completion of construction.

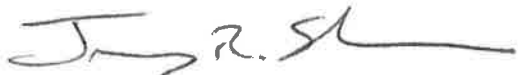
Annual Maintenance and Coverage Termination

Permittees will be assessed an annual maintenance fee of \$350 for coverages that exceed one year. Please note that this maintenance fee does not grant the right to extend coverage past the expiration date of the General Permit itself. Permittees may terminate coverage prior to the expiration date by submitting a completed notice of termination form (NOT), which is available on the division's webpage at

<http://www.tn.gov/environment/permits/arap.shtml>. A complete NOT should include photodocumentation of the finished project area. The division will notify the permittee that either the NOT was received and accepted, or that the permit coverage is not eligible for termination (due to existing deficiencies) and has not been terminated.

We appreciate your attention to the terms and conditions of this general permit for aquatic resource alteration. If you have any questions please contact the permit coordinator, Mr. Brian Canada, by e-mail at Brian.Canada@tn.gov or by phone at (615) 532-0660.

Sincerely,



Jimmy R. Smith
Manager, Natural Resources Unit

Encl: NOC and copy of general permit
CC: DWR, Memphis Environmental Field Office
Memphis MS4 Stormwater Manager
U.S. Army Corps of Engineers, Memphis Regulatory Branch
Mr. David Thorpe, Environmental Scientist, Compliance, TVA Southaven CC Plant dathorpe@tva.gov
File copy



Under the Aquatic Resource Alteration
General Permit for Maintenance Activities

Tennessee Department of Environment and Conservation
Division of Water Resources

William R. Snodgrass – Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243

ARAP - NRS15.216

Under authority of the Tennessee Water Quality Control Act of 1977 (TWQCA, T.C.A. 69-3-101 *et seq.*) the Division of Water Resources has determined the activity described below would not violate applicable water quality standards.

This activity is governed by the *General Permit for Maintenance Activities* issued pursuant to the TWQCA. The work must be accomplished in conformance with accepted plans, specifications, data and other information submitted in support of application NRS15.216 and the terms and conditions set forth in the general permit.

PERMITTEE: Tennessee Valley Authority (TVA)

AUTHORIZED WORK: Refurbish the barge mooring cells (1, 7, 9, 10, 11, 13 and 14) at the Allen Fossil Plant in McKellar Lake.

LOCATION: Allen Fossil Plant, 2574 Plant Road, Shelby County

Latitude: 35.072911 Longitude: -90.143748

WATERBODY NAME: McKellar Lake

EFFECTIVE DATE: 18-AUG-15

EXPIRATION DATE: 06-APR-20

This does not preclude requirements of other federal, state or local laws. In particular, work shall not commence until the applicant has received the federal §404 permit from the U. S. Army Corps of Engineers, a §26a permit from the Tennessee Valley Authority or authorization under a Tennessee NPDES Storm Water Construction Permit where necessary. This permit may also serve as a federal §401 water quality certification (pursuant to 33 U.S.C. §1341) since the planned activity was reviewed and the division has reasonable assurance that the activity will be conducted in a manner that will not violate applicable water quality standards (T.C.A. § 69-3-101 *et seq.* or of § § 301, 302, 303, 306 or 307 of *The Clean Water Act*).

The state of Tennessee may modify, suspend or revoke this authorization should the state determine that the activity results in more than an insignificant degradation of applicable water quality standards or violation of the TWQCA. Failure to comply with permit terms may result in penalties in accordance with T.C.A. §69-3-115.



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES

Tennessee Department of Environment and Conservation
Division of Water Resources
William R. Snodgrass – Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243

September 19, 2017

Mr. Michael Hatley
Assistant Plant Manager
Allen Fossil Plant
2574 Plant Road
Memphis, TN 38109

Subject: Notice of Termination
Aquatic Resource Alteration Permit File #NRS15.216

Dear Mr. Hatley:

Thank you for your recent submission of a certified Notice of Termination (NOT) on September 18, 2017. Submittal of the form is required when requesting termination of coverage for an ARAP prior to the expiration date of the permit coverage. Based on your certified statement, the coverage under permit NRS15.216 has been terminated. Please be aware that due to permit termination, no additional work is authorized within regulated water features.

If you have any questions, please contact the permit coordinator, Scott Hall, at (615) 532-0358 or scott.hall@tngov.

Sincerely,

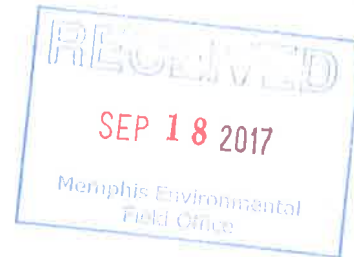
JRS Jimmy R. Smith
Manager, Natural Resources Unit

cc: Memphis Field Office (Joellyn Brazile, Manager)



Tennessee Valley Authority, 1101 Market Street, BR 4A, Chattanooga, Tennessee 37402

September 15, 2017



Mr. Brian Canada
Division of Water Resources
Tennessee Department of Environment
and Conservation
William R. Snodgrass TN Tower
312 Rosa Parks Avenue, 11th Floor
Nashville, Tennessee 37243

Dear Mr. Canada:

TENNESSEE VALLEY AUTHORITY (TVA) – ALLEN FOSSIL PLANT (ALF) – MOORING CELL
RESTORATION PROJECT – AQUATIC RESOURCE ALTERATION PERMIT (ARAP)
NOTICE OF TERMINATION - FILE # NRS15.216

TVA requests that the subject permit be terminated.

If you have questions or need additional information, please contact Chad Reed at
423-751-3948 or by email at chreed@tva.gov.

