

# Cemetery Safety

‘Making every step a safer step’

Fiona Hurst

**FOOTPRINT  
TRAINING**

# Galong Cemetery





UP BURRANHEAD, ON THE 15TH BE SAW  
THAT HE WAS A SPEECHLESS, AND  
GAVE HIM 1000 THE BULL, AND HE WAS  
AND OF BURRANHEAD, AND HE WAS  
SPEECHLESS, ON TUESDAY, 15TH MAY, 1865  
"FELISH" DONNAY GILBERT, AND WENT TO THE  
PADDOCK, NEAR BRALTON, "FELISH"

JOHN GILBERT  
1842 — 13TH MAY 1865

IN  
MEMORY  
JOHN  
GILBERT  
DIED 13 MAY  
1865  
R.I.P.



# Fiona Hurst

- Certificate III in Gravedigging, grounds and maintenance
- Certificate III in Crematoria operations
- Gravesafe
- Grief training
- Funeral Safety
- Exhumation Training
- Cemetery Safety
- Working Safely in Cemeteries

## Cemetery Safety 2-Day Course

### GRAVE PREPARATION

- Aesthetics/presentation
- Cultural Burial practices

### SOIL CONDITIONS AND SHORING REQUIREMENTS

- Considerations for different soil types
- Shoring requirements and options, pros and cons of different equipment

### TRENCH COLLAPSE AND CONSOLIDATION

- Management of a collapse

### EXHUMATION

- Regulations and requirements
- Biological hazards and controls

### MAUSOLEUM

- Preparing and reinstating vaults or crypts
- Regulations and requirements

### DEALING WITH GRIEF IN THE WORKPLACE

- Techniques for dealing with people with mental health issues
- Techniques for dealing with people affected by alcohol or drugs in the workplace

### LEGISLATION

- Employer and employee responsibilities
- Best practice for following work health and safety procedures
- Risk assessments

### WORKING IN CONFINED SPACES

- Is the space a confined space?
- Regulations and requirements

# Course Objectives

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**Identify hazards** that could cause harm



**Assess the risks**, calculate the likelihood and the consequences of harm



**Control the risks**, identify the most effective and reasonably practicable control measures



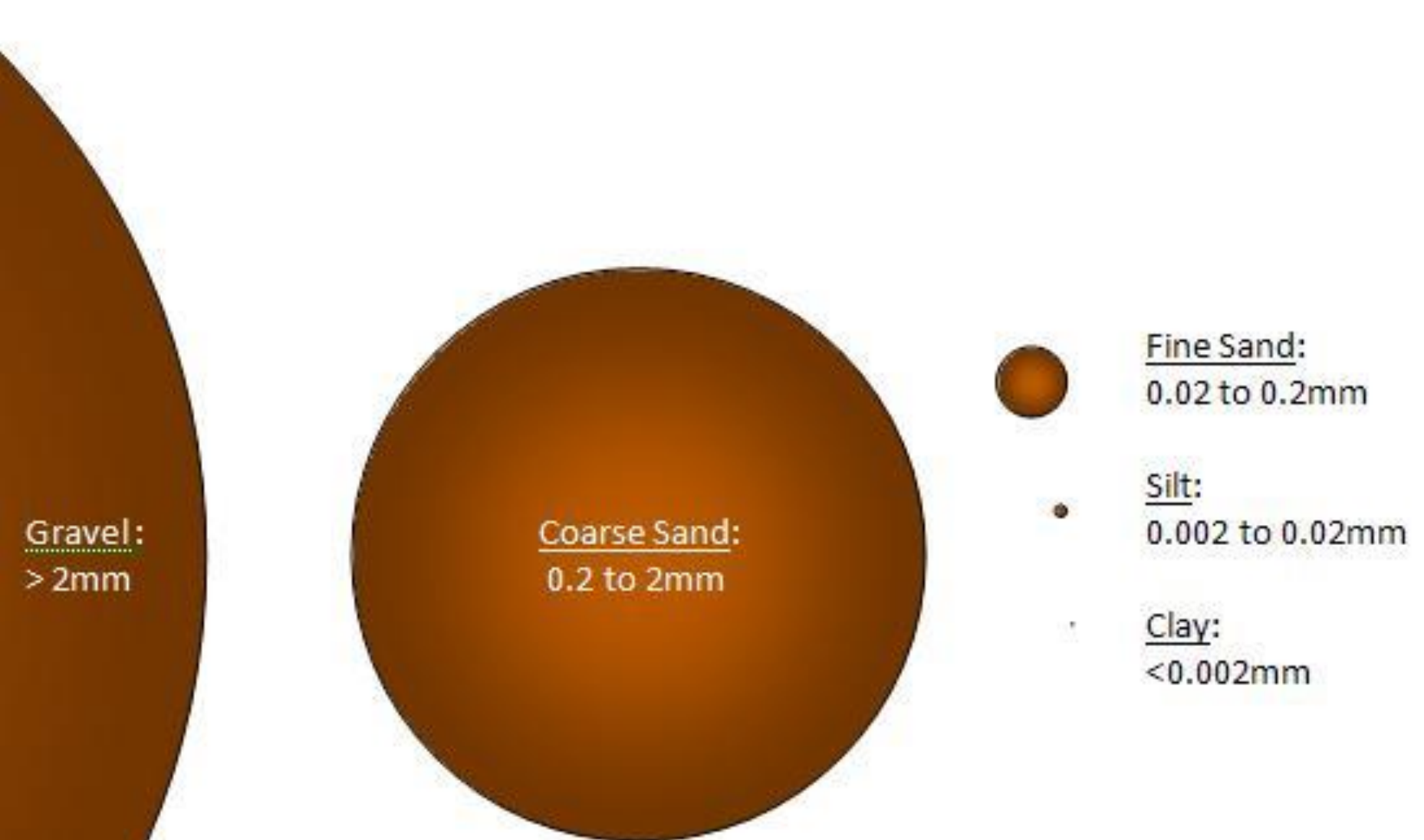
**Review the control measures** regularly to ensure they are effective





