

SAFETY MESSAGE/PLAN (ICS 208)

1. Incident Name: Hurricane Florence	2. Operational Period: Date From: 09/13/2018 Time From: 1500	Date To: TBD Time To:
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3. Safety Message/Expanded Safety Message, Safety Plan, Site Safety Plan:

The following Saety Plan is to be followed by all MER Employees and MER supervised subcontracted labor. The primary objective of this Safety Plan is to provide a mechanism for ensuring a safe work-site while responding to hurricane cleanup activities.

Scope of Services:

MER is to provide as needed support to aid in the cleanup efforts of Hurricane Florence. Tasks, can include but are not limited to oil/product spills (pole mounted transformers, electrical substations), vacuum excavation activities, pumping of flooded structure, debris removal, etc.

Daily Job Safety Analysis (JHA):

MER supervisors are to conduct a daily Job Hazard Analysis (JHA). Specific work tasks and potential hazards are to be identified. All identified hazards must have a corresponding control/mitigation/safe work practice. The crew is to get together at the start of each shift and review the written JHA and discuss safety concerns and mitigation steps. All employees including subcontracted labor are to attend the safety meeting and sign off acknowledging the JHA. A long term JHA may be used; site specific tasks or hazards that are not included in the JHA must be supplemented in a hand written JHA.

Long Term JHAs to reference (Based on potential tasks):

- JHA005 - Hurricane Cleanup
- JHA091 - General Boat Operations
- JHA094 - Boat & Land Operations - Shoreline Rock Cleanup
- JHA154 - Booming Operations

Minimum Health and Safety Training Requirements:

- Respiratory Protection
- Hazard Communication
- Personal Protective Equipment
- HAZWOPER 24 hr (**If working on a hazardous materials site**)
- Respiratory Protection (** If working at a site with a hazardous atmosphere**)

Fatigue Management:

It is imperative that local MER management and employees work together to mitigate potential fatigue concerns. This includes rotating employees through a project to give an employee a day off, working with the client to see if schedules can be adjusted, utilizing subcontracted labor etc. If an employee is working above ANY of the following thresholds, a personal fatigue management (PFM) plan MUST be implemented: the fatigue management plan can be documented on the daily JHA form or on the separate PFM Form.

- Over 14 hours per day
- Over 72 hours for the week
- More than 7 consecutive days
- Less than 10 hours between shifts

APPENDICES:

- Appendix A: OSHA Hurricane Hazard and Control
- Appendix B: OSHA Hurricane PPE Matrix
- Appendix C: Fatigue Management Plan and Forms
- Appendix D: JHA005 Hurricane Cleanup
- Appendix E: Blank JHA

4. Site Safety Plan Required? Yes No

Approved Site Safety Plan(s) Located At: (CHS, MCDI CHS, SAV)

5. Prepared by: Name: Jim McHugh Position/Title: Safety Officer Signature: 

ICS 208

IAP Page _____

Date/Time: _____ Date: 09/13/18 Time: 1500

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1. Incident Name: Hurricane Florence	2. Operational Period: Date From: 09/12/2017 Time From: 1500	Date To: TBD Time To:
--	--	--------------------------

Appendix A: OSHA Hurricane Hazard and Control

Page 2 of 19

4. Site Safety Plan Required? Yes No

Approved Site Safety Plan(s) Located At: Southeast MER Resource Centers (SFL, JAX, SAV, CHS)

5. Prepared by: Name: Jim McHugh Position/Title: Safety Officer Signature: 

ICS 208

IAP Page _____

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OSHA[®] FactSheet

Keeping Workers Safe during Disaster Cleanup and Recovery

Natural disasters can cause widespread flooding and damage to property and infrastructure. Cleanup and recovery activities involve *hazards* that can cause serious injuries or death. OSHA urges employers and workers engaged in cleanup and recovery to be aware of these hazards and how to *protect workers*. These hazards are outlined below along with the proper precautions for employers and workers.

- If you are an employer, worker, homeowner, or member of the public involved in cleanup and recovery activities, it is important that you assess the potential for hazardous conditions and/or exposures *before* you engage in these activities.
- Based on an initial assessment of hazards, employers need to provide workers with the appropriate personal protective equipment, training, and information to safely perform the work.

If you have questions, need information or advice, need assistance, or to report an emergency or to file a complaint, call OSHA at 1-800-321-OSHA (6742). We are here to help. For more information about the hazards listed below, visit OSHA's Hurricane Preparedness and Response website at: www.osha.gov/dts/weather/hurricane.

