



## **Nomination Deadlines:**

Fall Awards: September 30, 2018 Spring Awards: February 28, 2019

**Agency:** Valley Center Municipal Water District

Project/Initiative Title: Confined Space Permit Annual Review and Training

## **Employee/Department/Committee Nominated:**

Name(s): Gaby Olson, Ryan Madson, Rick Beath

Job Title/Department: Field Department

## **Nomination Summary**

Write a brief summary of your project/initiative. Clearly state the problem/hazard recognized by the nominee and the specific reasons that they initiated corrective action.

During an annual review of our confined space permits some inconsistencies in filling out the confined space permits were noted. As a result two in depth training sessions were conducted with staff.



Describe the specific actions taken to resolve the problem(s) or challenge(s). Share the best practices that made this initiative successful for the agency and its impact.

The first training was conducted by Gaby Olson and consisted of a small group table top activity where each group was given a mock confined space entry scenario. Each group then present to the other groups how they filled out the permit and the process they used to classify the various confined space. The mock confined space scenarios were selected as a result of the annual confined space review.

The second training was conducted by Gaby Olson, Ryan Madson and Rick Beath at our Woods Valley Reclamation Facilty with District staff, Valley Center Fire Department, San Pasqual Fire Department and Valley Center Sheriff's Department attending. The same training session was conducted four times to ensure that all District staff and emergency response personnel shifts were all able to attend. The first part of the training was a demonstration of the District's confined space equipment, a discussion about the District's confined space entry procedures and a discussion about the various types of confined spaces located at other District facilities. Rick Beath and Ryan Madson then conducted a tour of the new Woods Valley Reclamation Facility expansion and showed the class participants the onsite confined spaces and location of electrical and chemical hazards.

State whether the hazard was reduced with engineering controls, introduced a new administrative or work procedure, or relied on personal protective equipment to solve the problem.

The hazard was reduced by providing additional training to staff which also included training in conjunction with the local fire department agencies and the sheriff's department.

Describe any extraordinary circumstances that made this nominee's safety accomplishments significant.

Describe whether the nominee influenced safety in the workplace, encouraged employee participation in safety efforts, obtained organizational "buy in" to implement the solution.

The confined space awareness training at our Woods Valley Reclamation facility included all three shifts from the Valley Center Fire Department, San Pasqual Fire Department and Valley Center Sheriff's Department. This training allowed our local response agencies to interact with our District staff but it also gave all attendees the opportunity to become familiar with the facility, the onsite chemical locations, potential hazards and the confined spaces should they have to respond to an emergency at our facility.

After hours emergency response personnel access procedures to the facility were also improved as a result of the combined training sessions.

Describe whether the project/initiative addressed a hazard or exposure included in the JPIA Commitment to Excellence Program.

□ Office/Field Ergonomics
□ Vehicle Operations
☐Slip/trip/falls – falls from heights
☑Other: review of existing safety program and corrective action taken

List and attach any supporting materials that you feel are important for the reviewers to gain a complete picture of the nomination. Digital photos, supporting documentation, sample forms, etc.



Nominated by: Greg Hoyle, Director of Operations/Facilities

Signature: Greg Hoyle Date:08/22/2018

(Type Name)

General Manager: Gary Arant Date:08/22/2018

(Type Name)

Please email this form with supporting documents and digital photos to tlofing@acwajpia.com.



### **Gaby Olson**

From:

Joe Napier <napier@vcfpd.org>

Sent: To: Wednesday, July 25, 2018 3:01 PM Gary Arant; Greg Hoyle; Tony LoPresti

Subject:

**Confined Space Awareness Training** 

Gary,

I attended the confined space awareness training offered by your Safety Division at the new expanded treatment plant on Valley Center Road on Tuesday, July 24th. Your team performed in an exemplary fashion relating all of the critical elements and areas of concern in the event of a mishap at that facility. Please pass on to all concerned the level of gratitude and team comradery we feel as public servants associated with the Valley Center Municipal Water District.

