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RESCUE PRE-PLAN

Date:

GENERAL INFORMATION

Effective Time: ☐ AM ☐ PM Expiration Time: ☐ AM ☐ PM

Equipment / Line ID: Customer:

Permit #: Safety Attendant:

IMMEDIATE HAZARD

Chemical Information: ☐ N/A

Purging and Cleaning Methods

Possible Chemical	Possible Chemical	Possible Chemical
☐ SDS Attached	☐ SDS Attached	☐ SDS Attached
HIN # / UN #	HIN # / UN #	HIN # / UN #

Physical and Chemical Properties: ☐ N/A

Dispersement Characteristics (most volatile)

State of Matter: (check) ☐ Solid ☐ Liquid ☐ Gas Solubility / Miscibility:

Vapor Pressure: Ionization Potential:

Boiling Point: Flash Point: Ignition Temperature:

Molecular Weight: Specific Gravity: Vapor Density:

Action Levels (most toxic)

IDLH: PEL: REL: UEL:

TLV-C: TWA: STEL: LEL:

Weather and Environmental Conditions:

Temperature: Wind Direction: Wind Speed: Humidity:

Heat Index: Wind Chill Factor: Precipitation: Dew Point:

Topography Considerations: (Sumps, Drains, Berms, etc.)

Data Collected From:

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SECONDARY HAZARD PRCS Configuration Type (Ops / Tech)

Entrants Visible:	☐ Yes	☐ No	Portal Opening	☐ Open	☐ Obstructed
Internal Space:	☐ Spacious	☐ Congested	External Clearance:	☐ Spacious	☐ Congested
Internal Configuration:	☐ Open	☐ Obstructed	Engulfment Potential:	☐ Yes	☐ No

All hazards in and around the hazard space have been identified and can be mitigated by using respiratory protection so that the victim is contacted, confined space entry is established and maintained, atmosphere is continuously monitored, and victim removal can be initiated by a retrieval system. ☐ Yes ☐ No

PRCS Characteristics: Working at Heights

Elevated > 5′ ☐ No ☐ Yes

Space Access: ☐ Horizontal ☐ Vertical

Types of Potential Hazards

☐ Radiation	☐ Pressure	☐ Temperature
☐ Chemical	☐ Electrical	☐ Mechanical
☐ Biological	☐ Noise	☐ Gravity
☐ Motion	☐ Strain or Tension	☐ Weather
☐ Oxygen-Deficient Atmosphere	☐ Engulfment	☐ Energized Equipment
☐ Oxygen-Enriched Atmosphere	☐ Toxic Atmosphere	☐ Entrapment
☐ Flammable Atmosphere	☐ Ignition Sources	☐ Hazardous Material
☐ Complex Special Operations	☐ Fatigue	☐ Simultaneous Operations
☐ Other Health Hazards	☐ Other Specific Hazards	☐ Instability or Reactivity

PRCS HAZARD SUMMARY

	OXYGEN	FLAMMABILITY	TOXICITY	CONFIGURATION
CLASS A	☐ <19.5% OR >23.5%	☐ >10% OF LEL	☐ >IDLH or Ceiling	☐ Complex internal
CLASS B	☐ >-0.1% OR 20.9%	☐ <10% OF LEL	☐ >TLV / REL / PEL	☐ Fall line or inline
CLASS C	☐ >0.1% OF 20.9%	☐ <10% OF LEL	☐ < TLV / REL / PEL	☐ Complex internal
CLASS D	☐ +0.1% OF 20.9%	☐ 0 LEL	☐ No exposure	☐ Fall line or inline

SAFETY PRECAUTIONS — Isolation Controls

Barricade Control Zones

☐ N/A ☐ Initial Isolation & PAD ☐ Exclusion/CRZ/Support ☐ Hot/Warm/Cold

Lock-out / Tag-out

☐ N/A ☐ Air Gap ☐ Double Block & Bleed ☐ Slip Bind ☐ Lock & Tag

Decontamination

☐ N/A ☐ Safety Shower & Eye Wash ☐ Technical ☐ Gross

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Engineering Controls

- ☐ Ventilation Natural or Mechanical
- ☐ Air Monitoring
- ☐ Ladder Rigid or Flexible
- ☐ Fall Protection
- ☐ Intrinsically Safe Lighting
- ☐ Ground Fault Interrupter
- ☐ Fire Extinguishers
- ☐ Shoring or Sloping
- ☐ Engineered Trench Box
- ☐ Anchor System
- ☐ AHD Load Mgt. or Friction Mgt.
- ☐ Decent Control
- ☐ Progress Capture
- ☐ Mechanical Advantage
- ☐ Haul Field Orientation
- ☐ Center Haul ONLY
- ☐ Oppositional Back tie
- ☐ Stainless Steel Equipment
- ☐ Edge Protection
- ☐ TTRS
- ☐ Tag Line / Lifeline
- ☐ Dual Tag Line
- ☐ Track Line
- ☐ Control Line
- ☐ Reeve Line
- ☐ Knot Passing
- ☐ Specialized Equipment

Administrative Controls

- ☐ Span of Control
- ☐ Essential Personnel
- ☐ Buddy System Established
- ☐ Special Operations Personnel
- ☐ VAI (Victim Assessment)
- ☐ MCI (Mass Casuality)
- ☐ Technician Recycle / Rehab
- ☐ Signs Posted
- ☐ Permit
- ☐ SDS Sheets Attached
- ☐ Joint Hazard Meeting
- ☐ Communication Plan
- ☐ Hydration
- ☐ Fatigue Schedule Required
- ☐ Housekeeping
- ☐ Certified Equipment
- ☐ Preflight Checklist
- ☐ Touch Test
- ☐ Critical Point Test
- ☐ Whistle Test
- ☐ Upwind & LZ Identified

