



Mistras Group, Inc. | Services Division

Spill Prevention Control and Countermeasures Plan

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Management Approval

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Issue Authorization

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Spill Prevention Control and Countermeasures Plan

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1.0 Purpose / Scope

- 1.1 Rope access technicians are often asked to deploy a wide variety of trades to facilitate the efficient use of Industrial Rope Access. This means they must often work in many varied environments. Appropriate training should be given on their correct use in each specific situation with special attention to the potential from causing harm to the environment as a result of spill or unplanned discharge.
- 1.2 The purpose of this procedure is to establish techniques, guidelines for effective spill prevention control and countermeasures for work above or near water.
- 1.3 The goal is to design and implement systems that will prevent oil and other materials from reaching navigable waters or adjoining shorelines and to contain discharges of oil.
- 1.4 This procedure applies to all Mistras Group, Inc. employees working above or near 'navigable waters' or tributaries associated with marine environments. Special consideration is given to safety and environmental spill mitigation during rope access coatings and inspection operations at wharf facilities on refineries.

2.0 Responsibilities

- 2.1 The Rope Access Program Manager is responsible for the preparation and review of the Rope Access Safe Working Procedures. The Rope Access Program Manager is also responsible for the issuance and control of rope access procedures designated as a corporate procedure.
- 2.2 The Rope Access Division Managers are responsible for control of quality documents used at their respective division and the creation and maintenance of the rope access division documents.
- 2.3 The Rope Access Operations Manager is responsible for assuring that appropriate documents are available to personnel and at locations where activities governed by the documents are to be performed.
- 2.4 All personnel performing coating of piping or any other surface during rope access related activities shall assure they follow the MISTRAS Ropeworks® Rope Access Procedures in addition to the safety precautions and techniques outlined in this document.
- 2.5 Employees are responsible for following all OSHA, Site Specific and Mistras safety procedures, participating in required training, wearing proper PPE for the task, reporting all violations or safety concerns and cooperating with any investigations. Employees and employers have a responsibility to work together to establish safe working procedures. If a hazardous situation is encountered in the course of following this or any other work procedure, the employees should stop work and bring it to the attention of the site supervisor immediately.

3.0 Identifying 'Navigable Waters' and 'Adjoining Shorelines'

- 3.1 'Navigable Waters'; This term is broadly defined under the 'Clean Water Act and Oil Pollution Act' and essentially means any natural surface water. This includes and is not limited to; lakes, rivers, streams, wetlands, sloughs, prairie potholes, wet meadows, playa lakes or natural ponds.
- 3.2 'Adjoining Waters' are covered in the scope of this document. These areas include beaches, shorelines, bays, estuaries and river mouths. The Marine environment around wharf locations at oil refineries falls into these areas.

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4.0 Spill Prevention Control and Countermeasures Plan Objectives

- 4.1 Set forth procedures and controls for use of tools and materials while working near water.
- 4.2 Implement Mistras procedures in addition to Local Plant controls for spill prevention control and countermeasures.

5.0 Tools

- 5.1 Spill Control Response kit must be fully stocked and at the work area at all times. When items are removed, they shall be replaced prior to work resuming. The kit must include:
 - Sorbent pads
 - Sorbent socks
 - Sorbent pillows
 - Floating containment booms
 - Disposable bags
 - P.P.E. Gloves and goggles
 - Buckets and paddling pools
 - Pipe clamps

6.0 Prior to Starting Work

- 6.1 Obtain the proper permit(s) from the unit operator prior to the start of any work. Discuss the specific locations, tools and methods to be used.
- 6.2 Confirm blinding process has been completed and signed off by operations with field verification by all parties.
- 6.3 Review the Safety Data Sheet for proper material handling.
- 6.4 Verify with the operator issuing the permit that you have the proper PPE for the work involved.
- 6.5 Complete the Job Hazard Analysis form and document safety meeting. Check specifically to see if others in your area may be affected by your activities.
- 6.6 Establish exclusion zones on ground areas and traffic control where necessary.
- 6.7 When working above water employ a 100% tie off policy for all tools and equipment.
- 6.8 Ensure Spill Control equipment is close by and readily accessible in case of discharge.
- 6.9 As a preliminary precaution an Ultrasonic Thickness Measurement should be taken at four points adjacent to the work area to determine adequate wall thickness determined by "client" parameters.

7.0 Procedure for Spill Prevention Measures

- 7.1 Surface Preparation
 - 7.1.1 If upon initial hand tool preparation pitting depth indicates a low remaining pipe wall, loosely attach appropriately sized pipe clamps adjacent to the work area in readiness for a potential pipe wall failure.
 - 7.1.2 Glove bags are to be attached to the pipe in a manner to isolate the area to be tooled to provide first level of containment.

