



**FREEPORT-
McMoRAN**

FACILITATOR GUIDE



SFT FCX2015C

Workplace Examinations for Downstream Processing

AUGUST / 2018
VERSION 1.1

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COURSE OVERVIEW

The following is basic information about this course.

COURSE DESCRIPTION

Through this course, employees will be able to follow appropriate requirements to conduct a workplace examination. Each employee must also have an understanding of the overall hazards, equipment necessary, and required procedures that are directly related to his/her work duties in his/her work space.

COURSE OBJECTIVES

Upon completion of this course, students will be able to:

- Module 1: Roles and Responsibilities
 - Describe the purpose of a workplace examination
 - Discuss the roles and responsibilities of those involved in a workplace examination
- Module 2: Conducting a Workplace Examination
 - Review appropriate procedures and forms for conducting a workplace examination
- Module 3: Workplace Hazards
 - Identify the hazards associated with a workplace exam and the controls that can be implemented

COURSE PRE-REQUISITES

There are no pre-requisites for this course.

COURSE LENGTH

This course takes approximately 2 hours and 30 minutes to complete.

CLASS SIZE

This course is designed for a maximum of 20 students. Class size may be less depending on each site's needs and the students' skills and experience levels. Some activities have been modified for class sizes larger than 20 students.

TARGET AUDIENCE

This training is intended to train Freeport-McMoRan employees that conduct workplace exams.

FACILITATOR QUALIFICATIONS

Facilitators should be well versed in conducting workplace examinations.

REGULATIONS/POLICIES/PROCEDURES

This course teaches to the general expectations of Freeport-McMoRan.

FACILITATOR PREPARATION

The following information will help the facilitator prepare for the course.

ABOUT THIS GUIDE

This guide is intended to give the facilitator a general outline for the flow of the course. It is designed to assist the facilitator in presenting content, conducting classroom activities, and managing time to meet the learning objectives. This Facilitator Guide (FG) is intended to be used in conjunction with the Student Guide (SG) and the PowerPoint (PPT). The guide belongs to the facilitator to make notes and write in as much as needed.

This course is made up of interactive slides involving questions to the students. Students become more engaged when different types of questions and questioning techniques are implemented. The following charts provide tips for questioning students.

Types of Questions

Knowledge Level	Recall facts and steps (who, what, when, where)
Comprehension Level	Understanding facts and steps (how, why, what if)
Overhead	Directed at an entire group, answer is expected
Direct	Directed at a specific individual
Reverse	Asked by a student, directed back to same student
Relay	Asked by a student, redirected to another student

Questioning Techniques

Ask open-ended questions	Avoid questions that can be answered with a yes or no. They do nothing to promote thinking or discussion. If you do ask these, be sure to follow-up with “how” or “why” for them to explain their answers.
Ask one question at a time	Asking multiple questions before getting a response can be confusing. Let students focus on one question at a time.
Avoid stifling	Allow time to answer, especially if the question is difficult or quite technical.
Be clear and concise	Energy is wasted in trying to answer vague and meaningless questions. Be very careful how you word your questions.
Encourage participation	Get the class involved in the process.
Be accepting of responses	Especially of incorrect answers. Just be tactful when you respond.

SAFETY

Safety must be a fundamental component of this course. Students must adhere to safety information in the SG and from the facilitator, and safety procedures must be focused on throughout the training. Equipment may not be operated without facilitator authorization.

ACTIVITIES

Students will participate in many hands-on activities designed to give students time to practice the knowledge learned throughout the course. They also provide the facilitator with opportunities to give immediate feedback on what each student does/does not do well. Facilitators must review each activity's directions in the FG before guiding students through the learning activities.

GENERAL MATERIALS

The following is a list of materials consistently needed for courses. Gather and/or order the necessary materials prior to the start of class and verify that everything functions properly.

- Attendance sign-in sheets
- Name cards – 1 per student
- Pens and/or pencils
- Push pins and/or tape such as painter's tape
- Sticky notes
- Easel
- Flipchart
- Markers of various colors
- Student Guide (SG) – 1 per student (available on MTI SharePoint)
- Projector and sound system for PPT and/or videos (available on MTI SharePoint)
- Laptop with access to the internet
- Assessments (available on MTI SharePoint)
- Course Evaluations (Found in the back of SG and FG)
- Appropriate Personal Protective Equipment (PPE)











ACTIVITY MATERIALS

The following are materials needed for activities in each module:

Module	Materials
Introduction	<ul style="list-style-type: none"> • Activity 1: Icebreaker <ul style="list-style-type: none"> ○ Gather the appropriate materials depending on the icebreaker chosen
Module 1: Roles and Responsibilities	<ul style="list-style-type: none"> • Activity 2: Reflection <ul style="list-style-type: none"> ○ Reflection worksheet, SG p. 9 (1 per student)
Module 2: Conducting a Workplace Examination	<ul style="list-style-type: none"> • Activity 3: Team Quiz <ul style="list-style-type: none"> ○ Team Quiz worksheet, SG p. 23 (1 per student) ○ Flipchart paper (1 per group) ○ Marker (1 per group) • Site-specific workplace exam form
Module 3: Workplace Hazards	<ul style="list-style-type: none"> • Activity 4: Teach Me <ul style="list-style-type: none"> ○ Teach Me worksheet, SG p. 51 (1 per student) ○ Flipchart paper (1 per group) ○ Marker (1 per group) • Activity 5: Secure the Scene <ul style="list-style-type: none"> ○ Secure the Scene worksheet, SG p. 52-55 (1 per student)
Conclusion	<ul style="list-style-type: none"> • Knowledge Assessment <ul style="list-style-type: none"> ○ Assessment worksheets, on SharePoint (1 per student) • Performance Assessment <ul style="list-style-type: none"> ○ Assessment packet, on SharePoint (1 per group) • Student Course Evaluation form, SG p. 67

FACILITATOR GUIDE CUES

Throughout the FG, cues are used to help the facilitator quickly identify slides that have unusual but important features. The purpose of each symbol is explained below.

Description	Symbol	Purpose
Audio Link		The speaker icon indicates when audio files are linked on a PPT slide.
Video Link		The director's clapboard indicates when video files are linked on a PPT slide.
Animated Slide		The star indicates when a PPT slide has an animation and requires more than one click to view all of the content.
Note		The paper and pencil indicate that an important note relating to the slide is included on the PPT slide or in the FG. The note is not necessarily found in the SG.
Incidents		The first aid symbol indicates when a PFE, testimonial, or other safety related incident is addressed on a PPT slide or in the FG.
Flipchart		The marker indicates when the facilitator needs to write down responses given by the students. This is generally done with a flipchart or whiteboard.
Discussion		The question mark indicates when students are expected to participate in a discussion either as a class or in small groups.
Example		The hand indicates when the instructor will hold up an item or pass an example around the class.
Facilitation Tip		The podium indicates a facilitation technique used by the facilitator to enhance the presentation. A corresponding red box with white text is provided near this cue to explain the tip.
Site-specific		The yellow arrow indicates a place where the facilitator needs to add site-specific information. This may need to be completed before teaching the class.

USING THE PPT PRESENTATION

When preparing to facilitate the course, there are several ways to integrate the PPT with the FG.

1. The facilitator can project the PPT and carry the paper copy of the FG as he/she walks around the room.
2. The facilitator can begin the PPT in presentation mode on his/her computer. This displays only the current slide to the class on the projection screen, but shows the facilitator a different view on his/her computer. The facilitator's screen shows a notes screen that has the same information for the slide that is included in the FG. This view also shows the next slide and lets the facilitator see the marker tools to write on the slides and emphasize teaching points.
3. The facilitator can also choose to do both. This is the preferred method for facilitating this course. Moving around the room helps the facilitator engage more participants and keeps the students' brains stimulated, thus promoting learning.


Note: The FG follows the PPT presentation slide by slide. Each page is designed with the information the facilitator needs and an image of the slide. The FG should be used as a roadmap to guide the facilitator through the course.



The Power Point is a guide; do not read directly from the slides. Instead, glance at the slide to refresh your memory on the content then face your audience to speak on the topic.

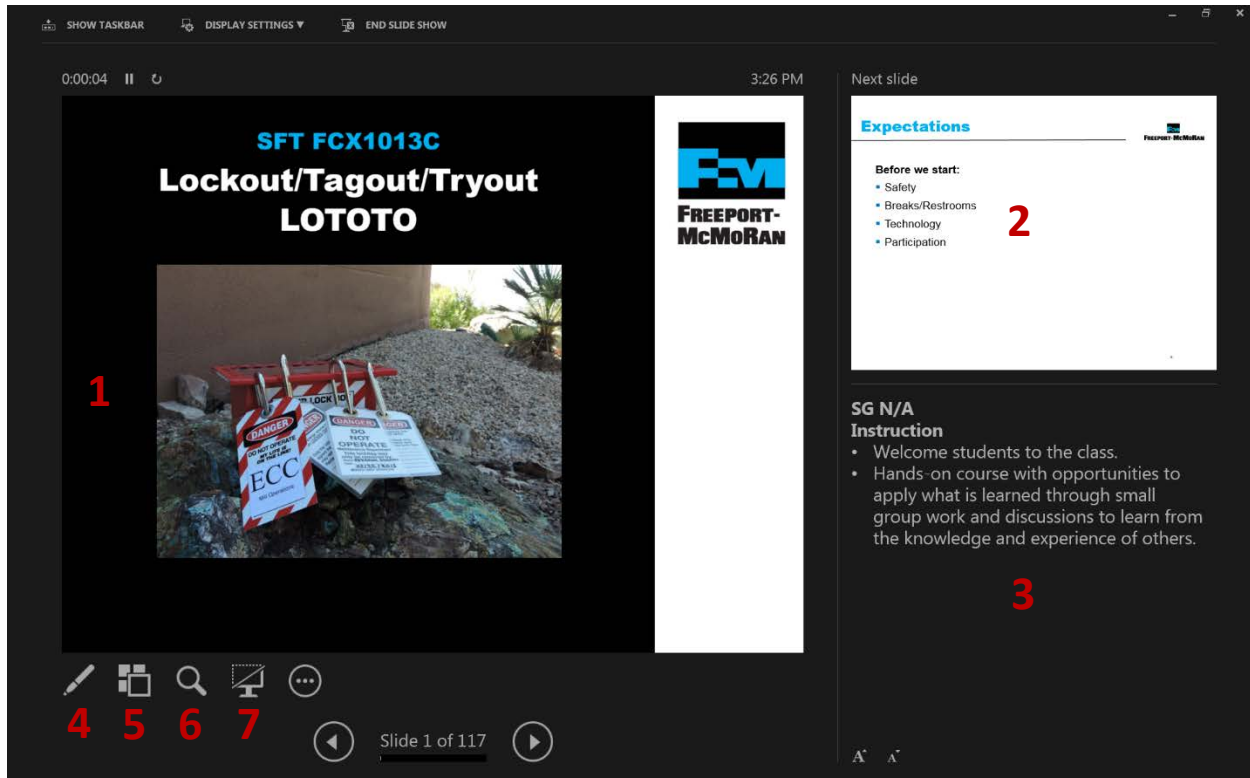
SETTING THE PRESENTATION MODE

To initiate the presentation mode, do the following:

Step	Action
1	Open the PPT presentation.
2	At the bottom of the screen is a colored bar (The look or color may vary depending on the version of PPT used).
3	Select the icon that is noted in the image below. 

