

Tennessee Valley Authority  
Regulatory Submittal for Kingston Fossil Plant

Documents submitted:

Dredge Demobilization Work Plan

Date Submitted:  
05/24/2010

Submitted to whom  
Leo Francendese

Concurrence

Received	Not Applicable
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Approvals

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Date 5/24/10

EPA Leo Francendese

Date 5/27/10

cc:

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## **Dredge Demobilization Work Plan**

### **1.0 Purpose**

This work plan outlines the strategy being taken to demobilize the pipes and dredges in the river. The demobilization will occur in phases. By the river opening date of the 29<sup>th</sup>, all dredges/support barges and pipelines will be removed from the main river channel. Equipment and materials may be in the Swan Pond Embayment, in the Intake Channel, or next to the south of the plant in the Clinch River. Any equipment left in the embayment will be lighted and marked according to federal regulations for an open river. Then, as time and resources and as the final dredging support at the skimmer wall is completed, the equipment and materials will be stored or removed from the site. The detailed directions to the workers will be presented in the work package.

### **2.0 Design**

There is no design needed for this activity.

### **3.0 Construction (demobilization)**

The order in which the dredges and equipment is removed from the river will depend on the status of the dredging task for each dredge and the progress it makes. However, pipeline will be removed from the river as dredges are brought back for closer operation in the embayment or as they finish up their assigned task. This work plan is written to support either removing the pipeline from Kingston or storing it long-term at the plant in anticipation of future use. If the pipeline is removed from the site, it can be removed by rail or by truck.

In general, as pipeline is no longer needed, it will be flushed with river water for 2 hours or until the effluent runs clean, disassembled from the dredge or the rest of the pipeline, and initially pulled around to the plant's south boat ramp. There, the pipeline would be brought on shore and cut up into transportable sizes, 50-ft sections. All chainsaw cutting will occur on land.

Once the pipe is cut, it will be stored nearby if it is to be removed from the site, or moved to a TVA-designated storage area for any pipe not planned to be removed from the site.

To demobilize a dredge, the dredge pump and line will be flushed by raising the cutterhead off the bottom and running the pump for a minimum of 4 hours or until the discharge is clear. When completed, the ladder/cutterhead will be raised. Using a pressure washer, the exterior of the dredge including the deck, ladder, and cutterhead will be cleaned, using brushes, as necessary. No soaps or cleaning solutions will be used and areas that have oil or fuel contact will be washed in a manner that minimizes contamination in the river. An adsorbent boom will surround each vessel being washed. The pipeline will then be removed from the back of the dredge. Using a push boat, the dredge will be moved to the SES south dock. There, the bilge will be washed out and if ash or oil/fuel is present, pumped out by SWS. If oil or fuel contaminated areas need decontamination, the wash water will be collected and disposed by SWS.

Using a TVA qualified rigger and crane operator, the spuds will be removed and placed in a laydown area. Then, the dredge will be pushed to the plant's south boat ramp for disassembly and load out. First, the ladder and cutterhead will be removed. Then the dredge will be pulled out of the water for additional disassembly and inspection for appropriate decontamination. Not much additional decontamination is expected after the river effort, but the inspection will be on

the pieces of the dredge. If there is a need for further decontamination, hand wiping will be done and the wipes collected and disposed appropriately. As trucks are available, the pieces of the dredge will be loaded, the load inspected.

Other pieces of equipment on the river, barges, mechanical dredging equipment, the north dock, and other boats will be washed out in the river inside a turbidity curtain. Most of the washing will occur near the skimmer wall at the south dock. Any gross amounts of ash would first be removed with the excavator bucket and taken to a wet ash storage/processing area.

A 240-ton hydraulic crane is anticipated to be used to move and load the pieces of the dredges. Lift plans will be included in the work packages.

#### **4.0 Schedule**

The demobilization will begin once the dredges finish work in the river. Pipeline will be removed from the river starting the week of May 17<sup>th</sup>. The first dredge may be moved out of the river around May 24<sup>th</sup>. All equipment and pipeline will be out of the area planned to be opened to the public by end of shift May 28<sup>th</sup>. Disassembly could start as early as the week of May 25<sup>th</sup> but more likely to begin in June.

#### **5.0 Waste Management**

Ash slurry or ash containing decontamination water will be disposed in the river and the rim ditch. Any decontamination on the river will be done behind a turbidity curtain. Any recovered water with fuel, oil, or cleaning solutions will be collected and disposed by SWS. A vessel with containment capabilities will be nearby to contain contaminated wash water. TVA and Jacobs personnel will inspect all equipment prior to removing it from the site to ensure proper cleaning.

#### **6.0 Health and Safety**

Work will be conducted according to the Site-Wide Safety and Health Plan, and supplemented by the JSAs. There will be crane lifts requiring lift plans and qualified riggers and operators. In addition, river craft protocols including float plans and weather watches will be conducted for all work on the river.

## Sevenson Work Package

Contractor: <b>Sevenson Environmental</b>		Location: <b>Kingston Fossil Plant</b>
Work Package No: <b>WP-1030</b>		Date: <b>5/13/10</b>
Work Package Desc: <b>Dredge and Pipeline demobilization</b>		
Note 1		Perform daily (minimum) pre-job briefings with crew. Each employee will have a pre-job briefing before each assignment, detailing the scope of the assigned task, the possible hazards, and steps to mitigate the identified hazards. Should the employee's daily assigned task be changed, a subsequent pre-job briefing will be given. Document briefings with signatures, and file in this Work Package. Once job has completed, perform post job briefing to discuss lessons learned from work execution or incidents.
Note2		Anytime the work package is found to have a change in the plan or a deficient area of instruction, the Foreman/Supervisor will stop work and assess the situation. If the foreman/Supervisor determines that the required change or revised area of instruction can be safely mitigated then a new pre-job briefing will be performed outlining the step change and requirements to allow work to safely continue. The Foreman/Supervisor will document the change and supply the documented change to appropriate personnel so that the master file can be updated. If the determination is made that the change is too significant to allow work to continue safely, work will be stopped and the matter referred to senior level management and engineering for resolution. There will be no exceptions.
Note3		This step text is arranged in sequence but is not intended for strict compliance. The Site Supervisor and/or Foreman may change the sequence in which the work is performed, providing the sequence change has no negative impact on job safety or work quality.
Step No.	Initial & Date As Steps Are Completed	Work Description:
1		Conduct Pre-Job Briefing and review step text. This package covers dredge and pipe disconnection and demobilization. Apply 2 minute rule throughout steps.
2		SPAs included in this work package refer to this phase of work <i>only</i> . If personnel are added to the work crew while in progress stop and review SPAs with them for this package.
3		All employees working on dredge and pipeline demobilization will use proper PPE for water work including Life Vests; radios will be carried on all river equipment.
4		Every employee has the authority and duty to stop work if they feel a situation is unsafe!
5		Flush dredge pump and line by raising cutter head off bottom and running pump for a minimum of 4 hours or until discharge at Rim Ditch is clear. When completed, raise ladder/cutter head.
6		Using a pressure washer, begin cleaning all exterior areas of the dredge including: deck, ladder, cutter head. If necessary use brushes to loosen dirt. Do not use any soaps, and minimize washing any exterior areas that may have oil or fuel contamination into river. Deploy surrounding absorbant boom.
7		With assistance of excavator barge, unbolt pipeline from back of dredge using hand tools.
8		Using a push & pull boat, move dredge to south dock and tie off.
9		Using a pressure washer and pump clean interior sections of dredge and collect wash water in a vessel for disposal by SWS. Do not wash oil/fuel contaminated water into the river.
10		<b>STOP</b> for load calculations and Lift Plan review. Take Two and assess the work area for levelness and hazards, clear the area of non-essential personnel and be sure the area between the lift and the lay down area is clear of obstructions. Inspect lifting equipment including shackles, slings, chains, wire rope, etc. and be sure tag lines are in place.
11		Using a TVA qualified rigger and crane operator, remove spuds from dredge and place in laydown area to be determined at south dock.
12		With spuds removed, use push & pull boat to move dredge to TVA south boat ramp for disassembly and load out.

2 HRS IF REMOVING INTERMEDIATE PIPE SECTION

### Sevenson Work Package

Step No.	Initial & Date As Steps Are Completed	Work Description:
13		<b>STOP</b> for load calculations and Lift Plan review. Take Two and assess the work area for levelness and hazards, clear the area of non-essential personnel and be sure the area between the lift and the lay down area is clear of obstructions. Inspect lifting equipment including shackles, slings, chains, wire rope, etc. and be sure tag lines are in place.
14		While in the water, use a TVA qualified rigger to attach ladder/cutterhead to crane using straps/slings. Unbolt and remove ladder and cutterhead and place in laydown area to be determined at south boat ramp.
15		Install wooden ramps into water at south boat ramp to bring dredge out of water.
16		Using a properly sized dozer and wire cable, pull dredge from water onto ramps for additional disassembly. Engineered calculation will be made prior to any lift.
17		Continue disassembly of dredge and removal of components with crane positioned at south boat ramp. Review lift plans for each piece of the dredge being lifted including: Generators, cab, floats.
18		When trucks are available, use crane to load dredge parts onto trucks. When truck is loaded, allow driver to inspect load and tie down appropriately before moving the truck.
19		The following steps can be performed concurrently with above.
20		Using push & pull boat, move dredge pipe to staging area adjacent to south boat ramp. Break flanged connections as necessary to facilitate removal of pipe from water.
21		Using a loader or other piece of equipment, attach a nylon strap or wire rope to the dredge pipe and begin to pull out of water. Use a spotter on land to communicate with operator pulling to be sure area is clear when pipe is being pulled.
22		Using a chainsaw, (TVA Chain Saw Certification required) cut pipe into 50' lengths as it is removed from the water. If necessary use proper PPE and a pressure washer to clean any residual dirt/ash from the pipe.
23		Once cut, the dredge pipe can be moved with a front end loader to a marshalling area to be determined in conjunction with TVA.
24		As dredge pipe is removed, remove pipe floats and move with a front end loader to marshalling area.
25		Other established river craft protocols will be adhered to and deteriorating weather conditions will be monitored by radio. If winds exceed 25 MPH sustained or flow velocity of the river reaches 2 FPS, marine operations will be suspended. The barge will lower the spuds into the mudline and the personnel transported to the dock by push boat.
26		All hands have our ending conference, discuss what went well, any lessons learned, and any challenges that were unexpected as well as how they were remediated.
27		
28		
29		
		 <span style="font-size: 1.2em; margin-left: 100px;">05-14-10</span>
		<hr style="width: 80%; margin: 0 auto;"/> <b>Jacobs Lead CM / DATE</b>

## Fossil Development and Construction CONTRACTOR SAFETY PRE-JOB BRIEF

Turn into Site Manager/Safety Department at end of day or completion of the work task.