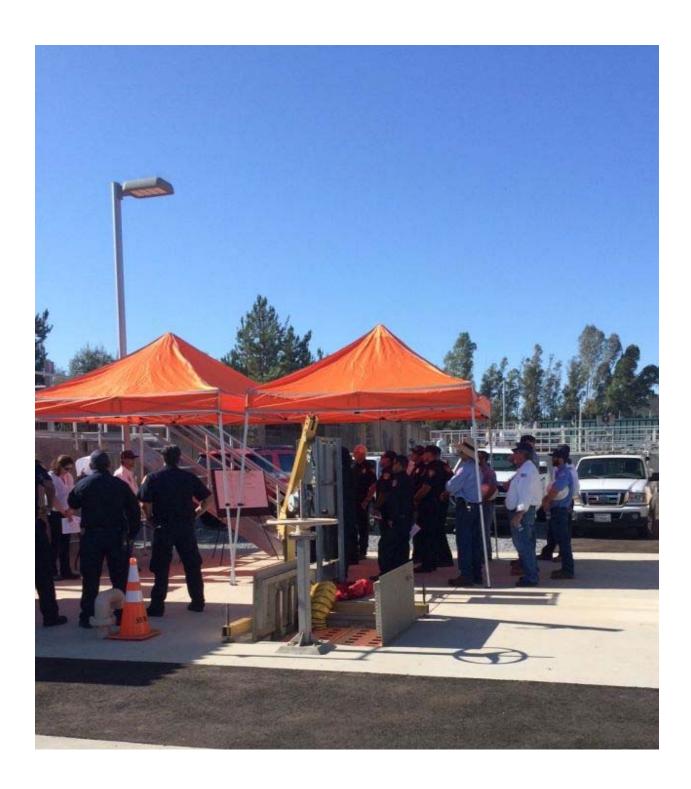
I look forward to future joint training and the potential of working together toward critical equipment and standard performance elements to effect a rescue in the event one occurs.

Sincerely with gratitude,

Joe

Josef G. Napier
Fire Chief, Valley Center Fire Department
28234 Lilac Road
Valley Center, CA 92082
napier@vcfpd.org
760-751-7600 office
760-535-8505 cell
760-749-3892 FAX





#### **CONFINED SPACE TRAINING - WOODS VALLEY**

July 24<sup>th</sup>, July 25<sup>th</sup> and August 2<sup>nd</sup> – 8:30 a.m. to 10:30 a.m.

- Discuss access to Woods Valley facility Gaby
  - Gate access Key switch for fire department
  - Knox box on the side of the building
  - Safety Data Sheet location are located inside the tray marked SDS
  - Hazmat plan and emergency plan location by phone and SDS box
- Review district confined space permit Gaby
  - Our employees must fill out a confined space permit prior to each entry
    - Each permit requires a rescue plan
      - Self-rescue & non-entry rescue by means of the retrieval system
      - District notifies fire department prior to confined space entries
        - District will be working to train our own in house rescue team
  - Provide copy of fire department confined space permit
- Review district confined space entry procedures
  - Woods Valley & Charlan Rd. Ryan
    - Show the confined space assessment sheet Ryan
  - Lake Turner vault and bell Gaby
    - Review lake turner bell and vault entry procedure
- Review district equipment Ryan
  - Set up equipment at a space for demonstration Ryan
    - DBI Sala retrival system
    - Air monitors
    - Blower
    - Lock out equipment on folding table
- Tour of woods valley to show confined spaces within the plant Rick or Ryan
  - Show confined spaces
  - Show location of chemicals
  - Fire department to discuss their rescue procedures Fire Department

# **Confined Space Permit Table Top Exercise 2018**

- 1. Employees are split into groups of 3 to 4 employees per group. Each group is assigned a space that the employees normally enter and a normal work task that is performed in that space
- 2. Each group is given the "Confined Space Pre-Planning Site Assessment" form with their assigned task on top
- 3. Each group receives copies of the "Confined Space Identification Flow Chart"
- 4. The groups are given 15 minutes to fill out the "Confined Space Entry Permit" focusing primarily on the back portion of the permit classifying the confined space
- 5. The group spokesperson presents to the other groups the steps they took to classify the space