PPE Controls

- ☐ Inert Helmet (Life Support System)
- ☐ SCBA (minimum 45-minute)
- ☐ SAR w/ 5-minute
- ☐ Emergency Egress Line (EEL)
- ☐ PAPR
- ☐ Full Face Respirator
- ☐ Half Face Respirator
- ☐ Body Substance Isolation PPE
- ☐ Edge Restraint
- ☐ Life Safety Harness
- ☐ Gloves (Leather, CPC, Rope)
- ☐ Fire-Retardant Clothing
- ☐ Proximity Suit
- ☐ Chemical Clothing (Level A)
- ☐ Chemical Clothing (Level B)
- ☐ Chemical Clothing (Level C)
- ☐ Hardhat
- ☐ Double Lanyard
- ☐ Goggles
- ☐ Spoggles
- ☐ Safety Glasses
- ☐ Ear Protection
- ☐ Double Ear Protection
- ☐ Steel Toe Boots
- ☐ Spark Proof Tools
- ☐ CS Packaging Device
- ☐ Self-Retracting Lifeline

Method of Summoning Rescue Team, Fire Department and/or EMS

Dial in plant emergency number: _____ Contact plant via radio channel: _____

Rescue Team contact number: _____ ☐ Face to Face Other: _____

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EXTRACTION — Main

Anchorage System

- ☐ Tripod / TerrAdaptor
- ☐ Structural Beam
- ☐ Manway
- ☐ Stairwell Component
- ☐ Ladder Cage
- ☐ Welded Steel Handrail
- ☐ Steel Pipe
- ☐ Scaffolding Intersection
- ☐ N/A
- Other:

Haul System

- ☐ Winch/DBI
- ☐ 6:1 Force Accumulation System
- ☐ Block and Tackle
- ☐ 4:1/5:1 Piggyback
- ☐ 1:1 Lifeline/Tag Line/Load Line
- ☐ Evolution of Z-Rig
- ☐ N/A
- Other:

Lower Device

- ☐ Petzl Maestro
- ☐ CMC Clutch
- ☐ MPD
- ☐ Petzl ID
- ☐ N/A
- Other:

Belay

Anchorage System

- ☐ Tripod / TerrAdaptor
- ☐ Structural Beam
- ☐ Manway
- ☐ Stairwell Component
- ☐ Ladder Cage
- ☐ Welded Steel Handrail
- ☐ Steel Pipe
- ☐ Scaffolding Intersection
- ☐ N/A
- Other:

Haul System

- ☐ Winch/DBI
- ☐ 6:1 Force Accumulation System
- ☐ Block and Tackle
- ☐ 4:1/5:1 Piggyback
- ☐ 1:1 Lifeline/Tag Line/Load Line
- ☐ Evolution of Z-Rig
- ☐ N/A
- Other:

Lower Device

- ☐ Petzl Maestro
- ☐ CMC Clutch
- ☐ MPD
- ☐ Petzl ID
- ☐ N/A
- Other:

Harness

- ☐ Full Body Harness (Belay, Central & Dorsal)
- ☐ Full Body Harness (Dorsal Only)
- ☐ Improvised Victim Harness
- ☐ Wristlets
- ☐ Anklets
- ☐ N/A
- Other:

Packaging Device

- ☐ Long Spine Board
- ☐ C-Collar
- ☐ Head Immobilizer
- ☐ Scoop Board
- ☐ FAST Board
- ☐ Yates Spec Pak
- ☐ N/A
- Other:

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System Conversion

- [ ] AZTEK
- [ ] LRH
- [ ] Dog and Tails
- [ ] RPM
- [ ] N/A
- Other:

Transfer Techniques

- [ ] Twin Tension
- [ ] Pike and Pivot
- [ ] Dynamic Directional
- [ ] Two Rope Offset
- [ ] N/A
- Other:

AERIAL BASED OPERATION

- [ ] Fall Line
- [ ] Minor Offset
- [ ] Major Offset
- [ ] Steep Highline
- [ ] Highline
- [ ] N/A
- Other:

LOWER Main

Anchorage System

- [ ] Tripod / TerrAdaptor
- [ ] Structural Beam
- [ ] Manway
- [ ] Stairwell Component
- [ ] Ladder Cage
- [ ] Welded Steel Handrail
- [ ] Steel Pipe
- [ ] Scaffolding Intersection
- [ ] N/A
- Other:

Haul System

- [ ] Winch/DBI
- [ ] 6:1 Force Accumulation System
- [ ] Block and Tackle
- [ ] 4:1/5:1 Piggyback
- [ ] 1:1 Lifeline/Tag Line/Load Line
- [ ] Evolution of Z-Rig
- [ ] N/A
- Other:

Lower Device

- [ ] Petzl Maestro
- [ ] CMC Clutch
- [ ] MPD
- [ ] Petzl ID
- [ ] N/A
- Other:

Belay

Anchorage System

- [ ] Tripod / TerrAdaptor
- [ ] Structural Beam
- [ ] Manway
- [ ] Stairwell Component
- [ ] Ladder Cage
- [ ] Welded Steel Handrail
- [ ] Steel Pipe
- [ ] Scaffolding Intersection
- [ ] N/A
- Other:

Haul System

- [ ] Winch/DBI
- [ ] 6:1 Force Accumulation System
- [ ] Block and Tackle
- [ ] 4:1/5:1 Piggyback
- [ ] 1:1 Lifeline/Tag Line/Load Line
- [ ] Evolution of Z-Rig
- [ ] N/A
- Other:

Lower Device

- [ ] Petzl Maestro
- [ ] CMC Clutch
- [ ] MPD
- [ ] Petzl ID
- [ ] N/A
- Other:

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Tag Line

- [ ] Tag to Yoke/Masterpoint
- [ ] Tag to Litter
- [ ] Trianulated Tagline
- [ ] Elevated Tag
- [ ] Dual Taglines (Oppositional)
- [ ] Dragonfly
- [ ] N/A