	Possible Hazards	Protective Measures
Contaminated Floodwaters	<ul style="list-style-type: none"> • Bacteria and other infectious organisms (from sewage) in water and soil. • Toxic substances from flooded industrial and waste sites. • Mold and fungi in the air.  <p>Source: www.noaa.gov</p>	<ul style="list-style-type: none"> • Ventilate enclosed spaces with fresh air. • Assume that floodwater is contaminated unless proven otherwise. • Allow only trained workers with the proper personal protective equipment to clean up toxic chemicals, other hazardous waste, and mold. • Be up-to-date with a tetanus shot (within the last 10 years). • Discard water-damaged and visibly contaminated materials. • Use waterproof boots, latex or rubber gloves and other protective clothing. Consider using special chemical-resistant outer clothing and protective goggles. • Use an N-95 NIOSH-approved disposable respirator, at a minimum, when handling mold-contaminated materials. • Keep an adequate supply of clean water available for drinking and washing.
Downed Power Lines	<ul style="list-style-type: none"> • Burns and electrocution from contact with energized lines or objects, including tree limbs, in contact with downed power lines. 	<ul style="list-style-type: none"> • Assume that all power lines are live or energized. • Establish and clearly mark a danger zone around downed lines. Stay at least 10 feet from all downed lines. • Allow only properly trained and equipped workers to repair electrical wires.
Tree Trimming and Debris Removal	<ul style="list-style-type: none"> • Electrocution from contact with power lines or tree limbs in contact with power lines. • Being struck or crushed by falling tree limbs. • Injuries from equipment, such as chain saws and chippers. • Strains and sprains from lifting or moving tree limbs and other debris. 	<ul style="list-style-type: none"> • Contact the utility company to de-energize and ground or shield power lines. All tree trimming/removal within 10 feet of a power line must be done by trained tree trimmers. • Establish and clearly mark a danger zone where tree debris may fall onto workers. Stay alert at all times. • Use work gloves, a hard hat, work boots, hearing protection and eye/face protection. Wear chaps when using a chainsaw. • Watch out for chainsaw kickback. Do not cut with saw tip. • Do not get too close to a chipper. Never reach into an operating chipper. • Use mechanical equipment to lift heavy objects. If not possible, use extra people and proper lifting techniques.

	Possible Hazards	Protective Measures
Falls	<ul style="list-style-type: none"> Falls from aerial lifts, ladders, roofs, and other elevated work surfaces. Slippery and uneven working surfaces that can create injuries due to slips, trips and falls. 	<ul style="list-style-type: none"> Use safe procedures to prevent aerial lift tip-overs. Use a body harness or restraining belt with a lanyard attached to the boom or basket of the lift. Use proper ladder safety (e.g., set on firm and stable ground, maintain "three-point" contact, do not stand on top rung). Be aware of wet or slippery surfaces, obstacles, or uneven surfaces on the site.
Portable Generators	<ul style="list-style-type: none"> Shocks and electrocution from gas- and diesel-powered generators. Toxic carbon monoxide (CO) from generator exhaust. Fires from improper refueling and fuel storage. 	<ul style="list-style-type: none"> Never run a portable generator inside a house or in an enclosed space like a garage. Inspect electric cords to ensure they are in good condition and free of defects. Use a ground-fault circuit interrupter (GFCI). Ensure that spaces where generators are used are properly ventilated. Shut down the generator before refueling. Never store fuel or the generator indoors.
Work Zones	<ul style="list-style-type: none"> Transportation incidents (injuries and deaths) in work zones where workers are struck by moving vehicles and mobile equipment. 	<ul style="list-style-type: none"> Wear high-visibility clothing and headwear compliant with ANSI/ISEA 107-2004. Use proper traffic controls (i.e., signs, cones, barriers). Use proper lighting, flaggers and worksite communications. Make sure that vehicle operators are properly trained. Always use seat belts and rollover protection.
Construction Activities	<ul style="list-style-type: none"> Exposure to asbestos-contaminated materials during the demolition of buildings and structures. Spaces with limited access, suffocation hazards, or which are confined spaces. Trenching and excavation accidents (cave-ins). Risk of back, knee and shoulder injuries from manual lifting and handling of building materials and fallen tree limbs. 	<ul style="list-style-type: none"> Properly select and use PPE (personal protective equipment) which may include respiratory protection, along with other procedures detailed in 29 CFR 1926.1101. Do not enter permit-required confined spaces without training and a permit to enter. See 29 CFR 1910.146 for more information. Prevent cave-ins by benching, sloping, shoring, or shielding the soil. See 29 CFR 1926.651 and 1926.652 for more information. Use proper lifting techniques and teams of two or more to move bulky or heavy items.

Worker Rights

You have the right to a safe workplace. *The Occupational Safety and Health Act of 1970 (OSH Act)* was passed to prevent workers from being killed or seriously harmed at work. The law requires that employers provide their employees with working conditions that are free of known dangers. OSHA sets and enforces protective workplace safety and health standards. OSHA also provides information, training and assistance to workers and employers. Workers may file a complaint to have OSHA inspect their workplace if they believe that their employer is not following OSHA standards or that there are serious hazards. **Contact OSHA at 1-800-321-OSHA (6742)** if you have questions or want to file a complaint. We will keep your information confidential. We are here to help you.