The PJB shall be completed daily for each task. Post this PJB in a conspicuous location throughout the length of the task. Each crew member involved with the task shall sign this PJB at the beginning of shift.

Plant/Site: \_\_\_\_\_

Contractor: \_\_\_\_\_

Foreman: \_\_\_\_\_

Employee / Conducting PJB Name

\_\_\_\_\_

Date: \_\_\_\_\_

Location of Task: \_\_\_\_\_

\_\_\_\_\_

Task Description: \_\_\_\_\_

\_\_\_\_\_

Does the task require special training? **Yes  No**

If yes, what type? \_\_\_\_\_

\_\_\_\_\_

### General Information

1. Should Safety Professional be involved in the planning of this job? **Yes  No**

### Job Safety Analysis

1. What are the hazards associated with the job? Be PARTICULARLY careful about:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Hazard Corrections: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

2. Has job task specific JSA been completed / reviewed with all crew members for this task? **Yes  No**

3. Has the Two Minute Rule been observed before starting this job specific task? **Yes  No**

### Rigging

1. Has the rigging plan been discussed and all paper work been completed? **Yes  No  N/A**

**Note:** Complete Appendix (A) when using chain falls and com-a-longs **Yes  No**

2. Has rigging equipment been inspected? **Yes  No**

3. Person In-Charge of rigging

\_\_\_\_\_

4. Signal Person **N/A**

\_\_\_\_\_

5. Person In-Charge / Signal person directed to wear a yellow safety vest during all rigging task. **Yes  N/A**

6. Cranes/Overhead power lines & associated electrical hazards evaluated (guy wires, poles, structures).

**Yes  No  N/A**

7. Low clearance Electrical Hazards have been identified and flagged, (guy wires, conductors, etc.)

**Yes  No  N/A**

Rigging Requirements Verified By:

Signature \_\_\_\_\_

### Tools and Equipment

Has the required user inspection been completed on all tools, ladders, electrical cords, and safety equipment? **Yes  No**

### Scaffolds / Ladders

Have all scaffolds/ladders been inspected and all scaffold tags been signed? **Yes  No  N/A**

### Emergency Equipment

Identify below the location of the nearest extinguisher and communication source and your assembly area.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### Housekeeping

Is housekeeping safe & acceptable in the work area?

**Yes  No**

Location: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### Fall Protection

Have areas been identified as requiring fall protection systems? (I.e. static lines, barricades, hole covers, etc.)

**Yes  No**

Have they been installed? **Yes  No**

### Asbestos

Have all areas that may present an asbestos exposure hazard while executing task been identified including known asbestos containing material and potentially asbestos containing material? **Yes  No  N/A**

### Fire Protection

Are flammable / combustible materials stored, separated, inspected, and secured per procedure? **Yes  No**

### Personal Protective Equipment Required

1. Hard Hat.....**Yes  No**

2. Fall Protection.....**Yes  No**

3. Eye / Face.....**Yes  No**

4. Respirator.....**Yes  No**

5. Foot.....**Yes  No**

6. Hand.....**Yes  No**

7. Hearing.....**Yes  No**

8. Knee Pads.....**Yes  No**

9. Tyveks.....**Yes  No**



APPENDIX (A)

RIGGING ACTIVITIES THAT REQUIRE ADDITIONAL PLANNING AND APPROVAL WHEN USING CHAIN FALLS AND COM-A-LONGS

- 1. Is the lift/hoist in a position that is beyond 15 degrees of vertical/plumb? ..... Yes  No
- 2. Is there multiple lift points? ..... Yes  No
- 3. Is the lift height greater than 20 feet? ..... Yes  No
- 4. Does component weigh greater than 80 percent of the rigging equipment capacity? ..... Yes  No
- 5. Is there any special rigging equipment (powered hoist, etc.)? ..... Yes  No
- 6. Is the material being lifted within two (2) feet of the hoisting device? ..... Yes  No
- 7. Is this a field rework/modification, specifically removing, modifying or taking out of service a component previously installed under new construction? ..... Yes  No

\* Rigging Specialist must sign: Rigging Specialist: \_\_\_\_\_

\* TVA Review/Sign-off: TVA Review \_\_\_\_\_ N/A

CHECK LIST ITEMS TO CHECK WHEN USING CHAIN FALLS AND COM-A-LONGS

- 8. Is weight rigging/pick known? ..... Yes  No
- 9. Do you have the proper device, rigging, and attachments? ..... Yes  No
- 10. Do you have proper head room / clearance for the rigging? ..... Yes  No
- 11. Do you have the mandated use of shackles in place for connecting multiple rigging points? ..... Yes  No
- 12. What degree angle (never use slings under 30 degree)? ..... Yes  No
- 13. Softeners required? ..... Yes  No
- 14. Latches, hooks are all in place and working? ..... Yes  No
- 15. Levers / chains free moving? ..... Yes  No
- 16. Barricaded area around work? ..... Yes  No
- 17. Is structure adequate to handle the intended load? ..... Yes  No
- 18. Is load centered over lifting device? ..... Yes  No
- 19. Will more then one device be used? ..... Yes  No
- 20. Shackle required for securing slings to lifting device? ..... Yes  No
- 21. Is there a potential of material, rigging and/or damaging load intended to be lifted? ..... Yes  No
- 22. Need to keep clear of load, when lifted, can you work device without getting under load? ..... Yes  No
- 23. Have you thought out a plan and reviewed with crew? ..... Yes  No
- 24. Will there be hot work going on around the device, slings or work area? ..... Yes  No
- 25. Have device been checked prior to lift? ..... Yes  No
- 26. Lifting, hoisting and/or restraining of material that employs the use of a lifting/hoisting device other than a crane? ..... Yes  No
- 27. Have all items been reviewed and discussed with the crew? ..... Yes  No

# TVA TAKE TWO

## Two Minute Hazard Identification

Filled out by: \_\_\_\_\_ Date: \_\_\_\_\_

WO Number (If applicable): \_\_\_\_\_

- Orient your thinking to the task at hand.
- Consider any abnormal conditions that might influence the task.
- Look for any potential hazards to personnel or hindrances to the task.

### Explanation of task:

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What are the hazards involved with the particular task or in the immediate area?

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What am I going to do to mitigate those hazards?

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Do I feel that this task can be performed safely?

- Yes. I feel that I can safely perform this task.
- No. I am unsure that all hazards are recognized and mitigated, and I request additional support.

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Name of employee(s) assigned this task  
Foreman/Supervisor concurrence that risks have been controlled if "No" was checked above.

### Reminders

- Complete a "Take Two" card for every assigned job.
- Any employee has the right to stop a job and ask for help to control the risks.
- Submit the completed card with the work package upon completion of the job



Load and Capacity Calculations (Page 2 of 4)			
<b>C. Capacities of the (Main) Crane</b>			
Make & Model of Crane			
2. Counter Weight Size:		Type of Boom:	
3. Lifting Arrangement			
a. Max. Radius During Lift		Ft.	
b. Length of Boom		Ft.	
c. Angle of Boom at Pick		Deg.	
d. Angle of Boom at Set		Deg.	
Rated Capacity Under Most Severe Conditions			
1. Over Rear		Lbs.	
2. Over Front		Lbs.	
3. Over Side		Lbs.	
f. Rated Capacity for Lift Radius, Crane Configuration, and Orientation (over front, side or....)			Lbs.
4. Jib			
a. Is the Jib to be used	Yes	No	
b. Length of Jib		Ft.	
c. Jib Angle		Deg.	
d. Rated Jib Capacity for Lift Radius, Crane Configuration, and Orientation (over front, side, or...)			Lbs.
5. Load Line/Fall Cable			
a. Is Main Block to be used?	Yes	No	
b. Number of Parts of Cable			
c. Size of Cable		Ø inches	
d. Maximum Capacity for Lift Radius, Crane Configuration, and Orientation (over front, side, or ....)			Lbs.
<b>D. Percent of Cranes Capacity (&gt;85% requires High Hazard Lift Approvals)</b>			
		$\frac{\text{Total Lifted Weight} \times 100}{\text{Rated Capacity}} =$	%
<b>E. Size of Slings</b>			
1. Sling Selection			
a. Type of Arrangement			(Spreader, Vertical Slings, etc.)
b. Number of Slings to Hook	Ø	Capacity	Lbs.
c. Sling Size		Ø	
d. Sling Length		Ft.	
e. Sling Capacity (At angle used)		Lbs.	
f. Number of Slings to Load		#	
g. Total Rigging capacity (e x f)			Lbs.
Comments:			
Sketch of rigging arrangement available	Yes	No	See Page ( )
End of Standard Lift Plan Paperwork (			



**Figure 3: Pre-Lift Checklist**

	Yes	No
1. Crane operator meets company qualification requirements?	<input type="checkbox"/>	<input type="checkbox"/>
2. Lift calculations and rigging plan completed?	<input type="checkbox"/>	<input type="checkbox"/>
3. Are lift equipment swing & travel requirements & clearances known?	<input type="checkbox"/>	<input type="checkbox"/>
4. Are all required approvals/permits signed?	<input type="checkbox"/>	<input type="checkbox"/>
5. Crane inspections up to date (Annual/Monthly/Daily)?	<input type="checkbox"/>	<input type="checkbox"/>
6. Weather conditions and wind speed acceptable?	<input type="checkbox"/>	<input type="checkbox"/>
7. Has the stability of the ground been assured by soil bearing analysis?	<input type="checkbox"/>	<input type="checkbox"/>
8. Location and size of underground facilities are known?	<input type="checkbox"/>	<input type="checkbox"/>
9. Matting and/or outrigger pads inspected and approved?	<input type="checkbox"/>	<input type="checkbox"/>
10. Electrical equipment and power lines at required distance?	<input type="checkbox"/>	<input type="checkbox"/>
11. Rigging Inspected for defects?	<input type="checkbox"/>	<input type="checkbox"/>
12. Engineered lifting lugs fabricated and installed correctly?	<input type="checkbox"/>	<input type="checkbox"/>
13. Connecting/disconnecting means been developed?	<input type="checkbox"/>	<input type="checkbox"/>
14. Have the safety precautions been reviewed?	<input type="checkbox"/>	<input type="checkbox"/>
15. Is survey equipment required?	<input type="checkbox"/>	<input type="checkbox"/>
16. Lift Hold Point of $\geq$ _____ lbs communicated to crew?	<input type="checkbox"/>	<input type="checkbox"/>
17. Signal person(s) assigned?	<input type="checkbox"/>	<input type="checkbox"/>
18. Safe Plan of Action (SPA) Completed?	<input type="checkbox"/>	<input type="checkbox"/>
19. Pre-Lift Meeting/Task Safety Awareness Meeting (TSA) held?	<input type="checkbox"/>	<input type="checkbox"/>
20. Hoist area & load path cleared of non-essential personnel?	<input type="checkbox"/>	<input type="checkbox"/>
21. Crane set up per the lift plan (radius, configuration, etc)?	<input type="checkbox"/>	<input type="checkbox"/>
22. Rigging equipment and tag line(s) installed per plan?	<input type="checkbox"/>	<input type="checkbox"/>
Completed By Signature:	Name Printed:	Date:



**TVA-Emory River  
Safe Plan Of Action**

**Project No. 1017**

Job/Task: Dredge/pipeline Demobilization      Work Area: Emory River

Date: \_\_\_\_\_

<b>Steps of Task ( in a safe order )</b>	<b>Hazard/Reaction to Change ( What's going to hurt you? )</b>	<b>Safe Plan ( What are YOU doing to prevent an injury? )</b>	<b>Resources ( Tools, Equipment, Manuals, Etc.)</b>
Hydraulic dredge	Inspect boats and dredges prior to use	Use inspection sheet and float plans for documentation	Equipment inspection logs
Work boats	Loss of communication with shore or with work crew	Ensure batteries are charged for cell phones, 2 way radios and Nextel's	Radios, cell phones, Nextel's
		Ensure air horns are on board And in working condition	Air horns
		Buddy system, Alert safety or foreman if You're alone prior to leaving shore	Communication
General water safety	Working on and near water	PFD's required within 5' of waters edge or on water	PFD's (must be buckled!!!)
	First Aid injuries	All work boats to contain first aid kits. Check contents periodically	First Aid kits
		Ensure throw lines area available for person overboard.	Life rings
Moving barges and machinery Pulling and setting spuds	Pinch points	Inspect rigging / eye contact / use gloves/ Watch for items under tension	Leather work gloves, straps and shackles
Transporting fuel to boats, dock & fueling	Slips from spills	Clean up spills ASAP. Contain as necessary with spill kit supplies.	Spill kits, oil boom Refer to Fueling SPA for activity
Flushing of dredge pump and line	Falling in water, falling on barge	Buddy system, sure footing	
	Pinch Points	Body positioning	
	Grip hoist removal	Watch out for each other Use good body positioning	Buddy system
Dredge support crew		Slow speed while going in or out of zone	Communicate with man in bow.

Steps of Task ( in a safe order )	Hazard/Reaction to Change ( What's going to hurt you? )	Safe Plan ( What are YOU doing to prevent an injury? )	Resources ( Tools, Equipment, Manuals, Etc.)
Unbolt of pipeline from back of dredge	Pinch points	Watch body positioning. Keep fingers clear of pipe that may shift	Use of the right tools for the job
		Secure piping before breaking flanges	
	Inclement Weather/ Lightening	Shut down water operations and get to shore for weather events	Weather forecast/ news
	Fire	All boats and equipment to have fire extinguishers	Fire Extinguishers
		Periodically check charge on extinguishers	

**Team Members Signatures:**


Supervisors Signature: \_\_\_\_\_ Date \_\_\_\_\_

Instructions: 1. Write name of job or task in space provided. 2. Conduct walk-through survey of work area. 3. Write the steps of the task in a safe sequence. 4. List all possible hazards involved in each step and reaction to change. 5. In the Safe Plan column, state actions that will be taken to prevent the hazards or injury from reaction to change. 6. In Resources column, list equipment, tools, etc. needed to do the job. 7. Ask each team member, who helped develop and will use this SPA, to sign in spaces provided. 8. Review the SPA at the end of the task for improvements. Stop when conditions change, the job changes, or a deficiency in the plan is discovered, and the current SPA will be modified or a new SPA created.

**Review checklist while completing front page of SPA. Check all that apply.**

A new SPA is required if the job scope or work conditions change.

Required Permits	Hazards	Safe Plan
<input type="checkbox"/> Confined Space	<input type="checkbox"/> Overhead Utilities	<input type="checkbox"/> Power de-energization required <input type="checkbox"/> Insulation blankets required <input type="checkbox"/> Wire watcher required
<input type="checkbox"/> Critical Lift		<input type="checkbox"/> Required clearance distance = _____ Ft. <input type="checkbox"/> Safe work zone marked
<input type="checkbox"/> Hot Work	<input type="checkbox"/> Crane or other Lifting Equipment	<input type="checkbox"/> Signalman assigned <input type="checkbox"/> Tag lines in use <input type="checkbox"/> Area around crane barricaded
<input type="checkbox"/> Lock Out/Tag Out/Try		<input type="checkbox"/> Lifting equipment inspected <input type="checkbox"/> Personnel protected from overhead load
<input type="checkbox"/> Soil Disturbance (Over 2")	<input type="checkbox"/> Underground Utilities	<input type="checkbox"/> Reviewed as-builts <input type="checkbox"/> Subsurface surveys <input type="checkbox"/> Received dig permit
<input type="checkbox"/> Utility Clearance		<input type="checkbox"/> Required clearance distance = _____ Ft. <input type="checkbox"/> Safe work zone Marked
<b>Required PPE</b>	<input type="checkbox"/> Electrical	<input type="checkbox"/> Lock Out/Tag Out/Try Out <input type="checkbox"/> Permit required? <input type="checkbox"/> Confirm that equipment is de-energized
<input type="checkbox"/> Hard Hat, Class C	<input type="checkbox"/> Excavations	<input type="checkbox"/> Reviewed electrical safety procedures
<input type="checkbox"/> Hard Hat, Class E ( <i>Elect. Protect</i> )		<input type="checkbox"/> Permits <input type="checkbox"/> Inspected prior to entering <input type="checkbox"/> Proper sloping/shoring
<input type="checkbox"/> Ear Plugs/Ear Muffs		<input type="checkbox"/> Barricades provided <input type="checkbox"/> Access/egress provided <input type="checkbox"/> Protection from accumulated water
<b>Eye Protection:</b>	<input type="checkbox"/> Fire Hazard	<input type="checkbox"/> Hot Work Permit <input type="checkbox"/> Fire Extinguishers <input type="checkbox"/> Fire watch
<input type="checkbox"/> Safety Glasses		<input type="checkbox"/> Adjacent area protected <input type="checkbox"/> Unnecessary flammable material removed
<input type="checkbox"/> Face Shield	<input type="checkbox"/> Vehicular Traffic or Heavy Equipment	<input type="checkbox"/> Traffic Barricades <input type="checkbox"/> Cones <input type="checkbox"/> Signs <input type="checkbox"/> Flagmen <input type="checkbox"/> Lane closure
<input type="checkbox"/> Chemical Goggles		<input type="checkbox"/> Communication with equipment operator
<input type="checkbox"/> Welding Hood	<input type="checkbox"/> Noise >85 dB	Hearing protection is required: <input type="checkbox"/> Ear plugs <input type="checkbox"/> Ear Muffs <input type="checkbox"/> Both
<b>Hand Protection:</b>	<input type="checkbox"/> Hand & Power Tools:	<input type="checkbox"/> Inspect general cond. <input type="checkbox"/> GFCI in use <input type="checkbox"/> Identified PPE required for each tool
<input type="checkbox"/> Cut Resistant Gloves		<input type="checkbox"/> Reviewed safety requirements in operators manual(s) <input type="checkbox"/> Guarding OK
<input type="checkbox"/> Welders Gloves	<input type="checkbox"/> Hand Hazards	List sharp tools, material, equipment: _____
<input type="checkbox"/> Nitrile Gloves		<input type="checkbox"/> PPE gloves, etc. <input type="checkbox"/> Protected sharp edges as necessary
<input type="checkbox"/> Surgical Gloves	<input type="checkbox"/> Manual Lifting	<input type="checkbox"/> Reviewed proper lifting tech. <input type="checkbox"/> Identified material requiring lifting equipment
<input type="checkbox"/> Rubber Gloves		<input type="checkbox"/> Hand protection required <input type="checkbox"/> Back support belts
<input type="checkbox"/> Elect. Insulated Gloves	<input type="checkbox"/> Ladders	<input type="checkbox"/> Inspect general cond. before use <input type="checkbox"/> Ladder inspected with in last quarter
<input type="checkbox"/> Arm Sleeves		<input type="checkbox"/> Ladder tied off or held <input type="checkbox"/> Proper angle and placement <input type="checkbox"/> Reviewed ladder safety
<b>Foot Protection:</b>	<input type="checkbox"/> Scaffolds	<input type="checkbox"/> Inspect general condition before use <input type="checkbox"/> Tags in place <input type="checkbox"/> Properly secured
<input type="checkbox"/> Sturdy Work Boots		<input type="checkbox"/> Toe boards used <input type="checkbox"/> Footings adequate <input type="checkbox"/> Materials properly stored on scaffold
<input type="checkbox"/> Safety Toe Boots	<input type="checkbox"/> Slips, Trips Falls	<input type="checkbox"/> Inspect for trip hazards <input type="checkbox"/> Hazards marked <input type="checkbox"/> Tools & material properly stored
<input type="checkbox"/> Rubber Boots		<input type="checkbox"/> Extension cords properly secured <input type="checkbox"/> Work zone free of debris
<input type="checkbox"/> Rubber Boot Covers	<input type="checkbox"/> Pinch Points	List potential pinch points: _____
<input type="checkbox"/> Dielectric Footwear		<input type="checkbox"/> Working near operating equipment <input type="checkbox"/> Hand/Body positioning
<b>Respiratory Protection:</b>	<input type="checkbox"/> Working w/ Chemicals	<input type="checkbox"/> List specific chemicals involved and list hazards and precaution on front side.
<input type="checkbox"/> Dust Mask		<input type="checkbox"/> Reviewed MSDS <input type="checkbox"/> Exposure Monitoring required <input type="checkbox"/> Have proper containers and labels.
<input type="checkbox"/> Air Purifying Respirator	<input type="checkbox"/> Asbestos or Lead Paint Potential	<input type="checkbox"/> Identified proper PPE (respirators, clothing, gloves, etc.)
<input type="checkbox"/> Supplied Air Respirator		<input type="checkbox"/> Areas to be worked may contain asbestos or lead paint <input type="checkbox"/> Asbestos controls incorporated
<input type="checkbox"/> SCBA	<input type="checkbox"/> Heat Stress Potential	<input type="checkbox"/> Lead based point controls in place <input type="checkbox"/> Exposure monitoring conducted.
<input type="checkbox"/> Emergency Escape Respirator		<input type="checkbox"/> Heat stress monitoring (>85°) <input type="checkbox"/> Liquids available <input type="checkbox"/> Cool down periods
<b>Special Clothing:</b>	<input type="checkbox"/> Cold Stress Potential	<input type="checkbox"/> Sun Screen <input type="checkbox"/> Reviewed Heat Stress symptoms
		<input type="checkbox"/> Proper clothing (i.e., gloves, coat, coveralls) <input type="checkbox"/> Wind chill <32°
<input type="checkbox"/> Tyvek ®	<input type="checkbox"/> Environmental	<input type="checkbox"/> Reviewed Cold Stress symptoms <input type="checkbox"/> Warm up periods
<input type="checkbox"/> Poly Coated Tyvek ®		<input type="checkbox"/> Air emissions <input type="checkbox"/> Water discharge <input type="checkbox"/> Hazardous wastes <input type="checkbox"/> Other wastes
<input type="checkbox"/> Fire Resistant Coveralls	<input type="checkbox"/> Natural or Site Hazards	<input type="checkbox"/> Pollution prevention <input type="checkbox"/> Waste minimization
<input type="checkbox"/> Rain Suit		<input type="checkbox"/> Weather <input type="checkbox"/> Terrain <input type="checkbox"/> Adjacent operations or processes <input type="checkbox"/> Biological hazards
<input type="checkbox"/> Safety Vest	<input type="checkbox"/> Adjacent Work/Processes	<input type="checkbox"/> Animals/reptiles/insects hazards
<b>Fall Protection:</b>		<input type="checkbox"/> Notified them of our presents <input type="checkbox"/> Other workers adjacent, above, or below.
	<input type="checkbox"/> Harness	<input type="checkbox"/> Barricades/covers
<input type="checkbox"/> Double Lanyard Required	<input type="checkbox"/> Caution barricade tape required <input type="checkbox"/> Danger barricade tape required <input type="checkbox"/> Rigid railing required	
<input type="checkbox"/> Anchorage Point Available	<b>Additional Information:</b>	
<input type="checkbox"/> Additional Anchorage Connector Needed e.g. Cross Arm Strap, etc.		
<input type="checkbox"/> Retractable Device Needed		
<input type="checkbox"/> Horizontal Life Line System Req'd.		
<input type="checkbox"/> Fall Clearance Distance Adequate		
<input type="checkbox"/> Fall Rescue/Retrieval Plan Set Up		