Other:

System Conversion

- [ ] AZTEK
- [ ] Load Releasing Hitch
- [ ] Dog and Tails
- [ ] RPM
- [ ] N/A

Other:

Transfer Techniques

- [ ] Twin Tension
- [ ] Pike and Pivot
- [ ] Dynamic Directional
- [ ] Two Rope Offset
- [ ] Hybrid Skate block
- [ ] Mirrored/Skate Block
- [ ] Steep Highline
- [ ] Highline
- [ ] N/A

Other:

Packaging Device

- [ ] Long Spine Board
- [ ] C-Collar
- [ ] Head Immobilizer
- [ ] Scoop Board
- [ ] FAST Board
- [ ] Yates Spec Pak
- [ ] Stokes Litter
- [ ] Man Basket (Crane)
- [ ] Skid Pan (Crane)
- [ ] N/A

Other:

Configuration

- [ ] IPS Quad-Bridle
- [ ] Arizona Tri-Bridle
- [ ] Improvised Bridle
- [ ] N/A

Other:

Masterpoint or Yoke

- [ ] Doubled Long Tail Bowlines
- [ ] Primary Secondary Knots at Masterpoint
- [ ] Crane Hook
- [ ] N/A

Other:

GROUND Based Operation

- [ ] Flat
- [ ] Low
- [ ] Steep
- [ ] High-Angle
- [ ] N/A

Other:

Packaging Device

- [ ] Long Spine Board
- [ ] C-Collar
- [ ] Head Immobilizer
- [ ] Scoop Board
- [ ] FAST Board
- [ ] Yates Spec Pak
- [ ] Stokes Liter
- [ ] Reeve Sleeve
- [ ] SKED
- [ ] N/A

Other:

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Diagram (☐ see attached)

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STANDARDIZED OPERATING RESCUE PROCEDURES

Incident Occurs

- ★ Awareness level personnel who witness or discover an incident initiate an emergency response sequence by notifying the proper authorities.
- ★ Attendant will summon rescue and other emergency services as soon as the attendant determines that authorized entrants may need assistance to escape from permit space hazards.
- ★ Initiate site rescue Emergency Response Plan.
- ★ RIC/CI controls the incident until properly relieved.
- ★ RIC/CI will perform personnel size-up through roll call of delegated roles and responsibilities of essential personnel.

ANALYZE

Scene Assessment

- ★ Rescue team will prioritize accountability and establish the communication plan via L-CAN report.
- ★ Rescue team conducts rapid hazard identification and risk assessment to verify location for initial guidance establishing "Initial Isolation Zone" and "Protective Action Zone" utilizing the LIP principle.
- ★ Establish communication with victim(s) as soon as possible.
- ★ Determine how long the victim(s) has been down, and establish the mechanism of the injury, and the survivability profile of the victim(s).
- ★ Determine the entry type of the confined space rescue and the required equipment and safety precautions:
- ★ Determine the based on circumstances of the emergency:
- ★ Rescue team personnel will establish the alert code 1-5 to designate the emergency operation strategy as "Defensive", "Offensive", or "Non-Intervention".
- ★ All non-intrinsically safe mechanical equipment must be shut down and brought to a zero mechanical state prior to entry (excluding ventilation, localized exhaust, or Nitrogen where prescribed).
- ★ Structural stability of the confined space should be re-evaluated if appropriate measures must be taken to assure the structural stability of the space.
- ★ Determine the number and location of
- ★ Make quick visual assessment of victim(s), if possible. –
- ★ Barricade scene immediately to prevent others from entry or contaminating evidence.

*** ***Note:*** *RIC/CI has the authority to change strategies based on hazards and available resources.*

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STANDARDIZED OPERATING RESCUE PROCEDURES

PLAN / IMPLEMENT / EVALUATE

Self-Rescue Operations

- Entrant should recognize signs & symptoms of physical exhaustion, heat, or cold stress, or over exposure to any chemical within the space.
- Entrant should notify the safety attendant that something is wrong and that they need to exit the space immediately.
- Safety attendant should remove any obstructions from the space to allow entrant to safely exit. (Including monitoring equipment)
- If entrant is not feeling well or is suffering from any signs or symptoms of physical exhaustion or injury, heat, or cold stress, or over exposure to any chemical within the space, entrant should quickly vacate the space before becoming incapacitated.
- If Self-Rescue is unsuccessful or deemed unsafe, begin external rescue operations

*** ***Note:*** *Safety attendant should always notify the rescue team to continue with victim assessment, even if self-rescue is successful.*

External Rescue Operations

- To minimize risk, if other entrant(s) not affected by the emergency are in the confined space, they shall exit first.
- The victim's pathway should be cleared as entrants exit. Exiting entrants should stage prior to egress as appropriate.
- Entrant(s) shall wear full body harness connected to retrieval system the entire time they are within the space. This system should be in place prior to entry in such a manner that retrieval of rescue entrants can begin immediately. Retrieval systems can be used as fall arresting devices for rescue personnel.
- RIC/CI or HASS shall ensure that least one rescuer is appropriately dressed and ready for entry if external rescue operations fail.
- If external rescue is unsuccessful, begin Internal rescue operations.

Self-Rescue Operations

- Operational safeguards and rules of engagement have been met and checklist conducted
- Air monitoring shall be conducted prior to rescue entry, this will determine the need for breathing apparatus and/or dermal protection for rescuer
- Pre-assigned personnel will then make entry – TED or higher.
- RIC/CI or HASS shall ensure that least one rescuer is appropriately dressed and ready as a backup.
- It is recommended that entry personnel should use personal air monitoring devices when available.
- If possible, the entry team should bring a supply of breathable air for the victim(s)
- Declare safe entry conditions have been met.
- Make entry to conduct recon, rescue, or recovery as appropriate.

