# CHAPTER 8 CONFINED SPACE

# 1.0 REFERENCES AND RESOURCES:

WAC 296-809 SPPM 3.32

# 2.0 APPENDICES:

Appendix A Confined Space Survey Summary

# 3.0 PURPOSE and SCOPE:

The CAHNRS Confined Space Program establishes policy to protect *CAHNRS* employees from hazards, associated with confined space entry. A confined space must meet all of the following requirements to be subject to the requirements in this chapter:

- 1) Large enough for an employee to enter fully;
- 2) Restricted entrance and exit e.g. tanks, vessels, silos, storage bins, hoppers, vaults, excavations, and pits;
- 3) Not designed for human occupancy.

A permit-required confined space meets the above requirements and one or more of the following characteristics:

- 1) Contains or has a potential to contain a hazardous atmosphere;
- 2) Contains a material with the potential for engulfing someone who enters;
- 3) Has an internal configuration that could allow someone entering to 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 physical hazard. This includes any recognized health or safety hazards including engulfment in solid or liquid material, electrical shock, or moving parts;
- 5) Contains any other recognized serious safety or health hazard that could either:
  - (a) Impair the ability to self-rescue; or
  - (b) Result in a situation that presents an immediate danger to life or health.

**CAHNRS** employees will not enter permit-required confined spaces. However, alternate entry procedures may be utilized to control hazards as described in the following sections.

#### 4.0 RESPONSIBILITIES:

**Supervisors** are responsible for identifying projects and tasks subject to this chapter and verifying conditions allowing for entry into a non-permit required confined space.

Note: It is possible that in the course of assigning employees work, a supervisor may unknowingly assign employees to tasks which require confined space entry; therefore:

**Employees** are responsible for identifying tasks requiring confined space entry to their supervisor if Updated: 5/12/2022

encountered.

# 5.0 TRAINING REQUIREMENTS:

This program will provide guidance on classifying permit required and non-permit required confined spaces, along with identifying designated employee duties and use of required equipment.

- Supervisors must receive sufficient training to evaluate hazardous atmospheres and other potential hazards outlined in Section 3.0 defining a permit-required confined space. Supervisors may consult with additional subject matter experts as needed to support this evaluation.
- Employees must receive sufficient training to:
  - o Identify a confined space as defined in Section 3.0;
  - Understand the controls in place e.g. lock-out-tag-out (see Chapter 20) to render the space "non-permit required."
- Facilities Services will provide protective measures such as posting signs reading;
   Danger-Permit Required Confined Space, DO NOT ENTER" or other similar wording, or protective measure that may include bolted covers, or locks.
- CAHNRS personnel may be trained as attendants to assist Facilities Services personnel entering permit-required confined spaces.

#### **CONFINED SPACE EQUIPMENT:**

Confined space atmospheres will be evaluated with a 4 gas meter and/or other direct reading instruments as necessary (whenever there is reason to suspect a hazardous atmosphere), <u>EHS personnel will not enter confined spaces with hazardous atmospheres</u>. Engulfment sources or sources of hazardous energy and/or equipment will be locked-out (see Chapter 20) to render the space not permit required <u>prior to personnel entry</u>. All criteria in Section 3.0 defining a permit-required confined space shall be eliminated <u>prior to personnel entry</u>.

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# **Appendix A: Confined Space Survey Summary**