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# CONFINED SPACE PRE-PLANNING SITE ASSESSMENT

	A	1.A # 7			
Date: Entry Supervisor:	<u> </u>	40 # Z			
Space Name: <u>Lilac – Old Castle PRV</u>	Reb	uild Pt	RU		
Address/GPS Coordinates: N 33.2509° W 117.06805°		up # Z wild Pt Starmpl	e		
Type of Space:	oir Water truck tank	Bridge			
Sewer Vault Sewer Manhole Sewer v	vet well				
Other					
Confined Space Criter	ria *	T	l		
(Must meet all 3 criteri		Yes	No		
1. Is the space large enough so an employee can bodily e	enter?				
2. Does the space have limited or restricted means for en					
3. Is the space designed for continuous occupancy?	3. Is the space designed for continuous occupancy?				
*These spaces may include underground vaults, tanks,  **Breaking the plane of the e	entrance is considered entry	ther similar are	eas.		
Permit Required Confined Spa (Meet any one of the follow		Yes	No		
1. Does the space contain or have the potential to contain	in a hazardous atmosphere?				
2. Does the space contain a material that has the potent	ial for engulfing a worker?				
3. Does the space have an internal configuration such the	at an entrant could be trapped o	r			
asphyxiated by inwardly converging walls or by a floor whe to a smaller cross section?	nich slopes downward and tapers				
4. Does the space contain any other recognized serious s	afety or health hazard?		Ø		
Use the confined space identification	ion flow chart to classify space	e			
Permit Required Space Yes No	Alternate Entry Confined Spa	ice (C-5)	( t		
	Yes No No				
Non-Permit Confined Space Yes No					
<b>Space:</b> Dimensions: L 8' (X) W 5' (X) D 7' = 280 cu.ft					
Other:					
Type of Entry: Steps ☑ Ladder ☐ Rungs ☒ Other: _					

RE	REASONS FOR ENTRY									
	Repairs/Replacement of Equipment Cleaning and Maintenance Inspection									
	Take Rea	adings Other:								
SC	OPE OF V	VORK:								
НА	ZARD AS	SESSMENT								
		Inadequate Ventilation		Flooding		Exposed Electr	ical Energ	gized Equipment		
		Difficult Access		Excessive Noise		Other Electrica	l Hazards	5		
		Combustion equipment in use		Slippery work conditions		1	•	tating belts, blades, ing machinery, etc.)		
		Compressed/Gases liquids		Poor Lighting		Welding/Cutting * requires Hot work Permit				
		Low head room		Standing Water		Chemicals Hazards* MSDS available				
		Engulfment hazard		Falling objects		Internal configuration				
		Fall potential	Ø	Traffic hazards	10	Temperatures Extremes (i.e. heat stress)				
		Incoming chemical line		Vibration		none				
	Other:									
Lo	ckout/1	agout Requirements	S							
	Is lock	out/tagout required in th	ne sp	ace?			Yes	s □ No ☑		
	Are the	ere line isolation require	ment	ts in the space?			Yes	s ✓ No 🗌		
Hot V	<b>Vork</b>									
		e a possibility of welding performed in the space?		ting, brazing, rive	eting, s	craping or sa	anding	Yes No 🛭		
	Are non-sparking tools required to remove residues?  Yes \[ \] No \[ \]									

Note: A hot work permit will be required if applicable to the type of work being performed

# 

Hard Hat	☐ Hearing Protection	│
Gloves	Fall Protection Harness	
Face Shield	Glasses	
Respirator	Goggles	
Dust Mask	Tyvek Coveralls	