*** ***Note:*** *TED will always remain connected to an external rope while internal operations are being conducted.*

STANDARDIZED OPERATING RESCUE PROCEDURES

Internal Victim Assessment and Packing

- Upon reaching the victim, entry personnel shall conduct a primary victim assessment.
- Use and use proper BSI and universal precautions while conducting victim aid.
- Upon completion of primary victim assessment, update condition to rescue team, verify medical aid response is appropriate.
- If required, appropriate life-saving interventions should be started immediately.
- A quick but thorough secondary assessment of the victim shall be conducted. If conditions permit, entry personnel should attempt to treat serious injuries prior to removal
- If indicated, C-Spine precautions should be administered.
- In the event of C-spine trauma, the victim will be packaged in the due to the diameter of manways, internal configuration, equipment availability, and/or any other limitation.
- If the victim is conscious, and has no signs of trauma, C-spine precautions will be disregarded.

*** ***Note:*** *Because of the difficulty removing the victim from the space, optimum C-spine precautions may not be possible.*

Victim Removal (Extraction or Extrication)

- To minimize risk, TED will negotiate the victim's pathway through internal configuration. They will stage victim in line or within the fall line prior to rescuer egress.
- Placement, construction, and operations of rope rescue systems for extraction will be dictated by the rescue team.
- Prior to removal of the victim, rescue team members will have completed all rescue system rigging required to move victim to safety and conduct pre-flight checklist.
- Non-trauma victims will be removed from the space utilizing a rope rescue system which is connected to the rear D-ring of the victim's safety harness.
- For trauma victims or in the unlikely event that the victim is not wearing a harness, the entry team will package the victim in an emergency appropriate . The loops that are created will be the improvised harness connection point.
- Trauma and non-trauma victims will be extracted utilizing redundant lines, a(n) anchored to and a(n) anchored to To haul the victim from the space, A a(n) and or a(n) will be constructed for mechanical advantage. A(n) for the main line and or a(n) for the belay line will be used for descent control.
- In the event, a system operation needs to be converted and the set up does not support hauling and lowering efficiently, a(n) will be utilized.
- To navigate horizontal movement during extraction, a(n) will be utilized
- Both trauma and non-trauma victims will be placed outside of the hazard space upwind or crosswind.

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STANDARDIZED OPERATING RESCUE PROCEDURES

Lowering

- ★ Placement, construction, and operations of lowering rope rescue systems will be dictated by the rescue team.
- ★ Prior to lowering of the victim, rescue team members will have completed all rescue system rigging required to move victim and conduct pre-flight checklist.
- ★ For aerial based operations, trauma and non-trauma victims will be lowered utilizing redundant lines a(n) anchored to and a(n) anchored to To haul the victim from the space, A a(n) and or a(n) will be constructed for mechanical advantage. A(n) for the main line and or a(n) for the belay line will be used for descent control.
- ★ The rope rescue system lines will be configured into a(n) and will be connected at the
- ★ In the event, a system operation needs to be converted and the set up does not support hauling and lowering efficiently, a(n) will be utilized.
- ★ To stabilize a suspended load that might otherwise rotate or swing in an uncontrolled fashion during the lower, a(n) will be connected.
- ★ To navigate horizontal movement during the lower, a(n) will be utilized.
- ★ Upon removal, victim decontamination will be conducted if required.
- ★ Rescue personnel shall transfer the victim to local EMS for transport.

TERMINATE

Termination

- ★ Personnel accountability
- ★ In the event of a rescue, all affected personnel are required to participate following the termination of emergency operations for a quick post-incident debriefing.
- ★ Conduct a debriefing, critique, and post incident analysis.
- ★ Remove tools and equipment used for the rescue/recovery. If there has been a fatality, consider leaving the tools and equipment in place for investigative purposes.
- ★ Secure the scene. Prior to turning the property back over to the responsible party, one final reading of atmospheres shall be taken and recorded.
- ★ Transfer custody of the incident to AHJ

**** **Note:** Because of the difficulty removing the victim from the space, optimum C-spine precautions may not be possible.*

Demobilization

- ★ Conduct Post-Incident Inspection of resources utilized during operations.
- ★ For non-fatality incidents, if entry personnel or equipment have been contaminated during, proper decontamination procedures must be conducted prior to returning equipment back in service.
- ★ Return to normal operations.

Comments:

Date: / / *** Rescue Plan Subject to Change ***

Rescue Supervisor RIC/CI:	**HASS:**
Team Member:	**Team Member:**
Team Member:	**Team Member:**

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CONFINED SPACE CLASSIFICATION SYSTEM