Sincerely,

Terry E. Cheek
Senior Manager
Water Permits, Compliance, and Monitoring

cc: Ms. Joellyn Brazile
Memphis Environmental Field Office
Tennessee Department of Environment
and Conservation
8383 Wolf Lake Drive
Barlett, Tennessee 38133-4119

Mr. Brian Canada
Page 2
September 15, 2017

CHR:SMF

cc: D. A. Hardy, LCP 1A-BVT
M. A. Hatley, ASP 1A-MET
R. F. Knox, LP 2G-C
D. A. Thorpe, ASP 1A-MET
ECM, ENVrecords



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

Notice of Termination (NOT) for General Aquatic Resource Alteration Permit (ARAP) Coverage

Submittal of this form is required when requesting termination of coverage from a General ARAP. The purpose of this form is to notify TDEC that the ARAP activities authorized at the portion of the identified facility have been completed. Submission of this form shall in no way relieve the permittee of permit obligations required prior to submission of this form. Please submit this form along with photographic documentation of the completion of the permitted activity to the local DWR Environmental Field Office (EFO) address (see table below). For more information, contact your local EFO at the toll-free number 1-888-891-8332 (TDEC).

Type or print clearly, using ink.

Site or Project Name: TVA - Allen Fossil Plant Refurbish Barge Mooring Cells ARAP Tracking Number: NR S15.216

Street Address or Location: Allen Fossil Plant, 2574 Plant Road (County) Shelby

Name of Applicant Requesting Termination of Coverage: TVA

Permittee Contact Name: Michael S. Hatley Title or Position: Assistant Plant Manager

Mailing Address: Allen Fossil Plant, 2574 Plant Road City: Memphis State: TN Zip: 38109

Phone: 901-789-8450 E-mail: mshatley@tva.gov

Check the reason(s) for termination of permit coverage:

- All activities authorized by the above referenced tracking number have been completed in accordance with terms and conditions of the general permit. Photographic documentation is attached.
- The activity was not conducted.

Certification and Signature: (must be signed by president, vice-president or equivalent ranking elected official)

I certify under penalty of law that either: (a) all activities authorized by the above referenced tracking number have been completed in accordance with terms and conditions of the general permit; or (b) the authorized activity was not conducted. I understand that by submitting this notice of termination, I am no longer authorized to conduct aquatic resource alteration activities under this general permit, and that such alterations to waters of the State is unlawful under the Tennessee Water Quality Control Act or waters of the United States is unlawful under the Clean Water Act. I also understand that the submittal of this notice of termination does not release an operator from liability for any violations of this permit or the Clean Water Act and the Tennessee Water Quality Control Act.

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.

Permittee name (print or type): Michael S. Hatley Signature: *Michael S. Hatley* Date: 9-11-17

EFO	Street Address	Zip Code	EFO	Street Address	Zip Code
Memphis	8383 Wolf Lake Drive, Bartlett, TN	38133	Cookeville	1221 South Willow Ave	38506
Jackson	1625 Hollywood Drive	38305	Chattanooga	1301 Riverfront Parkway, Ste 206	37402
Nashville	711 R S Glass Boulevard	37243	Knoxville	3711 Middlebrook Pike	37921
Columbia	1421 Hampshire Pike	38401	Johnson City	2305 Silverdale Road	37601



STATE OF TENNESSEE
TENNESSEE DEPARTMENT OF ENVIRONMENT & CONSERVATION
DIVISION OF WATER RESOURCES
William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11TH Floor
Nashville, Tennessee 37243-1102

May 25, 2016

Terry Cheek
TVA
Water Permits, Compliance and Monitoring
1101 Market Street
Chattanooga, TN 37402

Subject: Aquatic Resource Alteration Permit NRS 15.216.
TVA Allen Fossil Plant – Mooring Cell Restoration

Dear Mr. Cheek:

Thank you for your letter dated May 19, 2016 requesting that the existing General Permit for Maintenance Activities include the demolition and removal of barge mooring cell #24. The activity is directly related to those already permitted and would have the net result of reducing the exiting footprint of structures in the watercourse. As such, your request is being considered an update to record and the proposed demolition covered under the existing general permit without need for addition permit modification. Please affix this letter to your permit documents.

It is the responsibility of the permittee to ensure that all contractors involved with this project have read and understood the permit conditions before the project begins. If you need additional information or clarification, please contact Brian Canada at 615-532-0660 or by e-mail brian.canada@tn.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian Canada".

Brian Canada, M.S., Q.H.P.
Natural Resources Unit

Cc: Memphis Environmental Field Office
U.S. Army Corps of Engineers, Memphis District
file copy



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES

William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243-1102

July 8, 2015

Angela Austin
Assistant Plant Manager
TVA Allen Steam Plant
2574 Plant Road
Memphis, TN 38109

**Subject: Aquatic Resource Alteration Permit Application
McKellar Lake, Shelby County**

Dear Ms. Austin:

The Division of Water Resources received your Aquatic Resource Alteration Permit application on June 29, 2015. The permit coordinator and his/her contact information are listed below. Also, the file number assigned to your application follows the permit coordinator's information.

Permit Coordinator: Brian Canada
Phone Number: (615) 532-0660
Fax Number: (615)-532-0046
E-mail: Brian.Canada@tn.gov
File Number: NRS15.216

A review of your application is currently underway. You will be notified within thirty (30) days of the application-received date whether your application is deficient or complete. If you have any questions or want to inquire on the status of your application, please contact the permit coordinator listed above.