# Soil Type





## Soil Particle Size Comparison



# Soils ain't Soils

- Mostly made up of three basic components, **sand**, **silt** and **clay**.
- Changes to the amount of **water** in can greatly increase or decrease the risk of collapse.
- **Clay** has a strong **bonding** ability, though different types of clay give different strengths of bonding.
  - A red loam is less inclined to be sticky and is easier to dig, whereas a heavy clay will have poor drainage and be hard when dry and sticky when wet, making them much more challenging to dig.

# How can we use this information?

Clays bonding ability often fools people into believing that it won't collapse.

The problem with well bonded clay is that when it does collapse it may be a large wedge. The weight of the larger amount of soil collapsing increases the risks to staff.

Under the Act. We have a responsibility to protect:

Staff

Funeral directors

The public



Non Cohesive  
soils:rocks,  
gravel, sand

```
graph TD; A[Non Cohesive soils:rocks, gravel, sand] --- B[Do not adhere to one another]; A --- C[Dry up quickly]; A --- D[Good load bearing capacity];
```

Do not  
adhere to one  
another

Dry up  
quickly

Good load  
bearing  
capacity

Cohesive Soils:  
silt, clay and  
humus

```
graph TD; A[Cohesive Soils:  
silt, clay and  
humus] --- B[Muddy when  
wet and yet slow  
to take up water]; A --- C[ ]; C --- D[Swell and dry  
out slowly]; C --- E[High stability  
when wet]; C --- F[Harder to compact];
```

Muddy when  
wet and yet slow  
to take up water

Swell and dry  
out slowly

High stability  
when wet

Harder to  
compact



# Soil Stability

Water pressure from ground waterflow increases horizontal stresses and increases the possibility of slumping



Saturation increases the weight and possibly the volume of soil  
E.g.

- Excess water pressure in sandy soil
- Dryness may reduce cohesion in sandy soils and soils high in organic matter

# Karrakatta

























# High Water Table







# Townsville







# Enfield SA







Shoring  
installed



- Gaps between the trench wall and the shield can create voids which may allow the trench wall to collapse
  - Control is to fill the voids with spoil

- Shoring needs to be designed by a geotechnical engineer



THE GRAVE NEXT DOOR MAY BE WATERLOGGED AND  
THEREFORE MORE LIKELY TO COLLAPSE



IF EXCAVATION IS CARRIED OUT THE EMPLOYER NEEDS TO  
ENSURE THAT ACTION TO PROTECT EMPLOYEES AND THE  
PUBLIC BY IMPLEMENTING RISK CONTROLS WHERE  
THERE IS RISK OF GROUNDWATER INGRESSING





