

# Fire suppression systems

A overview for the review committee

IRINA PAVELIC

# Agenda



- 1 Technical overview
  - 2 Quality and compliance
  - 3 Commissioning
  - 4 Summary
- 
- 
- 
- 
- 
-

# System overview

=ESS.INFR.FM01; Fire Safety System

## Sprinkler system

=ESS.INFR.FM01.FM04.FM01

=ESS.INFR.FM01.FM06.FM01

The **sprinkler system in the cave** is installed as a double-interlock pre-action system with both electric and pneumatic activation. Both interlocks must be triggered before water is released to the sprinklers.

The **sprinkler system in the hutch** is designed as a wet system.



# System overview

## =ESS.INFR.FM01; Fire Safety System

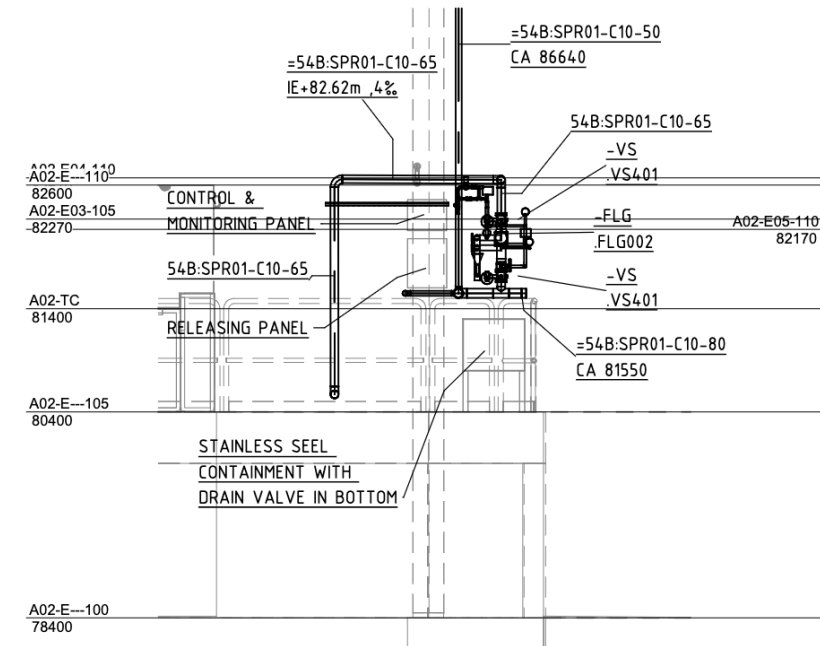
### Sprinkler system in the cave

#### **Interlock 1:**

Electric activation is controlled by a releasing panel that receives a signal from the fire detection system inside the cave in the event of a fire. The magnetic valve is blocking the water supply to valve.

#### **Interlock 2:**

The system is filled with compressed air, controlling the valve. Pneumatic activation occurs when the compressed air is released through an activated sprinkler, allowing the valve to open.



BIFROST, SECTION D

# System overview

=ESS.INFR.FM01; Fire Safety System

## Fire alarm system

=ESS.INFR.FM01.FM04.P01

=ESS.INFR.FM01.FM06.P01

**Fire detection system** in **the cave** is design and installed as aspiration system which actively draw air through a network of pipes, continuously sampling the air.

**Hutch** is equipped with the fire detectors.



# Quality & Compliance



## **Quality and Compliance**

- ESS-0002381 – Fire strategy report
- ESS-5659428 – Technical specification  
Sprinkler piping, Caves & Hutches
- BBR 21 – Fire protection
- SBF 120 - Automatic sprinkler systems
- SBF 110:8 – Fire alarm
- SS-EN 12845 – Automatic sprinkler systems

## **NCRs, NITs:**

- NIT-570; BIFROST - Fire suppression  
system final testing protocols and  
documentation



# Summary

An overview of the status

	Cave		Hutch	
	Sprinkler	Fire alarm	Sprinkler	Fire alarm
NIT	NIT-570	NIT-570	-	-
NCR	-	-	-	-
SIT	ESS-5942922	On going	W51	On going
SAT	W 51	ESS-5919185	W 51	ESS-5919185

Integrated system testing is scheduled for week 51, followed by documentation, then the systems will be incorporated into the building system.



# Finish presentation