Sincerely,

Jeanene Woodruff
Natural Resources Unit

Cc: File Copy
Memphis EFO
Mr. David Thorpe, Environmental Scientist, Compliance, TVA Southaven CC Plant, dathorpe@tva.gov



TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

Division of Water Resources

William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243
1-888-891-8332 (TDEC)

IN DEPT OF ENVIRONME
AND CONSERVATION

JUN 29 2015
DIV OF WATER RESOURCES
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Application for Aquatic Resource Alteration Permit (ARAP) & State §401 Water Quality Permit

OFFICIAL STATE USE ONLY	Site #:	Permit #: NRS15.216
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Section 1. Applicant Information (individual responsible for site, signs certification below) **NRS15.216**

Applicant Name: Angela S. Austin			
Company: Tennessee Valley Authority (TVA)		Signatory's Title or Position: Assistant Plant Manager	
Mailing Address: TVA Allen Fossil Plant, ASP 1A-MET, 2754 Plant Road		City: Memphis	State: TN Zip: 38109
Phone: 901-789-8450	Fax: 901-789-8468	E-mail: asaustin@tva.gov	

Section 2. Alternate Contact/Consultant Information (a consultant is not required)

Alternate Contact Name: David A. Thorpe			
Company: TVA		Title or Position: Environmental Scientist	
Mailing Address: TVA Allen Fossil Plant, ASP 1A-MET, 2754 Plant Road		City: Memphis	State: TN Zip: 38109
Phone: 901-355-8679	Fax: 662-510-3823	E-mail: dathorpe@tva.gov	

Section 3. Fee (check appropriate box and submit requisite fee with application)

No Fee Submitted Fee Submitted with Application Amount Submitted: \$ _____

Current fee schedules for Aquatic Resource Alteration Permit processing may be found at the Division of Water Resources webpage at <http://www.tn.gov/environment/permits/arap.shtml> or by calling (615) 532-0625. Make checks payable to "Treasurer, State of Tennessee".

Section 4. Project Details (fill in information and check appropriate boxes)

Site or Project Name: Barge Mooring Cell Restoration	Nearest City, Town or Major Landmark: Memphis, TN
Street Address or Location:	

County(ies): Shelby	MS4 Jurisdiction: Memphis	Latitude (dd.ddd): 35.0760
		Longitude (dd.ddd): -90.1454

Resource Proposed for Alteration: Stream Wetland Reservoir

Name of Water Resource: **McKellar Lake**

Brief Project Description (a more detailed description is required under Section 8):

Does the proposed activity require approval from the U.S. Army Corps of Engineers, the Tennessee Valley Authority, or any other federal, state, or local government agency? Yes No

If Yes, provide the permit reference numbers: USACE 404 permit being applied for concurrently with this application

Is the proposed activity associated with a larger common plan of development? Yes No

If Yes, submit site plans and identify the location and overall scope of the common plan of development. Plans attached? Yes No

If applicable, indicate any other federal, state, or local permit authorizations that the overall project site (common plan of development) has obtained in the past (i.e. construction general permit coverage and/or other ARAPs):

ARAP NRS 11.179 was issued for similar mooring cell restoration activities

Section 5. Project Schedule (fill in information and check appropriate boxes)

Start date: Summer 2015	Estimated end date: Summer 2020
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Is any portion of the activity complete now? Yes No If yes, describe the extent of the completed portion:

Application for Aquatic Resource Alteration Permit (ARAP) & State §401 Water Quality Permit

The required information in Sections 6-11 must be submitted on a separate sheet(s) and submitted in the same numbered format as presented below. If any question is not applicable, state the reason why it is not applicable.

Section 6. Project Description		Attached	
		Yes	No
6.1	A narrative description of the scope of the project	<input type="checkbox"/>	<input type="checkbox"/>
6.2	USGS topographic map indicating the exact location of the project <i>(can be a photographic copy)</i>	<input type="checkbox"/>	<input type="checkbox"/>
6.3	Photographs of the resource(s) proposed for alteration with location description <i>(photo locations should be noted on map)</i>	<input type="checkbox"/>	<input type="checkbox"/>
6.4	A narrative description of the existing stream and/or wetland characteristics including, but not limited to, dimensions (e.g., depth, length, average width), substrate and riparian vegetation	<input type="checkbox"/>	<input type="checkbox"/>
6.5	A narrative description of the proposed stream and/or wetland characteristics including, but not limited to, dimensions (e.g., depth, length, average width), substrate and riparian vegetation	<input type="checkbox"/>	<input type="checkbox"/>
6.6	In the case of wetlands, include a wetland delineation with delineation forms and site map denoting location of data points	<input type="checkbox"/>	<input type="checkbox"/>
6.7	A copy of all hydrologic or jurisdictional determination documents issued for water resources on the project site	<input type="checkbox"/>	<input type="checkbox"/>

Section 7. Project Rationale		Attached	
		Yes	No
Describe the need for the proposed activity, including, but not limited to, the purpose, alternatives considered, and what will be done to avoid or minimize impacts to streams or wetlands.		<input type="checkbox"/>	<input type="checkbox"/>

Section 8. Technical Information		Attached	
		Yes	No
8.1	Detailed plans, specifications, blueprints, or legible sketches of present site conditions and the proposed activity. Plans must be 8.5.x 11 inches. Additional larger plans may also be submitted to aid in application review. The detailed plans should be superimposed on existing and new conditions <i>(e.g., stream cross sections where road crossings are proposed)</i>	<input type="checkbox"/>	<input type="checkbox"/>
8.2	For both the proposed activity and compensatory mitigation, provide a discussion regarding the sequencing of events and construction methods	<input type="checkbox"/>	<input type="checkbox"/>
8.3	Depiction and narrative on the location and type of erosion prevention and sediment control (EPSC) measures for the proposed alterations	<input type="checkbox"/>	<input type="checkbox"/>

