# 4.0 The Goal of Identification

OBJECTIVE 4.1: HAZARD & RISK ASSESSMENT
(Demonstrate the ability to identify the hazardous material(s) involved in an *Incident/Accident* and to assess the hazards associated with the material involved during both the emergency and *Post-emergency Phases*.)

Intent This objective provides a framework for the evaluation of an the Emergency Response Agency's ability to identify the hazardous material(s) involved in an *Incident/Accident* and to assess the hazards associated with the material during both the emergency and post emergency phases.

Note: This objective focuses on the technical identification of materials the assessment of the associated hazards to the public health and safety. The Emergency Response Agency demonstrates the technical capability to identify the material involved in an *incident/accident*.

| | yes | no | n/a | n/o | Time |
|---|---|---|---|---|---|
| Was this Objective Met | ___ | ___ | ___ | ___ | ___ |

Evaluator Signature _____Date_____

Criteria:

4.1.1 Did Emergency Response Agency demonstrate the knowledge, skills & capability to collect information on the type of container or package involved (e.g., tankcar, drum, tank trailer, small package, etc.)?

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.1.2 Did Emergency Response Agency demonstrate the knowledge, skills & capability to collect information on the extent of damage to the container or package?

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.1.3 Did Emergency Response Agency demonstrate the knowledge, skills & capability to estimate the quantity of material involved?

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.1.4 Did Emergency Response Agency demonstrate the knowledge, skills & capability to collect information on the shipping papers (from trucks, trains, and vessels) or MSDSs (from fixed facilities)?

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.1.5 Did Emergency Response Agency demonstrate the knowledge, skills & capability to observe any placards, identification numbers, markings, or labels (DOT or NFPA 704M

labeling systems) to assist in identifying the specific material, or at a minimum, the hazard class of the material involved?

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.1.6 Did Emergency Response Agency demonstrate the knowledge, skills & capability to obtain information from knowledgeable persons on the scene (truck driver, train crew, plant manager, etc.)?

| yes | no | n/a | n/o | time | |
|---|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ | _____ |

4.1.7 Did the Emergency Response Agency, after evaluating information gathered during the initial incident assessment, demonstrate the capability to consult various emergency response resources (e.g., DOTs Emergency Response Guide [ERG]) for initial response information before placing additional personnel, environment and property at risk?

| yes | no | n/a | n/o | time | |
|---|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ | _____ |

4.1.8 Did the Emergency Response Agency use additional response information such as outside experts, CHEMTREC, and computer data bases and report the observed field data to other response agencies? (Mayoral Directive Sec. 1.h)

| yes | no | n/a | n/o | time | |
|---|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ | _____ |

Note: During an exercise, it is not necessary to contact CHEMTREC because that organization may be busy responding an actual incidents/accidents across the country. However, as part of exercise play, the Emergency Response Agency should demonstrate the capability to actually contact other responsible agencies, the transporter, shipper, and *Facility* management, as well as outside experts who are participating in the exercise. The Emergency Response Agency should also demonstrate the capability to actually obtain additional response information through the use of computer data bases, as appropriate.

Explanation:

Identification of the material involved in an *Incident/Accident* is critical to a safe and effective emergency response. The Emergency Response Agency should demonstrate the capability of its designated initial response personnel (e.g., First Responders Awareness, Operational, Hazardous Materials Technicians, Specialists, Incident Command ) to complete an initial incident assessment of an *Incident/Accident*. . The objective of an initial incident assessment is to maximize the safe recovery of information at the *Incident/Accident* site and to identify the material and the assess the hazards that may be involved.

Once the initial assessment has been completed and the spilled or released material has been identified, the Emergency Response Agency should demonstrate the capability to assess the potential hazards both at the affected site and to adjacent areas.

The Emergency Response Agency should demonstrate the capability to assess the physical factors affecting the release such as the material state (liquid, gas, solid), actual and projected release rate, and direction of the material released in air or water.

The physical factors associated with the natural setting and type of material being released at the accident site should guide the Emergency Response Agency in structuring the design of a field sampling plan and deployment of field monitoring teams. The Emergency Response Agency should demonstrate the capability to establish a priority for monitoring

airborne toxic substances develop a strategy for monitoring and using direct reading instruments maintain monitoring capabilities for the duration of the release identify and respond to atmospheric and geographic conditions obtain environmental samples analyze the samples supplement field monitoring data with risk assessment data that are based on various computer models (e.g., ARCHIE, CAMEO, etc.)

The Emergency Response Agency should demonstrate the capability to use the analysis of the field samples to guide decision makers in developing protective actions for the responders as well as for the general public. Those activities concerning the risk(s) associated with the spilled or release material and the potential for exposure to the public health and safety and the environment are evaluated under Objective 9: Protective Actions for the Public.

OBJECTIVE 4.2: TOOL & EQUIPMENT SELECTION FOR IDENTIFICATION
(Demonstrate the ability to identify the hazardous material(s) involved in an *Incident/Accident* using the proper tools and equipment to perform the work tasks.)