This is one in a series of informational fact sheets highlighting OSHA programs, policies, or standards. It does not impose any new compliance requirements. For a comprehensive list of compliance requirements of OSHA standards or regulations, refer to Title 29 of the Code of Federal Regulations. This information will be made available to sensory-impaired individuals upon request. The voice phone is (202) 693-1999; teletypewriter (TTY) number: (877) 889-5627.

For assistance, contact us. We can help. It's confidential.



www.osha.gov (800) 321-OSHA (6742)



U.S. Department of Labor

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1. Incident Name: Hurricane Florence	2. Operational Period: Date From: 09/12/2017 Time From: 1500	Date To: TBD Time To:
--	--	--------------------------

Appendix B: OSHA Hurricane PPE Matrix

Page 5 of 19

4. Site Safety Plan Required? Yes No

Approved Site Safety Plan(s) Located At: Southeast MER Resource Centers (SFL, JAX, SAV, CHS)

5. Prepared by: Name: Jim McHugh Position/Title: Safety Officer Signature: 

ICS 208

IAP Page _____

Date/Time: Date: 09/12/2017 Time: 1500

OSHA[®] FactSheet

Disaster Cleanup and Recovery PPE Matrix

Workers engaged in disaster cleanup and recovery activities may be exposed to a variety of hazards. A comprehensive list of potential hazards and controls, sorted by common tasks, can be found in OSHA's Hurricane [eMatrix](#).

Specialized operations, such as electrical power restoration, hazardous materials response, or confined space entry require controls specified in the applicable OSHA standards.

- Designing a way around a hazard is always the preferred control method. For example, installing a guardrail to prevent a fall from occurring is better than relying on a safety harness and lanyard to catch the worker after a fall occurs. However, in many cases personal protective equipment (PPE) may be the only practical control method. All PPE has limitations and is the control method of last resort.
- The suggested PPE Matrix is provided to assist employers in determining the PPE needed for a specific task. Respiratory protection is addressed below the matrix.

PPE \ Task		Normal Cleanup Activities	Working in Wet Conditions	Working with Chain Saws	Working Near/Over Water	Working at Heights Over 6 ft.	Working Near Loud Noise
Head	Hard Hat	X	X	X	X	X	X
Eyes	Safety Glasses	X		X	X	X	X
	Safety Goggles		X				
Face	Face Shield			X			
Ears	Hearing Protection			X			X
Hands	Work Gloves	X		X	X	X	X
	Latex/Rubber Gloves		X				
Body	Hi-Visibility Garment	X	X	X	X	X	X
	Impervious Body Suit		X				
	PFD and Life Ring				X		
	Chaps			X			
	Fall Protection					X	
Feet	Steel Toe Boots	X		X	X	X	X
	Waterproof Boots		X				
Other PPE	Workboat/Skiff				X		

Respiratory Protection: The employer must assess site-specific conditions for potential respiratory contaminants and protection.

- In many cases, N-95 filtering facepiece respirators may be adequate for dust or other particulates.
- Where mold is known to be or potentially may be present, use an approved respirator. See the OSHA fact sheet on Mold Hazards during Disaster Cleanup ([OSHA FS-3713](#)) for further guidance.
- Where asbestos is known to be or potentially may be present and disturbed, higher levels of protection are required (e.g., P100 particulate filter respirator).
 - In addition, the requirements of OSHA's Asbestos standard, [29 CFR 1910.1001](#), also need to be followed.
- Where chemical contaminants are present, such as organic chemicals, different cartridges or filters are required depending on the chemical.
- Common respirators do not protect workers from carbon monoxide (CO), which is present in the exhaust from generators and other internal combustion engines.
- Respirator selection and use is regulated due to the potential risk to workers.
 - Employers who provide N-95 filtering facepiece respirators for *voluntary* use by their employees need to provide their workers with [Appendix D](#) of OSHA's Respiratory Protection standard, [29 CFR 1910.134](#). Appendix D provides precautions that workers should take to ensure that the respirator does not present a hazard.
 - Where employers mandate the use of respirators, additional requirements of the Standard apply, including fit testing and medical evaluation.
- Training regarding the limitations of respirators, proper fitting, when they should be replaced, and medical considerations for the user is essential.

Sanitation and Hygiene: In addition to PPE, proper sanitation and hygiene are essential for minimizing the spread of contaminants and disease. Handwashing is a critical component of good hygiene. In the absence of suitable facilities, workers should be provided with hand sanitizer.

- It is essential that employers assess each site and operation individually to determine the actual or potential hazards based on site-specific conditions. Employees must always be trained to recognize hazards and take necessary precautions.
- Workers relying on PPE must be trained to recognize these limitations, as well as the safe ways to put on and remove PPE, properly store it, take care of it, and when it's time to replace it.

Additional guidance, Fact Sheets, and other information can be found on [OSHA's Hurricane webpage](#). Another source of information is the resource webpage maintained by the National Institute of Environmental Health Sciences ([NIEHS](#)).