Section 9. Water Resources Degradation (degree of proposed impact) <i>Note that in most cases, activities that exceed the scope of the General Permit limitations are considered greater than de minimis degradation to water quality.</i>	
My activity, as proposed:	
<ul style="list-style-type: none"> a. <input type="checkbox"/> Will not cause measurable degradation to water quality b. <input checked="" type="checkbox"/> Will only cause de minimis degradation to water quality c. <input type="checkbox"/> Will cause more than de minimis degradation to water quality <i>(Complete additional sections 9-11)</i> d. <input type="checkbox"/> Unsure/need more information 	
<p><i>For information and guidance on the definition of de minimis and degradation, refer to the Antidegradation Statement in Chapter 0400-40-03-.06 of the Tennessee Water Quality Criteria Rule: https://www.tn.gov/sos/rules/0400/0400-40/0400-40-03.20131216.pdf. For more information on specifics on what General Permits can cover, refer to the Natural Resources Unit webpage at http://www.tn.gov/environment/permits/arap.shtml</i></p>	

If you checked "c." above in Section 9, complete the following 2 sections, 10-11.

Section 10. Detailed Alternative Analysis		Attached	
		Yes	No
10.1	Analyze all reasonable alternatives and describe the level of degradation caused by each of the feasible alternatives	<input type="checkbox"/>	<input type="checkbox"/>
10.2	Discuss the social and economic consequences of each alternative	<input type="checkbox"/>	<input type="checkbox"/>
10.3	Demonstrate that the degradation associated with the preferred alternative will not violate water quality criteria for uses designated in the receiving waters, and is necessary to accommodate important economic and social development in the area	<input type="checkbox"/>	<input type="checkbox"/>

Application for Aquatic Resource Alteration Permit (ARAP) & State §401 Water Quality Permit

Section 11. Compensatory Mitigation		Attached	
		Yes	No
11.1	A detailed discussion of the proposed compensatory mitigation	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11.2	Describe how the compensatory mitigation would result in no net loss of resource value	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11.3	Provide a detailed monitoring plan for the compensatory mitigation site	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11.4	Describe the long-term protection measures for the compensatory mitigation site (e.g., deed restrictions, conservation easement)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Certification and Signature			
An application submitted by a corporation must be signed by a principal executive officer; from a partnership or proprietorship, by the partner or proprietor respectively; from a municipal, state, federal or other public agency or facility, the application must be signed by either a principal executive officer, ranking elected official, or other duly authorized employee.			
<i>"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".</i>			
Angela S. Austin <hr style="border: 0; border-top: 1px solid black;"/> Printed Name	Assistant Plant Manager <hr style="border: 0; border-top: 1px solid black;"/> Official Title	 <hr style="border: 0; border-top: 1px solid black;"/> Signature	6/23/15 <hr style="border: 0; border-top: 1px solid black;"/> Date

Submitting the form and obtaining more information Note that this form must be signed by the principal executive officer, partner or proprietor, or a ranking elected official in the case of a municipality; for details see **Certification and Signature** statement above. For more information, contact your local EFO at the toll-free number 1-888-891-8332 (TDEC). Submit the completed ARAP Application form (keep a copy for your records) to the appropriate EFO for the county(ies) where the ARAP activity is located, addressed to **Attention: ARAP Processing**. You may also electronically submit the complete application and all associated attachments (e.g., maps, wetland delineations and narrative portions) to water.permits@tn.gov.

EFO	Street Address	Zip Code	EFO	Street Address	Zip Code
Memphis	8383 Wolf Lake Drive, Bartlett	38133-4119	Cookeville	1221 South Willow Ave.	38506
Jackson	1625 Hollywood Drive	38305-4316	Chattanooga	1301 Riverfront Pkwy., Ste. 206	37402
Nashville	711 R S Gass Boulevard	37243	Knoxville	3711 Middlebrook Pike	37921
Columbia	1421 Hampshire Pike	38401	Johnson City	2305 Silverdale Road	37601



OFFICIAL STATE USE ONLY			
Received Date:	Permit Number:	Reviewer:	Field Office:
Fee amount paid:	T & E Aquatic Flora and Fauna:		Application Review:
Date:	Impaired Receiving Stream:		<input type="checkbox"/> Deficient Date: _____
Check #:	Exceptional TN Water:		<input type="checkbox"/> Complete Date: _____

Tennessee Valley Authority
ALLEN FOSSIL PLANT (ALF)
ARAP APPLICATION
MOORING CELL RESTORATION PROJECT DESCRIPTION
June 2015