PRESENTATION MODE FEATURES

Once you are in presentation mode, the students will only see the slide displayed but the facilitator will see the layout below. Some of the commonly used features available from this view are numbered in red and identified in the image.



1. **Current slide** – This is the same slide that students see on the projection screen.
2. **Next slide** – A visual preview for the next slide is shown.
3. **Notes** – These notes are the same as the talking points available in the FG. The notes correspond with the current slide projected to the students.
4. **Pens** – This icon gives the user access to a laser pointer, pen, highlighter, and arrow options. Whichever tool is used on the facilitator’s screen will show on the projection screen for the students and allows for specific points on the PPT to be emphasized. This helps the facilitator customize the PPT presentation to better suit the needs of the site and students.
5. **All slides** – This will show small images of all of the slides together on the facilitator’s screen.
6. **Zoom** – This icon lets the facilitator zoom in on specific aspects of the PPT.
7. **Black screen** – If the facilitator would like to explain content further but feels the PPT slide shown on the screen may distract from the learning, the screen can be blacked out to help focus the students.

INTRODUCTION

The introduction contains introductory information about safety, the participants in the course, and the course in general (learning objectives, purpose, etc.).

ACTIVITIES

- Activity 1: Icebreaker

For further details, refer to “Activity Materials” under “Facilitator Preparation” on page 7.

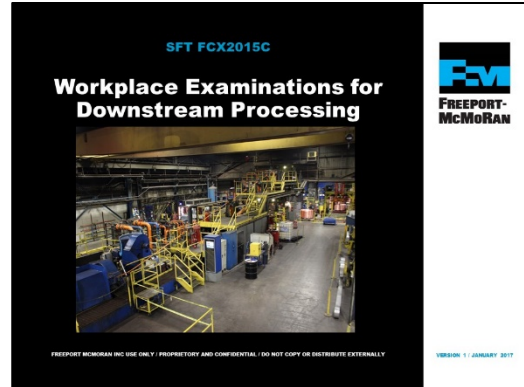
TOTAL TEACHING TIME

The introduction takes approximately 15 minutes to complete.

PPT slide 1

Instruction

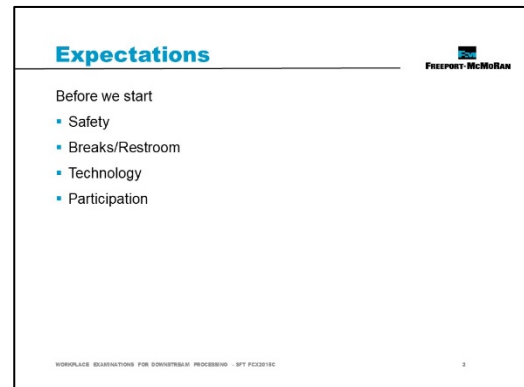
- Welcome students to class
- Remind students to sign the attendance sheet
- Facilitator introduces self by stating
 - your position at FMI
 - how long you've been with the company
 - how long you've been in mining
- Explain this is a hands-on course with opportunities to apply what is learned. Group work and discussions help them learn from the knowledge and experience of others



PPT slide 2

Instruction

- Review the following administrative/classroom policies
 - Safety
 - Identify the appropriate evacuation procedures, gathering areas, and emergency exits and fire extinguisher locations, etc.
 - Breaks and Restrooms
 - Establish a break schedule and announce it to the class. Suggested break times are included throughout the FG and occur approximately every hour and often occur at the end of each module. Breaks last 5-10 minutes to give students time to rest and relax before beginning the next learning session
 - Identify the location of restrooms and smoking areas
 - Technology policy
 - Review your expectations on cell phone and laptop use during the training
 - Participation
 - This course requires significant participation. Students should be prepared for discussions and small group activities
 - Set the class ground rules by verbalizing your expectations. Some suggestions are provided below
 - Be on time
 - Stay on task
 - Listen when others talk
 - Respect the opinions and attitudes of others



ACTIVITY 1: ICEBREAKER

PPT slide 3



Time

Approximately 10 minutes

Materials

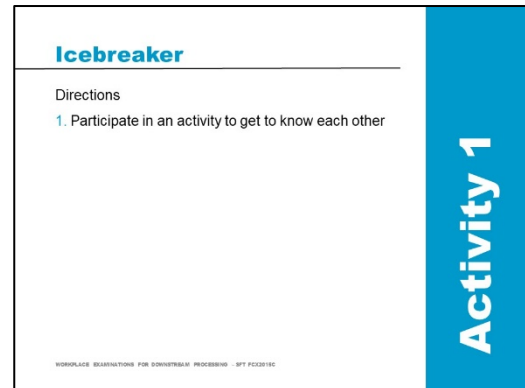
- Choose an icebreaker and gather appropriate materials

Purpose

- Successful icebreakers encourage students to contribute their ideas and experiences thus increasing motivation and engagement in the class

Instruction

- Below is an assortment of icebreakers that the facilitator can incorporate at the beginning of the course as well as after breaks



As an alternative to the icebreakers on the following pages, ask the students to share personal stories (good or bad) that relate to the topic. Doing so connects students to the topic before the course begins. It also gives the facilitator stories to refer to throughout the course which further connects students to the topic.

Icebreaker	Instructions
Two Truths and a Lie <i>(15 minutes)</i>	<ol style="list-style-type: none">1. The facilitator will begin this icebreaker by explaining the activity. Each student will think of two true statements about themselves and one false statement. Allow a few minutes for students to come up with their examples. The facilitator will then proceed telling the class two truths and a lie about him or herself.2. The class will come to a common vote on what they believe is the lie. The facilitator will reveal the correct answer. After the lie has been detected, the facilitator can elaborate on one or two of the statements that they made.3. Continue the exercise with the students as you have each one present their statements.

Icebreaker	Instructions
<p>What would you do if you had a million dollars? (5-10 minutes)</p>	<ol style="list-style-type: none"> 1. The facilitator will begin by answering this question themselves, such as “I will buy a tiny island in the Bahamas and live there the rest of my life selling coconuts and bananas”, “I will sell my house and live in an RV touring the U.S and Canada”, or “I plan on paying off all my debt and giving \$xxx to ABC charity.” 2. The facilitator will then ask each student to respond to the question. There may be some similarities or common themes.
<p>A Little Known Fact (10-15 minutes)</p>	<ol style="list-style-type: none"> 1. The facilitator will begin by stating their name, title, organization (if different than students), length of time in position and one little known fact about themselves. 2. Continue this exercise by asking each student to share the same information about themselves.
<p>One Question One Answer (5-10 minutes) http://humanresources.about.com/od/icebreakers/a/Ice-Breakers-For-Meetings.htm</p>	<ol style="list-style-type: none"> 1. Divide class into groups of about four people by either having them work with the people near them or numbering them and having them move to be with others of the same number. This gives individuals the chance to meet new people. 2. Assign a question to each group from the list below. Have individuals share with their groups. <ul style="list-style-type: none"> • What are you most worried about at work this month? • What characteristic do you value the most in your coworkers? • What is the most important personal attribute that you bring to your job? • What are you most excited about in relation to your job this year? • What coworker characteristic do you find most irritating? • What's the one word that you'd like to hear from your boss? • What's the single most important factor that you would change about your job?

Icebreaker	Instructions
<p>Ten Things in Common <i>(15 minutes)</i> http://humanresources.about.com/od/icebreakers/a/icebreaker_com.htm</p>	<ol style="list-style-type: none"> 1. Divide class into groups of about four people by either having them work with the people near them or numbering them and having them move to be with others of the same number. This gives individuals the chance to meet new people. Give each group a paper and pen. 2. Tell class their assignment is to find ten things they <u>all</u> have in common that have nothing to do with work, body parts, or clothes. 3. One person should list the things that everyone has in common on paper. 4. After about seven minutes of brainstorming stop the groups so there will be time to share. Tell the groups that if they didn't get ten things, it is okay. 5. Have one person from each group share their list with the class.
<p>Would You Rather <i>(10-15 minutes)</i></p>	<ol style="list-style-type: none"> 1. Divide class into groups of about four people by either having them work with the people near them or numbering them and having them move to be with others of the same number (this gives individuals the chance to meet new people). 2. Ask each statement below one at a time and give the groups about two minutes to discuss and explain their answers. Each individual should be given a chance to share. Would you rather . . . <ul style="list-style-type: none"> . . . be a farmer or a politician? . . . ride a roller coaster or a mechanical bull? . . . have the power to fly or disappear? . . . live in the city or the country? . . . drive a Ford or a Chevy? . . . be known for your looks or your personality? . . . go for a month without the internet or your car? . . . lose your wallet or your keys? . . . spend every minute of the rest of your life indoors or outdoors? . . . live in a home without electricity or running water?

PPT slide 4, SG page i



Instruction

- Introduce the SG as a resource
- Read or have a student read the quote
- **As a class, discuss what the quote means**

Quote

"The safety of the men and women in our workforce continues to be our highest priority."
-Richard C. Adkerson

- What does this mean to you?

