SAFETY

HSEQ library

TOOLBOX INFORMATION

PROCESS SAFETY - SAFEGUARDING

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HSEQ Direct is a digital communication, registration and training platform with a focus on Health, Safety, the Environment and Quality.
Designed specifically for the workplace!

Associated IOGP Life-Saving Rules

HSEQ DIRECT safer healthier workplace

WHAT IS IT?

Process safety is primarily concerned with the identification of potential hazards and hazardous conditions associated with process systems; the methods of predicting the possible severity of these hazards; and control or mitigation strategies.

Most process systems are protected by layers of safeguards, which form an integral part of workplace safety. The aim is to manage safety risks that could otherwise lead to incidents.

HAZARDS

Process hazards include fire, explosion, and toxic release.
These hazards are associated with incidents which occur at low frequencies, but can have catastrophic consequences.

PREVENTION (1/2)

BEFORE YOU START WORKING

- hold a pre-job meeting and discuss potential hazards
- inspect your workplace
- ask your company about what to do in case of an emergency
- together with an expert, check that the system (components) you are going to be working on is safe
- ensure that control measures have been conducted

PREVENTION (2/2)

DURING THE JOB

- regularly check that the system you are working on is still safe
- ensure that you are physically shielded from any potential hazard
- when necessary, take additional precautions - ask your company for more information about this

NB. An Operator from the Operations Department will perform physical safeguarding in accordance with a safety plan; they undertake the depressurizing and cleaning of an installation.

PROTECTION (1/2)

Always use the correct Personal Protection Equipment (PPE). Extra protection equipment may be required for work that entails a specific risk. Ask your company about this. The Permit to Work also states which basic and additional PPE you must wear.

PROTECTION (2/2)

HOW TO SAFEGUARD THE PROCESS

- by (physically) separating and/or blocking system components; there are differing methods that can be employed to achieve this. Ask your company for further information in relation to this
- ask your company about the regulations, their safety plan, reporting and registration requirements
- ensure that measurements are carried out regularly to identify any (potential) hazards and hazardous conditions

IN CASE OF...

Avoiding or removing safeguarding in the workplace can lead to disastrous consequences. In case of an incident: **STOP ALL WORK, RAISE THE ALARM and ASSIST** any affected person. Always take care of your own personal safety!

PLEASE NOTE...

- stop work immediately if you are unclear about anything, when there is danger, or if there are deviations from working plans
- block subsequent work if you have not completed your work
- never improvise
- immediately report any defects, damage etc. with the system (components)

IMPORTANT INFORMATION

1 **Follow the correct safety precautions** and check them regularly.

2 **Discuss the risks of the job** and relevant safety precautions beforehand with all involved.

3 Ensure that **measurements are conducted regularly** to identify any (potential) hazards and hazardous conditions.

4 Satisfy yourself that **all systems and parts are safe**.

5 **Stop work immediately** if anything unexpected occurs happens.

QUESTIONS? MORE INFORMATION? UNSAFE WORKING CONDITIONS?

Your HSE Manager is there to help answer any questions and ensure a safe working environment for all.

QUESTION 1

What are process hazards?

A. Fire, explosion, toxic release.

B. Fire, explosion, depressurization.

C. Fire, toxic release, changing weather conditions

ANSWER 1

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QUESTION 2

What is the aim of safeguarding the process?

A. By safeguarding the process you prevent the unintentional or accidental blocking of the installation and its processes.

B. To perform physical safeguarding according to a safety plan. This is undertaken by an Electrical Responsible Person to prevent exposure to hazardous substances.

C. By safeguarding the process you prevent unintentional or accidental operation of the installation and its processes and, therefore, exposure to hazardous substances.

ANSWER 2

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C. By safeguarding the process you prevent unintentional or accidental operation of the installation and its processes and, therefore, exposure to hazardous substances.

QUESTION 3

How can you safeguard the process?

A. Safeguarding is performed by disconnecting the power of certain system components and physically separating them. For this you use shut-off valves, spectacle flanges, connecting flanges, blind flanges, bleeders and lockout and tagout devices like locks, chains and labels.

B. Safeguarding is performed by physically separating system components, or by blocking them. For this you use shut-off valves, spectacle flanges, connecting flanges, blind flanges, bleeders and lockout and tagout devices like locks, chains and labels.

C. Safeguarding is performed by physically separating system components, or by blocking them. For this you use shut-off valves, spectacle flanges, connecting flanges, insulated gloves, blind flanges, bleeders and earth connections.

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QUESTION 4

Who undertakes the depressurizing and cleaning of an installation? (Always ask your company about their specific rules)

A. An Operator from the Operations Department will perform physical safeguarding in accordance with a safety plan.

B. A competent person from the Operations Department will perform a physical check of the safeguarding in place and provide their written approval for work to commence.

C. The validator of the Permit to Work who is also responsible for ensuring reporting and registration.

ANSWER 4

Who undertakes the depressurizing and cleaning of an installation? (Always ask your company about their specific rules)

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QUESTION 5

An installation may be handed over depressurized and clean, nevertheless hazardous residues can always be left behind. How do you prevent exposure to hazardous residues during work?

A. Through conducting a Last Minute Risk Analysis.

B. By ensuring that measurements are conducted regularly.

C. Together with an expert you check that the system (components) to be worked on is/are free of process substances, is/are depressurized and is/are electrically dead.

ANSWER 5

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