### Safe Plan Of Action

Project No. 1017

Job/Task: Picking spuds from barge

Work Area: Emory River

Date: \_\_\_\_\_

Steps of Task ( in a safe order )	Hazard/Reaction to Change ( What's going to hurt you? )	Safe Plan ( What are YOU doing to prevent an injury? )	Resources ( Tools, Equipment, Manuals, Etc.)
Mobilize Crane Inspect and set up crane	Heavy Equipment inspection- equipment failure	Inspect heavy equipment to be used in task prior to use	Documentation through equipment inspection form
Get barge into position for crane to pick load		Document on inspection sheet Don't use defective equipment	Lock/Tag for defective equipment
Review critical lift plan for accuracy and appropriate items		Lock out/ tag out of equipment until repaired or replaced	
Plan pick safely and accordingly Inspect area for hazards			
Inspect rigging Rig item(s) to be picked	Critical lift plan not filled out for pick	Review critical lift plan to determine if pick is or is not considered a "critical lift"	Critical lift plan documentation
Communicate for pick preparation Make pick and set		Fill out critical lift plan for picks that are	
	Rigging failure	Inspect rigging prior to use. Check for defects prior to use.	Slings and shackles
		Tag out defective rigging	Lock/Tag for defective equipment
		Know the rigging load rating. Know the weight of the load being picked	
	Crushing	Keep out from under suspended loads.	
	Caught in between/ struck by	Keep out from swing radius. Rope off swing area. Keep out of blind spots.	
		Let operator know your intended direction.	

Steps of Task ( in a safe order )	Hazard/Reaction to Change ( What's going to hurt you? )	Safe Plan ( What are YOU doing to prevent an injury? )	Resources ( Tools, Equipment, Manuals, Etc.)
<i>Picking spuds and wells continued...</i>			
	Spills	Utilize spill prevention devices. Report spills to supervision.	Pans, oil pads, oil boom, plastic bags, rags Contact with SWS
	Water activity- drowning	PFD required within 5' of waters edge.	PFD
		Inspect boats. Fill out float plans.	Inspection forms, float plans
	Severe weather	Check forecast. Winds over 20 mph may prevent pick.	Weather forecasting
	Hand/ body hazards- rigging barbs, pinch points.	Wear Kevlar gloves to prevent cuts and punctures	
		Keep fingers and body parts out from areas of potential for pinching.	
		Keep aware of body positioning. Stay alert for activity changes	
	Additional personnel	Keep nonessential people away.	.
	Loss of load	Use a tag line for all picks to help control load direction	rope
	Slips, trips and falls	Watch where you're walking. Survey area for surface hazards.	
		Inspect ladders before use. Don't use defective ladders.	Tag out defective equipment
		3 points of contact for climbing ↑ ↓. Use safe access and egress	
	Barge drifting and positioning	Secure barge to keep from drifting	Rope, pinning, pushing with boat
	Manual lifting	Use safe lifting practices	
		Use legs, squat to pick load. Don't use back.	
		Use mechanical aid where available. Plan path of travel.	

Team Members Signatures:


Supervisors Signature: \_\_\_\_\_ Date \_\_\_\_\_

Instructions: 1. Write name of job or task in space provided. 2. Conduct walk-through survey of work area. 3. Write the steps of the task in a safe sequence. 4. List all possible hazards involved in each step and reaction to change. 5. In the Safe Plan column, state actions that will be taken to prevent the hazards or injury from reaction to change. 6. In Resources column, list equipment, tools, etc. needed to do the job. 7. Ask each team member, who helped develop and will use this SPA, to sign in spaces provided. 8. Review the SPA at the end of the task for improvements. Stop when conditions change, the job changes, or a deficiency in the plan is discovered, and the current SPA will be modified or a new SPA created.

**Review checklist while completing front page of SPA. Check all that apply.**

A new SPA is required if the job scope or work conditions change.