WORKPLACE EXAMINATIONS FOR DOWNSTREAM PROCESSING - SPT FC22011C

PPT slide 5, SG page iv



Instruction

- Before beginning the next slide:
 - Ask students what they would like to get out of this course
 - **Discuss and record their responses on a flipchart**
 - This gives the facilitator insight into what the students would like out of the course and helps guide the facilitators focus while teaching
- Show the objectives for each module
- Point out that the module objectives are also listed in the SG (p. v)
 - Tie each recorded response to the course objectives (even if it is a vague connection)
 - This shows students their ideas help direct the course

Learning Objectives

Module 1: Roles and Responsibilities

- Describe the purpose of a workplace examination
- Discuss the roles and responsibilities of those involved in a workplace examination

Module 2: Conducting a Workplace Examination

- Review appropriate procedures and forms for conducting a workplace examination

Module 3: Workplace Hazards

- Identify the hazards associated with a workplace exam and the controls that can be implemented

WORKPLACE EXAMINATIONS FOR DOWNSTREAM PROCESSING - SPT FC22011C

PPT slide 6, SG p. v

Instruction

- Review the different terms listed
 - Mention other terms the employees may hear
 - Identify the common term used at your site
 - A workplace exam is not an audit - if necessary, briefly explain what an audit is
- Emphasize the final bullet

Introduction

Workplace examinations are also known as

- Area Inspections
- Pre-shift Inspections
- Workplace Inspections
- Workplace Exams

Workplace exams are used to

- Identify and control hazards before work begins and throughout a shift

WORKPLACE EXAMINATIONS FOR DOWNSTREAM PROCESSING - SPT FC22011C

PPT slide 7, SG p. v



Instruction

- Hazards vary by work area
- **Explain the first three bullets and give examples of the three hazard categories listed (include examples specific to your site):**
 - Chemical – H2S, lime, solvents
 - Biological – bacteria, animal waste, venom
 - Physical – noise, radiation, impact injuries
- Explain the final statement on the slide and explain the following:
 - Being skilled at recognizing hazards associated with work areas is a lifelong pursuit
 - Receiving appropriate training (such as participating in this course) helps build the skills to identify, avoid, and mitigate hazards

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Introduction

Hazards often fall under these categories

- Chemical
- Biological
- Physical

Do not assume you are automatically aware of all hazards around you

WORKPLACE EXAMINATIONS FOR DOWNSTREAM PROCESSING – SPT FC220110 7

PPT slide 8, SG p. vi-viii

Instruction

- Fatal Risks are based on industry data, where specific risk exposure has resulted in catastrophic events such as severe injury or death.
 - While all risks have a degree of danger, Fatal Risks are those risks that, when left uncontrolled, will kill you.
 - After identifying a Fatal Risk, Critical Control(s) are implemented and verified with standard verification questions, to prevent death as a result of the exposure to the Fatal Risk.
 - **In the event of an absent or failure of a Critical Control, the job must be stopped as it significantly increases the risk of severe injury or death despite the existence of other controls.**
 - In short, Critical Controls help keep you from being killed.
- **Clarify that every Fatal Risk is not present at each site. However, during a workplace examination, the Critical Controls for relevant Fatal Risks should be assessed.**
- Remember, Fatal Risk Management assists in:
 - Identifying the risks that will kill you
 - Implementing the controls that will keep you safe
 - Verifying that Critical Controls are in place
 - Empowering you to stop the job if the Critical Controls are missing or not implemented correctly

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Fatal Risks and Critical Controls

Present at all sites				Present at many sites		Present at few sites	
 <small>Contact with Electricity</small>	 <small>Unshielded Hot Surfaces</small>	 <small>Exposure to Hazardous Substances (Acute)</small>	 <small>Blasting</small>	 <small>Control System</small>	 <small>Aircraft Operations</small>	 <small>Confined Space (Atmospheric)</small>	 <small>Confined Space (Mechanical)</small>
 <small>Hazardous Substances (Chronic)</small>	 <small>Fall from Heights</small>	 <small>Falling Objects</small>	 <small>Slipping</small>	 <small>Ground Failure</small>	 <small>Personnel Working</small>	 <small>Hazardous Atmosphere (Suffocation)</small>	 <small>Hazardous Atmosphere (Toxic)</small>
 <small>Fire</small>	 <small>Lifting Operations</small>	 <small>Release of Stored Energy</small>	 <small>Fall Criteria</small>	 <small>Fall Hazard on Person</small>	 <small>Underground Excavation</small>	 <small>Underground Work Fall</small>	
 <small>Struck by Object or Roll-over</small>	 <small>Struck by Object or Person</small>						

WORKPLACE EXAMINATIONS – SPT FC220110 8

- Some examples of Critical Controls for various Fatal Risks that may be assessed during a workplace examination:
 - Entanglement and Crushing – guards, barriers, barricades
 - Exposure to Hazardous Substances - Acute – mechanical integrity of storage and distribution
 - Lifting Operations – mechanical integrity of equipment
 - Drowning – barriers and segregation
 - Contact with Molten Material – access integrity
 - Underground Hazardous Atmosphere – refuge chambers

MODULE 1: ROLES AND RESPONSIBILITIES

This module contains information about the roles and expected responsibilities of those involved in workplace examinations.

LEARNING OBJECTIVES

Upon completion of this module, students will be able to:

- Describe the purpose of a workplace examination
- Discuss the roles and responsibilities of those involved in a workplace examination

ACTIVITIES

- Activity 2: Reflection

For further details, refer to “Activity Materials” under “Facilitator Preparation” on page 7.

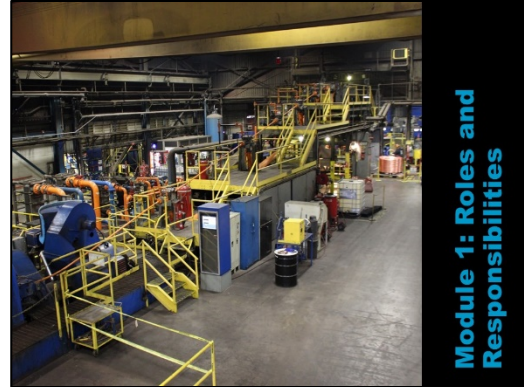
TOTAL TEACHING TIME

Module 1 takes approximately 30 minutes to complete.

PPT slide 9, SG page 3

Instruction

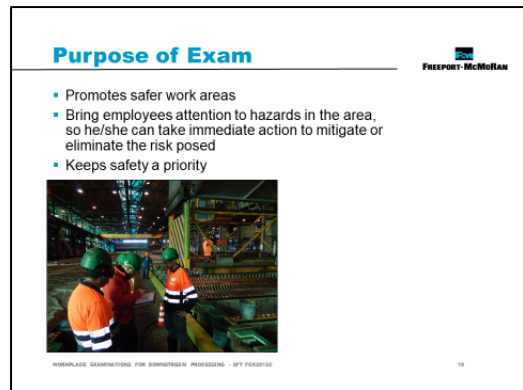
- Review the learning objectives for the module
 - Upon completion of this module, the students will be able to:
 - Describe the purpose of a workplace examination
 - Discuss the roles and responsibilities of those involved in a workplace examination



PPT slide 10, SG page 5

Instruction

- Everyday people are exposed to hazards at work and home
 - Merging on the freeway
 - Turning on the oven
 - Eating a meal
- Hazard management determines the level of risk
- Workplace exams help decrease risk in the workplace
- **Explain each bullet under purpose of Workplace Exam (Quiz question)**

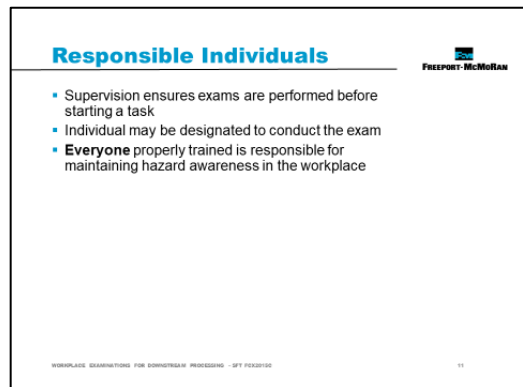


PPT slide 11, SG p. 6



Instruction

- Explain the first bullet and explain Supervision needs to make sure exams are performed but do not always perform the exams themselves
- Explain the second bullet
 - Supervision sometimes designates an individual or sites have special expectations when it comes to who must perform a workplace exam
 - **Explain your site's expectations for who is responsible for conducting a workplace exam**
- **Emphasize the final bullet (Quiz question)**
 - Regardless of whether or not you are designated to conduct a workplace exam, everyone is responsible for safety



PPT slide 12, SG page 6



Instruction

- Keys to an effective workplace exam are strong hazard recognition skills and personal accountability to the task
- Someone well-versed in the hazards who chooses not to perform a proper workplace exam, decreases the effectiveness of the exam
- Explain the first bullet
- **Ask the first question and discuss possible answers**
 - Have a proactive attitude
 - Take appropriate actions
 - Consider the consequences of your choices
 - Set clear expectations
 - Check for understanding
 - Give feedback
 - Follow through
- **Ask the second question and discuss possible answers**
 - Expect others to do the same as the answers from the first question

Employee Accountability

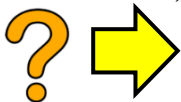
- Hold yourself and coworkers accountable for safety
- How can you hold yourself accountable?
- How can you hold others accountable?

WORKPLACE EXAMINATIONS FOR DOWNSTREAM PROCESSING - SPT P2202102

12

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PPT slide 13, SG p.7




Instruction

- Explain the first bullet
 - In general, employees must be capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and have authorization to take prompt corrective measures to eliminate them.
 - **Explain your site's expectations for qualifications and trainings before conducting a workplace exam**
- Explain the second set of bullets
 - Some resources already available include SOPs, JSAs, Risk assessments, chemical labels, container labels, fire triangles, and SDSs
- **Explain the third set of bullets (Quiz question)**
- **Ask the final question and discuss possible answers**
 - Increased hazard recognition
 - Different individuals are trained/experienced in recognizing different hazards
 - New hires offer a fresh set of eyes

Qualifications and Training

- Know your site expectations
- Hazard Communication training
 - Use the resources already available to you
- Experience and length of service
 - Whether on the job for one month or 25 years, everyone's input is valued and expected
 - How does increased team involvement enhance a workplace exam?



WORKPLACE EXAMINATIONS FOR DOWNSTREAM PROCESSING - SPT P2202102

13

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- Seasoned employees know what has historically needed attention

PPT slide 14, SG page 8




Instruction

- Explain each bullet and address the following points as appropriate
 - Formal vs. informal exams
 - Document the formal workplace exam conducted before work begins on a site-specific workplace exam form
 - Informal exams are on-going as employees are expected to be on the lookout for hazards while work is performed
 - **Before (Quiz question)**
 - Establish a safe work area before putting yourself or others at risk
 - **During (Quiz question)**
 - Stay alert to and aware of changing conditions that could affect your safety, or the safety of others
 - Changing environmental conditions such as temperature changes, noise levels, illumination, and weather conditions, or changing the task or location of a task, can significantly alter a work area and, in turn, the associated hazards
 - **After (Quiz question)**
 - Establish a safe area for the next shift or others who could enter the area
 - **Explain your site's expectations for workplace exam frequency**

Workplace Exam Frequency 

- Document a formal exam at least once per shift
- Formal and informal exams occur before, during, and after work
 - Not limited in frequency
 - Anytime one is appropriate
 - Anytime the work area or task changes
- Follow your site's expectations



WORKPLACE EXAMINATIONS FOR DOWNSTREAM PROCESSING - 8PT 16232120 14

ACTIVITY 2: REFLECTION

PPT slide 15, SG page 9



Time

Approximately 15 minutes

Materials

- Reflection worksheet, SG p. 9 (1 per student)

Purpose

- This activity gives students the opportunity to discuss the purpose of a workplace exam, and the roles and responsibilities of those involved in a workplace exam.