This is one in a series of informational fact sheets highlighting OSHA programs, policies, or standards. It does not impose any new compliance requirements. For a comprehensive list of compliance requirements of OSHA standards or regulations, refer to Title 29 of the Code of Federal Regulations. This information will be made available to sensory-impaired individuals upon request. The voice phone is (202) 693-1999; teletypewriter (TTY) number: (877) 889-5627.

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1. Incident Name: Hurricane Florence	2. Operational Period: Date From: 09/12/2017 Time From: 1500	Date To: TBD Time To:
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Appendix C: Fatigue Management Plan and Forms

Page 8 of 19

4. Site Safety Plan Required? Yes No

Approved Site Safety Plan(s) Located At: Southeast MER Resource Centers (SFL, JAX, SAV, CHS)

5. Prepared by: Name: Jim McHugh Position/Title: Safety Officer Signature: 

ICS 208

IAP Page _____

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PERSONNEL FATIGUE MANAGEMENT (PFM) PLAN

The PFM plan is designed to assist in the protection of an employee that has exceeded the recommended Worker Hour Limitations or other has other signs and/or symptoms that indicate fatigue while working. The requesting manager (Program/Project Manager) completes this form with the assistance of the corresponding Logistics Manager; a Division Manager must approve the PFM Plan prior to the employee being allowed to work.

Employee Name: _____ **Date:** _____

Hours worked in the last 7 days: _____ **Number of consecutive days worked:** _____

Job Location: _____ **Estimated Job Hours:** _____

Reason for Request: _____

Description of Work

Control Measures

Plan to keep employee safe while working (i.e. buddy system, breaks), as well as safety-sensitive tasks to avoid (i.e. driving, hydroblasting.). See back of PFM Plan form for more details regarding Risk Factors and Controls.

Transportation Plan

Plan to get employee to/from site safely (i.e. transported, hotel accommodations provided).

Employee Rest Plan

Plan to ensure employee will receive adequate rest (i.e. more time off between shifts, scheduled day off).

Review & Approval

Employee: _____ **Date:** _____
(Print and Sign)

Requesting Manager: _____ **Date:** _____
(Print and Sign)

Circle One: Approved Denied

Division Manager: _____ **Date:** _____
(Print and Sign)

Supervisor Fatigue Management Handout

Worker Hour Limitations			
<i>(When to implement a Personnel Fatigue Management Plan for an employee.)</i>			
Maximum Daily Hours	Maximum Weekly Hours	Maximum Consecutive Days Worked	Minimum Off Hours (between shifts)
14	72	7	10

Individual Fatigue Management Evaluation			
Questions	Low Risk	Med. Risk	High Risk
1.) In the last 24 hours, how much sleep have you had?	7+ hours	5-7 hours	Less than 5 hours
2.) In the last 48 hours, how much sleep have you had?	12+ hours	12 hours	Less than 12 hours
3.) In the last 7 days, how many consecutive nights sleep have you had?	5+ night	3-5 nights	Less than 3 nights
4.) In the last 7 days, how many hours have you worked?	Less than 40 hours	40-60 hours	60+ hours
5.) Over the last 7 days, how many days free from work have you had? <i>A day free from work is a day away from the workplace where no work tasks were completed</i>	2+ work free days	1 work free day	No work free days
6.) Over the last 7 days, how calls have you received and responded to while off-duty (i.e. Emergency Response calls)?	Less than 2 days	3-5 days on call	5+ days on call
7.) How long will your current shift be?	10 hours or less	Up to 12 hours	12+ hours
8.) How long was your last rest period from work? <i>A rest period from work is time away from the workplace where no work tasks were completed</i>	12+ hours	8-11 hours	Less than 8 hours
9.) In the last 7 days, how many night shifts have you completed?	No night shifts	1-3 night shifts	4+ night shifts
10.) What working environment will you be exposed to? <i>Consider environments that are controlled (i.e. office) or harsh environments such as extreme temperatures, high risk work, noisy, harsh conditions.</i>	Office/controlled	Medium high risk	High risk
11.) What type of physical/mental work tasks will you be completing? <i>Physicals tasks can include but are not limited to repetitive, physically demanding tasks. Mental tasks can include but are not limited to tasks that require concentration or decision making.</i>	Low mental/physical	Medium mental/physical	Prolonged mental/physical

LOW RISK - Monitor for progression.

If an employee's answers are mostly in the Green zone, generally, the level of fatigue is acceptable and presents minimal risk. Fatigue management practices should where possible ensure that answers remain in the Green zone.

MEDIUM RISK - Self and buddy monitoring for symptoms, implement task rotation, monitor for progression.

If an employee's answers are mostly in the Orange zone, this indicates a higher risk level, but still acceptable. However, management and individuals should take steps to reduce the risk level and that answers do not progress into the Red Zone threshold. Controls need to be put into place and monitored to verify their adequacy.