# Cemetery Safety

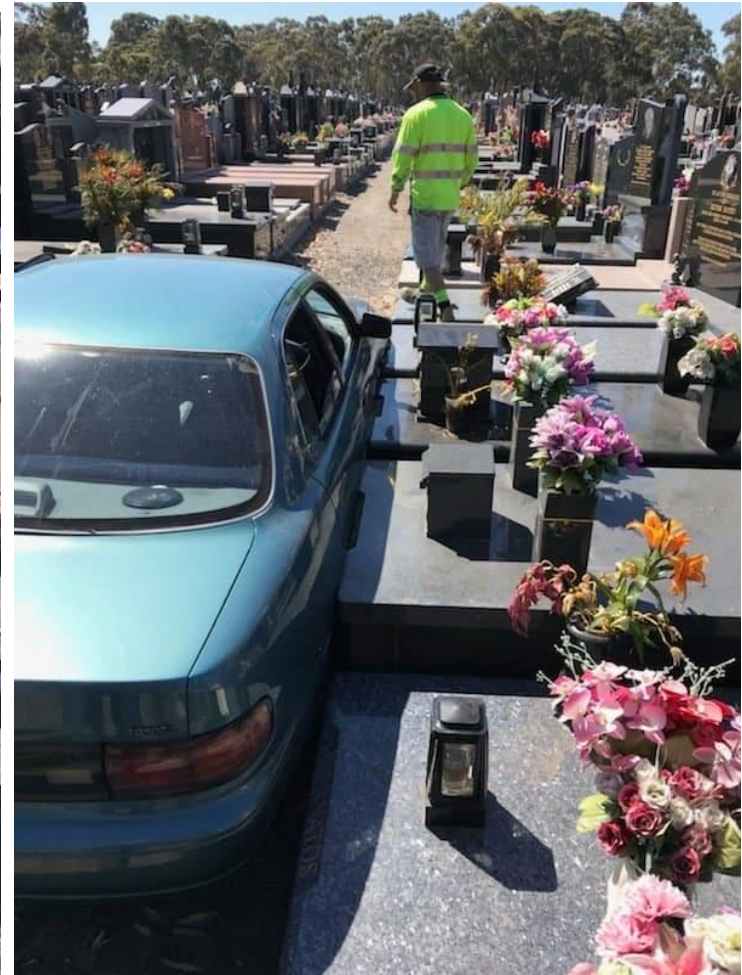
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# Potential hazards in a cemetery

- Falls
- Collapse
- Machinery
- Faulty Equipment
- Water
- Ground stability
- Weather
- Poor management
- Unsafe co-workers
- Unsafe procedures
- Unsafe Funeral Directors
- Dealing with grief/anger
- Bullying
- Mental health
- Manual handling
- Confined space
- Monuments
- Glass
- Wildlife
- Fire
- Syringes
- Asbestos
- Slopes
- Trip hazards
- Traffic
- Pathogens/biological hazards
- Time limits
- Wrong grave



# Traffic





# Water















Safe?



# Hazardous Chemicals

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Embalming products

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Dusts produced from the cremation process

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Gardening Pesticides

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Respirable dusts

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Poisons present in people who have committed suicide

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Cytotoxic drugs used in cancer treatments



# Prescribed Infectious Diseases:

- avian influenza in humans,
  - diphtheria;
  - plague,
  - respiratory anthrax;
  - smallpox;
- severe acute respiratory syndrome,
  - tuberculosis and any viral haemorrhagic fever (including: Lassa, Marburg, Ebola, and Congo-Crimean fevers)

*Dept. of  
Health NSW*

Questions?





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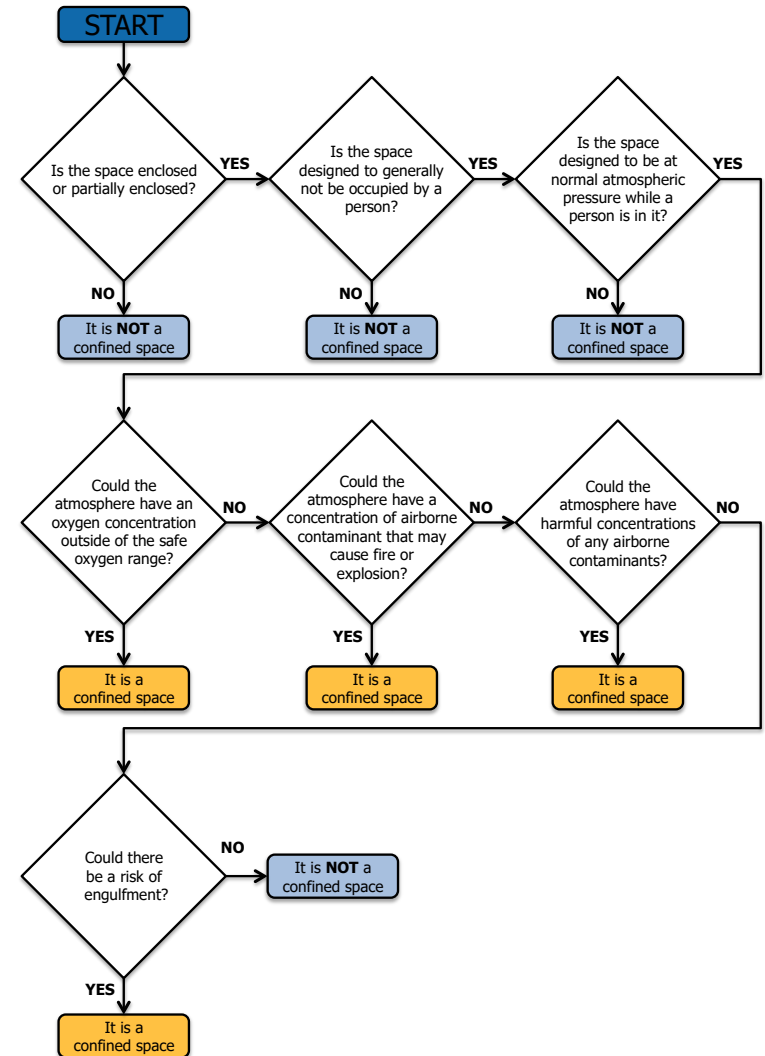
# Is the Space a confined Space?

