Safety Officer Job Aid

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1000 Safety Officer

Personnel involved in oil spill response activities must comply with all applicable worker health and safety laws and regulations. The UC may appoint a Safety Officer and request development of a specific Site Safety Plan. The Site Safety Plan is described in the Health and Safety Job Aid. Key safety aspects to be considered in the plan may include:

- Physical hazards (e.g., waves, tides, unstable or slippery surfaces);
- Heavy machinery and equipment;
- Chemical hazards (e.g., oil and dispersant exposure);
- Atmospheric hazards (e.g., fumes, ignition risks);
- Confined spaces;
- Personal protective equipment;
- Noise;
- Fatigue;
- Heat/cold stress;
- Wildlife (bites/stings);
- Cleanup facilities;
- Medical treatment; and
- Extreme weather.

The Hazard Assessment Worksheet as provided in Section 9701 or equivalent should be completed before personnel enter a hazardous location or site for the first time. When complete the worksheet is attached to the SDS/Chemical Database Print-out/Bill of Lading and submitted to the Documentation Unit.

1100 Safety Officer Function and Use of Dispersants

The Safety Officer will review the EU Dispersant Recommendation Memo prior to its submission to the UC for consideration and will work with the EUL to ensure that the memo meets the needs of the Safety Officer.

Additional safety considerations when using dispersants include:

- Individuals should not engage in activities that they are not appropriately trained to perform.
- Individuals are expected to adhere to safety procedures appropriate to the conditions under which they are working.
- Vessel/aircraft operators are expected to define appropriate operational limits and safety and maintenance requirements for their craft.

- Vessels and response resources should be properly maintained and undergo proper decontamination procedures.
- Apply dispersants only if there is no significant risk to response personnel (e.g., ignition risk, operational hazards).
- Ensure that appropriate personal protective equipment is used.
- Ensure that application aircraft and vessels remain within standard operating limits.

1200 Safety Officer Function and Non-floating Oils

When diving operations are conducted in contaminated water or in an area where there is a substantial threat of discharge of oil or hazardous materials, commercial divers must also comply with the Occupational Safety and Health Administration training and operational standards for Hazardous Waste Operations and Emergency Response (HAZWOPER). Divers should provide proof of HAZWOPER training, proof that they participate in a medical monitoring program with their employers, and evidence that they have completed the annual refresher training, before commencing diving operations. The Safety Officer should supplement his or her site-specific safety plan and on-site safety audits with a safety checklist for contaminated water diving if divers are used to locate non-floating oils. See the Non-Floating Oil Spill Response Tool for details on response techniques, equipment capabilities, and considerations for non-floating oil spill response. The American Petroleum Institute (API) Technical Reports in Attachment C of the tool contain additional information on diving operations and safety considerations for non-floating oil response:

- API Technical Report 1154-1, Section 6: Diving in Oil Contaminated Water[1]
- API Operational Guide, Report 1154-2, Section 7: Safety Considerations[2]

1300 Safety Officer Function and Flammable Materials/Volatile Oils

Because of high concentrations of light hydrocarbons in volatile oils, the potential for fire and explosion is the single largest risk to responders and public health. Examples of such products include, but is not limited to, gasoline, condensate and Bakken crude. Extreme caution should be exercised especially during the initial stages of response. Section 3320.1, "Tactical Response Options, Gasoline and Other Flammable Liquids" and Section 4622 "Gasoline and Other Flammable Liquids Response Policy" provide guidance on the response challenges and strategies with gasoline and other products with light ends. Operations should also refer to general response guidelines in the 2012 Emergency

[1] American Petroleum Institute, February 2016, *Sunken Oil Detection and Recovery, API Technical Report 1154-1*, First Edition, API Publishing Services, Washington, DC.
[2] American Petroleum Institute, February 2016, *Sunken Oil Detection and Recovery Operational Guide, API Technical Report 1154-2*, First Edition, API Publishing Services, Washington, DC.

Response Guidebook prepared by the United States Department of Transportation – Pipeline and Hazardous Materials Safety Administration and Transport Canada. Bakken is not listed by name, but falls under Petroleum Crude Oil.

1400 Safety Officer Function and Crude Oil

During the initial days of spill response, the major components of concern to human health in crude oils include the volatile compounds— benzene, toluene, ethylbenzene, and xylenes (collectively called BTEX) and hydrogen sulfide (H_2S)—that can result in acute and sublethal effects via inhalation exposure. Extreme caution should be exercised especially during the initial stages of response.

1500 Safety Officer Sampling and Monitoring Requirements

On hazardous waste sites it is required to conduct monitoring for health and safety hazards to protect employees and workers. This includes:

1) Evaluate the need for medical monitoring of response personnel
2) Help determine if samples need to be shipped as dangerous goods
3) Monitoring for health and safety hazards during initial site entry
    a) Make visual observations of the site to detect signs of actual or potential chemical, physical, and biological hazards immediately dangerous to life and health (IDLH) or other dangerous conditions
    b) Conduct representative air monitoring with direct reading test equipment, when the preliminary site evaluation does not eliminate the potential for ionizing radiation or IDLH conditions
    c) Assess the following:
        i) Potential IDLH conditions
        ii) Exposure over radioactive material dose limits
        iii) Potential exposure over permissible exposure limits (PEL's) or other published exposure levels
        iv) Other dangerous conditions such as the presence of flammable or oxygen-deficient atmospheres
        v) Physical hazards
4) Evaluating employee exposure to hazardous substances during clean-up operations
    a) Identify the type of personnel monitoring and environmental sampling you plan to use, including instrumentation
    b) Include requirements for maintaining and calibrating the monitoring and sampling instrumentation used
    c) Monitor whenever employees may be exposed to concentrations exceeding PEL's or other published exposure levels
    d) Evaluate employees who are likely to have the highest exposure:
        i) Monitor all employees who are likely to have the highest exposure to hazardous substances or health hazards above the PEL

ii) Use personal sampling frequently enough to characterize the exposures of these employees
iii) When results indicate exposure over PEL, identify all employees likely to have been exposed to levels above that PEL

5) Conduct monitoring when the possibility of one of the following exists:
   a) An atmosphere that is immediately dangerous to life and health; OR
   b) A flammable atmosphere; OR
   c) Employee exposures above PEL.

HUMAN SAFETY OVERRIDES ALL OTHER CONSIDERATIONS DURING A RESPONSE