Instruction

1. Have each student open the Student Guide to the Reflection worksheet (p. 9)
2. Review the directions on the worksheet
 - Reflect on your personal knowledge of one of the following, then answer the questions. If you cannot answer a question, write “Unknown”
 - A workplace examination that **discovered** a hazard and led to a safer work area
 - A workplace examination that **re-evaluated** a hazard and led to a safer work area
 - A workplace examination that **missed** a hazard and **could** have resulted in an incident
 - A workplace examination that **missed** a hazard and **did** result in an incident
 - A time a workplace examination **should have been performed but was not**
3. Give students approximately five minutes to complete individually
4. **Ask for volunteers to discuss their reflections with the class**

Reflection	
Directions	
1.	Review the directions on the worksheet in the Student Guide (p. 9)
2.	Complete the worksheet
3.	After five minutes, discuss the workplace exam reflections as a class

WORKPLACE EXAMINATIONS FOR DOWNSTREAM PROCESSING - PPT FC230110

Activity 2

ACTIVITY 2: REFLECTION

Reflect on your personal knowledge of one of the following, then answer the questions. If you cannot answer a question, write “Unknown”.

- A workplace examination that **discovered** a hazard and led to a safer work area.
- A workplace examination that **re-evaluated** a hazard and led to a safer work area.
- A workplace examination that **missed** a hazard and **could** have resulted in an incident.
- A workplace examination that **missed** a hazard and **did** result in an incident.
- A time a workplace examination **should have been performed but was not**.

Why did the workplace exam need to occur? (Start of a shift, new task, changing conditions, etc.)

Where did the workplace exam occur?

When was the last time a workplace exam had been conducted in the work area?

What was the job title of the person(s) responsible for conducting the workplace exam?

Was the person trained to conduct a workplace exam?

How many years of experience did the person have?

What was the hazard?

What was the risk associated with the hazard?

How was the hazard mitigated? Or how could the hazard have been mitigated?


PPT slide 16



Instruction

- Review and discuss the questions on the slide

Module 1 Debrief



- How will you apply the skills learned in this module to your daily work activities?
- Was there anything surprising about the purpose of a workplace exam?
- Were there any roles or responsibilities that surprised you?

WORKPLACE EXAMINATIONS FOR DOWNSTREAM PROCESSING - SPT FC220110 16

MODULE 1 QUIZ

PPT slide 17-19, SG page 10



Instruction

- Students complete answers to the quiz questions in the SG
- **Review and discuss the answers as a class**

Module 1 Quiz

Directions

1. Complete the quiz in the Student Guide (p. 10)
2. Review the answers as a class

Quiz

WORKPLACE EXAMINATIONS FOR DOWNSTREAM PROCESSING - SFT FC2211C

Module 1 Quiz

1. Why are workplace examinations performed?
 - a. To check the productivity of the previous shift
 - b. To recognize hazards in the work area
 - c. To assign fault for missed hazards
 - d. To avoid fines
2. Who can conduct and document a workplace examination?
 - a. Everyone who is properly trained
 - b. A specifically designated individual
 - c. The shift supervisor
 - d. All of the above

WORKPLACE EXAMINATIONS FOR DOWNSTREAM PROCESSING - SFT FC2211C

Module 1 Quiz

3. Employees with more years of experience are more likely to perform a thorough workplace exam than someone new to the job.
 - a. True
 - b. False
4. When are workplace examinations performed?
 - a. At the start of each shift
 - b. When environmental conditions change
 - c. When a task changes
 - d. All of the above

WORKPLACE EXAMINATIONS FOR DOWNSTREAM PROCESSING - SFT FC2211C

Answers

Question	Answer	SG page
1	b	page 5
2	d	page 6
3	b	page 7
4	d	page 8

MODULE 2: CONDUCTING A WORKPLACE EXAMINATION

This module contains information about completing workplace examinations before, during, and after work as a means of recording and mitigating hazards.

LEARNING OBJECTIVES

Upon completion of this module, students will be able to:

- Review appropriate procedures and forms for conducting a workplace examination

ACTIVITIES

- Activity 3: Team Quiz

For further details, refer to “Activity Materials” under “Facilitator Preparation” on page 7.

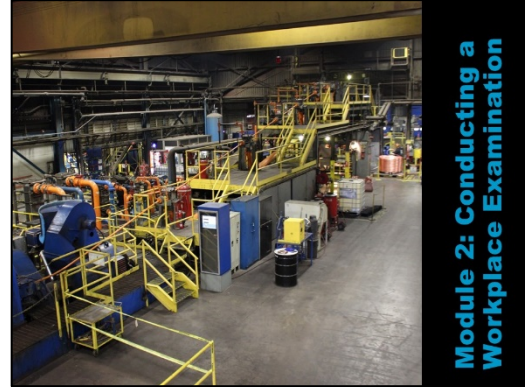
TOTAL TEACHING TIME

Module 2 takes approximately 30 minutes to complete.

PPT slide 20, SG page 13

Instruction

- Review the learning objectives for the module
 - Upon completion of this module, the students will be able to:
 - Review appropriate procedures and forms for conducting a workplace examination




PPT slide 21, SG page 15




Instruction

- Explain the first two bullets and explain that exams help with pre-job planning and evaluating by helping employees:
 - Work together
 - Employ the senses to identify hazards
 - Think about possible consequences
 - Review controls that are/can be put in place
 - Remain vigilant for changing conditions
- **Ask the final question and discuss possible answers**
 - Varies depending on many factors including size of area, hazards encountered, and controls needed
 - Do not rush through an exam because you feel limited by time
 - Set enough time aside to conduct a thorough exam

Before Conducting an Exam 

- Take the time to manage risk through pre-job planning and evaluating
- Use exams as a piece of pre-job planning and evaluating
- How long does it take to complete a workplace exam?




WORKPLACE EXAMINATIONS FOR DOWNSTREAM PROCESSING - 017 F022010 21

PPT slide 22, SG page 16



Instruction

- Mention that pre-job meetings are sometimes called pre-task meetings or tailgates
 - **Identify the common term used at your site**
- Explain the first two bullets
- **Refer students to SG p. 16 and briefly discuss the table (table is shown below)**
- Explain the final bullet

Pre-Job Meeting 

- Discuss significant/high risks to which employees may be exposed when performing the day's task
- Opportunity to communicate specific focal points for a workplace exam (See table on Student Guide page 16)
- Help employees become aware of the hazards and don the proper PPE before beginning an exam

WORKPLACE EXAMINATIONS FOR DOWNSTREAM PROCESSING - SPT F202010 22

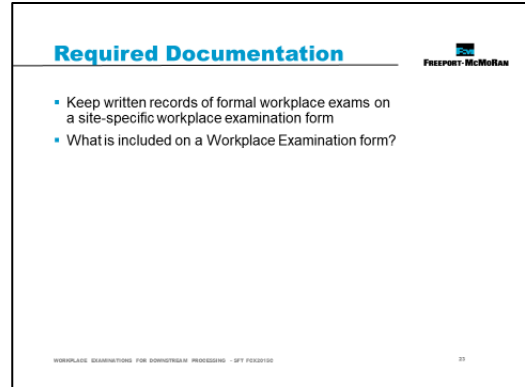
Topic	Examples
Existing and potential hazards	<ul style="list-style-type: none"> • Slips, trips, and falls • Potential energy sources
Hazard controls	<ul style="list-style-type: none"> • Personal Protective Equipment (PPE) • Lockout/Tagout/Tryout (LOTOTO)
Relevant forms and documents	<ul style="list-style-type: none"> • Standard Operating Procedures (SOP) • Job Safety Analysis (JSA) • Management of Change (MOC) • Risk assessment tools • Job permits
Previous and potential challenges and successes	<ul style="list-style-type: none"> • Improvements made since the last time the job was performed • What went well the last time the job was performed
Communication	<ul style="list-style-type: none"> • Define the work area boundaries • Upstream and downstream communication • Site incident reporting procedures
Emergency evacuation plans	<ul style="list-style-type: none"> • Identify emergency exits • Locate fire extinguishers • Review department and site muster points
Emergency response and rescue plans	<ul style="list-style-type: none"> • Safety and Environmental responses • Work area and site expectations • Contact numbers

PPT slide 23, SG page 17



Instruction

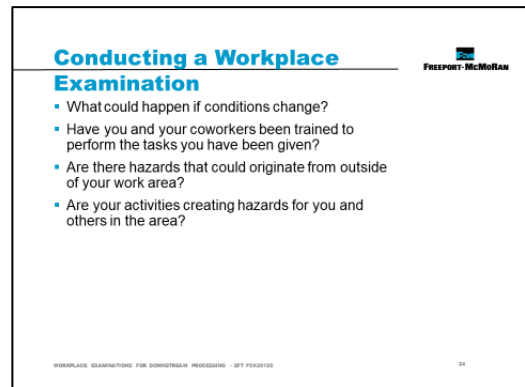
- Explain the first bullet
 - Note and report defects immediately
 - **Give each student a site-specific workplace examination form**
 - **Discuss the importance of completing a quality report with legible handwriting and concise but accurate descriptions**
- **Ask the question and use the site-specific workplace exam form to explain what is included (Quiz question)**
 - Date of the examination
 - Examiner's name
 - Work areas examined
 - Description of each adverse condition not corrected promptly
 - Date when the condition is corrected
- **Other items on the site-specific form**



PPT slide 24, SG page 17

Instruction

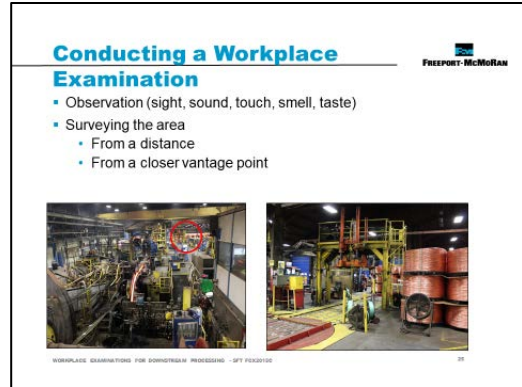
- Consider these questions when conducting a workplace exam
- Explain the first question
 - For example, it starts to rain or the sun sets
- Explain the second question
 - Do not perform tasks on which you have not been trained
- Explain the third question
 - For example, dust or gas, like vehicle exhaust, migrate into the work area from somewhere else
- Explain the last question
 - For example, working with open holes, welding above people who are walking, or using chemicals that could splash or need specialized gloves or equipment to handle



