CONFINED SPACE
- HORIZONTAL
NON-ENTRY RESCUE

Presented by: Nick Powell
Identifying a Confined Space

What is a confined space?

A confined space is an enclosed space that:

- is large enough to get whole body inside,
- is not designed for human occupation,
- has limited or restricted entrance or exit.

*Must have all three characteristics to be a confined space.*
Drum will always be considered a Confined Space

What kind of confined space?

- Non-Permit?
- Permit Required?

Always determine the type of space based on the work to be performed!
After lockout and energy isolation what are the main hazards of these types of confined spaces?

- Hazardous atmospheres
- Engulfing materials
- Entrapment
- Moving parts
- Electricity
OSHA 1910.146
Permit Required Confined Space

• 1910.146(d)(3) Develop and implement the means, procedures, and practices necessary for safe permit space entry operations, including, but not limited to, the following:

• 1910.146(d)(4)(viii) Rescue and emergency equipment needed to comply with paragraph (d)(9) of this section, except to the extent that the equipment is provided by rescue services; and

• 1910.146(d)(4)(ix) Any other equipment necessary for safe entry into and rescue from permit spaces.

• 1910.146(k)(3)(i) Each authorized entrant shall use a chest or full body harness, with a retrieval line attached at the center of the entrant's back near shoulder level, above the entrant's head, or at another point which the employer can establish presents a profile small enough for the successful removal of the entrant….

• 1910.146(k)(3)(ii) The other end of the retrieval line shall be attached to a mechanical device or fixed point outside the permit space in such a manner that rescue can begin as soon as the rescuer becomes aware that rescue is necessary…
Rescue System Overview

Legend

- Wire Rope Static Line
- Extraction Direction
- Attachment Line
- Extraction Line
- Anchor Point
One Person, One Crew, One Day at a Time.
Safety by Choice.
Keys to Success

1. Install anchors of adequate strength at a height that allows for maximum elevation of victim.
2. Enlarge hatch to drum to enable easier rescue.
3. Use Roll-A-Ramp or similar covering to allow for safer access and emergency egress.
4. Tailor written plan to your plant. Make adjustments to work with your individual equipment.
5. Setup system and practice annually and upon changes in personnel.
6. Inspect equipment before and after each use.

This rescue must be performed with an approved Job Hazard Analysis (JHA) that also addresses LO/TO and Confined Space program.
SAFETY BY CHOICE
Non-Entry Rescue Kit

RECOMMENDED EQUIPMENT –
From Petzl America:

• 1 - TANDEM® SPEED Double Pulley
• 2 - ROLLCLIP Z Pulley Carabiner
• 1 – RESCUE High Strength Very High Efficiency Pulley
• 9 – VULCAN Large Capacity Carabiner
• 1 or 2 – ASCENSION Handled Rope Clamp
• 1 - PRO TRAXION Loss-resistant Progress Capture Pulley
• 2 – PAW Rigging Plate
• 1 (75’) - AXIS 11 mm YELLOW Extraction Rope
• 1 (75’) - AXIS 11 mm RED Attachment Rope
Cable and Pulley System

- Attachment Rope
- Rollclip Pulley
- Carabiner
- Vulcan Carabiner
- Wire Rope
- Progress Capture Pulley*
- Tandem Double Pulley
- Rescue Pulley
- Extraction Rope

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Outside Anchor - Example
Inside Anchor - Example