Required Permits	Hazards	Safe Plan
<input type="checkbox"/> Confined Space	<input type="checkbox"/> Overhead Utilities	<input type="checkbox"/> Power de-energization required <input type="checkbox"/> Insulation blankets required <input type="checkbox"/> Wire watcher required
<input checked="" type="checkbox"/> Critical Lift	<input checked="" type="checkbox"/> No Overhead Utilities	<input type="checkbox"/> Required clearance distance = _____ Ft. <input type="checkbox"/> Safe work zone marked
<input type="checkbox"/> Hot Work	<input checked="" type="checkbox"/> Crane or other Lifting Equipment	<input type="checkbox"/> Signalman assigned <input type="checkbox"/> Tag lines in use <input type="checkbox"/> Area around crane barricaded
<input type="checkbox"/> Lock Out/Tag Out/Try		<input type="checkbox"/> Lifting equipment inspected <input type="checkbox"/> Personnel protected from overhead load
<input type="checkbox"/> Soil Disturbance (Over 2")	<input type="checkbox"/> Underground Utilities	<input type="checkbox"/> Reviewed as-builts <input type="checkbox"/> Subsurface surveys <input type="checkbox"/> Received dig permit
<input type="checkbox"/> Utility Clearance		<input type="checkbox"/> Required clearance distance = _____ Ft. <input type="checkbox"/> Safe work zone Marked
Required PPE		
<input type="checkbox"/> Hard Hat, Class C	<input type="checkbox"/> Electrical	<input type="checkbox"/> Lock Out/Tag Out/Try Out <input type="checkbox"/> Permit required? <input type="checkbox"/> Confirm that equipment is de-energized
<input checked="" type="checkbox"/> Hard Hat, Class E ( <i>Elect. Protect</i> )	<input type="checkbox"/> Excavations	<input type="checkbox"/> Reviewed electrical safety procedures
<input type="checkbox"/> Ear Plugs/Ear Muffs		<input type="checkbox"/> Permits <input type="checkbox"/> Inspected prior to entering <input type="checkbox"/> Proper sloping/shoring
Eye Protection:	<input type="checkbox"/> Fire Hazard	<input type="checkbox"/> Barricades provided <input type="checkbox"/> Access/egress provided <input type="checkbox"/> Protection from accumulated water
<input checked="" type="checkbox"/> Safety Glasses		<input type="checkbox"/> Hot Work Permit <input type="checkbox"/> Fire Extinguishers <input type="checkbox"/> Fire watch
<input type="checkbox"/> Face Shield	<input checked="" type="checkbox"/> Vehicular Traffic or Heavy Equipment	<input type="checkbox"/> Adjacent area protected <input type="checkbox"/> Unnecessary flammable material removed
<input type="checkbox"/> Chemical Goggles		<input type="checkbox"/> Traffic Barricades <input type="checkbox"/> Cones <input type="checkbox"/> Signs <input type="checkbox"/> Flagmen <input type="checkbox"/> Lane closure
<input type="checkbox"/> Welding Hood	<input type="checkbox"/> Noise >85 dB	<input type="checkbox"/> Communication with equipment operator
Hand Protection:	<input type="checkbox"/> Hand & Power Tools:	Hearing protection is required: <input type="checkbox"/> Ear plugs <input type="checkbox"/> Ear Muffs <input type="checkbox"/> Both
<input checked="" type="checkbox"/> Cut Resistant Gloves		<input type="checkbox"/> Inspect general cond. <input type="checkbox"/> GFCI in use <input type="checkbox"/> Identified PPE required for each tool
<input type="checkbox"/> Welders Gloves	<input type="checkbox"/> Hand Hazards	<input type="checkbox"/> Reviewed safety requirements in operators manual(s) <input type="checkbox"/> Guarding OK
<input checked="" type="checkbox"/> Nitrile Gloves		List sharp tools, material, equipment: _____
<input type="checkbox"/> Surgical Gloves	<input type="checkbox"/> Manual Lifting	<input type="checkbox"/> PPE gloves, etc. <input type="checkbox"/> Protected sharp edges as necessary
<input type="checkbox"/> Rubber Gloves		<input type="checkbox"/> Reviewed proper lifting tech. <input type="checkbox"/> Identified material requiring lifting equipment
<input type="checkbox"/> Elect. Insulated Gloves	<input type="checkbox"/> Ladders	<input type="checkbox"/> Hand protection required <input type="checkbox"/> Back support belts
<input type="checkbox"/> Arm Sleeves		<input type="checkbox"/> Inspect general cond. before use <input type="checkbox"/> Ladder inspected with in last quarter
Foot Protection:	<input type="checkbox"/> Scaffolds	<input type="checkbox"/> Ladder tied off or held <input type="checkbox"/> Proper angle and placement <input type="checkbox"/> Reviewed ladder safety
<input type="checkbox"/> Sturdy Work Boots		<input type="checkbox"/> Inspect general condition before use <input type="checkbox"/> Tags in place <input type="checkbox"/> Properly secured
<input checked="" type="checkbox"/> Safety Toe Boots	<input checked="" type="checkbox"/> Slips, Trips Falls	<input type="checkbox"/> Toe boards used <input type="checkbox"/> Footings adequate <input type="checkbox"/> Materials properly stored on scaffold
<input type="checkbox"/> Rubber Boots		<input type="checkbox"/> Inspect for trip hazards <input type="checkbox"/> Hazards marked <input type="checkbox"/> Tools & material properly stored
<input type="checkbox"/> Rubber Boot Covers	<input checked="" type="checkbox"/> Pinch Points	<input type="checkbox"/> Extension cords properly secured <input type="checkbox"/> Work zone free of debris
<input type="checkbox"/> Dielectric Footwear		List potential pinch points: _____
Respiratory Protection:	<input type="checkbox"/> Working w/ Chemicals	<input type="checkbox"/> Working near operating equipment <input type="checkbox"/> Hand/Body positioning
<input type="checkbox"/> Dust Mask		<input type="checkbox"/> List specific chemicals involved and list hazards and precaution on front side.
<input type="checkbox"/> Air Purifying Respirator	<input type="checkbox"/> Asbestos or Lead Paint Potential	<input type="checkbox"/> Reviewed MSDS <input type="checkbox"/> Exposure Monitoring required <input type="checkbox"/> Have proper containers and labels.
<input type="checkbox"/> Supplied Air Respirator		<input type="checkbox"/> Identified proper PPE (respirators, clothing, gloves, etc.)
<input type="checkbox"/> SCBA	<input type="checkbox"/> Heat Stress Potential	<input type="checkbox"/> Areas to be worked may contain asbestos or lead paint <input type="checkbox"/> Asbestos controls incorporated
<input type="checkbox"/> Emergency Escape Respirator		<input type="checkbox"/> Lead based point controls in place <input type="checkbox"/> Exposure monitoring conducted.
Special Clothing:	<input type="checkbox"/> Cold Stress Potential	<input type="checkbox"/> Heat stress monitoring (>85°) <input type="checkbox"/> Liquids available <input type="checkbox"/> Cool down periods
<input checked="" type="checkbox"/> Tyvek ®		<input type="checkbox"/> Sun Screen <input type="checkbox"/> Reviewed Heat Stress symptoms
<input type="checkbox"/> Poly Coated Tyvek ®	<input type="checkbox"/> Environmental	<input type="checkbox"/> Proper clothing (i.e., gloves, coat, coveralls) <input type="checkbox"/> Wind chill <32°
<input type="checkbox"/> Fire Resistant Coveralls		<input type="checkbox"/> Reviewed Cold Stress symptoms <input type="checkbox"/> Warm up periods
<input type="checkbox"/> Rain Suit	<input type="checkbox"/> Natural or Site Hazards	<input type="checkbox"/> Air emissions <input type="checkbox"/> Water discharge <input type="checkbox"/> Hazardous wastes <input type="checkbox"/> Other wastes
<input type="checkbox"/> Safety Vest		<input type="checkbox"/> Pollution prevention <input type="checkbox"/> Waste minimization
Fall Protection:	<input type="checkbox"/> Adjacent Work/Processes	<input type="checkbox"/> Weather <input type="checkbox"/> Terrain <input type="checkbox"/> Adjacent operations or processes <input type="checkbox"/> Biological hazards
<input type="checkbox"/> Harness		<input type="checkbox"/> Animals/reptiles/insects hazards
<input type="checkbox"/> Double Lanyard Required	<input type="checkbox"/> Barricades/covers	<input type="checkbox"/> Notified them of our presents <input type="checkbox"/> Other workers adjacent, above, or below.
<input type="checkbox"/> Anchorage Point Available		<input type="checkbox"/> Coordinated with adjacent supervisor/customer/operator <input type="checkbox"/> Need barriers between.
<input type="checkbox"/> Additional Anchorage Connector Needed e.g. Cross Arm Strap, etc.		<input type="checkbox"/> Caution barricade tape required <input type="checkbox"/> Danger barricade tape required <input type="checkbox"/> Rigid railing required
<input type="checkbox"/> Retractable Device Needed		<input type="checkbox"/> Covers over opening <input type="checkbox"/> Warning signs required
<input type="checkbox"/> Horizontal Life Line System Req'd.		<b>Additional Information:</b>
<input type="checkbox"/> Fall Clearance Distance Adequate		
<input type="checkbox"/> Fall Rescue/Retrieval Plan Set Up		



### Safe Plan Of Action

Project No. 1017

Job/Task: Picking dredge and scows

Work Area: Emory River

Date: \_\_\_\_\_

Steps of Task ( in a safe order )	Hazard/Reaction to Change ( What's going to hurt you? )	Safe Plan ( What are YOU doing to prevent an injury? )	Resources ( Tools, Equipment, Manuals, Etc.)
Mobilize Crane Inspect and set up crane	Heavy Equipment inspection- equipment failure	Inspect heavy equipment to be used in task prior to use	Documentation through equipment inspection form
Get dredge and scows into position for crane to pick		Document on inspection sheet Don't use defective equipment	Lock/Tag for defective equipment
Review critical lift plan for accuracy and appropriate items		Lock out/ tag out of equipment until repaired or replaced	
Plan pick safely and accordingly Inspect area for hazards			
Inspect rigging Rig item(s) to be picked	Critical lift plan filled out for pick	Review critical lift plan	Critical lift plan documentation
Communicate for pick preparation Make pick and set		Fill out critical lift plan for this pick	
Demobilize crane			
Positioning of trucks for loading scows	Rigging failure	Inspect rigging prior to use. Check for defects prior to use.	Slings and shackles
		Tag out defective rigging	Lock/Tag for defective equipment
		Know the rigging load rating. Know the weight of the load being picked	
	Crushing	Keep out from under suspended loads.	
	Caught in between/ struck by	Keep out from swing radius. Rope off swing area. Keep out of blind spots.	
		Let operator know your intended direction.	

Steps of Task ( in a safe order )	Hazard/Reaction to Change ( What's going to hurt you? )	Safe Plan ( What are YOU doing to prevent an injury? )	Resources ( Tools, Equipment, Manuals, Etc.)
<i>Picking dredge &amp; scows...</i>	Electrocution	Survey area for overhead power lines.	Eyes
		Keep swinging equipment a safe distance from live wires	
		Plan containment for potentially contaminated items	Poly sheeting, absorbent materials
	Spills	Utilize spill prevention devices. Report spills to supervision.	Pans, oil pads, oil boom, plastic bags, rags
	Water activity- drowning	PFD required within 5' of waters edge.	PFD
		Inspect boats. Fill out float plans.	Inspection forms, float plans
	Severe weather	Check forecast. Winds over 20 mph may prevent pick.	Weather forecasting
	Hand/ body hazards- rigging barbs, pinch points.	Wear Kevlar gloves to prevent cuts and punctures	
		Keep fingers and body parts out from areas of potential for pinching.	
		Keep aware of body positioning. Stay alert for activity changes	
	Additional personnel	Keep nonessential people away.	
	Loss of load	Use a tag line for all picks to help control load direction	rope
	Slips, trips and falls	Watch where you're walking. Survey area for surface hazards.	
		Inspect ladders before use. Don't use defective ladders.	Tag out defective equipment
		3 points of contact for climbing ↑ ↓. Use safe access and egress	
	Dredge and scows drifting and positioning	Secure dredge & scows to keep from drifting	Rope, pushing with boat
	Manual lifting	Use safe lifting practices	
		Use legs, squat to pick load. Don't use back.	

		Use mechanical aid where available. Plan path of travel.	

Team Members Signatures:


Supervisors Signature: \_\_\_\_\_ Date \_\_\_\_\_

Instructions: 1. Write name of job or task in space provided. 2. Conduct walk-through survey of work area. 3. Write the steps of the task in a safe sequence. 4. List all possible hazards involved in each step and reaction to change. 5. In the Safe Plan column, state actions that will be taken to prevent the hazards or injury from reaction to change. 6. In Resources column, list equipment, tools, etc. needed to do the job. 7. Ask each team member, who helped develop and will use this SPA, to sign in spaces provided. 8. Review the SPA at the end of the task for improvements. Stop when conditions change, the job changes, or a deficiency in the plan is discovered, and the current SPA will be modified or a new SPA created.

**Review checklist while completing front page of SPA. Check all that apply.**

A new SPA is required if the job scope or work conditions change.