TN DEPT OF ENVIRONMENT
AND CONSERVATION

JUN 29 2015

DIV OF WATER RESOURCES
RECEIVED

- 8.1 TVA is planning to refurbish mooring cells in the vicinity of the Barge Unloader facility at Allen Fossil Plant. The mooring cells are past their useful or expected life and need to be restored. Enclosed are an application form, a location map, and sketches describing TVA's plans for the demolition and addition of barge mooring cells at an existing barge unloading facility at ALF in McKellar Lake in Shelby County, Tennessee. TVA is in a continuing process of restoring the mooring cells at Allen Fossil Plant. TVA plans to restore eight cells identified as 1, 7, 9, 10, 11, 13, and 14 on the attached drawings. TVA does not expect an appreciable impact to water quality. TVA believes this activity can be covered, as previously, under the TDEC Aquatic Resource Alteration Permit for Maintenance. TVA requests the issuance of a five-year permit with authorization to conduct mooring cell restoration or replacement for a total of 4 cells needing to be replaced during the permit period.
- 8.2 See attached topo site map.
- 8.3 See attached photo's of site.
- 8.4 McKellar Lake is a large harbor off the Mississippi River. At the proposed work site the yearly average depth of the lake is 27 feet, the normal water level is 42 feet, and the mooring cells are at a height of 72 feet above the lake bottom. McKellar Lake is impaired for mercury. Riparian ways are either heavily vegetated with woods or industry.
- 8.5 No changes are proposed other than restoring/replacing existing mooring cells.
- 8.6 No wetlands will be impacted.
9. The purpose of the project is to refurbish or replace mooring cells in the vicinity of the Barge Unloader facility at Allen Fossil Plant.
10. One alternative could be to not replace or restore the mooring cells. This is not feasible as it would compromise the stability and safety of the structures. TVA believes a failed mooring cell would present greater impact to the water body than restoration or replacement.
- 11.1 No mitigation is proposed as we are not impacting additional area.
- 11.2 No mitigation is proposed as we are not impacting additional area.
- 11.3 N/A
- 11.4 N/A
- 11.5 N/A
- 12.1 See attached plans.
- 12.2 N/A
- 12.3 Restoration will consist of either replacing cells in place or removing and moving cell location eastward or westward of the original location. If a cell is replaced around the original cell location, steel sheet piling will be cut down to the water line (+/- 190'). The new sheet piling will be driven around the remaining cell perimeter, encapsulating the old cell. The cells will then be filled with clean river gravel and topped with a concrete cap. If cell must be relocated (e.g., the old cell cannot be refurbished), the steel sheet piling

will be removed to the mud line and the cell location shifted either eastward or westward. Installation will consist of driving new steel sheet piling into the river bottom, placing gravel fill and installing the new concrete cap. All materials to be removed will be taken to an upland location or recycled. Also, a cell wrap method may be used for repairs. A cell wrap utilizes a metal sheet that is rolled into two semi-circular sections to match the existing outside mooring cell radius. The length of each section spans from the mud line at the river bottom to a point at the upper mooring cell rings. Bolted tie points are welded along the edge of the semi-circle. The two semi-circular sections are set around the existing cell and bolted together to form a "new skin" around the existing cell.

- 12.4 Turbidity curtains will be deployed during phases of construction that involve removal or placement of materials exposed to the water column. TVA believes this practice will minimize the mobilization of any contaminated sediments that may be in the vicinity.
- 12.5 See answer in section 12.3.
- 12.6 McKellar Lake is assumed to be a jurisdictional waterbody.