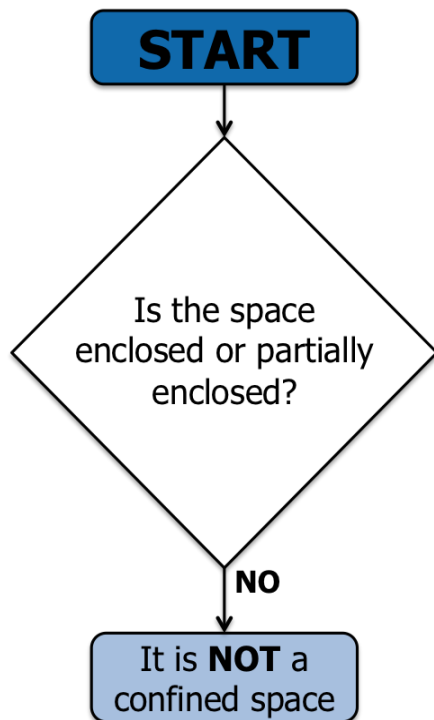
- Is the space enclosed or partially enclosed?
- Is the space likely to be entered and is it at normal atmospheric pressure?
- Does the space have limited or restricted entry or exit?
- Does the space contain it is it intended to contain:
  - A harmful level of atmospheric contaminants?
  - An unsafe oxygen level?
  - Substances that could cause engulfment?



# What is a Confined Space?

You can use a chart like the one shown to work out if the work area is a confined space.