HIGH RISK - Do not engage in safety critical tasks. Complete Personnel Fatigue Management Plan, organize supervisory checks, arrange sleep opportunity and transport home/offsite.

If an employee's answers are mostly in the Red zone, this indicates a higher risk and would not normally be acceptable. In emergency or crisis situations, the Division Manager may approve Red zone operations to the minimal extent necessary and providing that additional control strategies are in place and monitored hourly.

Common Symptoms of Fatigue

The following is a list of fatigue symptoms to assist with monitoring. Workers should also monitor themselves and each other for signs of fatigue. Workers exhibiting signs should be approached and questioned regarding feelings of fatigue. A mitigation strategy should be worked out with the worker. Remember, those who are fatigued often underestimate the level of their fatigue and are less able to make effective decisions. Err on the side of caution

Physical	Mental	Emotional
Yawning	Difficulty concentrating	Quiet
Slow blinking	Lapses in attention	Withdrawn
Rubbing eyes or face	Memory lapses	Lethargic
Aching muscles or headache	Difficulty communicating	Bored
Uncoordinated movements	Lack of situational awareness	Lacking motivation
Sagging body posture	Making mistakes	Irritable
Weak and low energy	Confusion	Easily frustrated

Risk Factor	Control Measures
Work Scheduling	
<ul style="list-style-type: none"> • 12+ hour shifts • 7+ consecutive shifts • 72+ in seven (7) days • Night shifts • Start times before 6 AM 	<p>Increase Sleep Opportunities</p> <ul style="list-style-type: none"> • Family life/ work balance. • Project specific logistics (food, lodging, etc.) • Allow/take a 20-30 minute break. <p>Provide access to optimal nutrition and hydration.</p> <ul style="list-style-type: none"> • If food is provided, menus are designed for optimal worker nutrition and health. • Water and/or sports drinks are available to workers • Controlled use of caffeine. <p>Adjust Start Time/Schedule</p> <ul style="list-style-type: none"> • If possible, adjust employee’s start time to allow for a greater rest period between shifts. • Delay safety sensitive work.
Work Demands	
<p>Certain job tasks are physically and mentally more demanding (Hydroblasting, etc.)</p>	<p>Take Breaks</p> <ul style="list-style-type: none"> • For example, certain job tasks may have mandatory 15-minute breaks after every 2 hours of work. • Change tasks and/or rotate tasks with other workers. <p>Awareness of Fatigue Status</p> <ul style="list-style-type: none"> • Communicate status at morning safety meeting. • Increase cross-checking among coworkers and social interaction. • Increase supervision. • Remove safety sensitive tasks from work.
Work Environment	
<p>Work environmental factors - Possible exposure to hazardous substances, noise, temperatures, vibration, etc.</p>	<p>Continuous Assessment and Control of Work Environment</p> <ul style="list-style-type: none"> • On-site supervisor to assess work environmental factors (i.e. monitoring heat index, perform atmospheric monitoring, etc.). • Implement work/rest schedule. • Adjust working temperature. • Adjust lighting.

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1. Incident Name: Hurricane Florence	2. Operational Period: Date From: 09/12/2017 Time From: 1500	Date To: TBD Time To:
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Appendix D: JHA005 Hurricane Cleanup

Page 12 of 19

4. Site Safety Plan Required? Yes No


Approved Site Safety Plan(s) Located At: Southeast MER Resource Centers (SFL, JAX, SAV, CHS)

5. Prepared by: Name: Jim McHugh Position/Title: Safety Officer Signature: 

ICS 208

IAP Page _____

Date/Time: Date: 09/12/2017 Time: 1500

Date:		JOB HAZARD ANALYSIS			
Job Number:					
Completed By:					
Medical Facility: (name, phone, address)		Occupational Med Center? Yes No	Medical Facility Hours of Operation:		

JOB DESCRIPTION: HURRICANE CLEANUP

Basic Job Steps	Potential Hazards	Controls & Recommended Actions	Training Associated
<p><u>Mobilization to Site</u></p> <ul style="list-style-type: none"> ▪ Determine requirements for personnel and vehicles to the site. ▪ Establish storage area for equipment and supplies. ▪ Unloading of supply vehicles. ▪ Establish work zones. 	<ul style="list-style-type: none"> ▪ Physical strain from improper lifting. ▪ Slips/trips/falls ▪ Vehicular accidents/collisions ▪ Debris on the road ▪ Downed or sagging powerlines/electrocution ▪ Standing water, street flooding ▪ Bloodborne Pathogens 	<ul style="list-style-type: none"> ▪ Wear Level D PPE: hard hat, safety glasses, gloves, and safety- toed boots, high visibility vest. ▪ Monitor work for good housekeeping practices. ▪ Keep walking surfaces free from slip/trip hazards. ▪ Follow proper lifting techniques. ▪ Be aware of and keep hands out of potential pinch points ▪ Do not approach down powerlines unless the verified to be de-energized. Maintain 10 feet of clearance around down power lines. Use spotters around sagging power lines, if needed find alternate route. 	<ul style="list-style-type: none"> ▪ Valid motor vehicle driver's license.