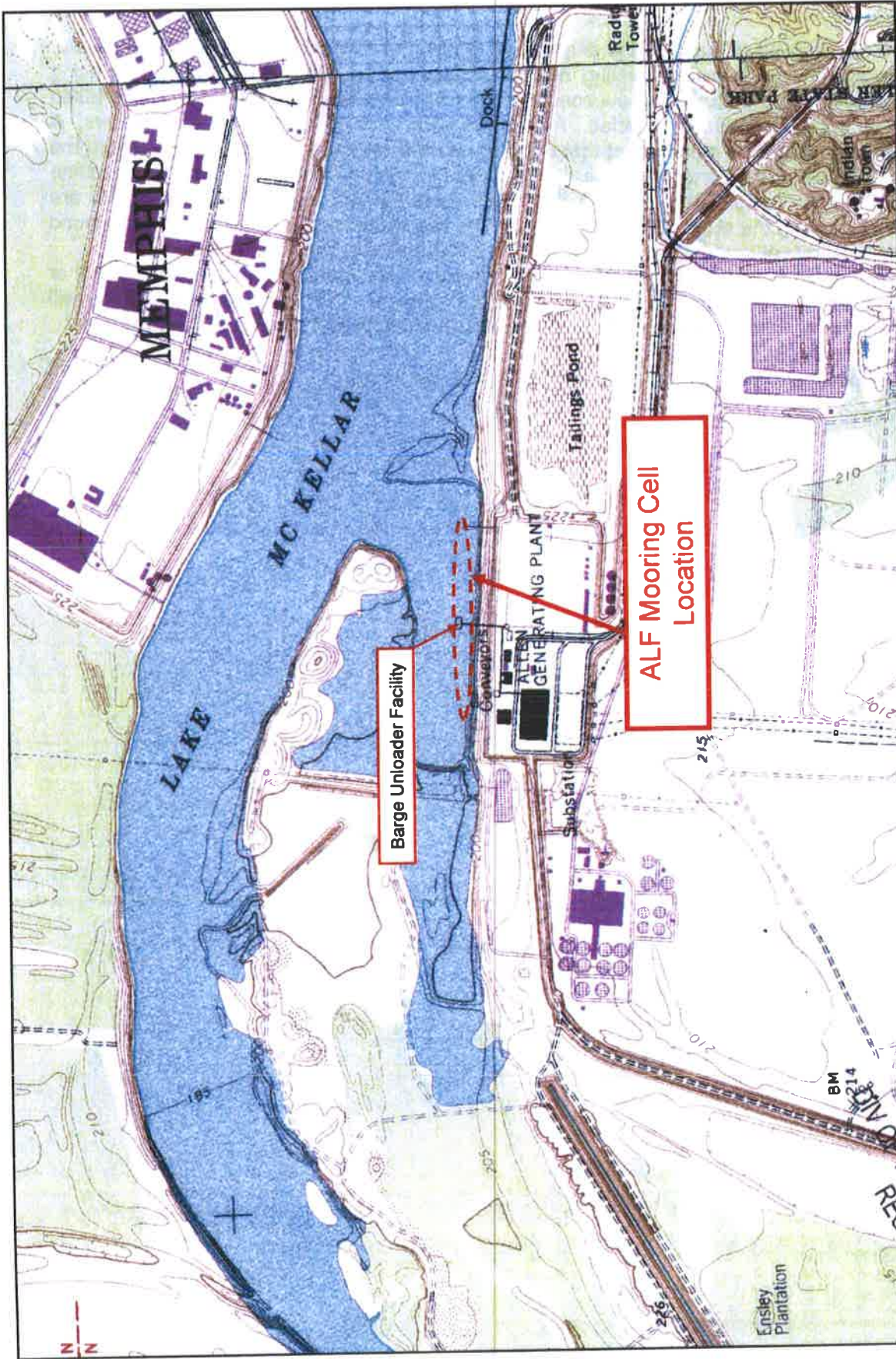
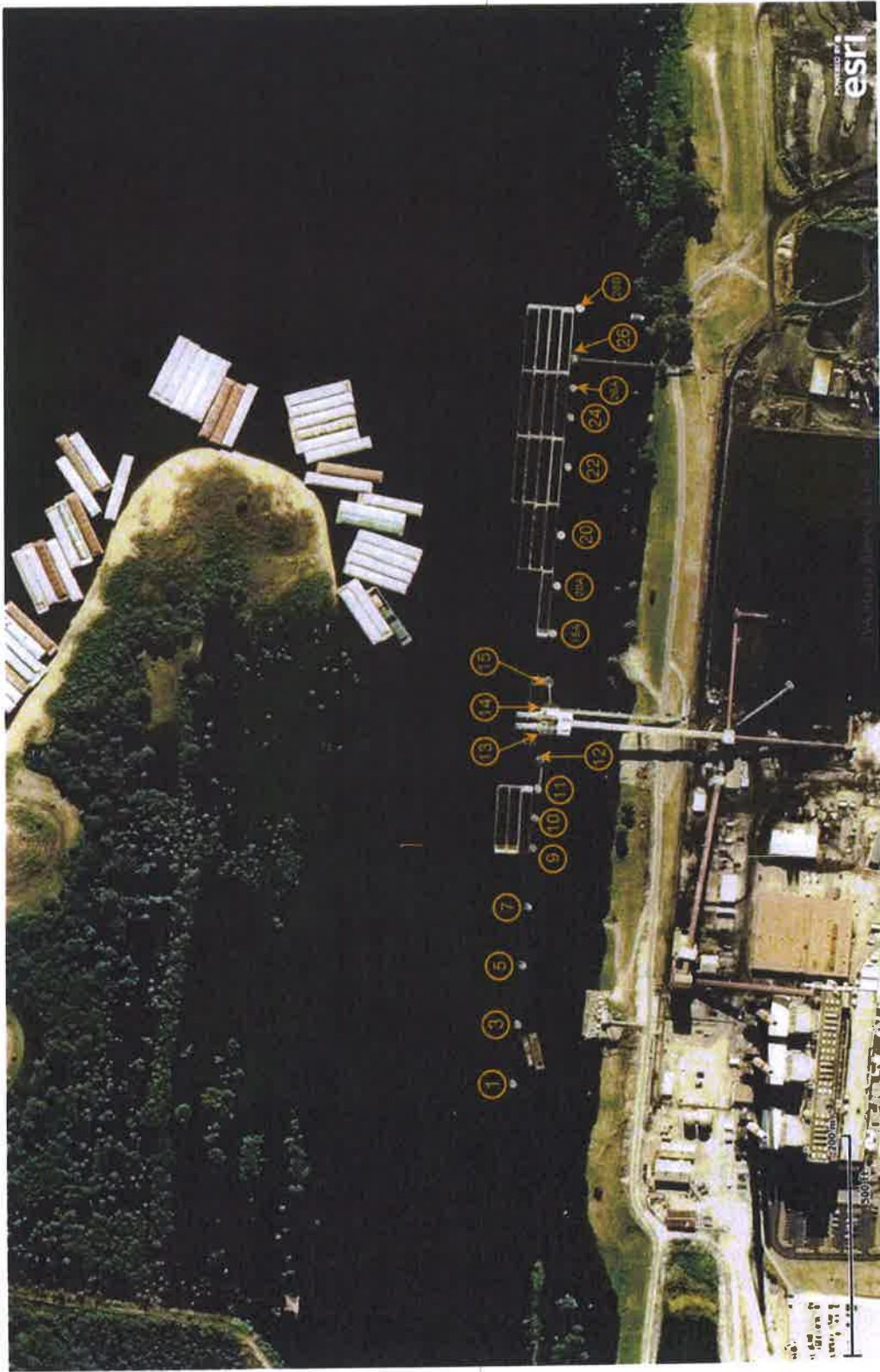


Figure 1 of 4
TVA Allen Fossil Plant
Barge Unloader Mooring Cell Repairs
Fletcher Lake Quadrangle
June 2015



TN DEPT OF ENVIRONMENT
 AND CONSERVATION
 JUN 29 2015
 DIV OF WATER RESOUR
 RECEN





Geographic Information & Engineering, Copyright 2010 ESRI. All rights reserved. Wed May 27 2015 10:17:48 AM.