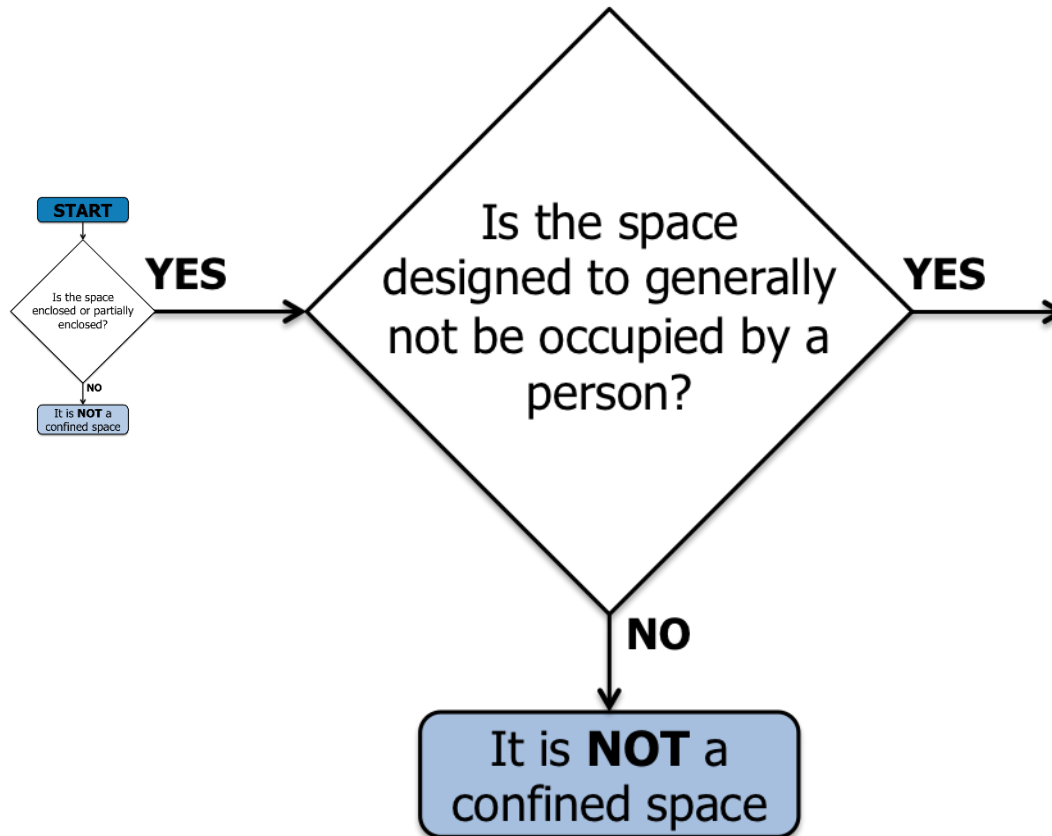


**YES**

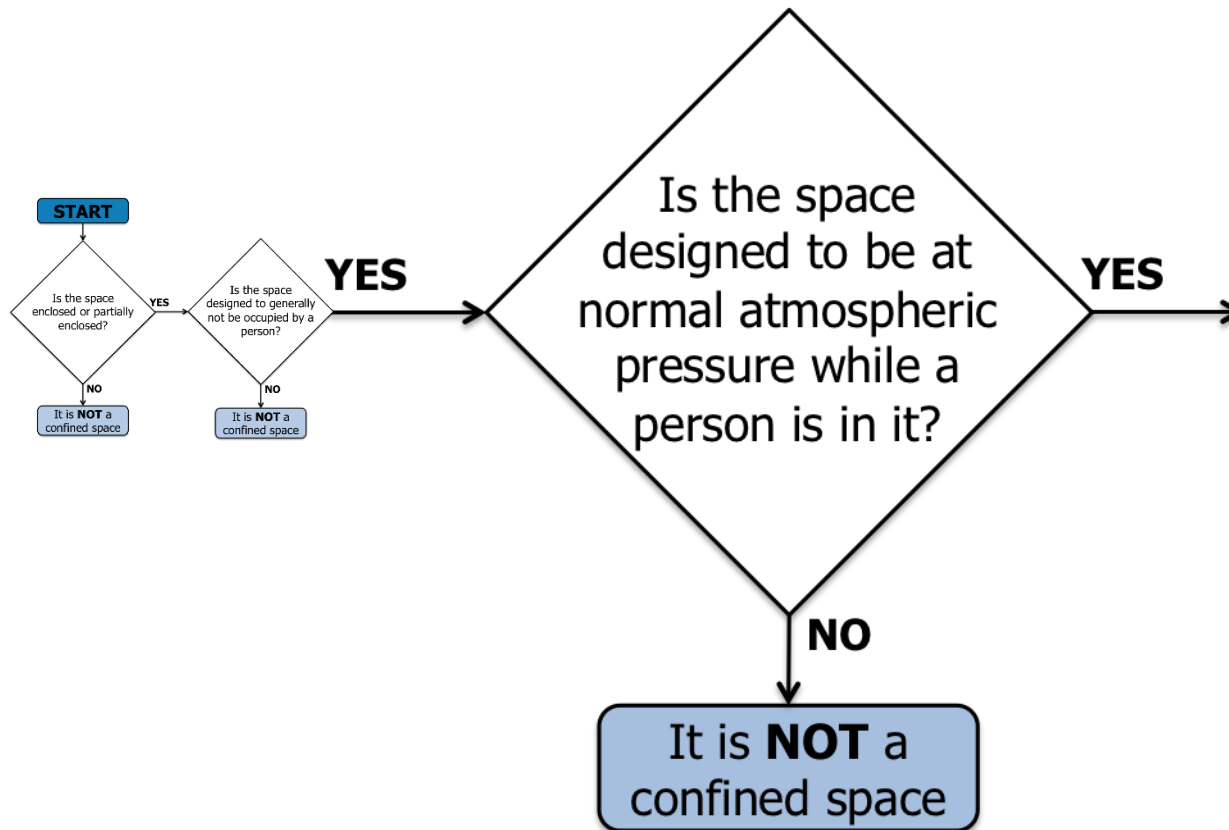




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