## Necessary Equipment (place a ✓ mark by each required item)

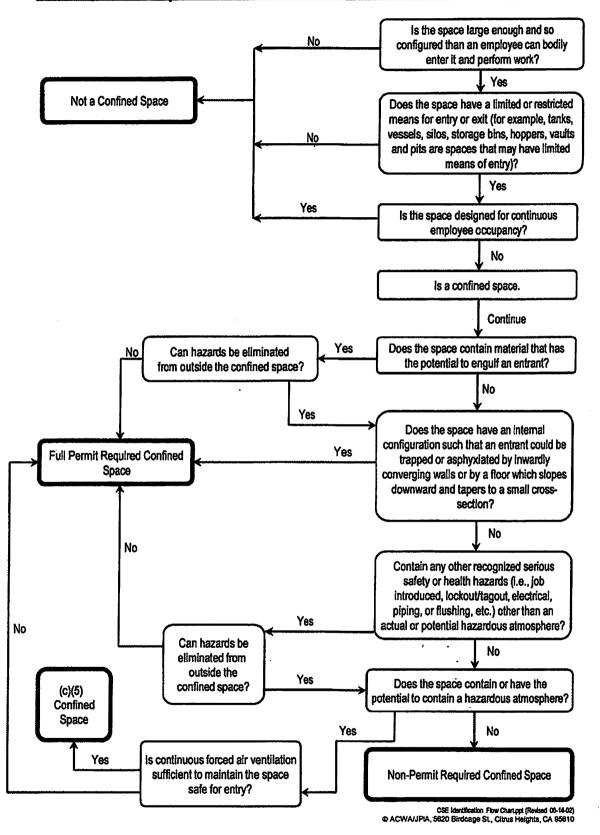
Winch		Tri-Pod	Traffic control	
Safety Line		Flash Light	Fire Extinguisher	
Blower	1	Lockout/Tagout devices	Communication - radios	
Air monitor		Ladder		

Print Name	Signature	
Entry Supervisor:		
Confined space comments:	_	

Submit to Safety Office
Attach a copy of confined space permit when work is completed.

Gaby F:\Field\Safety\confined space\confined space assessments\PRV\confined space preplanning form tilac\_old castle prv 2018.docx

# **Confined Space Identification Flow Chart**



#### **CONFINED SPACE ENTRY PERMIT**

NOTE: (1) <u>Each</u> confined space should <u>always</u> be considered a Full Permit-Required Space until <u>proven</u> and <u>documented otherwise</u>! (2) Each permit is valid for the assigned task only. (Not to exceed one work shift) THOMAS BROS. PAGE:\_\_\_\_\_ PERMIT ISSUE DATE/TIME: SPACE ID/LOCATION & ADDRESS: SPECIFIC WORK PROCEDURE: AGENCY: AUTHORIZED ENTRANT(S): ATTENDANT(S): \_\_ \*\*\*RESCUE PLAN REQUIRED FOR ALL ENTRY -- REFER TO RESCUE SECTION \*\*\* **EMERGENCY RESCUE PLAN: (Required for All Confined Space Entries)** In event of emergency, contact: Time of call: ☐ VCFPD Dispatch notified at 858-756-3006 prior to full permit entry or Initials: \_\_\_ ☐ Cal Fire Dispatch notified at 619-442-1615 prior to full permit entry Entry termination call time: \_ Briefly outline the rescue procedure to be used and the equipment needed: **INITIAL ASSESSMENT** (Without entering the space, conduct an atmospheric assessment and circle the confined space conditions below.) ATMOSPHERIC ASSESSMENT (Required for every confined space): Method of Monitoring the Atmosphere:\_\_\_\_\_

#### ATMOSPHERIC TESTING RESULTS

Bump Test Date:

	PERMISSIBLE	RESULTS AND TIMES (For each test show result and time)							
SUBSTANCE	EXPOSURE LIMIT	PRE- ENTRY	TEST 1	TEST 2	TEST 3	TEST 4	TEST 5	TEST 6	TEST 7
TIME									
CONDUCTED BY									
OXYGEN	19.5 - 23.5%								
LEL	10%								
HYDROGEN SULFIDE	10 PPM	L							
CARBON MONOXIDE	25 PPM								
OTHER TOXIC									

#### **CONFINED SPACE CONDITIONS (circle as applicable):**

Calibration Date:

- 1. Contains or has the potential to contain a hazardous atmosphere (e.g., rust, organic material, nearby traffic, etc.).
- 2. Contains a material that has the potential for engulfing an entrant.
- 3. Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor, which slopes downward and tapers to a smaller cross-section.
- 4. Contains any other recognized serious safety or health hazard, including job-introduced hazards.