RECEIVED

DIV OF WATER RESOURCES

JUN 29 2015

TN DEPT OF ENVIRONMENT
AND CONSERVATION

Figure 2 of 4
TVA Allen Fossil Plant
Barge Unloader Mooring Cell Repair
June 2015



Photo of Mooring Cells #1-9

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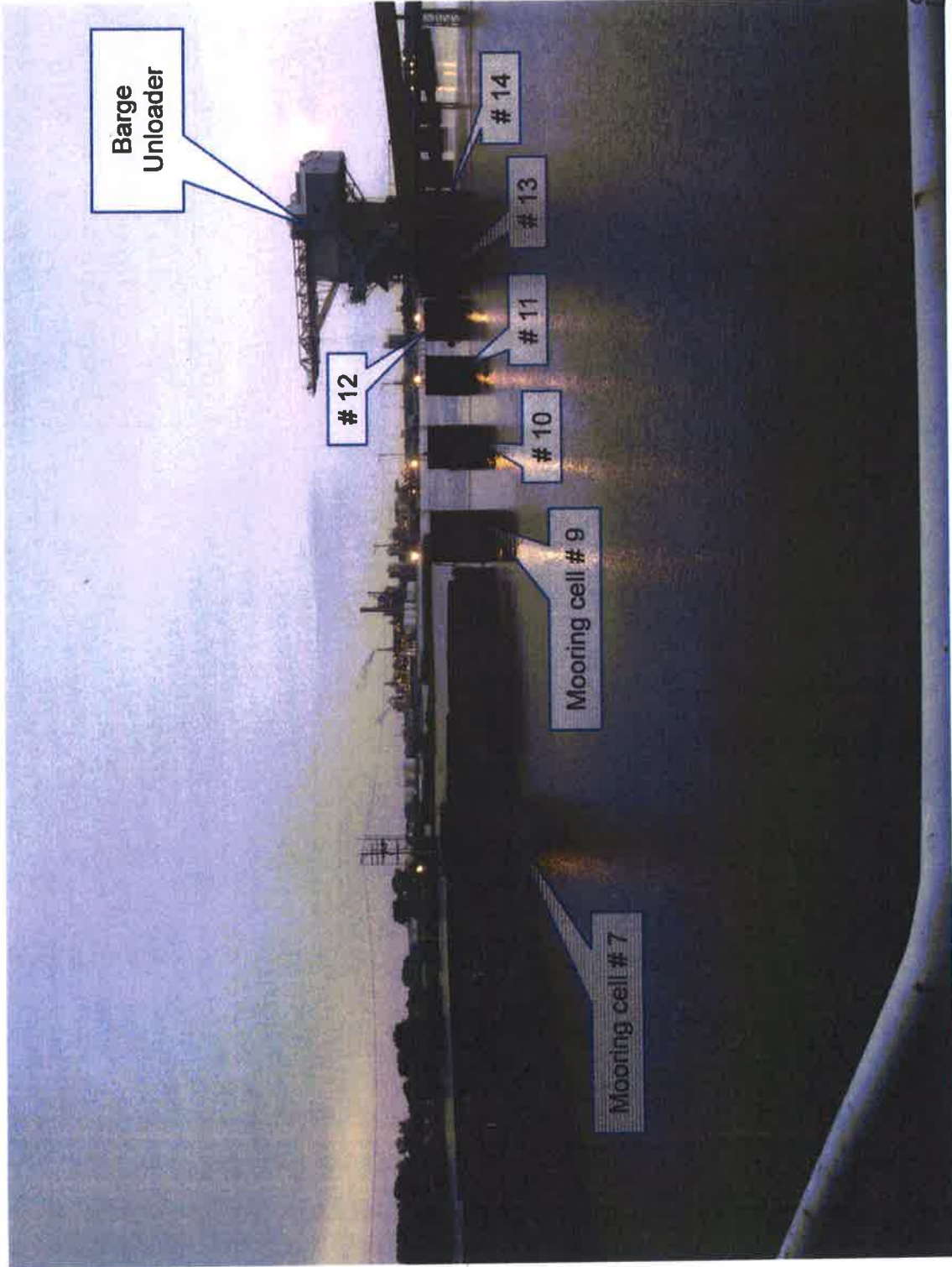
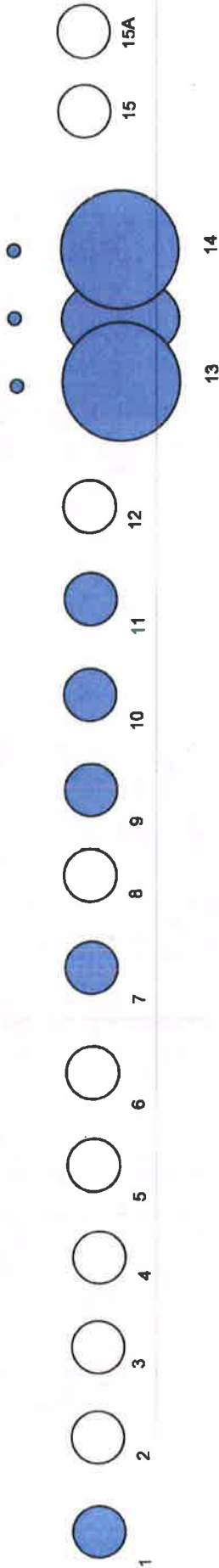


Photo of Mooring Cells #7-14

Three pipe piles with donut fenders to be installed



Shaded Cells 1, 7, 9, 10, 11, 13, and 14 to be repaired – See Figure 4 of 4 for details

Figure 3 of 4
TVA Allen Fossil Plant
Barge Unloader Mooring Cell Repairs
June 2015
Diagram Not To Scale