Intent This objective provides a framework for the evaluation of an the Emergency Response Agency's ability to identify the hazardous material(s) involved in an *Incident/Accident* through air monitoring and sampling of the products.

Note: This objective focuses on the technical identification of materials and the technical knowledge and capability to select the appropriate monitoring devices.

| | yes | no | n/a | n/o | Time |
|---|---|---|---|---|---|
| Was this Objective Met | ___ | ___ | ___ | ___ | ___ |

Evaluator Signature _____Date_____

Criteria:

4.2.1 Did Emergency Response Agency demonstrate the ability to select surface acoustic wave technology for detection as the appropriate monitoring devices by the Entry Team to identify the product?

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.2.2 Did Emergency Response Agency demonstrate the ability to select Flame ionization for detection as the appropriate monitoring devices by the Entry Team to identify the product?

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.2.3 Did Emergency Response Agency demonstrate the ability to select Photo ionization detection as the appropriate monitoring devices by the Entry Team to identify the product?

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.2.4 Did Emergency Response Agency demonstrate the ability to select colorimetric pH paper or pH meter as the appropriate monitoring devices by the Entry Team to identify the product?

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.2.5 Did Emergency Response Agency demonstrate the ability to select CAMs as the appropriate monitoring devices by the Entry Team to identify the product?

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.2.6 Did Emergency Response Agency demonstrate the ability to select Drager tubes as the appropriate monitoring devices by the Entry Team to identify the product?

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.2.7 Did Emergency Response Agency demonstrate the ability to select oxygen meters as the appropriate monitoring devices by the Entry Team?

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.2.8 Did Emergency Response Agency demonstrate the ability to select radiological meters as the appropriate monitoring devices by the Entry Team?

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.2.9 Did Emergency Response Agency demonstrate the ability to select CGI'S as the appropriate monitoring devices by the Entry Team?

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

Explanation:

Identification of the material involved in an *Incident/Accident* is critical to a safe and effective emergency response. The Emergency Response Agency should demonstrate the capability of its designated Hazardous Materials Technicians, Specialists to complete an initial product identification at an *Incident/Accident*. . The objective of an initial incident identification is to maximize the safe recovery of information at the *Incident/Accident* site and to identify the material.

The Emergency Response Agency should demonstrate the capability to deploy field monitoring teams. The Emergency Response Agency should demonstrate the capability to establish a priority for monitoring airborne toxic substances develop a strategy for monitoring and using direct reading instruments maintain monitoring capabilities for the duration of the release.

The Emergency Response Agency should demonstrate the capability to use the analysis of the field samples to guide decision makers in developing protective actions for the responders as well as for the general public.

OBJECTIVE 4.3: AIR MONITORING FOR IDENTIFICATION
(Demonstrate the ability to identify the hazardous material(s) involved in an *Incident/Accident* and to assess the hazards associated with the material involved during both the emergency and *Post-emergency Phases*.)

Intent This objective provides a framework for the evaluation of an the Emergency Response Agency's ability to identify the hazardous material(s) involved in an *Incident/Accident* and to assess the hazards associated with the material during both the emergency and post emergency phases.

Note: This objective focuses on the technical identification of materials the assessment of the associated hazards to the public health and safety. The Emergency Response Agency demonstrates the technical capability to identify the material involved in an *incident/accident*.

| | yes | no | n/a | n/o | Time |
|---|---|---|---|---|---|
| Was this Objective Met | ___ | ___ | ___ | ___ | ___ |

Evaluator Signature _____Date_____

Criteria:

4.3.1 Did Emergency Response Agency demonstrate the ability to select a systematic search pattern clearly identify it's use and (grid, left/right or Colleen 8 point method)?

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.3.2 Did Emergency Response Agency demonstrate the knowledge, skills & capability to collect information and continue the pattern throughout the process??

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.3.3 Did Emergency Response Agency demonstrate the knowledge, skills & capability to cover the entire suspect area?

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.3.4 Did Emergency Response Agency demonstrate the knowledge, skills & capability to mark the areas where reading registered on the monitoring device?(controllers must simulate readings no higher than 20% of the LEL in order for the person doing the monitoring to complete this task)?

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.3.5 Did Emergency Response Agency demonstrate the knowledge, skills & capability to choose the correct monitoring devices?