**Confined Space Survey Summary** 

<b>Location</b> CA Steam Plant	Space	CS	PRCS	APCS	Sign	Notos
CA Steam Plant	_					Notes
CA Steam Flant	Coal Bin #1	Υ	Υ	N	No	No entry required except to demo
CA Steam Plant	Coal Bins #3, 4 & 5	Y	Y	N	No	No entry required except to demo
Feed Mill	Roof Top Grain Bins	Y	Υ	N	Yes	A new sign is needed
GW Steam Plant	Oil Tank	Υ	Υ	N	No	A sign is needed
Beef Center	Large Bin	Υ	Ν	Ν	Yes	No entry required
Beef Center	Medium Bin	Υ	Ν	Ν	No	No entry required
Beef Center	Small Bin	Υ	Ν	Ν	No	No entry required
Cattle Feeding Labs	Grain Bin 1	Υ	N	N	No	No entry required
Cattle Feeding Labs	Grain Bin 2	Υ	Ν	N	No	No entry required
Cattle Feeding Labs	Grain Bin 3	Υ	Z	Ν	No	No entry required
Cattle Feeding Labs	Grain Bin 4	Y	N	N	No	No entry required
Cattle Feeding Labs	Grain Bin 5	Y	N	N	No	No entry required
Cattle Feeding Labs	Grain Bin 6	Y	N	N	No	No entry required
Cattle Feeding Labs	Grain Bin 7	Y	N	N	No	No entry required
Cattle Feeding Labs	Grain Bin 8	Y	N	N	No	No entry required
Cattle Feeding Labs	Grain Bin 9	Y	N	N	No	No entry required
Cattle Reproduction Labs	Grain Bin N	Υ	N	N	No	No entry required
Cattle Reproduction Labs	Grain Bin S	Y	N	N	No	No entry required
Central Stores	N Filling Shed	N	Ν	Ν	NA	This operation is moving
Creamery	Cheese Vat	Y	Ν	N	Yes	LOTO from outside the space
Creamery	Pasteurizer Vat	Y	N	N	Yes	LOTO from outside the space
Dairy Center	CUDS Milk Storage Tank	Y	N	N	Yes	LOTO from outside the space
	CA Steam Plant  Feed Mill  GW Steam Plant  Beef Center  Beef Center  Cattle Feeding  Labs  Cattle Feeding  Lab	CA Steam Plant  Coal Bins #3, 4 & 5  Feed Mill  Roof Top Grain Bins  GW Steam Plant  Dil Tank  Beef Center  Large Bin  Beef Center  Medium Bin  Beef Center  Small Bin  Cattle Feeding Labs  Cattle Grain Bin 9  Labs  Cattle  Grain Bin N  Reproduction Labs  Cattle  Grain Bin S  Reproduction Labs  Cattle  Cattle  Grain Bin S  Reproduction Labs  Central Stores  N Filling Shed  Creamery  Cheese Vat  Creamery  Pasteurizer Vat	CA Steam Plant  Coal Bins #3, 4 & 5  Y  Feed Mill  Roof Top Grain Bins  GW Steam Plant  Oil Tank  Peef Center  Large Bin  Peef Center  Medium Bin  Y  Beef Center  Small Bin  Y  Cattle Feeding Labs  Cattle Feeding Labs  Cattle Feeding Labs  Cattle Feeding Grain Bin 2  Labs  Cattle Feeding Labs  Cattle Feeding Grain Bin 4  Labs  Cattle Feeding Grain Bin 5  Labs  Cattle Feeding Grain Bin 6  Cattle Feeding Labs  Cattle Feeding Grain Bin 7  Labs  Cattle Feeding Grain Bin 7  Y  Labs  Cattle Feeding Grain Bin 7  Y  Labs  Cattle Feeding Grain Bin 8  Labs  Cattle Feeding Grain Bin 9  Y  Labs  Cattle Feeding Grain Bin 9  Y  Cattle Feeding Labs  Cattle Feeding Grain Bin 9  Y  Cattle Feeding Labs  Cattle Feeding Cattle Feeding Cattle Feeding Cattle Feeding Cattle Grain Bin N  Y  Reproduction Labs  Cattle Grain Bin S  Y  Coentral Stores N Filling Shed N  Creamery Cheese Vat Y  Dairy Center  CUDS Milk Storage Y	CA Steam Plant  Coal Bins #3, 4 & 5  Y  Y  Feed Mill  Roof Top Grain Bins  GW Steam Plant  Dil Tank  Peef Center  Large Bin  Peef Center  Medium Bin  Peef Center  Small Bin  Cattle Feeding Labs  Cattle Cat	CA Steam Plant Coal Bins #3, 4 & 5 Y Y N  Feed Mill Roof Top Grain Bins S  GW Steam Plant Oil Tank Y Y N  Beef Center Large Bin Y N N  Beef Center Medium Bin Y N N  Beef Center Small Bin Y N N  Cattle Feeding Grain Bin 1 Y N N  Cattle Feeding Grain Bin 2 Y N N  Cattle Feeding Grain Bin 3 Y N N  Cattle Feeding Grain Bin 4 Y N N  Cattle Feeding Grain Bin 5 Y N N  Cattle Feeding Grain Bin 6 Y N N  Cattle Feeding Grain Bin 7 Y N N  Cattle Feeding Grain Bin 7 Y N N  Cattle Feeding Grain Bin 8 Y N N  Cattle Feeding Grain Bin 9 Y N N  Cattle Feeding Grain Bin 9 Y N N  Reproduction Labs  Cattle Grain Bin S Y N N  Cattle Grain Bin S Y N N  Cattle Grain Bin S Y N N  Cattle Feeding Grain Bin S Y N N  Cattle Grain Bin S Y N N  Creamery Cheese Vat Y N N  Dairy Center CUDS Milk Storage Y N N	CA Steam Plant Coal Bins #3, 4 & 5 Y Y N N No  Feed Mill Roof Top Grain Bins  GW Steam Plant Oil Tank Y Y N N No  Beef Center Large Bin Y N N NO  Beef Center Medium Bin Y N N NO  Beef Center Small Bin Y N N NO  Cattle Feeding Grain Bin 1 Y N N NO  Cattle Feeding Grain Bin 2 Y N N NO  Cattle Feeding Grain Bin 3 Y N N NO  Cattle Feeding Grain Bin 4 Y N N NO  Cattle Feeding Grain Bin 5 Y N N NO  Cattle Feeding Grain Bin 5 Y N N NO  Cattle Feeding Grain Bin 6 Y N N NO  Cattle Feeding Grain Bin 7 Y N N NO  Cattle Feeding Grain Bin 8 Y N N NO  Cattle Feeding Grain Bin 8 Y N N NO  Cattle Feeding Grain Bin 9 Y N N NO  Cattle Feeding Grain Bin 9 Y N N NO  Cattle Feeding Grain Bin 9 Y N N NO  Cattle Feeding Grain Bin 9 Y N N NO  Cattle Feeding Grain Bin 9 Y N N NO  Cattle Grain Bin N Y N N NO  Cattle Grain Bin S Y N N N N NO  Cattle Grain Bin S Y N N N N NO  Cattle Grain Bin S Y N N N N NO  Cattle Grain Bin S Y N N N N NO  Cattle Grain Bin S Y N N N N NO  Cattle Grain Bin S Y N N N N N NO  Cattle Grain Bin S Y N N N N NO  Cattle Grain Bin S Y N N N N N NO  Cattle Grain Bin S N N N N N N N N N N N N N N N N N N