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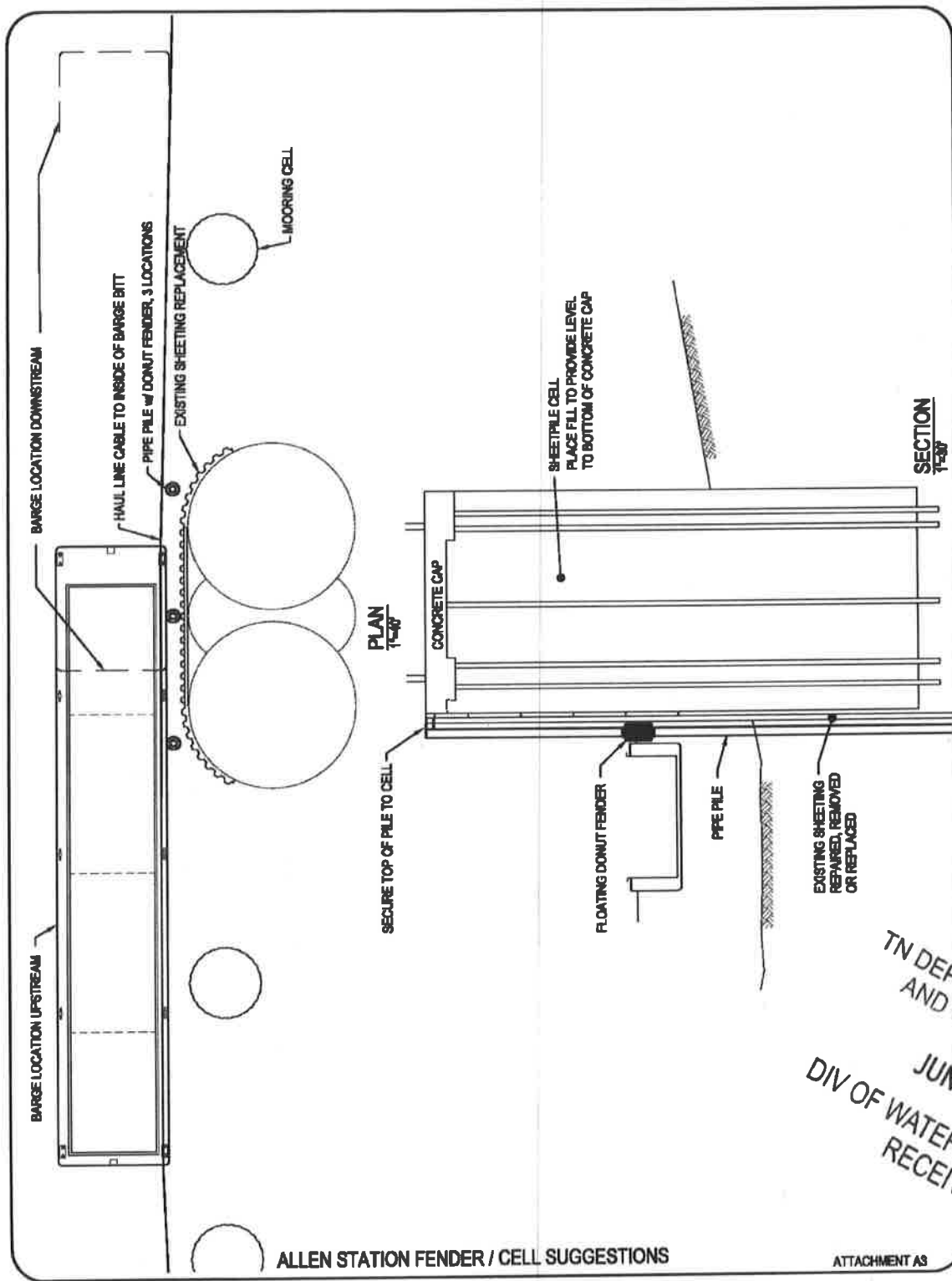


Figure 4 of 4
 TVA Allen Fossil Plant
 Barge Unloader Mooring Cell Repairs
 June 2015
 Diagram Not To Scale

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Tennessee Valley Authority, 1101 Market Street, BR 4A, Chattanooga, Tennessee 37402-2801

June 26, 2018

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Mr. Robert D. Baker
Division of Water Resources
Tennessee Department of Environment
and Conservation (TDEC)
312 Rosa Parks Avenue, 11th Floor
Nashville, Tennessee 37243

Dear Mr. Baker:

**TENNESSEE VALLEY AUTHORITY (TVA) – ALLEN FOSSIL PLANT (ALF) – MOORING CELL
RESTORATION PROJECT – AQUATIC RESOURCE ALTERATION PERMIT (ARAP)
APPLICATION**

TVA is submitting this permit request for aquatic resource impacts associated with a project to restore seven mooring cells associated with the ALF barge unloading facility which are in urgent need of repair. The project will impact open water only and no impacts to wetland areas, streams, or threatened and endangered species will occur. Please find the enclosed project information sheet and drawings, ARAP application form, and a site map for your review of the subject activity for permit coverage. TVA believes this construction activity falls within the scope of the General ARAP for Maintenance.

TVA believes that this project will have only a de minimis impact on water quality. We appreciate your time in handling this request. If you have questions or need additional information, please contact Mike Stiefel at (423) 751-6844 in Chattanooga, or by email at mbstiefel@tva.gov.

Sincerely,

Terry E. Cheek
Senior Manager
Water Permitting, Compliance, and Monitoring

Enclosures

Mr. Robert D. Baker
Page 2
June 26, 2015

Enclosures
cc (Enclosures):

Ms. Joellyn Brazile
Memphis Environmental Field Office
Tennessee Department of Environment
and Conservation
8383 Wolf Lake Drive
Barlett, Tennessee 38133-4119

Mr. Tim H. Flynn, Chief
Eastern Section, Regulatory Branch
Memphis District
U.S. Army Corps of Engineers
167 North Main Street B-202
Memphis, Tennessee 38103-1894