Basic Job Steps	Potential Hazards	Controls & Recommended Actions	Training Associated
<p>Cleanup of Storm Debris</p> <ul style="list-style-type: none"> ▪ Removal of debris <ul style="list-style-type: none"> ○ General debris ○ Vegetative debris ○ Hazardous debris ○ Demolition debris ▪ Power-washing dirty surfaces ▪ Pumping down standing water ▪ Cutting down trees/power poles with chainsaws 	<ul style="list-style-type: none"> ▪ Slips/trips/falls ▪ Overhead hazards ▪ Heat Stress ▪ Fatigue ▪ Fall from heights/fall through hazards ▪ Ecological <ul style="list-style-type: none"> ○ Snakes ○ Insects ▪ Exposed nails, jagged/sharp edges ▪ Physical strain from improper lifting. ▪ Debris on the road ▪ Down powerlines/electrocution ▪ Creosote/PCP on power poles ▪ Standing water, street flooding ▪ Mold 	<ul style="list-style-type: none"> ▪ Complete tailgate safety meeting. ▪ Inspect area for potential overhead hazards (damaged trees, structures, debris on roofs). ▪ Wear Level D PPE: hard hat, safety glasses, gloves, and safety- toed boots, Waterproof boots or covers/over boots, high visibility, poly-coated Tyvek if needed. ▪ If HazMat site (oil/petroleum, chemical release, mold etc.) Upgrade to level C PPE with respiratory protection for the hazard. ▪ Use PPE for chainsaw activity (appropriate gloves, face shield and chaps in addition to standard level D PPE). If cutting chemically treated power poles wear respiratory protection for the potential exposure. ▪ If fall hazard or fall through hazard present wear full body harness and lanyard. ▪ Keep adequate supply of clean drinking water and cleaning water. ▪ Drink plenty of fluids. Implement work-rest schedule if needed. Know sign and symptoms of heat stress. ▪ Discard water damaged material. ▪ Keep a minimum distance of 10 feet from downed power lines. Assume standing water is energized until proven to be de-energized. ▪ Follow proper lifting techniques. ▪ Utilize equipment properly. ▪ Assume floodwater is contaminated w/biohazard (sewage) unless verified. 	<ul style="list-style-type: none"> ▪ HAZWOPER (24hr & 8hr Refresher) ▪ Respirator if needed ▪ Bloodborne Pathogens ▪ Hazard Communication ▪ Personal Protective Equipment ▪ Up to date tetnus shot (10 years) ▪ Annual medical surveillance

Basic Job Steps	Potential Hazards	Controls & Recommended Actions	Training Associated
<p>Demobilization</p> <ul style="list-style-type: none"> ▪ Remove equipment from site 	<ul style="list-style-type: none"> ▪ Physical strain from improper lifting. ▪ Slips/trips/falls ▪ Vehicular accidents/collisions. 	<ul style="list-style-type: none"> ▪ Wear Level D PPE: hard hat, safety glasses, gloves, and safety- toed boots. ▪ Decon equipment (chemical and biological). ▪ Keep walking surfaces free from slip/trip hazards. ▪ Follow proper lifting techniques. ▪ Be aware of and keep hands out of potential pinch points 	<ul style="list-style-type: none"> ▪ Valid motor vehicle driver's license.

PERSONNEL FATIGUE MANAGEMENT (PFM) PLAN						
<p><i>Complete this section if worker(s) will exceed the Worker Hour Limitations listed on the Supervisor Fatigue Management Handout or other has other signs and/or symptoms that indicate that they are not Fit-for-Duty.</i></p>						
Employee Name:						
Hours worked (last 7 days): <small>(if greater than 72 hours)</small>						
Date of last off-duty day: <small>(if greater than 7 days)</small>						
Estimated overage/hours:						
Description of tasks:						
Reason for PFM Plan: <small>(Check all that apply)</small>	<input type="checkbox"/> Client Request <input type="checkbox"/> E.R. <input type="checkbox"/> # of Hours <input type="checkbox"/> Not "Fit" <input type="checkbox"/> Other:	<input type="checkbox"/> Client Request <input type="checkbox"/> E.R. <input type="checkbox"/> # of Hours <input type="checkbox"/> Not "Fit" <input type="checkbox"/> Other:	<input type="checkbox"/> Client Request <input type="checkbox"/> E.R. <input type="checkbox"/> # of Hours <input type="checkbox"/> Not "Fit" <input type="checkbox"/> Other:	<input type="checkbox"/> Client Request <input type="checkbox"/> E.R. <input type="checkbox"/> # of Hours <input type="checkbox"/> Not "Fit" <input type="checkbox"/> Other:	<input type="checkbox"/> Client Request <input type="checkbox"/> E.R. <input type="checkbox"/> # of Hours <input type="checkbox"/> Not "Fit" <input type="checkbox"/> Other:	<input type="checkbox"/> Client Request <input type="checkbox"/> E.R. <input type="checkbox"/> # of Hours <input type="checkbox"/> Not "Fit" <input type="checkbox"/> Other:
Control Measures: <small>(i.e. buddy system, breaks, avoid safety-sensitive tasks-driving, hydroblasting, etc.)</small>						
Transportation Plan: <small>(i.e. to home/hotel, etc.)</small>						
Employee Rest Plan: <small>(i.e. adjusted next day start time, schedule day off, etc.)</small>						
Approval Manager (verbal):						

