

Tennessee Valley Authority
Regulatory Submittal for Kingston Fossil Plant

Documents submitted:
Aquarius Debris Removal Demobilization Plan
Aquarius Work Packages

Date Submitted:
07/06/2010

Submitted to whom
Leo Francendese, EPA

Concurrence

Received Not Applicable

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Approvals

TVA Kathryn Nash

Date 7/6/10

EPA Leo Francendese

Date 7/7/10

consulted w/ TDEC

cc:

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AQUARIUS DEBRIS REMOVAL DEMOBILIZATION WORK PLAN, REV. 1

1.0 Purpose

In preparation for the construction of the new skimmer wall construction, the debris recovery from the failed sections of the old skimmer wall will be completed by the contractor. The debris has included concrete beams and caissons, structural rebar, and ash that washed downstream and caught up in the rubble. This work plan addresses the methodology planned for the demobilization of the equipment that will be leaving the site and not being used in the construction of the new skimmer wall.

2.0 Design

There is no design for the debris removal operations.

3.0 Construction/Operations (Demobilization)

Debris Material:

Material that is to leave the site was decontaminated in accordance with the Skimmer Wall Debris Removal Work Plan. This material was inspected and approved as being properly decontaminated by a TVA Environmental Representative as well as the EPA. The approved material has been placed in Aquarius' AM500 barge which has only been used for this purpose. The interior of the hopper barge has not been used to transport any ash or contaminated debris. The material to be removed in the AM500 barge includes 3 caissons, six 20-ton box beams, and nine 12-ton box beams.

Barges:

The AM500 is the only Aquarius barge to leave the site under this work plan. All other Aquarius hopper barges will demobilize and worked under a separate work plan for demobilization of damaged/repairs hopper barges. Prior to being removed from the site, the AM500 hopper, decks, and sides will be inspected for ash contamination. The AM500 has not been used for any transporting of ash or contaminated material. The hopper will be inspected for any incidental contamination that might have occurred during loading. The hopper would be washed using a high pressure pump and the water would be pumped over the side within the confinement of a turbidity curtain. All exterior surfaces will be inspected and pressure washed if need to remove all ash. All wash water will be allowed to return to the river/intake channel within the confinement of a turbidity curtain.

A-Frame:

The A-Frame crane barge, Large Marge, has had very little if any direct contact with ash. An inspection of the barge components will be conducted and all exterior surfaces above

the water line will be washed free of ash. Wash water will be allowed to run back into the river/intake channel within the confinement of a turbidity curtain.

Tug:

The tug used during the debris removal project, M/V Claude, has had very little if any direct contact with ash. An inspection of the vessel will be conducted and all exterior surfaces above the water line will be washed free of ash. Wash water will be allowed to run back into the river/intake channel within the confinement of a turbidity curtain.

4.0 Schedule

The schedule for this work is expected to take place as soon as possible in order to make room for skimmer wall construction equipment arriving to the job site. The Large Marge and AM500 will initially be relocated to the south construction dock near the plant. Once the skimmer wall construction preparation dredging is complete, the M/V Claude will leave and take the Large Marge and AM500. July 19, 2010 is the estimated date for departure.

5.0 Waste Management

Ash slurry or ash containing decontamination water will be disposed in the river/intake channel. Any decontamination on the river/intake channel will be done behind a turbidity curtain. Any recovered water with fuel, oil, or cleaning solutions will be collected and disposed by SWS. TVA and Jacobs personnel will inspect all equipment prior to removing it from the site to ensure proper cleaning.

6.0 Health and Safety

The activities in this work plan will follow the site-wide health and safety plan. Operations will be performed using TVA Diving Services following all TVA diving protocol. All personnel, vehicles, and equipment will be subject to decontamination requirements as listed in the site wide health and safety plan prior to leaving the site.

Contractor:	Aquarius Marine, LLC	Location:	Kingston Power Plant
Work Package No:	WP-	Date:	6/29/10
Work Package Desc:	Demobilization		

Note 1		AML barges will be cleaned by AML before departing to the Clinch River.
Note 2		AM500 will be required to transport concrete debris off site.
Note 3		The boom will be lowered on the A-frame to accommodate the low vertical clearance.
Note 4		The spuds will stay in position and be lowered with the spud pulling winches to accommodate vertical clearance.