PPT slide 25, SG page 17-18

Instruction

- Observation
 - Employ all of your senses as you observe the work area
 - When more people are involved in a workplace exam, there are more opportunities to observe hazards
 - Sight – Often see problems first but do not only focus on a visual inspection
 - Sound - Identify unusual sounds encountered as they may indicate a hazard such as malfunctioning equipment
 - Touch - Do not intentionally touch equipment to check for motion, gaps, or extreme temperatures, but do evaluate hazards such as loose handrails or grating
 - Smell and Taste - Some chemicals or particles in the air have noticeable smells or tastes that need to be addressed but, in general, avoid intentionally smelling or tasting as part of your workplace exam. Use specialized equipment instead
- Surveying the Area
 - Different hazards can be seen from different vantage points
 - Survey the area from multiple vantage points (near, far, high, low, left, right)
 - **From a distance (Quiz question)**
 - Take a step back to view the area from a broad vantage point
 - Additional hazards such as open holes, suspended loads, moving equipment come into view
 - From a closer vantage point
 - Talk through the task in the defined work area
 - Take the time to inspect the specific pieces of equipment closely
 - Look for common hazards such as housekeeping, slips, trips, falls, electrical issues (the next module provides more information on how to inspect common hazards)



PPT slide 26, SG page 19

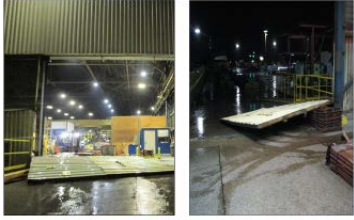


Instruction

- Read aloud or have a student read aloud the Learn from Others in their Student Guide (also written below)
- Point out the fallen door in the images
- Read or have a student read the directions
 - Choose whether a distant survey or close vantage point could have helped identify the issue that led to this incident. Explain your choice.
- Give the students 2 minutes to complete their answers
- **Discuss the incident and the students' answers. Do not emphasize a correct answer. Instead encourage a discussion about the incident**

Learn from Others Freeport-McMoRan

Student Guide page 19



WORKPLACE EXAMINATIONS FOR DOWNSTREAM PROCESSING - SFT F202010 25

LEARN FROM OTHERS

On October 21, 2015, an employee was closing a 1000 pound (453 kilograms) door to keep the rain out. In the process, the welds that held the three hinges in place broke causing the door to fall off. The door struck the employee on the back of his hard hat and across his shoulder blade causing him to fall to the ground. He suffered a contusion to the head, shoulder, and knee and was given a return to work release with climbing restrictions.

A thorough workplace examination helps find hazards.




Fig. 2.5 Door that fell. *Fig. 2.6 Another angle of the fallen door.*

Read the Learn from Others above. Choose whether a distant survey or close vantage point could have helped identify the issue that led to this incident. Explain your choice.

Survey from a distance Survey from a closer vantage point

Explain

Instruction

- **Explain the first bullet (Quiz question)**
 - Specific steps required to initiate hazard control varies depending on your site, the department you are in, and the work performed
 - However, procedures must include preventing access to the hazard and contacting your Supervisor or Health and Safety Professional
- Explain Qualify the Level of Risk
 - The potential of a hazard’s risk must be evaluated
 - When specific tasks are evaluated regarding the probability of a hazard resulting in an incident and the severity of the consequences if the incident occurs, this is called a “risk rating”
 - The FCX Risk Matrix helps determine the risk rating for each task, identifying it as high, medium, or low
 - The adequacy of existing controls is also taken into account and regularly evaluated to double-check that they are working properly
- Explain Mitigation Procedures
 - If a hazardous condition is found while performing an examination, immediate action to resolve the issue must occur
 - Mitigate the hazard based on the level of the risk
 - If a hazard is discovered that poses an immediate risk to personnel, stop production until the appropriate controls are in place
 - Posting a spotter until proper flagging or barricading occurs may also be necessary
 - Depending on the level of risk, additional training may be required before starting the task
 - Hazards rated as a high risk are actioned through the Incident Management System (IMS)
 - When attempting to control a hazard, refer to the Hierarchy of Controls outlined in Fatality Prevention
 - **Elimination, substitution, and engineering controls are more effective than administrative controls and PPE (Quiz question)**
 - Apply the controls that keep the employee as safe as possible

Mitigating the Hazard Freeport-McMoRan

- When you identify a hazard, it is your responsibility to take appropriate actions immediately
- Qualify the Level of Risk
- Mitigation Procedures

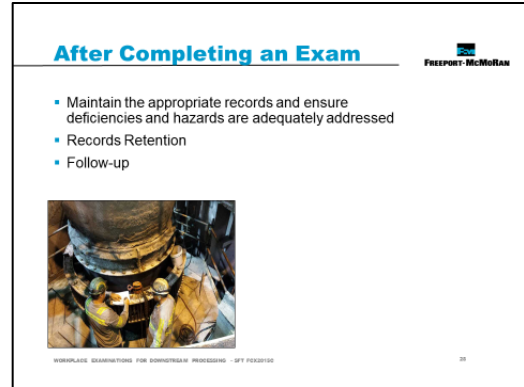
WORKPLACE EXAMINATIONS FOR DOWNSTREAM PROCESSING - SPT F2020100 27

PPT slide 28, SG page 22



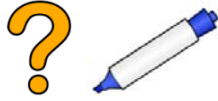
Instruction

- Explain the first bullet
 - Supervision reviews the workplace exam forms to aid in this process
- Explain Records Retention
 - Depending on your site and department, the maintenance and storage of examination records varies but must be retained for a minimum of one year
 - Whenever a workplace examination is conducted, the form is given to a supervisor and filed according to Freeport-McMoRan's Records Retention Policy
 - The timing for when a workplace examination form needs to be submitted to supervision usually falls into one of two options
 - Submit the form once the examination is completed, or
 - Maintain your workplace examination form as a working document throughout your shift and submit your examination form at the end of your shift
 - Speak with your site supervisor to determine your department and site expectations
 - **Discuss and have the students record your site's records retention requirements in the space provided in the Student Guide**
- Explain Follow-up
 - The workplace examination form includes a section for listing the corrective actions taken to mitigate/eliminate each hazard found
 - The individual assigned to the corrective action is ultimately responsible for following up on the action to determine whether or not it is effective
 - However, everyone aware of the corrective action has some responsibility to confirm the action is carried out and the hazard is mitigated
 - If the same hazard is found while on the job or during a later workplace exam, speak to your Supervisor or site Health and Safety Professional



ACTIVITY 3: TEAM QUIZ

PPT slide 29, SG page 23



Time

Approximately 15 minutes

Materials

- Team Quiz worksheet, SG p. 23 (1 per student)
OR
- Flipchart paper (1 per group)
- Marker (1 per group)

Purpose

- This activity gives students the opportunity to review appropriate procedures and forms for conducting a workplace examination

Instruction

1. Break the class into teams of approximately five students
2. Review the directions on the worksheet
 - With your team, use the space on the Team Quiz worksheet (p. 23) or the flipchart to write three questions about conducting a workplace examination
 - Write two factual questions with specific correct answers
 - Write one open-ended question that could lead to a class discussion. Open-ended questions can be opinion-based with no clear, correct answer
 - After all teams finish writing three questions, each team presents their questions to the class
3. After 3 minutes, each team presents their factual questions to the class.
4. **Discuss the answers as a class**
5. Each team presents their open-ended question to the class
6. **Discuss the answers as a class**

Team Quiz

Directions

1. Review the directions on the worksheet in the Student Guide (p. 23)
2. As a team, complete the worksheet
3. After three minutes, each team presents their factual questions
4. Discuss the answers as a class
5. Each team presents their open-ended question
6. Discuss the answers as a class

WORKPLACE EXAMINATIONS FOR DOWNSTREAM PROCESSING - SP7 F020116

Activity 3

ACTIVITY 3: TEAM QUIZ

With your team, use the space below or the flipchart to write three questions about conducting a workplace examination. Write two factual questions with specific correct answers and one open-ended question that could lead to a class discussion. Open-ended questions can be opinion-based with no clear, correct answer. After all teams finish writing three questions, each team presents their questions to the class.

Question Type	Question Examples
Factual	<ul style="list-style-type: none">• What forms and documents are often reviewed in a pre-job meeting?• True or False: Workplace examination forms do not need to be stored.
Open-Ended	<ul style="list-style-type: none">• Which is more important, surveying a work area from a distance or from a closer vantage point? Why?• Why are workplace examination forms completed and stored?

Factual Question 1 _____
Answer _____

Factual Question 2 _____
Answer _____

Open-Ended Question _____
Answer _____

Continued on next page

Question Examples

- Factual
 - What forms and documents are often reviewed in a pre-job meeting?
 - True or False: Workplace examination forms do not need to be stored.
- Open-ended
 - Which is more important, surveying a work area from a distance or from a closer vantage point? Why?
 - Why are workplace examination forms completed and stored?

PPT slide 30



Instruction

- Review and discuss the questions on the slide

Module 2 Debrief

FREEPORT-McMORAN

- How will you apply the skills learned in this module to your daily work activities?
- Were there any procedures or forms for conducting a workplace exam that surprised you?

WORKPLACE EXAMINATIONS FOR DOWNSTREAM PROCESSING - MY PCD211C 30

MODULE 2 QUIZ

PPT slide 31-33, SG page 24



Instruction

- Students will write answers to the quiz questions in the SG
- **Review and discuss the answers as a class**

Module 2 Quiz

Directions

1. Complete the quiz in the Student Guide (p. 24)
2. Review the answers as a class

Quiz

WORKPLACE EXAMINATIONS FOR DOWNSTREAM PROCESSING - SPT FC2211C

Module 2 Quiz

1. What information is documented on a workplace examination form? (List Freeport-McMoRan expectations as well as any additional site expectations)
 - a. Date of the examination
 - b. Examiner's name
 - c. Work areas examined
 - d. Description of each adverse condition not corrected promptly
 - e. Date when the condition is corrected
2. Why do you survey the work area from a distance while conducting a workplace exam? (Provide a short answer)

Answer may vary. Possible Answer - Additional hazards come into view that might otherwise have gone unnoticed

WORKPLACE EXAMINATIONS FOR DOWNSTREAM PROCESSING - SPT FC2211C

Module 2 Quiz

3. When you identify a hazard, it is your responsibility to take appropriate actions.
 - a. True
 - b. False
4. What two controls are generally least effective for mitigating a hazard?
 - a. Substitution and Engineering
 - b. Administrative and PPE
 - c. Elimination and Substitution
 - d. Engineering and PPE

WORKPLACE EXAMINATIONS FOR DOWNSTREAM PROCESSING - SPT FC2211C

Answers

Question	Answer	SG page
1	Date of the examination, Examiner's name, Work areas examined, Description of each adverse condition not corrected promptly, Date when the condition is corrected, other site expectations	page 17
2	Answers may vary. Possible answer - Additional hazard come into view that might otherwise have gone unnoticed	page 18
3	a	page 20
4	b	page 21

Break

- We recommend taking a 5-10 minute break after this module. Allow students to stand up, stretch, use the facilities, etc. Clearly communicate what time you expect them to return to start the next module.