Crew Safety Meeting Acknowledgment & PFM Acknowledgement

My signature below indicates that I took part in a site safety meeting where the hazards of this project as identified on this job hazard analysis were reviewed. Additionally, my signature indicates that I agree to adhere to the safety measures outlined in this document and to all of Moran's safety policies and procedures.

Stop Work Authority: All MER employees and subcontractors working directly for MER have the authority to “STOP WORK” if a job specific condition exists that 1) poses an imminent danger to the health and safety of workers or the public, and or 2) could adversely affect the safe operation of or cause serious damage to equipment/property.

Fit-for-Duty means an individual is in a physical, mental, and emotional state that enables the employee to perform the essential tasks of his or her work assignment in a manner that does NOT threaten the safety or health of oneself, co-workers, property, or the public at large. **By checking YES or NO below, I am indicating that I DO or DO NOT feel as though I am Fit-for-Duty.**

Print	Sign	Fit for Duty	
		Yes	No

SAFETY MESSAGE/PLAN (ICS 208)

1. Incident Name: Hurricane Florence	2. Operational Period: Date From: 09/12/2017 Time From: 1500	Date To: TBD Time To:
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Appendix E: Blank JHA Form

Page 17 of 19

4. Site Safety Plan Required? Yes No


Approved Site Safety Plan(s) Located At: Southeast MER Resource Centers (SFL, JAX, SAV, CHS)

5. Prepared by: Name: Jim McHugh Position/Title: Safety Officer Signature: 

ICS 208

IAP Page _____

Date/Time: Date: 09/12/2017 Time: 1500

Date:		Job Number:		<h1>JOB HAZARD ANALYSIS (JHA)</h1> 			
Completed By:		Project Length:					
Client/Location:							
Scope of Work:							
Medical Facility:		Address:		Phone:		Hours:	

JOB HAZARD ANALYSIS

Work Steps and Tasks	Potential Hazards	Control / Safe Work Procedures
<u>Mobilization/ Demobilization to Site</u> <ul style="list-style-type: none"> ▪ Establish supply storage area ▪ Unload supply vehicles ▪ Establish work area (caution tape/ signs) 	<ul style="list-style-type: none"> ▪ Physical strain from improper lifting ▪ Pinch Points ▪ Slips/trips/falls ▪ Vehicular accidents/ collisions 	<ul style="list-style-type: none"> ▪ Follow proper lifting techniques ▪ Keep hands out of potential pinch points ▪ Keep walkways free of slip/trip hazards ▪ Driver's license & DVIR
	<p style="text-align: center;"><i>Examples</i></p> <p style="text-align: center;"><u>Physical</u></p> <ul style="list-style-type: none"> • Electrical • Excavation • Falls • Falling object • Fire/ spark • High pressure • Lighting • Noise • Other contractors • Overhead • Pinch points • Power tools • Slips/ trips • Static • Temperature • Traffic • Weather • Water <p style="text-align: center;"><u>Confined Space</u></p> <ul style="list-style-type: none"> • Configuration • Engulfment • Entrapment • O2 enriched • O2 deficient 	<p style="text-align: center;"><u>Chemical</u></p> <ul style="list-style-type: none"> • Asbestos • Combustible dust • Flammable • Lead • Reactivity <p style="text-align: center;"><u>Ergonomic</u></p> <ul style="list-style-type: none"> • Heavy lifting • Repetitive motion • Twisting/ bending • Vibration <p style="text-align: center;"><u>Biological</u></p> <ul style="list-style-type: none"> • Animal/ bird feces • BBP/ disease • Insects • Mold • Plants
		<p style="text-align: center;"><i>Examples</i></p> <p style="text-align: center;"><u>Engineering</u></p> <ul style="list-style-type: none"> • Anti-withdrawal device • Backout preventer • Barrier/ signage • Containment • GFCI • Glove Bags • Grounding/ bonding • Guarding • HEPA vacuum • Isolation • LOTO • Ventilation • Wet Methods <p style="text-align: center;"><u>Administrative</u></p> <ul style="list-style-type: none"> • Atmospheric Monitoring • CSR Retrieval • Decon • Fire watch/ extinguisher • Housekeeping • Proper/ team lifting • Rotation • Safe approach distance • Spill containment • Training • Work/Rest schedule