Step No.	Work Description	
1	A pump with fire hose will be used to decontaminate the debris in a closed area utilizing turbidity curtains, per the approved Decontamination Plan in AML's Work Plan. The debris will be approved by the EPA and Coast Guard and then lowered into the AM500 barge.	
2	The debris will be secured in the AM500 using wire rope lashing and chocks.	
	The AM500 and Large Marge will be decontaminated a second time using the pump with fire hose around the gunwales and exterior surfaces. The AM500 will then be re-approved by the EPA and Coast Guard for transport.	
3	The A-frame "LM" will be taken out of the Kingston ash recovery first and to "south construction dock" at the Kingston Generating Station on the Clinch river. There it will be secured with spuds and lighting.	
4	The AM500 will be taken out side and placed along side of the A-frame "LM" at the "south construction" dock at the Kingston Generating station, on the Clinch river. These barges will be wired together for transportation down river.	
5	The spuds will be raised on the A-frame "LM" will be raised and the AM500 will depart with the Claude R	

ACTIVITY HAZARDS ANALYSIS

Date Prepared: 7/1/10 Feature of Work: Demobilization of Barges

Risk Assessment Code (RAC)

Project: Kingston TVA 3149 Job: D001-10

Prepared By: Justin McGregor Reviewed By: Hope Matheny

Recommended Protective Clothing & Equipment
 Work clothing as dictated by the weather, Steel-toed boots (ANSI Z41), Safety Glasses (ANSI Z87), Hard Hat Type E (ANSI 89.1), High visibility yellow reflective vests (ANSI Z107), and USCG Approved Personal Flotation Devices when working near water.

	PROBABILITY			
	Frequent	Likely	Occasional	Seldom
S	E	E	H	H
E	E	H	H	M
V	E	H	H	L
E	H	M	M	L
R	M	L	L	L
I	L	L	L	L
T	L	L	L	L
Y	L	L	L	L

E = Extremely High Risk
 H = High Risk
 M = Moderate Risk
 L = Low Risk

JOB STEPS	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS	EM 385-1-1 (PARA REF)
Decontamination of Caissons/Barges	Struck by hose Slips, trips, and falls Stuck by falling object Fly ash contamination	<ol style="list-style-type: none"> 1. Inspect hoses prior to use 2. Hoses shall be secured on deck 3. Traffic shall be kept to a minimum in hose decontamination areas 1. Deck shall be maintained as to prevent slips, trips, and falls through good housekeeping. NO RUNNING ON DECK. 2. Do not step on hatch covers 1. Employees are not permitted to stand under suspended loads 2. Employees should be made aware of "safe zones" in case of rigging/equipment failure 1. All equipment shall be washed free of fly ash before de-mobilization 2. All large debris/beams shall be washed free of fly ash prior to placing in hopper barge 1. Monitor Site Radio Channel 1 for changing weather conditions 2. Implement proper work rest regimen per TVA Heat Stress Plan 	EM 385-1-1 (PARA REF)

<p>Demobilization of Barges</p>	<p>Fall from barge to water</p> <p>Equipment failure</p> <p>Mooring line failure</p> <p>Entanglement in mooring lines</p> <p>Slips, trips, and falls</p> <p>Pinch points</p>	<ol style="list-style-type: none"> 1. Wear USCG life vest 2. Minimum of one life ring will be made available for immediate use on each barge 3. Monthly man-overboard drills 4. Rescue skiff available for immediate use <ol style="list-style-type: none"> 1. Daily tug documented inspection and proper maintenance 1. Inspect mooring lines before use for damage and wear 2. Stay out of "line of fire" in case of mooring line failure. Be aware of body placement in relationship to the line. <ol style="list-style-type: none"> 1. Keep all body parts free of entanglement when mooring barges <ol style="list-style-type: none"> 1. Deck shall be maintained as to prevent slip, trips, and falls through good housekeeping. NO RUNNING ON DECK. <ol style="list-style-type: none"> 1. Be aware of hand and body location at all times. 2. Wear appropriate Personal Protective Equipment (gloves) as needed. 	

EQUIPMENT	TRAINING	INSPECTIONS	COMPETENT PERSON
Claude R Large Marge AM500 Pump	HAZWOPER 40 HAZWOPER 24 10-Hour OSHA Rigging Training Crane Operator Training TVA Diver Work Plan Daily Pre-Job Briefing, per SOP-PM-004 Review of this AHA Daily JSA	Mooring Lines Tug Inspection Fire Hose Life Jackets	Paul Wiesner

Signature(s)

Date

Safety Department

Foreman

Superintendent

Project Manager

Quality Control Manager

Dates of Observations to Ensure Compliance:

___ / ___ / ___ Revision required No Yes Observation Performed by: _____ Comment: _____

___ / ___ / ___ Revision required No Yes Observation Performed by: _____ Comment: _____

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