If none of the conditions exist, proceed to Declassification for Non-Permit Entry
If only #1 condition exists, continue Atmospheric Monitoring, begin Ventilation, and proceed to (c)(5) – Alternative Procedures for Entry
If any of #2, #3, or #4 conditions apply, continue Atmospheric Monitoring. Complete Full Permit-Required Entry checklist

DECLASSIFICATION FOR NON-PERMIT EN	
Only qualified Entry Supervisors are authorized to execute a Deci-	assification Certificate.
☐ This permit space poses no actual or potential atmospheric hazards, and all hazard	
entry into the space.  Rescue procedures have been established.	
Rescue procedures have been established.  This certificate has been made available to each employee entering the area.	
Basis for Declassification: (Describe fully)	
Print Name (Entry Supervisor) Signature	Date
Upon completion of the job, the area will revert to a permit-require	d confined space status.
ATMOSPHERIC VENTILATION: (Must operate long enough for the atmospheric hazar	d to be eliminated.)
Method of Ventilation:	
Volume (Cubic Feet) of Space to Be Entered:	
Volume Rating (Cubic Feet Per Minute) of Ventilation Equipment:	
Length of time of Ventilation:	
(c)(5) - ALTERNATIVE PROCEDURES FOR	
1. All non-atmospheric hazards in the space were eliminated without entering the space	e YES □ NO □
(e.g., engulfment, internal configuration, electrical)?  2. Source isolation and lock-out/tag-out in place?	YES   NO   N/A
Free of any serious job-introduced hazards?	YES D NO D
4. Is the only hazard posed by the space an actual or potential atmospheric hazard?	YES D NO D
Will continuous forced ventilation alone be sufficient for safe entry?     Rescue Plan – equipment readily accessible?	YES   NO   YES
7. Has forced air ventilation been continued?	YES D NO D
Has atmospheric monitoring been continued?	YES D NO D
IF ANY "NO" RESPONSES, ENTRY <u>NOT ELIGIBLE</u> USING THE "(c)(5) PROCEDUR	RE". <u>COMPLETE THE FULL P</u> ERMIT.
/_VPLOPATIPIOATION BY PAIRBY ALIBERTAGES	
(c)(5) CERTIFICATION BY ENTRY SUPERVISOR: I am familiar with the special requirements of the special requirements	ents and conditions under which a permit-required for this conclusion is inspection and testing (with a
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Confined Space Quick Reference Sheet								
					Air Volume			
<u>Location</u>	<u>Space Name</u>	<u>Length</u>	<u>Width</u>	<u>Depth</u>	<u>Ft3</u>	<u>Gallons</u>		
Woods Valley WRF	Woods Valley Ranch Lift Station	Circular	6	16.5	1,865	13,951		
Woods Valley WRF	Influent Junction Structure			6	0	0		
Woods Valley WRF	Influent Tank A	19	48	21.5	19,608	146,668		
Woods Valley WRF	Old Screenings Room	19	10	11.5	2,185	16,344		
Woods Valley WRF	Influent Tank B	22	12	23	6,072	45,419		
Woods Valley WRF	10K Emergency Storage Tank	Circular	21	9	12,463	93,221		
Woods Valley WRF	Aeromod Selector Tank	6	32	16	3,072	22,979		
Woods Valley WRF	Aeromod Tank A1	18	27.5	16	7,920	59,242		
Woods Valley WRF	Aeromod Tank A2	10	51.5	16	8,240	61,635		
Woods Valley WRF	Aeromod Tank B1	18	27.5	16	7,920	59,242		
Woods Valley WRF	Aeromod Tank B2	10	51.5	16	8,240	61,635		
Woods Valley WRF	Aeromod Clarifier A	24	32	16	12,288	91,914		
Woods Valley WRF	Aeromod Clarifier B	24	32	16	12,288	91,914		
Woods Valley WRF	Aeromod Digester	19.5	43	16	13,416	100,352		
Woods Valley WRF	Flocculation Tank	7.5	10.5	8	630	4,712		
Woods Valley WRF	MBR Anoxic 1	4.5	19	14.5	1,240	9,273		
Woods Valley WRF	MBR Anoxic 2	4.5	19	14.5	1,240	9,273		
Woods Valley WRF	MBR AB1	11.5	19	14.5	3,168	23,699		
Woods Valley WRF	MBR AB2	11.5	19	14.5	3,168	23,699		
Woods Valley WRF	MBR ML Feed Channel	3	26	8	624	4,668		
Woods Valley WRF	MBR Membrane Tank 1	11.25	4.5	12.25	620	4,639		
Woods Valley WRF	MBR Membrane Tank 2	11.25	4.5	12.25	620	4,639		
Woods Valley WRF	MBR Digester	32.25	9	12.25	3,556	26,596		
Woods Valley WRF	Chlorine Mix Vault	10	4.5	5.25	236	1,767		
Woods Valley WRF	Chlorine Contact Basin 1	45	12	10.5	5,670	42,412		
Woods Valley WRF	Chlorine Contact Basin 2	45	12	10.5	5,670	42,412		
Woods Valley WRF	Recycle Pump Tank	4	23.75	17.5	1,663	12,436		
Woods Valley WRF	75K Emergency Storage Tank	14	40	21	11,760	87,965		
Woods Valley WRF	200k Emergency Storage Tank	L-Shape, M	anual input	20.75	32,411	242,434		
Woods Valley WRF	Pond 3 meter vault	6	4	10	240	1,795		
Woods Valley WRF	Pond 10 meter vault	6	4	10	240	1,795		
Woods Valley WRF	Charlan Reservoir Pump Tank	Circular	10	27	8,478	63,415		