MODULE 3: WORKPLACE HAZARDS

This module contains information about recognizing and mitigating common hazards found in the workplace. This is not an all-inclusive list of hazards.

LEARNING OBJECTIVES

Upon completion of this module, students will be able to:

- Identify the hazards associated with a workplace exam and the controls that can be implemented

ACTIVITIES

- Activity 4: Teach Me
- Activity 5: Secure the Scene

For further details, refer to “Activity Materials” under “Facilitator Preparation” on page 7.

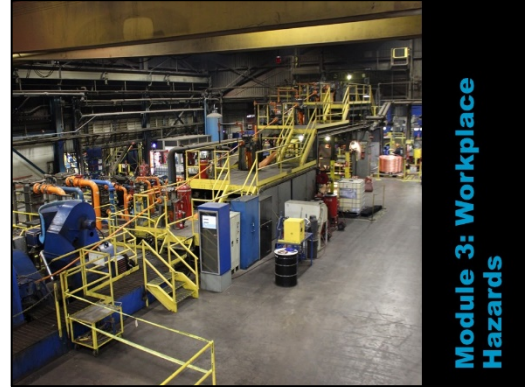
TOTAL TEACHING TIME

Module 3 takes approximately 50 minutes to complete.

PPT slide 34, SG page 28

Instruction

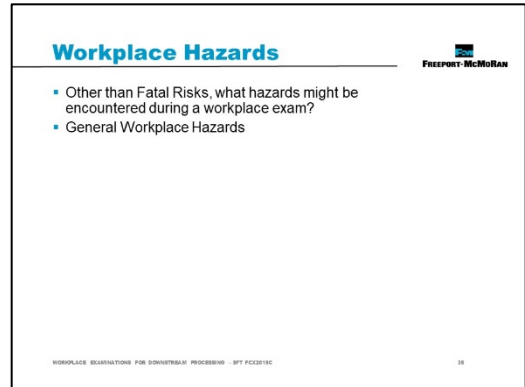
- Review the learning objectives for the module
 - Upon completion of this module, the students will be able to:
 - Identify the hazards associated with a workplace exam and the controls that can be implemented



PPT slide 35, SG page 29

Instruction

- Explain the first bullet
 - Identify and inspect existing critical controls to see if they are in working order
 - If the effectiveness of any controls cannot be validated, take the necessary steps to control the risk before starting work
- Explain the second bullet
 - Hazards in this module are not an all-inclusive list of hazards found in work areas
 - If you see anything posing a risk to you or others, report it immediately
 - Inform Health and Safety Professional and Supervisor of potential improvements
 - Determine if there are ways to improve the controls
 - Refer to your site's Health and Safety Professional or Supervisor for further clarification on site- and department-specific hazards to evaluate

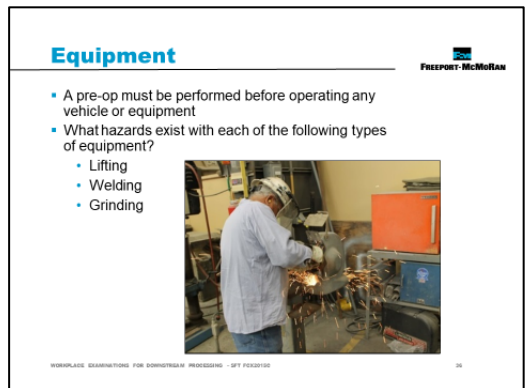


PPT slide 36, SG page 29-31



Instruction

- A wide variety of equipment is used on Freeport-McMoRan properties and includes stationary, mobile, rental, and job-specific equipment, as well as tools
- A thorough workplace exam identifies and evaluates all equipment in the workplace for potential hazards
- Know the common hazards you may encounter, so you can be safe and mitigate hazards before the job begins

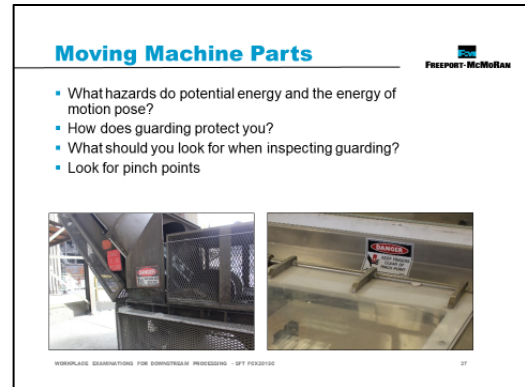


- If the workplace examination reveals areas where hazards exist and improvements are possible, contact your Supervisor or Health and Safety Professional
 - Explain the first bullet
 - Workplace exam helps identify what equipment needs to have a pre-operation inspection (pre-op) performed
 - Pre-op is performed by employees trained to inspect the vehicle/equipment
 - If defects are found that result in unsafe vehicles or equipment:
 - Place a “Do Not Operate” tag on the vehicle/equipment and list the defect on the tag
 - Record defects that limit safe usage
 - Do not operate the vehicle until repaired
 - **Ask the question and discuss possible answers**
 - **Advance through the slide to see images of each piece of equipment listed**
 - Lifting
 - Potential to cross someone’s travel path at any time during the shift
 - Operator’s position in relation to the travel path of the equipment
 - Determine if the operator can see pedestrians crossing the route
 - Inspect the rigging and slings for wear, tears, and proper use
 - Welding
 - Welding equipment is mobile or in a fixed location
 - Potential to be exposed to spatter
 - All materials (stinger, bottles, or lines) stored/secured properly
 - Flammable materials stored near the welding equipment
 - Welder uses a flash screen
 - Grinding
 - Noise level produced by the grinder that could impact those in the area
 - Sparks generated that could affect a travel way or flammable materials used
 - Know the specific requirements of the grinder used, so you know what to look for during a workplace exam
-



Instruction

- Mechanical energy is the sum of potential and kinetic energy (the energy of motion) in a working system
- **Ask the first question and discuss possible answers**
 - When a mechanical object is in motion (kinetic), moving machine parts pinch, crush, strike, pull objects in
 - Potential energy is also hazardous because, when released, it becomes kinetic energy
- **Ask the second question and discuss possible answers (Quiz question)**
 - Guarding prevents contact with hazards such as machinery with exposed moving parts, shielding to protect against chemical contact, heat shielding, and noise dampening
 - The image on the left shows guarding in use
- **Ask the third question and discuss possible answers**
 - All forms of guarding must be maintained at all times
 - Note all areas where guarding needs to be installed including
 - If guarding deficiencies are discovered through a workplace examination, stop working until the guarding is repaired or reinstalled
 - Unguarded areas must have a spotter until the hazard is mitigated
 - If the workplace examination reveals areas where guarding needs to be installed, contact your Supervisor or Health and Safety Professional to begin the process
- Explain the last bullet
 - The image on the right shows a pinch point warning sign
 - A pinch point is a place where the body or part of the body can be trapped between objects
 - Common causes are machine parts, tools, moving materials, container lids, and doors/hinges
 - Identify possible places where the body or a body part could be pinched
 - Ensure the necessary precautions (such as guarding, LOTOTO, or planning the job away from the pinch points) are taken to eliminate or mitigate pinching hazards

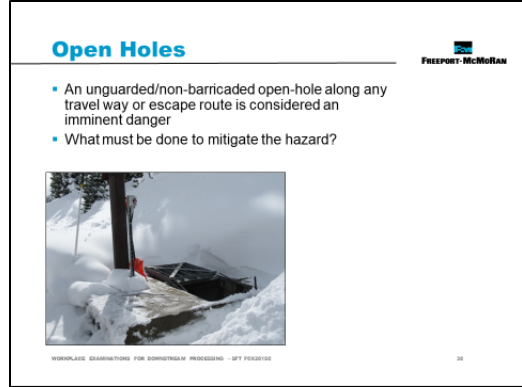


PPT slide 38, SG page 33



Instruction

- Explain the first bullet
 - Open holes present fall risks
 - An open hole exists in either a horizontal or vertical plane that can result in a fall to a lower level or objects falling from above
 - A Horizontal opening must measure 12 inches (30 cm) or more in its least dimension
 - A Vertical opening must be at least 30 inches (76 cm) tall and 18 inches (46 cm) wide
 - An opening of less than 12 inches (30 cm) in a walking surface still poses a trip/fall hazard and must be mitigated
- **Ask the question and discuss possible answers**
 - In the event a workplace examination reveals an open hole, production stops immediately
 - Health and Safety Professionals and Supervision are notified
 - Proper barricading is installed

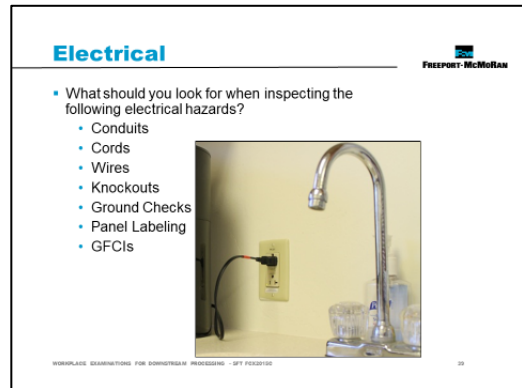


PPT slide 39, SG page 34-37



Instruction

- Electricity is a serious hazard that exposes employees to electrical shock, electrocution, burns, explosions, and fires
- Noting defects and immediately reporting them when completing a workplace exam helps find hazards before injuries occur
- Immediately remove items posing a risk and contact your supervisor
- **Ask the question and discuss possible answers**
 - **Advance through the slide to see images of each electrical hazard listed (Quiz question)**
 - Conduits (Housing for live electrical lines and intended to prevent personnel from coming into direct contact with live systems)
 - Visually inspect for any physical damage to conduit
 - Broken conduit can lead to exposed wiring, which is a shock/electrocution hazard
 - Pay attention to any junctions or access points along the conduit