PPE:	Required: <input type="checkbox"/> Hardhat <input type="checkbox"/> Eye/ Face <input type="checkbox"/> Safety-Toed Boots <input type="checkbox"/> Hand: _____ <input type="checkbox"/> Hearing <input type="checkbox"/> Reflective Vests <input type="checkbox"/> Harness <input type="checkbox"/> Respiratory: _____ <input type="checkbox"/> Torso: _____ <input type="checkbox"/> PFD <input type="checkbox"/> Metatarsal Covers <input type="checkbox"/> Personal Fall Arrest System <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____	
TRAINING:	<input type="checkbox"/> Asbestos <input type="checkbox"/> CSE/CSR <input type="checkbox"/> HAZWOPER <input type="checkbox"/> Lead <input type="checkbox"/> MSHA <input type="checkbox"/> NFPA 70E <input type="checkbox"/> PIC <input type="checkbox"/> Vessel Ops <input type="checkbox"/> Rail <input type="checkbox"/> Hand/ Power Tools <i>Other:</i> <input type="checkbox"/> _____ <input type="checkbox"/> _____	PERMITS:
		<input type="checkbox"/> CSE <input type="checkbox"/> Excavation <input type="checkbox"/> _____ <input type="checkbox"/> _____

LONG TERM PROJECT CONSIDERATIONS

Y N

Has a JHA been developed for this project? Original date¹: _____

Is it onsite and available to review during today's safety meeting?

Have new employees been familiarized with project hazards?

Is today's scope of work the same as discussed on original JHA²?

Are the potential hazards the same as discussed on original JHA²?

If no to any of the above, explain: _____

¹ A new JHA must be completed at the beginning of each week.
² If "N", list the information in today's Job Hazard Analysis section on PI.

STOP WORK CRITERIA

List Stop Work Criteria below for job-specific conditions that:

- a. Pose an imminent danger to the health and safety of workers or public
- b. Could adversely affect the safe operation of or cause serious damage to equipment/property (e.g. trench collapses, equipment/ protection system failure, blasting hose bursting, LOTO failure, etc.)

Stop work by verbally notifying personnel involved/ located in the vicinity. Ensure onsite supervisor is notified immediately.

- 1.) Injury/ Near Miss Event 2.) Outdoor work - Weather (lightning, etc.)
- 3.) Worker Hour Limits exceeded/not Fit-for-Duty – Complete PFM Plan
- 4.) _____
- 5.) _____

PERSONNEL FATIGUE MANAGEMENT (PFM) PLAN

Complete this section if worker(s) will exceed the Worker Hour Limitations listed on the Supervisor Fatigue Management Handout or other has other signs and/or symptoms that indicate that they are not Fit-for-Duty.

Employee Name:			
Hours worked (last 7 days):			
Date of last off-duty day:			
Estimated overage/hours:			
Description of tasks:			
Reason for PFM Plan: <i>(Check all that apply)</i>	<input type="checkbox"/> Client Request <input type="checkbox"/> E.R. <input type="checkbox"/> # of Hours <input type="checkbox"/> Not "Fit" <input type="checkbox"/> Other: _____	<input type="checkbox"/> Client Request <input type="checkbox"/> E.R. <input type="checkbox"/> # of Hours <input type="checkbox"/> Not "Fit" <input type="checkbox"/> Other: _____	<input type="checkbox"/> Client Request <input type="checkbox"/> E.R. <input type="checkbox"/> # of Hours <input type="checkbox"/> Not "Fit" <input type="checkbox"/> Other: _____
Control Measures: <i>(i.e. buddy system, breaks, avoid safety-sensitive tasks-driving, hydroblasting, etc.)</i>			
Transportation Plan: <i>(i.e. to home/hotel, etc.)</i>			
Employee Rest Plan: <i>(i.e. adjusted next day start time, schedule day off, etc.)</i>			
Approval Manager (verbal):			

CREW SAFETY MEETING ACKNOWLEDGEMENT

<p>My signature indicates that I took part in a site safety meeting where the hazards of this project, as identified on this JHA, were reviewed. Additionally, my signature indicates that I agree to adhere to the safety measures outlined in this document and to all of MER's safety policies and procedures.</p> <p><i>Fit-for-Duty</i> means that an individual is in a physical, mental, and emotional state that enables the employee to perform the essential tasks of his or her work assignment in a manner that does NOT threaten the safety or health of oneself, co-workers, property, or the public at large. By checking YES or NO below, I am indicating that I DO or DO NOT feel as though I am Fit-for-Duty.</p>	Fit-for-Duty?		Print	Sign
	Yes No			
Site Supervisor:				
	Yes No			
I have evaluated MER's onsite crew and believe that they are Fit-for-Duty:	Yes No			