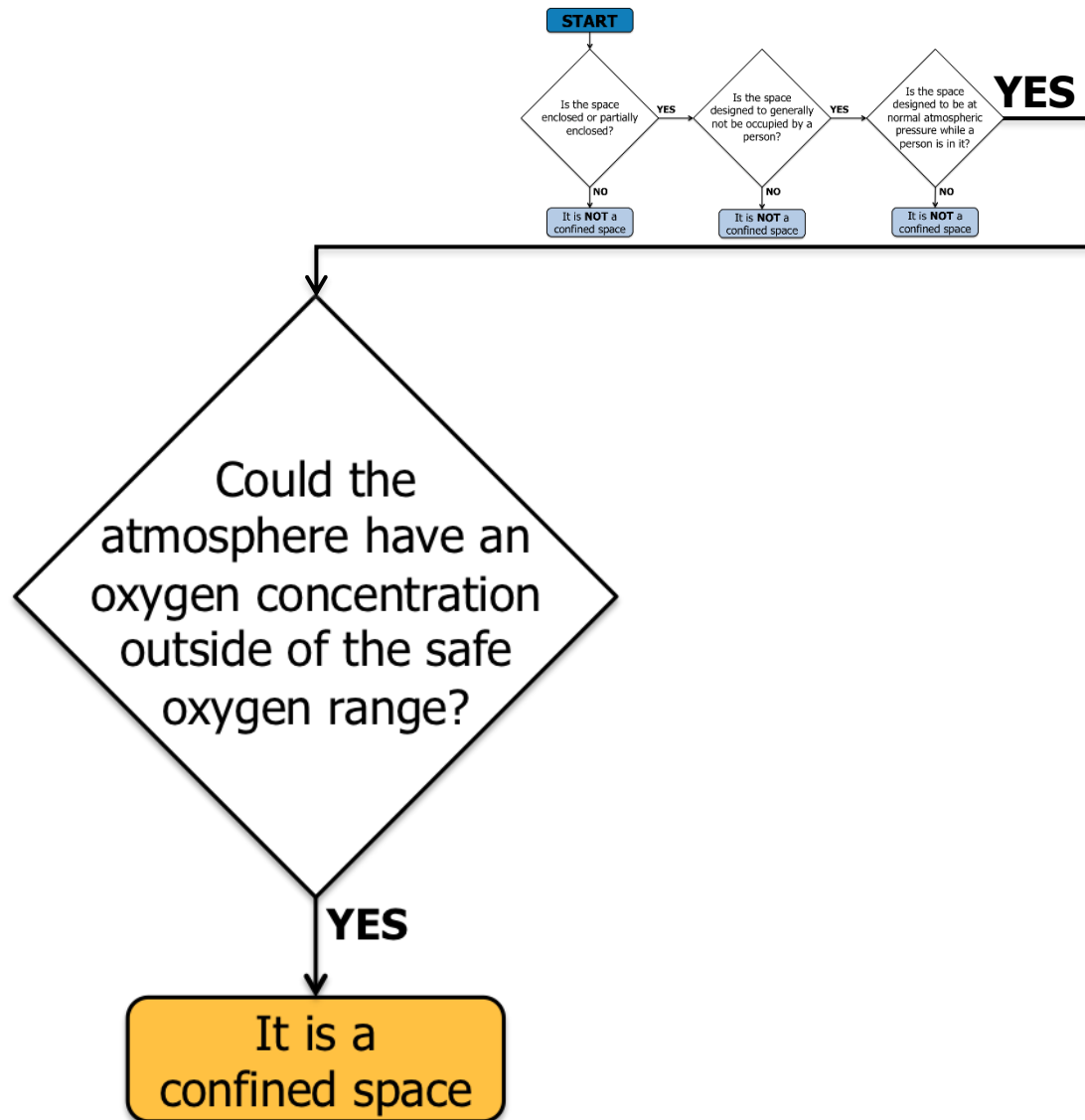


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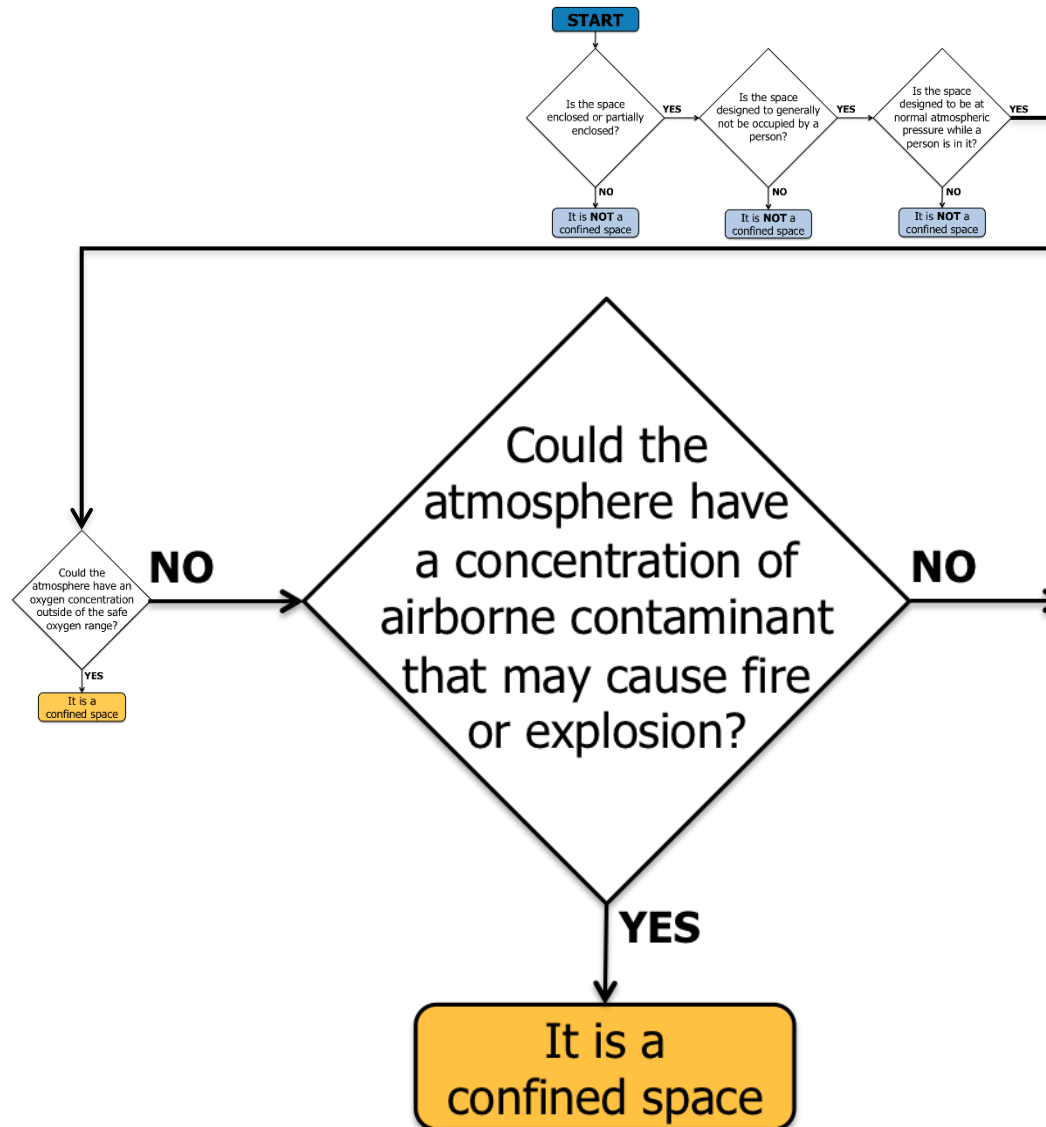




