

Table 6.1
Typical Hazmat Problems with Potential Response Objectives and Action Options

| Problem | Strategies | Tactics |
|--|------------------------|--|
| Access: Access problems may be related to gaining access or denying access (to civilians or unprotected responders). Generally the first problem presented is limiting access to civilians and unprotected responders. | Isolate and deny entry | <ul style="list-style-type: none"> Establish control zones (Hot and Cold) Control traffic |
| Container Under Stress: The two types of container stress that responders can readily affect are generally thermal stress (heating) and mechanical stress (due to overpressure). | Ignore | Protect exposures (protective actions only) |
| | Cool | <ul style="list-style-type: none"> Use master stream Use hoseline |
| | Extinguish fire | <ul style="list-style-type: none"> Remove fuel Use master stream Use hoseline Use foam master stream Use foam hoseline |
| | Release pressure | <ul style="list-style-type: none"> Transfer product Release product to atmosphere Vent and burn |
| Container Breach/Release: Active strategies to manage a breach/release generally require operations inside the hazard area (Hot Zone). | Ignore | Protect exposures (protective actions only) |
| | Contain | <ul style="list-style-type: none"> Close valve(s) Tighten attachments Plug Patch Transfer product Decontaminate (required for entry) |
| Dispersion: Active strategies to control dispersion may be either offensive or defensive (depending on where they are performed). Dispersion control strategies are driven by the form of the material that has been (or is being) released. | Ignore | Protect exposures (protective actions only) |
| | Confine: Solid | Cover |
| | Confine: Liquid | <ul style="list-style-type: none"> Adsorb or absorb Dike (Circle or V-shape) Divert Retain Dam (underflow or overflow) Suppress vapor (foam) |
| | Confine: Energy | Shield |
| | Disperse: Gas | Disperse vapor (water fog or blower) |

Continued

Table 6.1 (concluded)

| Problem | Strategies | Tactics |
|---|-------------------|---|
| Fire: The fire problem includes a direct threat to life safety and exposures, potential to affect container integrity, and release of toxic products of combustion. However, in some cases (pesticides), fire may present less threat than fire-control operations. | Ignore | Protect exposures (protective actions only) |
| | Extinguish | <ul style="list-style-type: none"> • Use master stream • Use hoseline • Use foam master stream • Use foam hoseline • Use dry chemical • Use specialized extinguishing agent |
| Possible Victims: Possible victims may be reported (definitely a known imminent life threat) or inferred based on incident conditions. Victims removed from the hazard area (Hot Zone) may require decontamination. | Determine | Ask |
| | Notify | <ul style="list-style-type: none"> • Use public address system • Use telephone |
| | Locate | <ul style="list-style-type: none"> • Perform primary search/extraction • Perform decontamination • Perform secondary search |
| Visible/Known Victims: Victims may be visible or known to be inside the hazard area. These victims may (or may not) be able to rescue themselves. First responders must use care in assessing their capability to effect a rescue (due to limitations in personal protective equipment and training. Victims removed from the hazard area (Hot Zone) may require decontamination. | Rescue | <ul style="list-style-type: none"> • Rescue themselves • Move to safe refuge • Perform extraction • Perform decontamination |
| Potential Life Exposure: Potential victims may become exposed due to dispersion (downhill or downwind). Responders must consider dispersion, time, and incident conditions in evaluating potential life exposure. | Protect in place | <ul style="list-style-type: none"> • Notify face to face • Notify by telephone • Notify media |
| | Evacuate | <ul style="list-style-type: none"> • Notify face to face • Notify by telephone • Notify media • Shelter • Control traffic • Perform security |
| Environmental/Property Exposure: Active strategies to minimize environmental/property damage are generally offensive in nature. | Ignore | Self-mitigate |
| | Control chemical | <ul style="list-style-type: none"> • Dilute • Neutralize |
| | Cool | <ul style="list-style-type: none"> • Use master stream • Use hoseline • Use foam master stream • Use foam hoseline |