Required Permits	Hazards	Safe Plan
<input type="checkbox"/> Confined Space	<input type="checkbox"/> Overhead Utilities	<input type="checkbox"/> Power de-energization required <input type="checkbox"/> Insulation blankets required <input type="checkbox"/> Wire watcher required
<input checked="" type="checkbox"/> Critical Lift	<input checked="" type="checkbox"/> No Overhead Utilities	<input type="checkbox"/> Required clearance distance = _____ Ft. <input type="checkbox"/> Safe work zone marked
<input type="checkbox"/> Hot Work	<input checked="" type="checkbox"/> Crane or other Lifting Equipment	<input type="checkbox"/> Signalman assigned <input type="checkbox"/> Tag lines in use <input type="checkbox"/> Area around crane barricaded
<input type="checkbox"/> Lock Out/Tag Out/Try		<input type="checkbox"/> Lifting equipment inspected <input type="checkbox"/> Personnel protected from overhead load
<input type="checkbox"/> Soil Disturbance (Over 2")	<input type="checkbox"/> Underground Utilities	<input type="checkbox"/> Reviewed as-builts <input type="checkbox"/> Subsurface surveys <input type="checkbox"/> Received dig permit
<input type="checkbox"/> Utility Clearance		<input type="checkbox"/> Required clearance distance = _____ Ft. <input type="checkbox"/> Safe work zone Marked
<b>Required PPE</b>		
<input type="checkbox"/> Hard Hat, Class C	<input type="checkbox"/> Electrical	<input type="checkbox"/> Lock Out/Tag Out/Try Out <input type="checkbox"/> Permit required? <input type="checkbox"/> Confirm that equipment is de-energized
<input checked="" type="checkbox"/> Hard Hat, Class E ( <i>Elect. Protect</i> )	<input type="checkbox"/> Excavations	<input type="checkbox"/> Reviewed electrical safety procedures
<input type="checkbox"/> Ear Plugs/Ear Muffs		<input type="checkbox"/> Permits <input type="checkbox"/> Inspected prior to entering <input type="checkbox"/> Proper sloping/shoring
<b>Eye Protection:</b>	<input type="checkbox"/> Fire Hazard	<input type="checkbox"/> Barricades provided <input type="checkbox"/> Access/egress provided <input type="checkbox"/> Protection from accumulated water
<input checked="" type="checkbox"/> Safety Glasses		<input type="checkbox"/> Hot Work Permit <input type="checkbox"/> Fire Extinguishers <input type="checkbox"/> Fire watch
<input type="checkbox"/> Face Shield	<input checked="" type="checkbox"/> Vehicular Traffic or Heavy Equipment	<input type="checkbox"/> Adjacent area protected <input type="checkbox"/> Unnecessary flammable material removed
<input type="checkbox"/> Chemical Goggles		<input type="checkbox"/> Traffic Barricades <input type="checkbox"/> Cones <input type="checkbox"/> Signs <input type="checkbox"/> Flagmen <input type="checkbox"/> Lane closure
<input type="checkbox"/> Welding Hood	<input type="checkbox"/> Noise >85 dB	<input type="checkbox"/> Communication with equipment operator
<b>Hand Protection:</b>	<input type="checkbox"/> Hand & Power Tools:	Hearing protection is required: <input type="checkbox"/> Ear plugs <input type="checkbox"/> Ear Muffs <input type="checkbox"/> Both
<input checked="" type="checkbox"/> Cut Resistant Gloves		<input type="checkbox"/> Inspect general cond. <input type="checkbox"/> GFCI in use <input type="checkbox"/> Identified PPE required for each tool
<input type="checkbox"/> Welders Gloves	<input type="checkbox"/> Hand Hazards	<input type="checkbox"/> Reviewed safety requirements in operators manual(s) <input type="checkbox"/> Guarding OK
<input checked="" type="checkbox"/> Nitrile Gloves		List sharp tools, material, equipment: _____
<input type="checkbox"/> Surgical Gloves	<input type="checkbox"/> Manual Lifting	<input type="checkbox"/> PPE gloves, etc. <input type="checkbox"/> Protected sharp edges as necessary
<input type="checkbox"/> Rubber Gloves		<input type="checkbox"/> Reviewed proper lifting tech. <input type="checkbox"/> Identified material requiring lifting equipment
<input type="checkbox"/> Elect. Insulated Gloves	<input type="checkbox"/> Ladders	<input type="checkbox"/> Hand protection required <input type="checkbox"/> Back support belts
<input type="checkbox"/> Arm Sleeves		<input type="checkbox"/> Inspect general cond. before use <input type="checkbox"/> Ladder inspected with in last quarter
<b>Foot Protection:</b>	<input type="checkbox"/> Scaffolds	<input type="checkbox"/> Ladder tied off or held <input type="checkbox"/> Proper angle and placement <input type="checkbox"/> Reviewed ladder safety
<input type="checkbox"/> Sturdy Work Boots		<input type="checkbox"/> Inspect general condition before use <input type="checkbox"/> Tags in place <input type="checkbox"/> Properly secured
<input checked="" type="checkbox"/> Safety Toe Boots	<input checked="" type="checkbox"/> Slips, Trips Falls	<input type="checkbox"/> Toe boards used <input type="checkbox"/> Footings adequate <input type="checkbox"/> Materials properly stored on scaffold
<input type="checkbox"/> Rubber Boots		<input type="checkbox"/> Inspect for trip hazards <input type="checkbox"/> Hazards marked <input type="checkbox"/> Tools & material properly stored
<input type="checkbox"/> Rubber Boot Covers	<input checked="" type="checkbox"/> Pinch Points	<input type="checkbox"/> Extension cords properly secured <input type="checkbox"/> Work zone free of debris
<input type="checkbox"/> Dielectric Footwear		List potential pinch points: _____
<b>Respiratory Protection:</b>	<input type="checkbox"/> Working w/ Chemicals	<input type="checkbox"/> Working near operating equipment <input type="checkbox"/> Hand/Body positioning
<input type="checkbox"/> Dust Mask		<input type="checkbox"/> List specific chemicals involved and list hazards and precaution on front side.
<input type="checkbox"/> Air Purifying Respirator	<input type="checkbox"/> Asbestos or Lead Paint Potential	<input type="checkbox"/> Reviewed MSDS <input type="checkbox"/> Exposure Monitoring required <input type="checkbox"/> Have proper containers and labels.
<input type="checkbox"/> Supplied Air Respirator		<input type="checkbox"/> Identified proper PPE (respirators, clothing, gloves, etc.)
<input type="checkbox"/> SCBA	<input type="checkbox"/> Heat Stress Potential	<input type="checkbox"/> Areas to be worked may contain asbestos or lead paint <input type="checkbox"/> Asbestos controls incorporated
<input type="checkbox"/> Emergency Escape Respirator		<input type="checkbox"/> Lead based point controls in place <input type="checkbox"/> Exposure monitoring conducted.
<b>Special Clothing:</b>	<input type="checkbox"/> Cold Stress Potential	<input type="checkbox"/> Heat stress monitoring (>85°) <input type="checkbox"/> Liquids available <input type="checkbox"/> Cool down periods
<input checked="" type="checkbox"/> Tyvek ®		<input type="checkbox"/> Sun Screen <input type="checkbox"/> Reviewed Heat Stress symptoms
<input type="checkbox"/> Poly Coated Tyvek ®	<input type="checkbox"/> Environmental	<input type="checkbox"/> Proper clothing (i.e., gloves, coat, coveralls) <input type="checkbox"/> Wind chill <32°
<input type="checkbox"/> Fire Resistant Coveralls		<input type="checkbox"/> Reviewed Cold Stress symptoms <input type="checkbox"/> Warm up periods
<input type="checkbox"/> Rain Suit	<input type="checkbox"/> Natural or Site Hazards	<input type="checkbox"/> Air emissions <input type="checkbox"/> Water discharge <input type="checkbox"/> Hazardous wastes <input type="checkbox"/> Other wastes
<input type="checkbox"/> Safety Vest		<input type="checkbox"/> Pollution prevention <input type="checkbox"/> Waste minimization
<b>Fall Protection:</b>	<input type="checkbox"/> Adjacent Work/Processes	<input type="checkbox"/> Weather <input type="checkbox"/> Terrain <input type="checkbox"/> Adjacent operations or processes <input type="checkbox"/> Biological hazards
<input type="checkbox"/> Harness		<input type="checkbox"/> Animals/reptiles/insects hazards
<input type="checkbox"/> Double Lanyard Required	<input type="checkbox"/> Barricades/covers	<input type="checkbox"/> Notified them of our presents <input type="checkbox"/> Other workers adjacent, above, or below.
<input type="checkbox"/> Anchorage Point Available		<input type="checkbox"/> Coordinated with adjacent supervisor/customer/operator <input type="checkbox"/> Need barriers between.
<input type="checkbox"/> Additional Anchorage Connector Needed e.g. Cross Arm Strap, etc.		<input type="checkbox"/> Caution barricade tape required <input type="checkbox"/> Danger barricade tape required <input type="checkbox"/> Rigid railing required
<input type="checkbox"/> Retractable Device Needed		<input type="checkbox"/> Covers over opening <input type="checkbox"/> Warning signs required
<input type="checkbox"/> Horizontal Life Line System Req'd.		
<input type="checkbox"/> Fall Clearance Distance Adequate		<b>Additional Information:</b>
<input type="checkbox"/> Fall Rescue/Retrieval Plan Set Up		

# Sevenson Environmental Services Inc.

## Emory River

### Safe Plan Of Action

**Project No. 1017**

**Job/Task:** Removing/Replacing dredge parts **Work Area:** Emory River **Date:** \_\_\_\_\_

Steps of Task ( in a safe order )	Hazard/Reaction to Change ( What's going to hurt you? )	Safe Plan ( What are YOU doing to prevent an injury? )	Resources ( Tools, Equipment, Manuals, Etc.)
Crane Setup	Heavy Equipment	Trained Operator/Backup alarm/Keep workers out of pinch points	Communication Crane
Forklift	Work over 6 feet	Fall protection plan/ Spotter	Safety lanyard with harness
Crane Mats	Unstable terrain	Mats for out riggers to be placed	Forklift for crane mats
	Boom contact w/ overhead electric	Inspect for overhead line/ place crane accordingly	Survey area / refer to map if needed
		Crane may not travel while boomed out	
Connect Rigging	Pinch points with straps and shackles	Hand / Body position	Straps, shackles, cable, hooks
Getting on and off crane and forklift	Slip, trips, and falls	All ladders- 3 points of contact. Maintain clean work area	Ladder safety and inspection
Multiple Lifts	Inspect rigging after every use	Inspect rigging for cuts. All hooks must have working latches. Have the right rigging for the load being picked.	Rigging Inspection
Connect Tag Lines	Control load	Tag lines on any pick	
	Wind speed	Check wind speed and direction	Internet weather
	Hand safety	PPE / Leather gloves	Gloves
Lifting and swinging equipment	Heavy load / Struck by	Stay out of work area if not involved	
		One person to direct crane operator	
	Suspended Load	Stay out from under suspended loads	
Setting Equipment	Caught between	Hand / Body positioning	Trained Personnel
		Eye contact w/ crane operator	
Complete Critical Lift Plan if needed	Complete Critical Lift Plan if needed	Complete Critical Lift Plan if needed	

Steps of Task ( in a safe order )	Hazard/Reaction to Change ( What's going to hurt you? )	Safe Plan ( What are YOU doing to prevent an injury? )	Resources ( Tools, Equipment, Manuals, Etc.)
	Drowning / working near water	Use of PFD's for floatation	PFD's
	Use of hand tools	Inspect tools prior to use	
	Environmental release from fluids	Keep spill kit on hand	
		Oil booms, oil diapers	Spill Kits
Modified Level D PPE		Use of PPE	PPE & Proper Equipment
	Cross Contamination	Used oil should be put in drum	Spill Kits, Contact with SWS for disposal
Decontamination	Pressure washing parts	Face shield to protect face	Face shield-SPA for Pressure washing

**Team Members Signatures:**


Supervisors Signature: \_\_\_\_\_ Date \_\_\_\_\_

Contractor Responsible Person \_\_\_\_\_ Date: \_\_\_\_\_

Instructions: 1. Write name of job or task in space provided. 2. Conduct walk-through survey of work area. 3. Write the steps of the task in a safe sequence. 4. List all possible hazards involved in each step and reaction to change. 5. In the Safe Plan column, state actions that will be taken to prevent the hazards or injury from reaction to change. 6. In Resources column, list equipment, tools, etc. needed to do the job. 8. Ask each team member, who helped develop and will use this SPA, to sign in spaces provided. 9. Review the SPA at the end of the task for improvements. Stop when conditions change, the job changes, or a deficiency in the plan is discovered, and the current SPA will be modified or a new SPA created.