Class	Characteristics	Criteria		Hazard Risk	Team Skill Capability
A	IDLH, rescue procedures require the entry of more than one individual fully equipped with life support equipment, maintenance of communication requires additional standby personnel and potentially other support personnel.	★	Permit required space	Immediate = High & Secondary = High	Technician
		★	The entrant is exposed to atmospheric or engulfment hazards		
		★	Configuration of accessibility is complex and difficult to maneuver without high risk of entanglement		
		★	Potential hazardous material		
		★	Rescuers must enter		
B	Dangerous but not IDLH, rescue procedures require the entry of no more than one individual fully equipped with life support equipment, indirect visual or auditory communication with victims.	★	Permit required space	Immediate = High & Secondary = Low	Technician & Operations Mission Specific
		★	The entrant is exposed to atmospheric or engulfment hazards		
		★	Rescue personnel can conduct the rescue without entering the space or utilizing minimal personnel for mission specific tasks under the supervision of a Technician		
		★	The victim is in immediate peril, is unable to self-rescue		
		★	Is within the fall line or horizontally inline, can be physically removed using mechanical retrieval devices		
C	Potential hazard, requires no modification of work procedures, standard rescue procedures, direct communication with victims from outside the confined space	★	May be a permit-required space or a non-permit required space	Immediate = Low & Secondary = High	Technician & Operation - Mission Specific
		★	Low risk of exposure to atmospheric or engulfment hazards that would be an immediate threat to health or life		
		★	The victim is not in immediate peril from conditions in the space; however, is unable to self-rescue and must be physically removed without using mechanical extrication or retrieval devices		
		★	Configuration of accessibility is complex and difficult to maneuver without high risk of entanglement		
		★	The entrant is exposed to the possibility of additional injury without proper packaging or treatment		
D	Entrant is visible, portal opening is unrestricted, internal space is not congested and configuration is unobstructed. All hazards in and around the hazard space have been identified and can be mitigated by using respiratory protection. No risk of engulfment.	★	May be a permit-required space or a non-permit required space	Immediate = Low & Secondary = Low	Operation
		★	Entrant may require protection other than that associated with a confined space, such as fall protection, hearing protection, or other personal protective equipment		
		★	No exposure to atmospheric or engulfment hazards that would be an immediate threat to health or life		
		★	The rescue personnel can conduct the rescue without entering		

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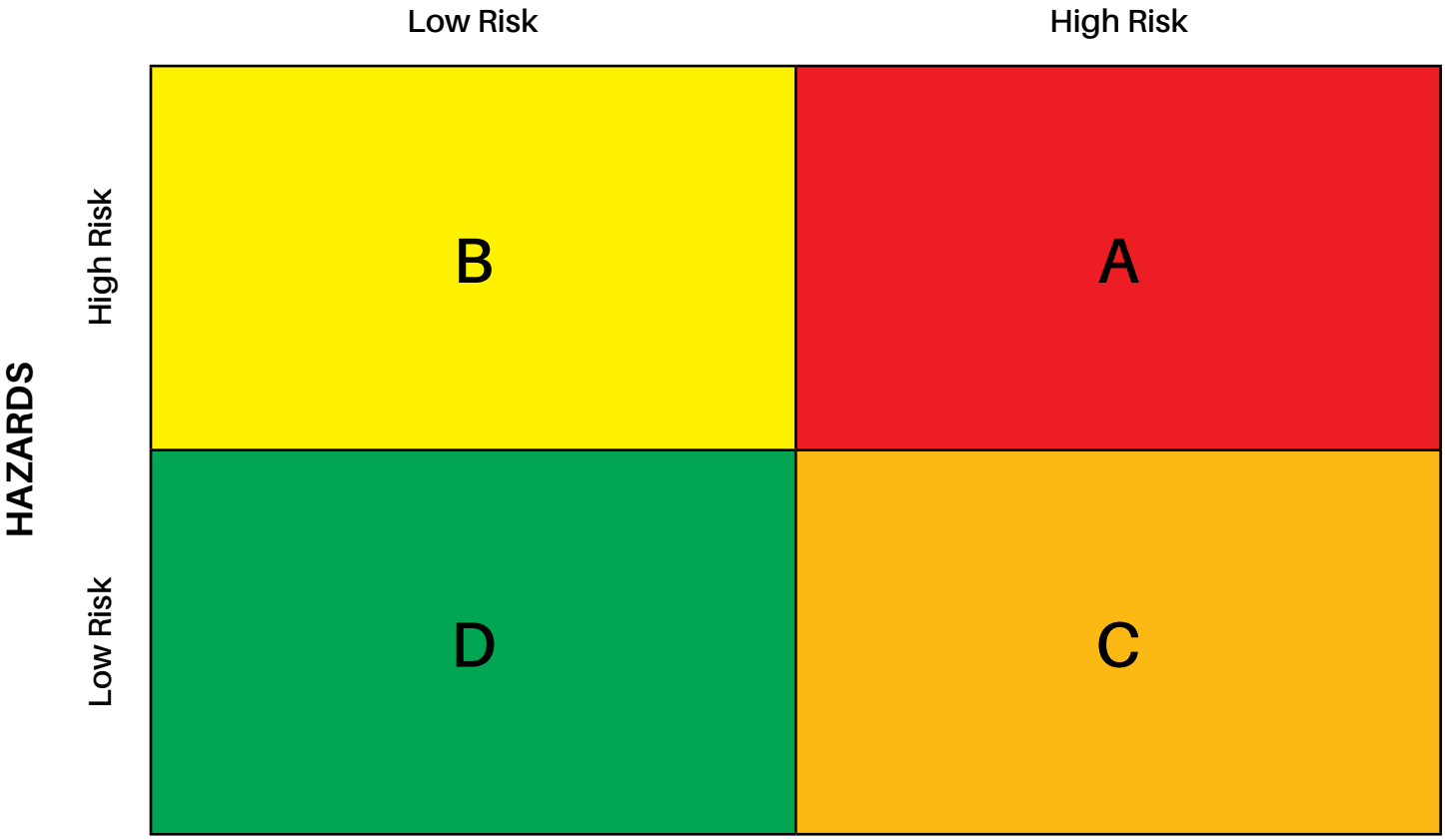
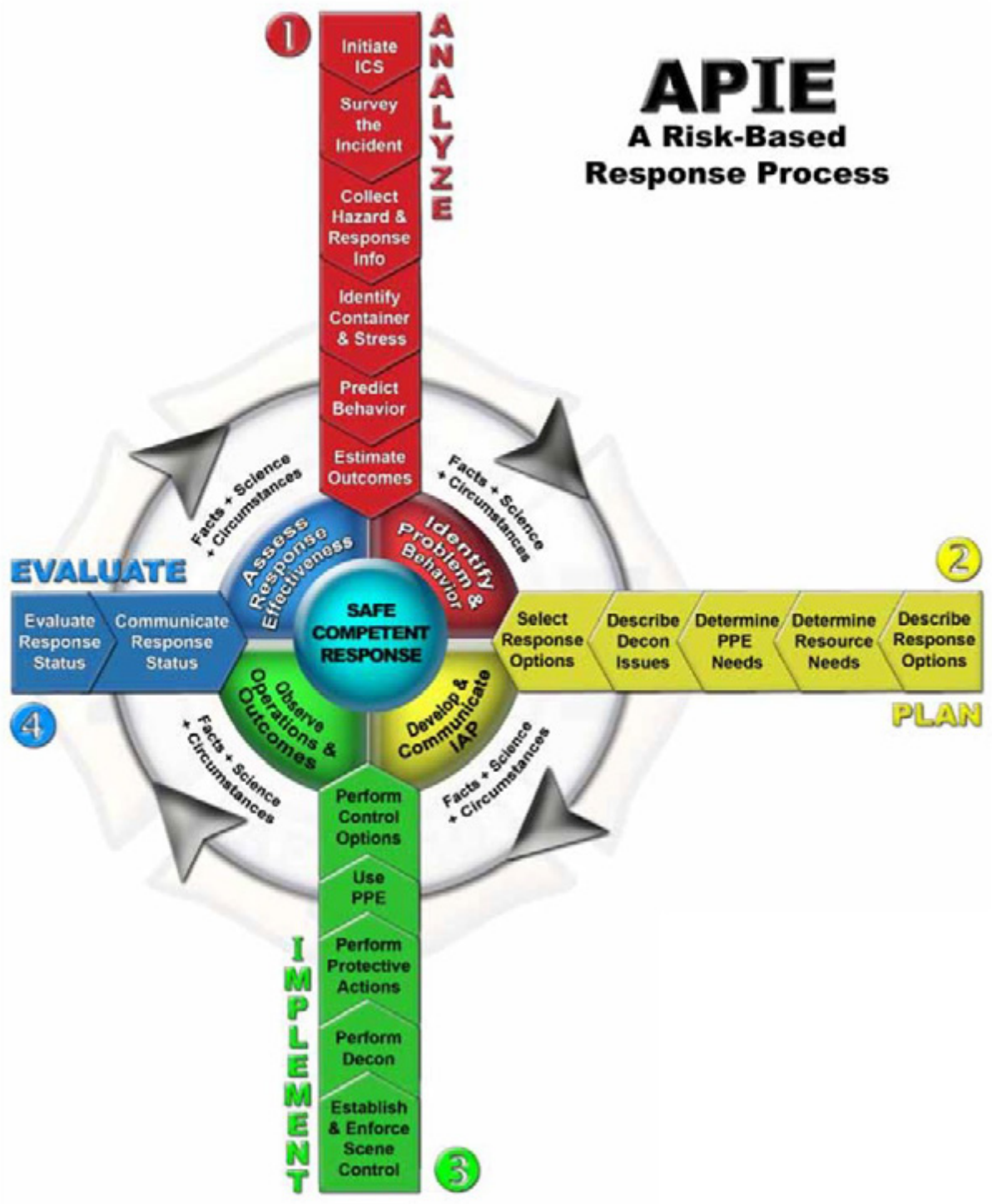
CONFINED SPACE CLASSIFICATION SYSTEM