Continued on next page

- Cords (insulated to protect users from electricity)
 - Before inspecting electrical cords (including extension cords) and the equipment to which they are attached, remove the cord from the power source
 - A break in an electrical cord's insulation can cause a tool or machine's metal parts to conduct electricity and result in an electrical shock, burn, or electrocution
 - Broken or missing prongs
 - Exposed wires or other electrical parts
 - Physical damage to jackets
 - Worn, frayed, cut, or broken cords
 - Damaged, defective, or deformed insulation on electrical tools or appliances
 - Exposed electrical terminals in motors, appliances, and electronic equipment
 - Appropriate covering on cords running temporarily across the floor
 - Tripping hazards created by the cord
 - Extension cords used on a temporary basis only
- Wires
 - Broken wiring creates shock/electrocution and fire hazards
 - Broken wiring is found in conduits, cords, and other areas
 - Look for worn, frayed, cut, or broken wiring
- Knockouts
 - Electrical boxes are designed to allow for either single or multiple conduits
 - Conduit is attached to the electrical box at small pre-cut holes
 - Holes are covered with small knockout plugs that are intended to be broken away when the conduit is attached
 - When an electrical box is modified in a manner that eliminates the need for a conduit, the remaining hole cannot be left open
 - A new knockout plug is used to mitigate this hazard and confirm no open holes exist in the electrical box
 - Examine all electrical boxes for broken or missing knockout plugs
 - If trained, verify all electrical box access doors are working and can be adequately secured
 - Do not access an electrical box through an unused opening
- Ground Checks
 - Test the continuity and resistance of the grounding system
 - Electrical equipment requires a ground check upon installation and after repairs or modifications
 - Some sites require annual ground checks and use a specific color-coded tape system to allow employees to determine at a glance if the equipment is in compliance
 - **Discuss your sites ground check expectations**
 - Establish that all electrical equipment has been tested and is current

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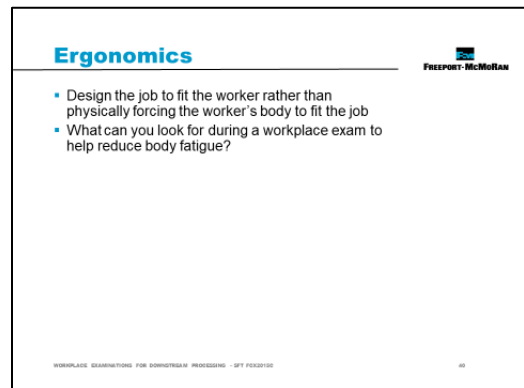
- Panel Labeling
 - Look for improper or missing labeling
 - Verify all operational circuit breakers are marked appropriately and accurately
 - If labels are damaged, missing, not legible, or their view is obstructed, the appropriate personnel needs to be notified to implement corrective action
 - Only authorized and qualified individuals may open panels
 - Note whether or not adequate lighting is in place to read all labeling
 - Any items labeled “spare”, or something similar must remain in the open position
- GFCIs
 - Ground-fault circuit interrupters (GFCIs) protect workers from electrocution by tripping (opening the circuit) when electrical equipment is not working correctly
 - Located on all outdoor outlets and any outlets within six feet of a water source
 - Press the test button to verify the power disconnects
 - If a GFCI does not pass the test, continues to trip, or is damaged/defective, stop use, tag-out, and contact the Electrical Department

PPT slide 40, SG page 38



Instruction

- Explain the first bullet
 - Adapt tasks, workstations, tools, machines, and equipment to fit the worker
 - Reduce physical stress on a worker’s body and eliminate many potentially serious, disabling work-related musculoskeletal disorders (MSDs)
 - Evaluate a work area for ergonomics-related hazards during a workplace exam
- **Ask the question and discuss possible answers**
 - Varying tasks
 - Repetitive motion tasks
 - Working at a slower pace
 - Supplying anti-fatigue mats
 - Supplying the right tool for the job
 - Providing ergonomic chairs or stools
 - Adjusting the height of working surfaces
 - Providing an increased number of short breaks
 - Reducing the weight and size of items to be lifted
 - Putting supplies and equipment within easy reach of the worker

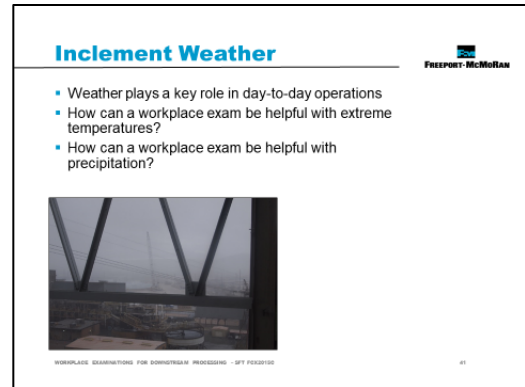


PPT slide 41, SG page 39-40



Instruction

- Explain the first bullet
- Pay attention to weather-related hazards such as freeze-thaw cycle (ice/run-off), precipitation (snow and rain), high speed winds, extreme heat, lightning
- If a possible risk is associated with any of these hazards, report them to your Health and Safety Professional or Supervisor immediately
- **Ask the question and discuss possible answers**
 - Extreme heat and cold alter work areas and hazards while performing tasks
 - Pay attention to the unique hazards created by extreme weather conditions such as hot or cold metal surfaces, intensified heat in PPE, and the need for additional warmth in cold conditions
 - Prepare for extreme conditions during a workplace exam
 - If heat is a factor, confirm plenty of water and a cool area are available for breaks and identify periods of the day when it is safest to perform heavy work
 - If cold is a factor, confirm warm areas are available for breaks and have changes of clothes available in case clothes get wet
- **Ask the question and discuss possible answers**
 - Precipitation such as runoff, flooding, and rainy conditions can detrimentally affect walking and driving conditions throughout each site as they result in wet travel ways
 - Wet travel ways increase the possibility of vehicle accidents and employee slips, trips, and falls
 - Minimize the hazards of wet weather conditions by checking travel ways for debris, wiping up wet areas, and inspecting vehicles for safety

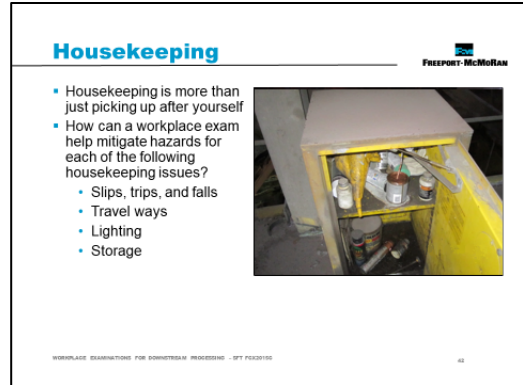


PPT slide 42, SG page 40-42



Instruction

- Explain the first bullet
 - Trash, debris, spills, and miscellaneous equipment/tools become a safety hazard when they obstruct walkways or working surfaces
 - Fine materials such as sawdust and silica, along with biological hazards such as improperly stored food or animal waste, create a wide array of health hazards
 - Establish housekeeping habits by cleaning your area while performing a workplace exam and while you work, and encouraging others to do the same
- **Ask the question and discuss possible answers**
 - **Advance through the slide to see images of each piece of equipment listed**
 - Slips, trips, and falls
 - Determine the travel path of the area
 - Identify any conditions that could lead to slips and trips
 - Slips and trips are caused by a wide variety of conditions including standing liquids, uneven surfaces, hoses, electrical cords, stairs, and ladders
 - If you happen to see standing liquids or puddles, avoid walking through it, establish appropriate barricading, and contact your Health and Safety Professional or Supervisor
 - Travel ways
 - Travel ways and escape ways allow employees to travel from one area to another
 - Whether traveled frequently or rarely, they must remain safe routes for all employees at all times.
 - **Safe access along any path traveled for work, repair, or maintenance must be free of debris or obstructions, easily accessible, and well-lit (Quiz question)**
 - Lighting
 - Whether working at night or in a darkened area during the day, provide adequate lighting in walkways and work areas
 - Ensure there is enough illumination to let you work safely
 - Permanent and temporary lighting can be used but either way, the lighting components must be safe for the location and task
 - Storage
 - Improperly stored materials become a hazard when obstructing travel ways
 - The risk of this hazard increases dramatically in the event of an emergency
 - Note if all materials are stored according to Freeport-McMoRan standards as well as manufacturers' instructions
 - Materials may be stored in the proper containers but, if their weight exceeds the limits of the shelving system, they are improperly stored
 - If containers are stacked, make sure they are balanced






Instruction

- Explain the first bullet
 - In emergency situations, timing is critical
 - Use the workplace exam as an opportunity to check all emergency equipment
- **Ask the question and discuss possible answers**
 - **Advance through the slide to see images of each piece of equipment listed**
 - Eyewash stations and showers
 - Emergency eyewash stations and showers are often the difference between life-altering exposure events and a recoverable injury
 - In situations where eye contamination occurs, the longer you wait for treatment, the worse your condition may become
 - While skin is much more resistant to damage than eyes, there are still certain exposures that require immediate treatment
 - Locate all emergency eyewash stations and showers
 - Ensure they are functioning, clean, and free from debris
 - Eyewashes and showers must have signage near them
 - The area around them must be clear of obstructions
 - Fire extinguishers
 - Ensure you are trained on how to use a fire extinguisher
 - Note the location of all fire extinguishers
 - Ensure an identifying sign is posted above each one
 - Is there any damage to the handle, nozzle, or hose?
 - Is the safety pin correctly in place?
 - Does the needle in the pressure gauge fall in the “Good” or green range?
 - Are the inspection tag and sticker current?
 - When was the last time the fire extinguisher was inverted to mix the chemicals inside? Is the area three feet around the extinguisher free from obstructions?
 - Is it the correct type of extinguisher for the hazards in the area?
 - First-Aid kits and AEDs
 - First-aid kits and automated external defibrillators (AEDs) can be critical during a health emergency
 - Locate all first-aid kits and AEDs
 - Ensure first aid supplies are fully stocked, and any items with an expiration date are current

Emergency Equipment

- Proactive workplace exams performed routinely aid in emergencies
- How can a workplace exam help mitigate hazards for each of the following types of emergency equipment?
 - Eyewash stations and showers
 - Fire Extinguishers
 - First-Aid Kits and AEDs
 - Emergency Alarms
 - Emergency Lighting and Signs