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#	Location	Space	CS	PRCS	APCS	Sign	Notes
20	Dairy Center	Grain Bin 1	Υ	N	N	No	Hazards controlled from
							outside space
25	Dairy Center	Grain Bin 10	Υ	N	N	No	Hazards controlled from
							outside space
26	Dairy Center	Grain Bin 12	Υ	N	N	No	Hazards controlled from
							outside space
27	Dairy Center	Grain Bin 13	Υ	N	N	No	Hazards controlled from
							outside space
21	Dairy Center	Grain Bin 2	Υ	N	N	No	Hazards controlled from
							outside space
23	Dairy Center	Grain Bin 8	Υ	N	N	No	Hazards controlled from
		(labeled 7 2030)					outside space
24	Dairy Center	Grain Bin 9	Υ	N	N	No	Hazards controlled from
		(labeled 2012)					outside space
22	Dairy Center	Grain Bins 3-6	Υ	N	N	No	Hazards controlled from
10	Dair Carlos	Marth I all Cart	.,			N1 -	outside space
18	Dairy Center	Mothballed Grain	Υ	N	N	No	Bin is moth-balled; used for
20	Daim Camban	Bin	\ \	N.I	N.I.	V	parts
28	Dairy Center	Knott Milk Storage Tank	Υ	N	N	Yes	LOTO from outside the
29	Feed Mill	L1 Elevator Leg	Υ	N	Υ	No	A sign is needed
29	reed iviiii	Access Pit	ľ	IN	T	INO	A sign is fleeded
30	Feed Mill	Big Fat Tank	Υ	N	N	Yes	No entry required
31	Feed Mill	South Elevator Pit	Y	N	Y	No	A sign is needed
32	Feed Mill	Weigh Hopper	Y	N	N	Yes	No entry required
33	Feed Mill	Molasses Tank	Y	N	N	Yes	No entry required
	1 224 171111	(disabled)		''	.,		The entry required
34	Feed Mill	L2 Elevator Pit	Υ	N	Υ	No	A sign is needed
35	Feed Mill	Old Fat Tank	Υ	N	N	Yes	No entry required
		(disabled)					, ,
36	Feed Mill	Outside Molasses	Υ	N	N	Yes	No entry required
		Tank					, .
37	Feed Mill	Sump	Υ	N	Υ	Yes	A new sign is needed
39	Golf Course	Backflow	Υ	N	N	No	_
		Preventer Pit					
40	Golf Course	Water Meter Pit	Υ	N	N	No	
41	Nat. Res. Airport	Water Shut-Off	Υ	N	N	No	
	Way	Valve					
42	Nat. Res. Airport	Pump House	N	N	N	No	
	Way						
46	Swine Center	Grain Bin 1002	Υ	N	N	No	No entry required
47	Swine Center	Grain Bin 1021	Υ	N	N	No	No entry required
48	Swine Center	Grain Bin 1	Υ	N	N	No	No entry required
49	Swine Center	Grain Bin 2	Υ	N	N	No	No entry required

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#	Location	Space	CS	PRCS	APCS	Sign	Notes
50	Swine Center	Grain Bin 3	Υ	N	N	No	No entry required
51	Swine Center	Grain Bin 4	Υ	N	N	No	No entry required
52	Swine Center	Grain Bin 5	Υ	N	Ν	No	No entry required
53	Swine Center	Grain Bin 6	Υ	N	N	No	No entry required
54	Swine Center	Grain Bin 7	Υ	N	N	No	No entry required
55	Swine Center	Grain Bin 8	Υ	N	N	No	No entry required
56	Swine Center	Grain Bin 9	Υ	N	N	No	No entry required
57	Tukey Farm	Water Meter Pit	Υ	N	N	No	
58	Fuel Pump Area	3 Wells	Υ	N	Υ	No	Procedures documented
59	Campus Wide	Sanitary Sewer	Υ	N	Υ	No	Procedures documented
		System					
60	Campus Wide	Storm Water	Υ	N	Υ	No	Procedures documented
		System					

CS: Confined Space PRCS: Permit Required Confined Space APCS: Alternate Procedures Confined Space