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- 7.1.3 Suspend bucket and absorbent materials adjacent to work area in case of unplanned discharge.
- 7.1.4 Carry out all work within the glove bag.
- 7.1.5 Once area has been cleaned brush all debris from pipe into base of glove bag.
- 7.1.6 If only small amounts of debris have been collected the bag can be moved small distances to continue work.
- 7.1.7 Once bag is full or is considered in need of replacement brush pipe and move all loose debris to base of bag. Contain loose material by 'capturing' the material in the bag and securely fastening with a zip tie.
- 7.1.8 Position glove bag within another plastic bag and cut glove bag from pipe.
- 7.1.9 Ensure final bag is closed securely, remove from work area and dispose of material in accordance with site waste disposal procedures.
- 7.2 Coating Application
 - 7.2.1 Coatings shall be transported in sealed containers from the preparation area to work area in two containers to catch and contain any drips or spills.
 - 7.2.2 Suspend catchment tub beneath pipe to catch any drips of coating and act as the secondary spill containment measure.
 - 7.2.3 Coating application will be carried out in a careful and controlled manner.
 - 7.2.4 Wind speed and external influencing factors shall be monitored during work.
 - 7.2.5 Technicians shall not travel in suspension while attached to paint containers or painting tools. Containers and tools shall be suspended independently while moving along piping above water.

8.0 Training

- 8.1 Employees will be provided training on the contents of this procedure and be given the opportunity to ask questions about content they do not understand.
- 8.2 Re-Training- Employees will be re-trained upon any changes in this section or procedure.

9.0 Specific Spill Response Action Plan

- 9.1 Post names, positions and contact details of individuals to be contacted in the event of a spill.
- 9.2 Review roles and responsibilities of team members.
- 9.3 Review action plan and evacuation muster points.
- 9.4 Maintain an inventory of spill control materials and personal protective equipment.
- 9.5 In the event of a leak or discharge:
 - 8.5.1 Stop all other work, inform crew of event and focus on initial containment by using the in situ bag and bucket suspended in place already.
 - 8.5.2 Assess area and extinguish any potential sources of ignition.
 - 8.5.3 Don any additional personal protective equipment as necessary.
 - 8.5.4 Quickly secure clamp in place and stop the leak.
 - 8.5.5 Report event to operations and contact necessary individuals listed in section 6.1.

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10.0 P.P.E. Requirements

- 10.1 Suitable personal protection equipment requirements will be found in the manufacturer's instructions and safety data sheet.
- 10.2 Suitable personal protection equipment items may include and are not limited to:
 - 10.2.1 Tyvek suit may be worn to protect rope access equipment from coating contamination.
 - 10.2.2 Impervious gloves with wrist protection.
 - 10.2.3 Hard hat with chin strap
 - 10.2.4 Disposable latex boots
 - 10.2.5 Approved safety glasses.
 - 10.2.6 Goggles, face shield, or other approved face and eye protection equipment
 - 10.2.7 Respirator with approved cartridge

11.0 Safety Considerations

- 11.1 Ensure spill response equipment is suitable for the materials likely to be found.
- 11.2 Keep all items in good condition with regular maintenance.
- 11.3 Use the correct P.P.E. for the hazard.
- 11.4 Examine each item for damage before use.
- 11.5 Ensure a good fit and wear according to the manufacturer's instructions.

12.0 Work Site Hygiene

- 12.1 Clean and store all respirators in a clean container while not in use
- 12.2 Keep respirator on while removing outer disposable clothing. Remove disposable clothing (turn inside out) before leaving controlled area
- 12.3 Lean forward and pull straps forward over your head when removing respirator to avoid getting dust or debris in eyes.
- 12.4 Wash hands and face often and before eating, drinking or smoking
- 12.5 Keep all food and drinks in clean and safe location
- 12.6 Only eat in designated areas
- 12.7 Shower as soon as possible after work shift has ended.

13.0 At the End of Each Shift / Location

- 13.1 Police the worksite.
- 13.2 Clean all tools and equipment with wet rags.
- 13.3 Properly store all related materials.
- 13.4 Dispose of all debris material according to site specific waste disposal procedures.

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- 13.5 Place all disposable clothing and contaminated material in properly labeled disposal bags, seal and place in designated, approved hazardous waste containers. **Do not leave loose debris or disposal bags with debris in vehicles.**