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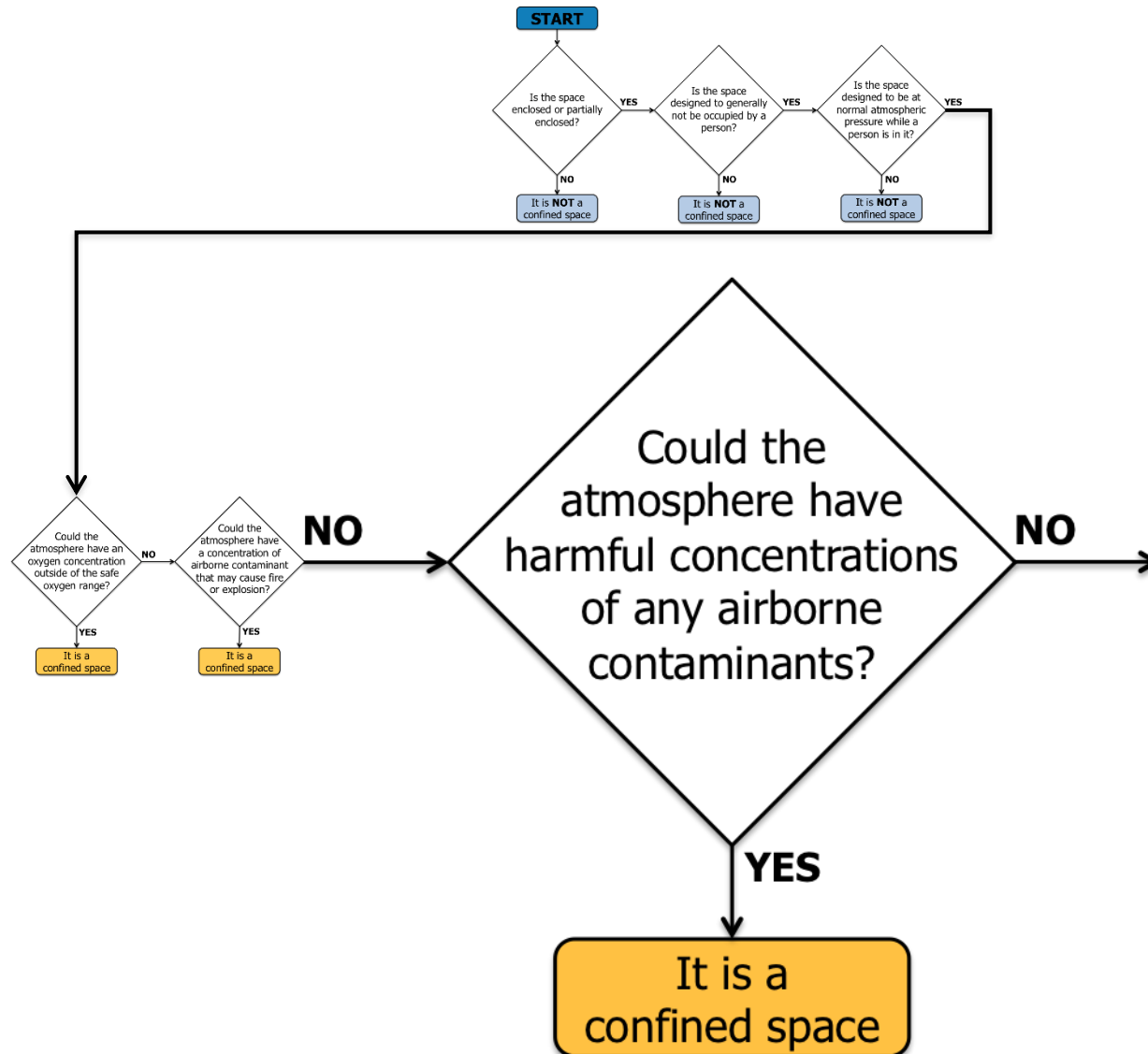