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.3.6 Did Emergency Response Agency demonstrate the knowledge, skills & capability to calibrate/zero the monitoring device before use??

yes no n/a n/o time

4.3.7 Did Emergency Response Agency demonstrate the knowledge, skills & capability to apply a response curve to come up with an actual reading?
yes no n/a n/o time

4.3.8 Did Emergency Response Agency demonstrate the knowledge, skills & capability to allow the correct amount of reaction time for the monitoring device?
yes no n/a n/o time

4.3.9 Did Emergency Response Agency demonstrate the knowledge, skills & capability to apply the TLV/TWA, IDLH, LD, PEL information to the situation?
yes no n/a n/o time

4.3.10 Did Emergency Response Agency demonstrate the knowledge, skills & capability to know action levels for the product and the appropriate action based on the monitoring data?
yes no n/a n/o time

4.3.11 Did Emergency Response Agency demonstrate the knowledge, skills & capability to come up with background readings?
yes no n/a n/o time

4.3.12 Did Emergency Response Agency demonstrate the knowledge, skills & capability to survey the area or objects by slowly passing the probe over suspected contamination?
yes no n/a n/o time

4.3.13 Did Emergency Response Agency demonstrate the knowledge, skills & capability note and record readings and use chalk or tape or some other method to mark the area where readings occurred?
yes no n/a n/o time

Explanation:

The Emergency Response Agency should demonstrate the capability to assess the physical factors affecting the release such as the material state (liquid, gas, solid), actual and projected release rate, and direction of the material released in air or water.

The physical factors associated with the natural setting and type of material being released at the accident site should guide the Emergency Response Agency in structuring the design of a field sampling plan and deployment of field monitoring teams.

The Emergency Response Agency should demonstrate the capability to use the analysis of the field samples to guide decision makers in developing protective actions for the

responders as well as for the general public. Those activities concerning the risk(s) associated with the spilled or release material and the potential for exposure to the public health and safety and the environment are evaluated under the goal of Protection.

OBJECTIVE 4.4: SAMPLING LIQUIDS & SOLIDS FOR IDENTIFICATION
(Demonstrate the ability to perform unbiased sampling procedures )

Intent This objective provides a framework for the evaluation of an the Emergency Response Agency's ability to provide quality control in unbiased sampling of products using nationally accepted work practices of the EPA.

Note: This objective focuses on the technical identification of liquids and solids, the assessment of the associated hazards to the public health and safety. The Emergency Response Agency demonstrates the technical capability to sample the material involved in an *incident/accident*.

| | yes | no | n/a | n/o | Time |
|---|---|---|---|---|---|
| Was this Objective Met | ___ | ___ | ___ | ___ | ___ |

Evaluator Signature _____Date_____

Criteria:

4.4.1 Did Emergency Response Agency demonstrate the ability to select the required equipment to do a proper sampling?

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.4.2 Did Emergency Response Agency demonstrate the knowledge, skills & capability to select a variety of bung wrenches?

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.4.3 Did Emergency Response Agency demonstrate the knowledge, skills & capability to select several size sampling tubes?

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.4.4 Did Emergency Response Agency demonstrate the knowledge, skills & capability to draw a sample of product for a given situation?

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.4.5 Did Emergency Response Agency demonstrate the knowledge, skills & capability to use an absorbent pad to cover the sampling opening and prevent spillage?

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.4.6 Did Emergency Response Agency demonstrate the knowledge, skills & capability to use the sampling tube in conjunction with the pail pump?

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.4.7 Did Emergency Response Agency demonstrate the knowledge, skills & capability to select the proper amount of sampled material??

| yes | no | n/a | n/o | time |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.4.8 Did Emergency Response Agency demonstrate the knowledge, skills & capability to avoid direct contamination as a result of poor sampling techniques?

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.4.9 Did Emergency Response Agency demonstrate the knowledge, skills & capability to avoid contamination of the outside of the sampling container?

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.4.10 Did Emergency Response Agency demonstrate the knowledge, skills & capability to properly label the sampling container?

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.4.11 Did Emergency Response Agency demonstrate the knowledge, skills & capability to take a representative sample of the container (by holding the plunger off the tapered end of the coliwasa until the sampling device was fully inserted)??

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.4.12 Did Emergency Response Agency demonstrate the knowledge, skills & capability to avoid direct contamination by using an absorbent pad as the member withdrew the sampling device in order to remove surface contamination on the outside of the tube?

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.4.13 Did Emergency Response Agency demonstrate the knowledge, skills & capability to provide unbiased samples?

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.4.14 Did Emergency Response Agency demonstrate the knowledge, skills & capability to provide a rinse blanks?

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.4.15 Did Emergency Response Agency demonstrate the knowledge, skills & capability to provide a trip blanks?

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.4.16 Did Emergency Response Agency demonstrate the knowledge, skills & capability to provide a site blank?

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

4.4.17 Did Emergency Response Agency demonstrate the knowledge, skills & capability to provide a source blank?

| yes | no | n/a | n/o | time |
|---|---|---|---|---|
| _____ | _____ | _____ | _____ | _____ |

Explanation:

The Emergency Response Agency should demonstrate the capability to assess the physical factors affecting the release such as the material state (liquid, gas, solid), actual and projected release rate, and direction of the material released in air or water.

The physical factors associated with the natural setting and type of material being released at the accident site should guide the Emergency Response Agency in structuring the design of a field sampling plan and deployment of field monitoring teams.

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