IMMEDIATE HAZARDS




APIE
A Risk-Based
Response Process
1
ANALYZE
Initiate ICS
Survey the Incident
Collect Hazard & Response Info
Identify Container & Stress
Predict Behavior
Estimate Outcomes
Facts + Science + Circumstances
Identify Problem & Behavior
2
PLAN
Select Response Options
Describe Decon Issues
Determine PPE Needs
Determine Resource Needs
Describe Response Options
Develop & Communicate IAP
3
IMPLEMENT
Perform Control Options
Use PPE
Perform Protective Actions
Perform Decon
Establish & Enforce Scene Control
Observe Operations & Outcomes
4
EVALUATE
Evaluate Response Status
Communicate Response Status
Assess Response Effectiveness
SAFE COMPETENT RESPONSE

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RISK-BASED RESPONSE ACTIONS

Analyze the Problem

GOAL = Identify the Problem and Likely Behavior

- [ ] Initiate ICS
- [ ] Survey the incident
- [ ] Collect hazard and response information
- [ ] Identify container type and stress
- [ ] Predict behavior
- [ ] Estimate outcomes

Plan the Response

GOAL = Develop and Communicate the IAP

- [ ] Describe response objectives
- [ ] Determine PPE needs
- [ ] Describe decon issues
- [ ] Select response options