**Review checklist while completing front page of SPA. Check all that apply.**

A new SPA is required if the job scope or work conditions change.

Required Permits	Hazards	Safe Plan
<input type="checkbox"/> Confined Space	<input type="checkbox"/> Overhead Utilities	<input type="checkbox"/> Power de-energization required <input type="checkbox"/> Insulation blankets required <input type="checkbox"/> Wire watcher required
<input type="checkbox"/> Critical Lift		<input type="checkbox"/> Required clearance distance = _____ Ft. <input type="checkbox"/> Safe work zone marked
<input type="checkbox"/> Hot Work	<input type="checkbox"/> Crane or other	<input type="checkbox"/> Signalman assigned <input type="checkbox"/> Tag lines in use <input type="checkbox"/> Area around crane barricaded
<input type="checkbox"/> Lock Out/Tag Out/Try	<input type="checkbox"/> Lifting Equipment	<input type="checkbox"/> Lifting equipment inspected <input type="checkbox"/> Personnel protected from overhead load
<input type="checkbox"/> Soil Disturbance (Over 2")	<input type="checkbox"/> Underground Utilities	<input type="checkbox"/> Reviewed as-builts <input type="checkbox"/> Subsurface surveys <input type="checkbox"/> Received dig permit
<input type="checkbox"/> Utility Clearance		<input type="checkbox"/> Required clearance distance = _____ Ft. <input type="checkbox"/> Safe work zone Marked
<b>Required PPE</b>		
<input type="checkbox"/> Hard Hat, Class C	<input type="checkbox"/> Electrical	<input type="checkbox"/> Lock Out/Tag Out/Try Out <input type="checkbox"/> Permit required? <input type="checkbox"/> Confirm that equipment is de-energized
<input type="checkbox"/> Hard Hat, Class E ( <i>Elect. Protect</i> )	<input type="checkbox"/> Excavations	<input type="checkbox"/> Reviewed electrical safety procedures
<input type="checkbox"/> Ear Plugs/Ear Muffs		<input type="checkbox"/> Permits <input type="checkbox"/> Inspected prior to entering <input type="checkbox"/> Proper sloping/shoring
<b>Eye Protection:</b>	<input type="checkbox"/> Fire Hazard	<input type="checkbox"/> Barricades provided <input type="checkbox"/> Access/egress provided <input type="checkbox"/> Protection from accumulated water
<input type="checkbox"/> Safety Glasses		<input type="checkbox"/> Hot Work Permit <input type="checkbox"/> Fire Extinguishers <input type="checkbox"/> Fire watch
<input type="checkbox"/> Face Shield	<input type="checkbox"/> Vehicular Traffic or Heavy Equipment	<input type="checkbox"/> Adjacent area protected <input type="checkbox"/> Unnecessary flammable material removed
<input type="checkbox"/> Chemical Goggles		<input type="checkbox"/> Traffic Barricades <input type="checkbox"/> Cones <input type="checkbox"/> Signs <input type="checkbox"/> Flagmen <input type="checkbox"/> Lane closure
<input type="checkbox"/> Welding Hood	<input type="checkbox"/> Noise >85 dB	<input type="checkbox"/> Communication with equipment operator
<b>Hand Protection:</b>	<input type="checkbox"/> Hand & Power Tools:	Hearing protection is required: <input type="checkbox"/> Ear plugs <input type="checkbox"/> Ear Muffs <input type="checkbox"/> Both
<input type="checkbox"/> Cut Resistant Gloves		<input type="checkbox"/> Inspect general cond. <input type="checkbox"/> GFCI in use <input type="checkbox"/> Identified PPE required for each tool
<input type="checkbox"/> Welders Gloves	<input type="checkbox"/> Hand Hazards	<input type="checkbox"/> Reviewed safety requirements in operators manual(s) <input type="checkbox"/> Guarding OK
<input type="checkbox"/> Nitrile Gloves		List sharp tools, material, equipment: _____
<input type="checkbox"/> Surgical Gloves	<input type="checkbox"/> Manual Lifting	<input type="checkbox"/> PPE gloves, etc. <input type="checkbox"/> Protected sharp edges as necessary
<input type="checkbox"/> Rubber Gloves		<input type="checkbox"/> Reviewed proper lifting tech. <input type="checkbox"/> Identified material requiring lifting equipment
<input type="checkbox"/> Elect. Insulated Gloves	<input type="checkbox"/> Ladders	<input type="checkbox"/> Hand protection required <input type="checkbox"/> Back support belts
<input type="checkbox"/> Arm Sleeves		<input type="checkbox"/> Inspect general cond. before use <input type="checkbox"/> Ladder inspected with in last quarter
<b>Foot Protection:</b>	<input type="checkbox"/> Scaffolds	<input type="checkbox"/> Ladder tied off or held <input type="checkbox"/> Proper angle and placement <input type="checkbox"/> Reviewed ladder safety
<input type="checkbox"/> Sturdy Work Boots		<input type="checkbox"/> Inspect general condition before use <input type="checkbox"/> Tags in place <input type="checkbox"/> Properly secured
<input type="checkbox"/> Safety Toe Boots	<input type="checkbox"/> Slips, Trips Falls	<input type="checkbox"/> Toe boards used <input type="checkbox"/> Footings adequate <input type="checkbox"/> Materials properly stored on scaffold
<input type="checkbox"/> Rubber Boots		<input type="checkbox"/> Inspect for trip hazards <input type="checkbox"/> Hazards marked <input type="checkbox"/> Tools & material properly stored
<input type="checkbox"/> Rubber Boot Covers	<input type="checkbox"/> Pinch Points	<input type="checkbox"/> Extension cords properly secured <input type="checkbox"/> Work zone free of debris
<input type="checkbox"/> Dielectric Footwear		List potential pinch points: _____
<b>Respiratory Protection:</b>	<input type="checkbox"/> Working w/ Chemicals	<input type="checkbox"/> Working near operating equipment <input type="checkbox"/> Hand/Body positioning
<input type="checkbox"/> Dust Mask		<input type="checkbox"/> List specific chemicals involved and list hazards and precaution on front side.
<input type="checkbox"/> Air Purifying Respirator	<input type="checkbox"/> Asbestos or Lead Paint Potential	<input type="checkbox"/> Reviewed MSDS <input type="checkbox"/> Exposure Monitoring required <input type="checkbox"/> Have proper containers and labels.
<input type="checkbox"/> Supplied Air Respirator		<input type="checkbox"/> Identified proper PPE (respirators, clothing, gloves, etc.)
<input type="checkbox"/> SCBA	<input type="checkbox"/> Heat Stress Potential	<input type="checkbox"/> Areas to be worked may contain asbestos or lead paint <input type="checkbox"/> Asbestos controls incorporated
<input type="checkbox"/> Emergency Escape Respirator		<input type="checkbox"/> Lead based point controls in place <input type="checkbox"/> Exposure monitoring conducted.
<b>Special Clothing:</b>	<input type="checkbox"/> Cold Stress Potential	<input type="checkbox"/> Heat stress monitoring (>85°) <input type="checkbox"/> Liquids available <input type="checkbox"/> Cool down periods
<input type="checkbox"/> Tyvek®		<input type="checkbox"/> Sun Screen <input type="checkbox"/> Reviewed Heat Stress symptoms
<input type="checkbox"/> Poly Coated Tyvek®	<input type="checkbox"/> Environmental	<input type="checkbox"/> Proper clothing (i.e., gloves, coat, coveralls) <input type="checkbox"/> Wind chill <32°
<input type="checkbox"/> Fire Resistant Coveralls		<input type="checkbox"/> Reviewed Cold Stress symptoms <input type="checkbox"/> Warm up periods
<input type="checkbox"/> Rain Suit	<input type="checkbox"/> Natural or Site Hazards	<input type="checkbox"/> Air emissions <input type="checkbox"/> Water discharge <input type="checkbox"/> Hazardous wastes <input type="checkbox"/> Other wastes
<input type="checkbox"/> Safety Vest		<input type="checkbox"/> Pollution prevention <input type="checkbox"/> Waste minimization
<b>Fall Protection:</b>	<input type="checkbox"/> Adjacent Work/Processes	<input type="checkbox"/> Weather <input type="checkbox"/> Terrain <input type="checkbox"/> Adjacent operations or processes <input type="checkbox"/> Biological hazards
<input type="checkbox"/> Harness		<input type="checkbox"/> Animals/reptiles/insects hazards
<input type="checkbox"/> Double Lanyard Required	<input type="checkbox"/> Barricades/covers	<input type="checkbox"/> Notified them of our presents <input type="checkbox"/> Other workers adjacent, above, or below.
<input type="checkbox"/> Anchorage Point Available		<input type="checkbox"/> Coordinated with adjacent supervisor/customer/operator <input type="checkbox"/> Need barriers between.
<input type="checkbox"/> Additional Anchorage Connector Needed e.g. Cross Arm Strap, etc.		<input type="checkbox"/> Caution barricade tape required <input type="checkbox"/> Danger barricade tape required <input type="checkbox"/> Rigid railing required
<input type="checkbox"/> Retractable Device Needed		<input type="checkbox"/> Covers over opening <input type="checkbox"/> Warning signs required
<input type="checkbox"/> Horizontal Life Line System Req'd.		
<input type="checkbox"/> Fall Clearance Distance Adequate		
<input type="checkbox"/> Fall Rescue/Retrieval Plan Set Up		

**Additional Information:**

# Sevenson Environmental Services Inc.

## Emory River

### Safe Plan Of Action

Project No. 1017 \_\_\_\_\_

Job/Task Mobile Pressure Washer \_\_\_\_\_

Work Area Emory River \_\_\_\_\_

Date \_\_\_\_\_

Steps of Task	Hazard/Reaction to Change	Safe Plan	Resources
General Operation	Injury to people	Keep bystanders a safe distance away from work area. Cone off work area	
	Cuts	Do NOT Spray directly at glass or fragile objects	
	Hearing Loss	Wear hearing protection	Earplugs, Ear Muffs
	Eye Injury	Wear Eye Protection, face shield or both	Safety Glasses, Face Shield
	Chemical Exposure	Read MSDS sheet of chemical (if using a chemical)	MSDS
Refueling Operations	Burns, carbon monoxide poisoning	DO NOT fill gas when engine is running, hot or near open flame	
		DO NOT run engine in enclosed area	
		DO NOT touch or come in contact with hot muffler, cylinders, cooling fans, or hot exhaust gases	
		DO NOT operate near open flames, flammable vapors or gases	
Transporting Equipment	Fuel Leaks	When transporting shut-off fuel valve (put in the OFF position)	
Use of brushes to loosen dirt	Not to be used while pressure washer is in operation	Using brush loosen dirt, do not use any soaps or wash areas that may have oil or fuel contamination into river	
		Wash water contaminated with oils will be collected and disposed by SWS	

Misc. Safety		Inspect equipment for damage to hoses, fittings, etc...	
		Inspect oil level, fuel and or water leaks	
		Operate on level surfaces	
		NEVER start washer without adequate water supply	
		Never leave pressurized unit unattended. ALWAYS shut-off the unit and relieve trapped pressure before leaving.	
		DO NOT run the unit for more than 3 minutes with the spray gun in the closed position	
		Clean up spilled soap, fuel or oil immediately to void falls	
		NEVER squeeze the spray gun trigger unless you are securely braced.	
		NEVER attempt to use power washer on or near electrical outlets, fuse boxes, transformers, high voltage wires, etc...	
Wearing Proper PPE			Hearing Protection, eye protection/face shield Boots, Tyvek

**Team Members' Signatures**

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

The signature of the supervisor confirms the completion of the hazard assessment and Safe Plan of Action by the crew.