	Conner Many	Dimensions 1 *144*	Air Values a 542	 
Location	Space Name	Dimensions L*W*D	Air Volume Ft3	2
Woods Valley WRF	Woods Valley Ranch Lift Station	Dia - 6'*21'	467	
Woods Valley WRF	Influent Tank A	19' x 48' x 21.5'	16,103	1
Woods Valley WRF	Old Screenings Room	25.5' x 13.5' x 9'	3,098	
Woods Valley WRF	Influent Tank B	22' x 12' x 21.5'	5,521	<del>  '</del>
Woods Valley WRF	10K Emergency Storage Tank	21' * Dia - 9'	1,337	1
Woods Valley WRF	Aeromod Selector Tank	6' x 32' x 16'	2,240	<del>                                     </del>
Woods Valley WRF	Aeromod Tank A1	18' x 27.5' x 16'	13,671	1
Woods Valley WRF	Aeromod Tank A2	10' x 51.5' x 16'	14,350	1
Woods Valley WRF	Aeromod Tank B1	18' x 27.5' x 16'	13,671	1
Woods Valley WRF	Aeromod Tank B2	10' x 51.5' x 16'	14,350	1
Woods Valley WRF	Aeromod Clarifier A	24' x 32' x 16'	12,288	<u> </u>
Woods Valley WRF	Aeromod Clarifier B	24' x 32' x 16'	12,288	<u>                                     </u>
Woods Valley WRF	Aeromod Digester	19.5' x 43' x 16'	11,230	-
Woods Valley WRF	Flocculation Tank	7.5' x 10.5' x 5'	394	
Woods Valley WRF	MBR Anoxic 1	4.5*19*14.5	1979	
Woods Valley WRF	MBR Anoxic 2	4.5*19*14.5	1979	
Woods Valley WRF	MBR AB1	11.5*19*14.5	5682	
Woods Valley WRF	MBR AB2	11.5*19*14.5	5682	,
Woods Valley WRF	MBR Membrane Tank 1	11.25*4.5*12.25	353	
Woods Valley WRF	MBR Membrane Tank 2	11.25*4.5*12.25	353	
Woods Valley WRF	MBR Digester	32.75*9*12.25	5527	
Woods Valley WRF	Chlorine Mix Vault	10*4.5*5.25	237	
Woods Valley WRF	Chlorine Contact Basin 1	45*12*10.5	3662	
Woods Valley WRF	Chlorine Contact Basin 2	45*12*10.5	3662	
Woods Valley WRF	Recycle Pump Tank	4*23.75*17.5	1657	
Woods Valley WRF	75K Emergency Storage Tank	14*40*19.5	10027	
Woods Valley WRF	200k Emergency Storage Tank	38.5*16*5*19	26738	2
Woods Valley WRF	Pond 3 meter vault	6*4*10	240	
Woods Valley WRF	Pond 10 meter vault	6*4*10	240	
Woods Valley WRF	Charlan Reservoir Pump Tank	Dia-10*27	2277	