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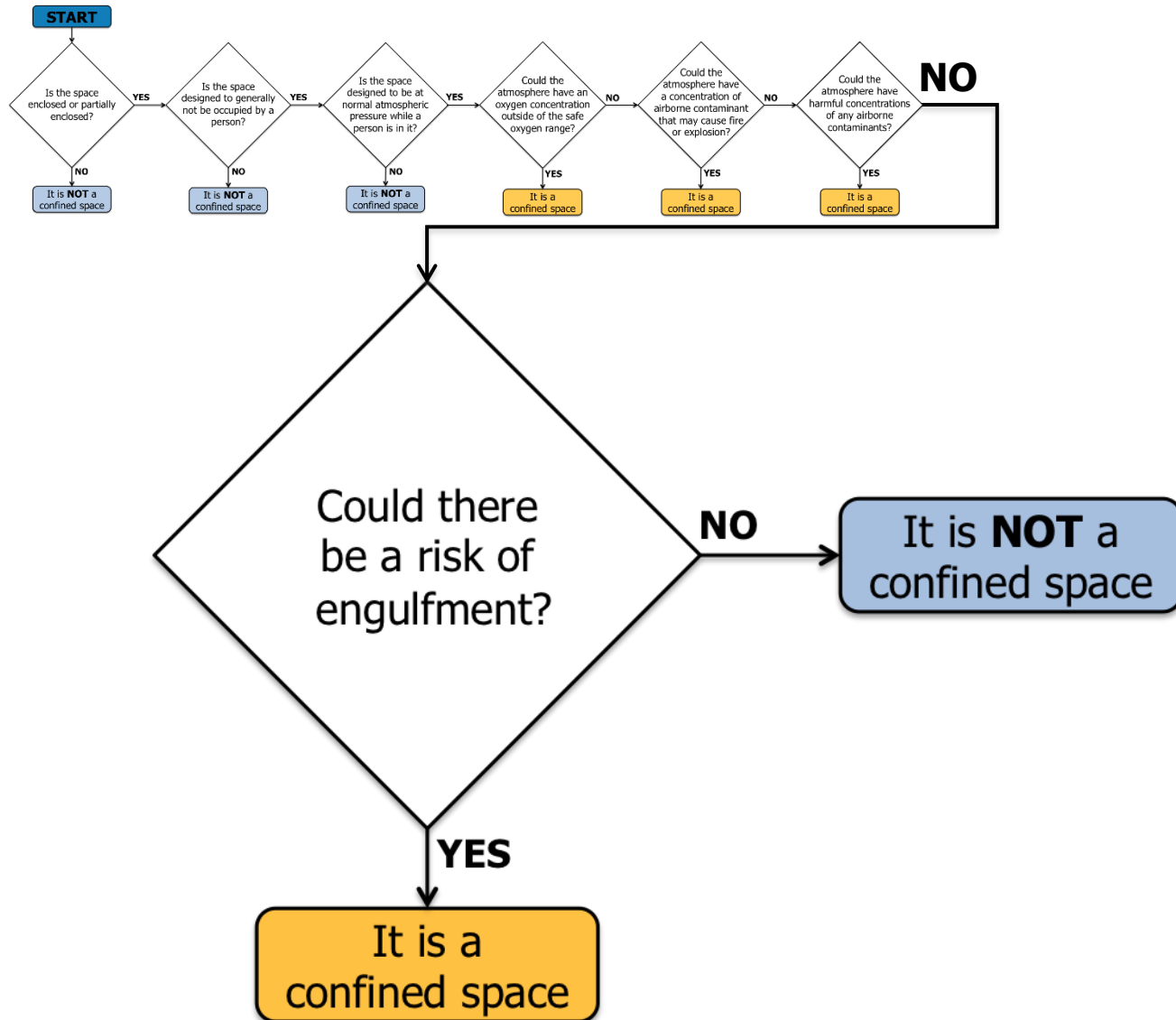




# What is a Confined Space?



# What is a Confined Space?



# **EMERGENCY CONSIDERATIONS**



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