Implement the Plan

GOAL = Observe Operations and Outcomes

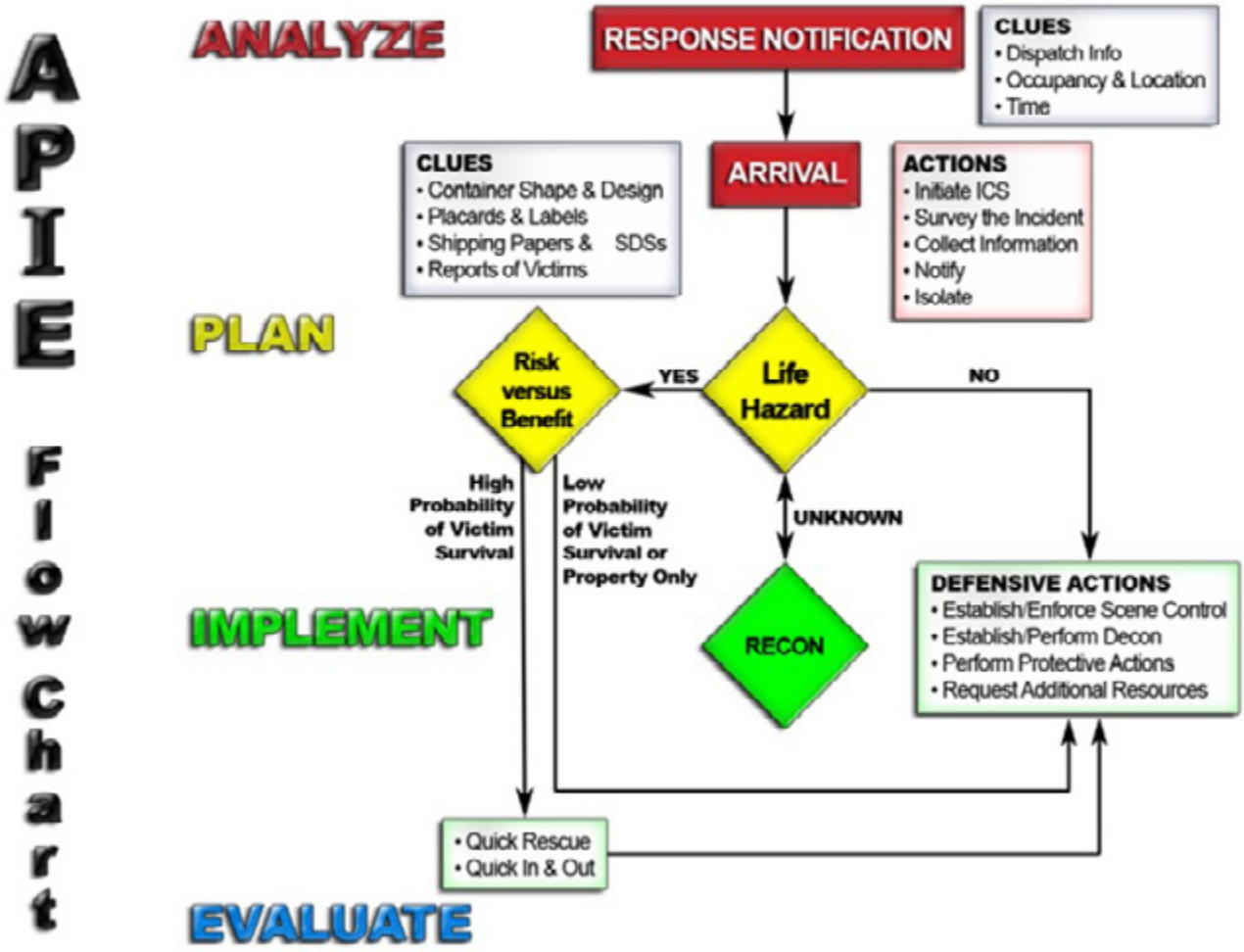
- [ ] Establish and enforce scene control
  - [ ] Secure area
  - [ ] Control crowd
  - [ ] Control traffic
  - [ ] Determine zones
    - [ ] Hot
    - [ ] Warm
    - [ ] Cold
- [ ] Set up/perform decon
- [ ] Perform protective actions
  - [ ] Rescue/recovery
  - [ ] Evacuation
  - [ ] Shelter-in-place
  - [ ] Patient transport
- [ ] Use PPE
- [ ] Perform control options

Evaluate the Progress

GOAL = Assess Response Effectiveness

- [ ] Evaluate response status
- [ ] Communicate response status

Flow Chart for APIE: A Risk-Based Response Process



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INCIDENT ACTION PLAN CHECKLIST

Step 1 ICS Establish command

Command established and identified	☐ Yes ☐ No
Command is:	
Command has been transferred to:	

Step 2 ANALYZE Identify the type of rescue problem

Container stress or release / excavation or trench collapse	☐ Yes ☐ No
Hazardous materials incident with rescue	☐ Yes ☐ No
Confined space rescue	☐ Yes ☐ No
Rope rescue	☐ Yes ☐ No
Other non-fire rescue	☐ Yes ☐ No

Step 3 ANALYZE Perform hazard and risk assessment

Date:	Effective Time: ☐ AM ☐ PM Expiration Time: ☐ AM ☐ PM
Job site/space ID correct	☐ N/A ☐ Yes ☐ No
Job supervisor identified and present	☐ N/A ☐ Yes ☐ No
Work being performed:	
All on site personnel accounted for (include victims)	☐ Yes ☐ No
Number of victims:	Number of onsite personnel:
Location of victims:	
Required SDSs at site and available:	☐ Yes ☐ No

Date: / /

NORM / Radiation:	mRem	Time:	☐ AM ☐ PM
Toxic Atmosphere: ☐ Yes ☐ No		Oxygen:	LEL: %
Corrosivity:	pH	H2S:	VOC: ppm
CO:	ppm	Other:	ppm
Benzene:	ppm	Instruments Used:	
Calibration Date: / /		Serial Number:	
Expiration Date: / /		Personnel Conducting Atmospheric Monitoring:	

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INCIDENT ACTION PLAN CHECKLIST

Step 3 (continued)

	OXYGEN	FLAMMABILITY	TOXICITY	CONFIGURATION
CLASS A	☐ <19.5% OR > 23.5%	☐ >10% of LEL	☐ >IDLH or Ceiling	☐ Complex internal
CLASS B	☐ >-0.1% of 20.9%	☐ <10% of LEL	☐ >TLV / REL / PEL	☐ Fall line or inline
CLASS C	☐ >-0.1% of 20.9%	☐ <10% of LEL	☐ < TLV / REL / PEL	☐ Complex internal
CLASS D	☐ +-0.1% of 20.9%	☐ 0 LEL	☐ No exposure	☐ Fall line or inline