## **CONFINED SPACE PRE-PLANNING SITE ASSESSMENT**

Date: Entry Supervisor:		
Space Name:		
Address/GPS Coordinates:		
Type of Space:	ge	
Sewer Vault Sewer Manhole Sewer wet well		
Other		
Confined Space Criteria *		
(Must meet all 3 criteria)	Yes	No
· ·		
1. Is the space large enough so an employee can bodily enter?		
2. Does the space have limited or restricted means for entry and exit?		
3. The space is not designed for continuous occupancy		
*These spaces may include underground vaults, tanks, pits and diked areas, vessels, and other  **Breaking the plane of the entrance is considered entry	similar are	as.
Permit Required Confined Space Criteria		
(Meet any one of the following)	Yes	No
1. Does the space contain or have the potential to contain a hazardous atmosphere?		
2. Does the space contain a material that has the potential for engulfing a worker?		
3. Does the space have an internal configuration such that an entrant could be trapped or		
asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers		
to a smaller cross section?		
4. Does the space contain any other recognized serious safety or health hazard?		
Use the confined space identification flow chart to classify space		
Permit Required Space Yes No No Alternate Entry Confined Space (	(C-5)	
Yes No		
Non-Permit Confined Space Yes No No		
Space: Dimensions: L (X) W (X) D = cu.ft		
Other:		
Type of Entry: Steps Ladder Rungs Other:		

REASONS FOR ENTRY									
Repairs/Replacement of Equipment Cleaning and Maintenance Inspection									
Take Readings Other:									
SCO	SCOPE OF WORK:								
НА	HAZARD ASSESSMENT								
		Inadequate Ventilation		Flooding		Exposed Electr	Exposed Electrical Energized Equipment		
		Difficult Access		Excessive Noise	Other Electrical Hazards				
		Combustion equipment in use		Slippery work conditions			Mechanical Hazards (rotating belts, blades, gears, pinch point, moving machinery, etc.)  Welding/Cutting * requires Hot work Permit  Chemicals Hazards* MSDS available  Internal configuration  Temperatures Extremes (i.e. heat stress)		
		Compressed/Gases liquids		Poor Lighting		Welding/Cuttir			
		Low head room		Standing Water		Chemicals Haz			
		Engulfment hazard		Falling objects		Internal config			
		Fall potential		Traffic hazards		Temperatures			
		Incoming chemical line		Vibration		none			
		Other:							
Lockout/Tagout Requirements									
	Is lockout/tagout required in the space?							Yes 🗌 No 🗌	
	Are there line isolation requirements in the space?							S No No	
lot W	/ork								
	Is there a possibility of welding, cutting, brazing, riveting, scraping or sanding being performed in the space?								
	Are no	Are non-sparking tools required to remove residues?							

Note: A hot work permit will be required if applicable to the type of work being performed

#### Personal Protective Equipment (place a ✓ mark by each required item) **Hearing Protection** Hard Hat Other Items listed below: Fall Protection Harness Gloves Face Shield Glasses Goggles Respirator Tyvek Coveralls **Dust Mask** Necessary Equipment (place a ✓ mark by each required item) Winch Tri-Pod Traffic control Safety Line Flash Light Fire Extinguisher **Blower** Lockout/Tagout devices Communication - radios Air monitor Ladder Confined space comments: **Entry Supervisor:**

Submit to Safety Office
Attach a copy of confined space permit when work is completed.

Signature

Gaby F:\Field\Safety\confined space\confined space preplanning form 2018.docx

**Print Name**