Supervisors Signature: \_\_\_\_\_ Date \_\_\_\_\_

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Work shall stop when conditions change, the job changes, or a deficiency in the plan is discovered, and the current SPA will be modified or a new SPA created.



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Required Permits	Hazards	Safe Plan
<input type="checkbox"/> Confined Space	<input type="checkbox"/> Overhead Utilities	<input type="checkbox"/> Power de-energization required <input type="checkbox"/> Insulation blankets required <input type="checkbox"/> Wire watcher required
<input type="checkbox"/> Critical Lift		<input type="checkbox"/> Required clearance distance = _____ Ft. <input type="checkbox"/> Safe work zone marked
<input type="checkbox"/> Hot Work	<input type="checkbox"/> Crane or other Lifting Equipment	<input type="checkbox"/> Signalman assigned <input type="checkbox"/> Tag lines in use <input type="checkbox"/> Area around crane barricaded
<input type="checkbox"/> Lock Out/Tag Out		<input type="checkbox"/> Lifting equipment inspected <input type="checkbox"/> Personnel protected from overhead load
<input type="checkbox"/> Soil Disturbance (Over 12")	<input type="checkbox"/> Underground Utilities	<input type="checkbox"/> Reviewed as-builts <input type="checkbox"/> Subsurface surveys <input type="checkbox"/> Received dig permit
<input type="checkbox"/> Utility Clearance		<input type="checkbox"/> Required clearance distance = _____ Ft. <input type="checkbox"/> Safe work zone Marked
<b>Required PPE</b>	<input type="checkbox"/> Electrical	<input type="checkbox"/> Lock Out/Tag Out/Try Out <input type="checkbox"/> Permit required? <input type="checkbox"/> Confirm that equipment is de-energized
<input type="checkbox"/> Hard Hat, Class C		<input type="checkbox"/> Reviewed electrical safety procedures
<input type="checkbox"/> Hard Hat, Class E (Elect. Protect)	<input type="checkbox"/> Excavations	<input type="checkbox"/> Permits <input type="checkbox"/> Inspected prior to entering <input type="checkbox"/> Proper sloping/shoring
<input type="checkbox"/> Ear Plugs/Ear Muffs		<input type="checkbox"/> Barricades provided <input type="checkbox"/> Access/egress provided <input type="checkbox"/> Protection from accumulated water
<b>Eye Protection:</b>	<input type="checkbox"/> Fire Hazard	<input type="checkbox"/> Hot Work Permit <input type="checkbox"/> Fire Extinguishers <input type="checkbox"/> Fire watch
<input type="checkbox"/> Safety Glasses		<input type="checkbox"/> Adjacent area protected <input type="checkbox"/> Unnecessary flammable material removed
<input type="checkbox"/> Face Shield	<input type="checkbox"/> Vehicular Traffic or Heavy Equipment	<input type="checkbox"/> Traffic Barricades <input type="checkbox"/> Cones <input type="checkbox"/> Signs <input type="checkbox"/> Flagmen <input type="checkbox"/> Lane closure
<input type="checkbox"/> Chemical Goggles		<input type="checkbox"/> Communication with equipment operator
<input type="checkbox"/> Welding Hood	<input type="checkbox"/> Noise >85 dB	Hearing protection is required: <input type="checkbox"/> Ear plugs <input type="checkbox"/> Ear Muffs <input type="checkbox"/> Both
<b>Hand Protection:</b>	<input type="checkbox"/> Hand & Power Tools:	<input type="checkbox"/> Inspect general cond. <input type="checkbox"/> GFCI in use <input type="checkbox"/> Identified PPE required for each tool
<input type="checkbox"/> Cut Resistant Gloves		<input type="checkbox"/> Reviewed safety requirements in operators manual(s) <input type="checkbox"/> Guarding OK
<input type="checkbox"/> Welders Gloves	<input type="checkbox"/> Hand Hazards	List sharp tools, material, equipment: _____
<input type="checkbox"/> Nitrile Gloves		<input type="checkbox"/> PPE gloves, etc. <input type="checkbox"/> Protected sharp edges as necessary
<input type="checkbox"/> Surgical Gloves	<input type="checkbox"/> Manual Lifting	<input type="checkbox"/> Reviewed proper lifting tech. <input type="checkbox"/> Identified material requiring lifting equipment
<input type="checkbox"/> Rubber Gloves		<input type="checkbox"/> Hand protection required <input type="checkbox"/> Back support belts
<input type="checkbox"/> Elect. Insulated Gloves	<input type="checkbox"/> Ladders	<input type="checkbox"/> Inspect general cond. before use <input type="checkbox"/> Ladder inspected with in last quarter
<input type="checkbox"/> Arm Sleeves		<input type="checkbox"/> Ladder tied off or held <input type="checkbox"/> Proper angle and placement <input type="checkbox"/> Reviewed ladder safety
<b>Foot Protection:</b>	<input type="checkbox"/> Scaffolds	<input type="checkbox"/> Inspect general condition before use <input type="checkbox"/> Tags in place <input type="checkbox"/> Properly secured
<input type="checkbox"/> Sturdy Work Boots		<input type="checkbox"/> Toe boards used <input type="checkbox"/> Footings adequate <input type="checkbox"/> Materials properly stored on scaffold
<input type="checkbox"/> Safety Toe Boots	<input type="checkbox"/> Slips, Trips Falls	<input type="checkbox"/> Inspect for trip hazards <input type="checkbox"/> Hazards marked <input type="checkbox"/> Tools & material properly stored
<input type="checkbox"/> Rubber Boots		<input type="checkbox"/> Extension cords properly secured <input type="checkbox"/> Work zone free of debris
<input type="checkbox"/> Rubber Boot Covers	<input type="checkbox"/> Pinch Points	List potential pinch points: _____
<input type="checkbox"/> Dielectric Footwear		<input type="checkbox"/> Working near operating equipment <input type="checkbox"/> Hand/Body positioning
<b>Respiratory Protection:</b>	<input type="checkbox"/> Working w/ Chemicals	<input type="checkbox"/> List specific chemicals involved and list hazards and precaution on front side.
<input type="checkbox"/> Dust Mask		<input type="checkbox"/> Reviewed MSDS <input type="checkbox"/> Exposure Monitoring required <input type="checkbox"/> Have proper containers and labels.
<input type="checkbox"/> Air Purifying Respirator	<input type="checkbox"/> Asbestos or Lead Paint Potential	<input type="checkbox"/> Identified proper PPE (respirators, clothing, gloves, etc.)
<input type="checkbox"/> Supplied Air Respirator		<input type="checkbox"/> Areas to be worked may contain asbestos or lead paint <input type="checkbox"/> Asbestos controls incorporated
<input type="checkbox"/> SCBA	<input type="checkbox"/> Heat Stress Potential	<input type="checkbox"/> Lead based point controls in place <input type="checkbox"/> Exposure monitoring conducted.
<input type="checkbox"/> Emergency Escape Respirator		<input type="checkbox"/> Heat stress monitoring (>85°) <input type="checkbox"/> Liquids available <input type="checkbox"/> Cool down periods
<b>Special Clothing:</b>	<input type="checkbox"/> Cold Stress Potential	<input type="checkbox"/> Sun Screen <input type="checkbox"/> Reviewed Heat Stress symptoms
<input type="checkbox"/> Tyvek ®		<input type="checkbox"/> Proper clothing (i.e.. gloves, coat, coveralls) <input type="checkbox"/> Wind chill <32°
<input type="checkbox"/> Poly Coated Tyvek ®	<input type="checkbox"/> Environmental	<input type="checkbox"/> Reviewed Cold Stress symptoms <input type="checkbox"/> Warm up periods
<input type="checkbox"/> Fire Resistant Coveralls		<input type="checkbox"/> Air emissions <input type="checkbox"/> Water discharge <input type="checkbox"/> Hazardous wastes <input type="checkbox"/> Other wastes
<input type="checkbox"/> Rain Suit	<input type="checkbox"/> Natural or Site Hazards	<input type="checkbox"/> Pollution prevention <input type="checkbox"/> Waste minimization
<input type="checkbox"/> Safety Vest		<input type="checkbox"/> Weather <input type="checkbox"/> Terrain <input type="checkbox"/> Adjacent operations or processes <input type="checkbox"/> Biological hazards
<b>Fall Protection:</b>	<input type="checkbox"/> Adjacent Work/Processes	<input type="checkbox"/> Animals/reptiles/insects hazards
<input type="checkbox"/> Harness		<input type="checkbox"/> Notified them of our presents <input type="checkbox"/> Other workers adjacent, above, or below.
<input type="checkbox"/> Double Lanyard Required	<input type="checkbox"/> Barricades/covers	<input type="checkbox"/> Coordinated with adjacent supervisor/customer/operator <input type="checkbox"/> Need barriers between.
<input type="checkbox"/> Anchorage Point Available		<input type="checkbox"/> Caution barricade tape required <input type="checkbox"/> Danger barricade tape required <input type="checkbox"/> Rigid railing required
<input type="checkbox"/> Additional Anchorage Connector Needed e.g. Cross Arm Strap, etc.		<input type="checkbox"/> Covers over opening <input type="checkbox"/> Warning signs required
<input type="checkbox"/> Retractable Device Needed	<b>Additional Information:</b>	
<input type="checkbox"/> Horizontal Life Line System Req'd.		
<input type="checkbox"/> Fall Clearance Distance Adequate		
<input type="checkbox"/> Fall Rescue/Retrieval Plan Set Up		