	OXYGEN	FLAMMABILITY	TOXICITY	CONFIGURATION
CLASS A	☐ <19.5% OR > 23.5%	☐ >10% of LEL	☐ >IDLH or Ceiling	☐ Complex internal
CLASS B	☐ >-0.1% of 20.9%	☐ <10% of LEL	☐ >TLV / REL / PEL	☐ Fall line or inline
CLASS C	☐ >-0.1% of 20.9%	☐ <10% of LEL	☐ < TLV / REL / PEL	☐ Complex internal
CLASS D	☐ +-0.1% of 20.9%	☐ 0 LEL	☐ No exposure	☐ Fall line or inline

Step 4 ANALYZE Identify Response Objectives

Use communication plan to determine response objectives	☐ Yes ☐ No
Non-intervention, protective actions (alert 5):	
Order an Evacuation	☐ Yes ☐ No
Order a Shelter in Place	☐ Yes ☐ No
Defensive, protective actions (alert 3):	
Establish DECON for potential contamination	☐ Yes ☐ No
Establish triage for potential MCI	☐ Yes ☐ No
Establish and enforce scene control (secure area, control crowd / traffic, determine zones)	☐ Yes ☐ No
Can you identify offensive operations (alert 3):	
Rescue tactics in the hot zone (recon, rapid extraction, VAI & rescue, MCI triage)	☐ Yes ☐ No

Step 5 ANALYZE Identify Resource Needs to Support Rescue Objectives

Additional monitoring equipment	☐ N/A ☐ Yes ☐ No
Safety harnesses and lifeline for entry and standby personnel	☐ N/A ☐ Yes ☐ No
Hoisting equipment	☐ N/A ☐ Yes ☐ No
Communication equipment	☐ N/A ☐ Yes ☐ No
SCBAs or SARs for entry and standby personnel	☐ N/A ☐ Yes ☐ No
CPC and or other PPE	☐ N/A ☐ Yes ☐ No
All electric equipment is intrinsically safe and tools are non-sparking	☐ N/A ☐ Yes ☐ No

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INCIDENT ACTION PLAN CHECKLIST

Step 6 PLAN Develop an Action Plan

Any viable victims?		☐ Yes	☐ No
If yes, determine tactical objectives for victim rescue:			
☐ Aerial Based Ops ☐ Ground Based Ops ☐ Recon ☐ Rapid Extraction ☐ VAI & Rescue ☐ Decon ☐ MCI Triage			
Designate essential personnel for task objectives:	☐ N/A	☐ Yes	☐ No
Safety supervisor & rescue attendant	☐ N/A	☐ Yes	☐ No
Entry & backup personnel	☐ N/A	☐ Yes	☐ No
Other support personnel	☐ N/A	☐ Yes	☐ No
Request additional resources		☐ Yes	☐ No
Additional resources:			
If no, determine tactical objectives for victim recovery (alert 4):			
Tactical objectives:			
Determine IAP strategy based on available personnel and equipment:	☐ Non-Intervention	☐ Defensive	☐ Offensive

Step 7 IMPLEMENT Implement the Action Plan

The following have been reviewed and is acceptable for rescue to begin		☐ Yes	☐ No
Control zones secured (initial isolation & PAD --> HZ / WZ / CZ)	☐ N/A	☐ Yes	☐ No
Line(s) broken-capped-blanked	☐ N/A	☐ Yes	☐ No
Lockout/de-energize/tagout	☐ N/A	☐ Yes	☐ No
Ventilation started	☐ N/A	☐ Yes	☐ No
Hazard monitoring started	☐ N/A	☐ Yes	☐ No
Rescuer medical monitoring prior to HZ entry (hazmat)	☐ N/A	☐ Yes	☐ No
CRZ / Decontamination measures established	☐ N/A	☐ Yes	☐ No
Rescue personnel don PPE appropriate for task(s)	☐ N/A	☐ Yes	☐ No
Other resources in place for safe work practices	☐ N/A	☐ Yes	☐ No
Emergency procedures and rescuer safe refuge area	☐ N/A	☐ Yes	☐ No
Entry rescuers are attached to lifelines	☐ N/A	☐ Yes	☐ No
Victim packaging staged upwind and uphill	☐ N/A	☐ Yes	☐ No
Rope rescue system preflight checklist conducted	☐ N/A	☐ Yes	☐ No
Pre entry briefing for HAZ-COMM	☐ N/A	☐ Yes	☐ No

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INCIDENT ACTION PLAN CHECKLIST

Step 7 (continued) Respiratory Equipment Time Log

Name	Name	Name	Name
☐ SCBA ☐ SAR	☐ SCBA ☐ SAR	☐ SCBA ☐ SAR	☐ SCBA ☐ SAR
Pressure	Pressure	Pressure	Pressure
On air time	On air time	On air time	On air time
Air duration	Air duration	Air duration	Air duration
Recall time	Recall time	Recall time	Recall time
Off air time	Off air time	Off air time	Off air time

Step 8 EVALUATE Evaluate the effectiveness of the action plan

Changes to plan:

Plan is proceeding as expected	☐ N/A	☐ Yes	☐ No
Plan is not proceeding as expected	☐ N/A	☐ Yes	☐ No
Minor changes needed	☐ N/A	☐ Yes	☐ No
Major changes needed	☐ N/A	☐ Yes	☐ No
Does the operation need to be stopped to make changes	☐ N/A	☐ Yes	☐ No
Victim condition and information recorded for transfer of care		☐ Yes	☐ No

Step 9 TERMINATION Terminate the incident

Debrief notes:

All personnel accounted for:	☐ N/A	☐ Yes	☐ No
All equipment has been retrieved, recovered and maintained	☐ N/A	☐ Yes	☐ No
Was a debriefing held	☐ N/A	☐ Yes	☐ No
Evaluate operations and their effectiveness	☐ N/A	☐ Yes	☐ No
Incident reports prepared	☐ N/A	☐ Yes	☐ No
Are corrective actions needed	☐ N/A	☐ Yes	☐ No