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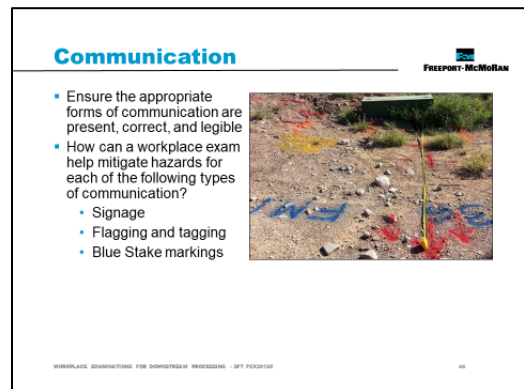
- Emergency Alarms
 - Emergency alarms reduce the severity of incidents by warning employees of a danger and alerting them to follow the proper procedures when the alarm sounds
 - In the event of an emergency, the alarms need to function properly
 - Locate all alarms
 - Check that they were recently tested
 - Alarms are often tested on a regular basis by sites and may not need to be tested during a workplace exam
 - Check with your site supervision if you have any questions
- Emergency lighting and signs
 - Each work area has a detailed evacuation plan
 - The success of the plan in an emergency is partially dependent upon emergency lighting and exit signs
 - Locate and test the emergency lighting
 - Locate and verify that all exit signs are illuminated
 - Test emergency lighting by pressing the “Test” button or unplugging it and plugging it back in

PPT slide 44, SG page 46-47



Instruction

- Explain the first bullet
 - Sites strive to keep everyone informed throughout the workday by communicating in multiple ways such as signage, flagging, tagging, and blue stake markings
 - Communication draw attention to potential hazards when performing a task and must be clearly conveyed and understood
- **Ask the question and discuss possible answers**
 - **Advance through the slide to see images of each piece of equipment listed**
 - Signage
 - Signs are classified as administrative controls
 - When immediate or potential health and safety hazards exist in a work area, warning signs must be posted at all approaches
 - Recognizing these signs enables you to easily understand the hazards and adhere to proper precautions while working
 - Ensure signs are in obvious locations, oriented properly, and clean and legible
 - Post them in the common language of the property
 - Stopping to focus on a sign that does not meet these standards wastes valuable time in an emergency
 - Note signs that do not meet these standards, and take the time to correct the problem, or notify Supervision, so they can resolve the issue



Continued on next page

- Flagging and Tagging
 - Indicates a hazard or unsafe condition exists
 - Flagging color (red or yellow) identifies the level of danger associated with the hazard
 - The tag describes the hazardous condition/reason for flagging, time and date installed, PPE requirements to enter, and employee that placed the tag's information (name, contact number, supervisor, department)
 - Check that all necessary areas are flagged, and the correct color is used
 - Tag colors vary but must be noticeable and hang from all sides of the perimeter or all access points
- Blue Stake/Utility Location Markings
 - Markings indicate the location and type of buried/hidden utility lines
 - They are intended to prevent disturbing unseen utilities and keep all employees safe when penetrating more than 1 inch (2.5 cm) into floors, roofs, ceilings, walls, and the earth's surface.
 - Check that the color is easily identifiable and legible – if markings are faded or damaged, notify the appropriate personnel to have them re-painted
 - Specific paint colors are used to identify the type of utilities hidden from view – if you see or suspect markings are inaccurately labeled, incorrectly located, or missing, follow the required procedures so that the correct personnel can investigate further
 - Ensure all temporary markings such as whiskers and permanent markings such as colored flags or stakes are in good enough condition to communicate the intended message

PPT slide 45, SG page 48-49




Instruction

- Explain the first bullet
 - Accidents with hazardous chemicals can happen quickly and be quite severe
 - Before using any chemical, review a Safety Data Sheet (SDS) or other appropriate resource
 - SDSs direct your attention to the conditions of use that pose a potential hazard and identify controls such as handling requirements and PPE that need to be implemented
 - Performing a workplace exam offers an opportunity to ensure the Safety Data Sheet (SDS) requirements are sufficient for keeping you and your coworkers as safe as possible

Hazardous Material Handling

- Pay attention to hazardous chemicals
- How can a workplace exam help mitigate hazards for each of the following?
 - Container labels
 - Chemical storage
 - Waste generation and management



WORKPLACE EXAMINATIONS FOR DOWNSTREAM PROCESSING - PPT 02/2016

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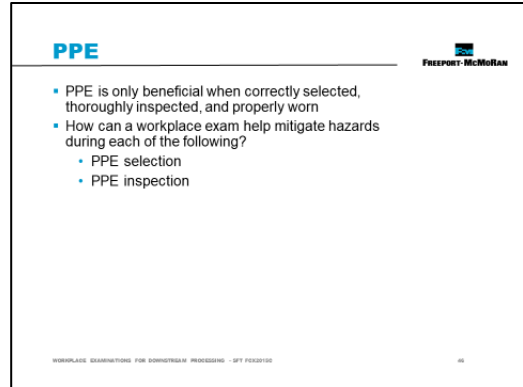
- **Ask the question and discuss possible answers**
 - Container Labels
 - **All containers must be labeled (Quiz question)**
 - Labels contain immediate warnings about a chemical's most serious hazard and should be the first thing referenced before beginning work
 - A label is an employee's first source of information about a chemical
 - Check your SDS sheets to confirm all containers are labeled appropriately and contain the correct pictogram
 - The manufacturer's label must be intact and legible
 - If any chemical delivered to your site is missing a label, or a label is lost or damaged, let your supervisor, global sourcing representative, Environmental Professional, or Health and Safety Professional know immediately so that they can replace the label
 - Chemical storage
 - Understand the expectations of chemical storage before beginning a workplace exam
 - Evaluate the chemicals and determine whether or not the proper controls are in place
 - SDSs provide proper storage recommendations and compatibility with other chemicals
 - If your work area contains liquids stored under pressure, verify the vessels are secured properly and no valves are leaking
 - If you are storing liquid waste, verify all containers are compatible with the product, free from leaks, labeled (describes contents), and secured
 - If your work area contains various hazardous or reactive chemicals, confirm that there is no possibility of the chemicals mixing
 - Store materials in a rated flammable materials safety storage cabinet. All containers stored in a cabinet, regardless of the content, need to be properly labeled
 - Do not store items such as rags, cardboard containers, paper, or anything else with the potential to become a fuel source for a fire
 - Make sure all containers are clean and the lids are closed
 - Waste generation and management
 - Before anyone brings a new chemical onto a site, the Health and Safety and Environmental departments need to be notified so they can evaluate chemical hazards and communicate new chemical hazards introduced in your work area to you and your coworkers
 - If unknown products, used containers, outdated products, or any contaminated PPE are found during a workplace exam, contact your site's hazardous waste coordinator to ensure the proper disposal method
-

PPT slide 46, SG page 49-50



Instruction

- Explain the first bullet
 - When you have questions about wearing, using, or caring for PPE, ask a supervisor or Health and Safety Professional
- **Ask the question and discuss possible answers**
 - PPE Selection
 - Verify the correct PPE for the hazard/task is selected
 - Verify it fits properly
 - Check the JSAs, SOPs, and Safety Data Sheets (SDSs) to identify specific PPE selection for the hazards you may encounter and the tasks you may perform
 - Ensure the correct size is chosen so PPE fits you well enough to prevent dangerous gaps in protection – If PPE does not fit properly, resolve the issue before entering areas where it is required
 - PPE Inspection
 - PPE only protects you when in good condition
 - Before you put on gloves, goggles, clothing, or any piece of PPE, clean and inspect it carefully
 - Ensure it does not have any rips, tears, disintegration, or other damage
 - If you find damaged equipment notify your supervisor and dispose of and replace the equipment



ACTIVITY 4: TEACH ME

PPT slide 47, SG page 51



Time

Approximately 20 minutes

Materials

- Teach Me worksheet, SG p. 51 (1 per student)
OR
- Flipchart paper (1 per group)
- Marker (1 per group)

Purpose

- This activity gives students the opportunity to identify the hazards associated with a workplace exam and the controls that can be implemented

Instruction

1. Break the class into teams of approximately five students
2. Review the directions on the worksheet
 - Write your assigned workplace examination hazard on the line provided
 - Use your student guide to research answers to the questions provided
3. Assign each group one of the hazards discussed in this module (General Workplace Hazards, Housekeeping, Emergency Equipment, Communication, Hazardous Material Handling, or PPE)
4. **After 10 minutes, each team leads a discussion about their topic**

Note: For larger classes, assign the subheadings underneath each hazard heading in the Student Guide. This creates more specific hazards that the students can research and present

Teach Me	
Directions	
1.	Review the directions on the worksheet in the Student Guide (p. 51)
2.	As a team, complete the worksheet
3.	After ten minutes, each team leads a discussion about their topic
<small>WORKPLACE EXAMINATIONS FOR DOWNSTREAM PROCESSING - SP7 FC2018C</small>	

Activity 4

ACTIVITY 4: TEACH ME
Write your assigned workplace examination hazard on the line provided. Use your student guide to research answers to the questions provided.
Assigned Hazard: _____
Potential Risks _____
Controls _____
How does this topic apply to your work area? _____
What other information do you think is important to discuss with the class? _____ _____

ACTIVITY 5: SECURE THE SCENE

PPT slide 48-56, SG p. 52-55



Time

Approximately 15 minutes

Materials

- Secure the Scene worksheet, SG p. 52-55 (1 per student)

Purpose

- This activity gives students the opportunity to identify the hazards associated with a workplace exam and the controls that can be implemented

Instruction

- Break the class into teams of approximately five students
- Review the directions on the worksheet
 - Identify the existing/potential hazards in each image
 - Record the hazards you find, then determine and record controls that can mitigate the hazards
- After ten minutes, progress through each image on the PowerPoint and discuss the hazards and controls as a class.** Possible answers are provided but other answers may be valid

Secure the Scene

Directions

- Review the directions on the worksheet in the Student Guide (p. 52)
- As a team, complete the worksheet
- After ten minutes, each image will be shown on the PowerPoint to discuss as a class

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Activity 5

Question	Possible Answers/Hazards
1	<ul style="list-style-type: none"> Slipping Tripping No clearance around eyewash station Hazardous substance exposure
2	<ul style="list-style-type: none"> Tripping Uneven grounds, rock underfoot Red flagging fallen down and why is it there? Wench line under tension Air lines under pressure Broken handle, potential for cuts Missing guarding on wench

Hazards in the Workplace

FREEPORT-McMORAN

1.

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Hazards in the Workplace

FREEPORT-McMORAN

2.

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Question	Possible Answers/Hazards
3	<ul style="list-style-type: none"> • Trip hazards • Low overhang or head clearance • Poor lighting
4	<ul style="list-style-type: none"> • Slipping hazards • Overhead clearance • Uneven surfaces • Missing mid-rail • Elevated platform • No catch chain visible
5	<ul style="list-style-type: none"> • Moving machine parts/equipment • Hazardous substance exposure • Fall from heights • Electrical
6	<ul style="list-style-type: none"> • Suspended load • Propane gas is highly flammable and displaces oxygen • Forklift and pedestrian traffic • Sharp edges and corners on cathodes

Hazards in the Workplace FREEPORT-McMORAN

3.



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Hazards in the Workplace FREEPORT-McMORAN

4.



WORKPLACE EXAMINATIONS FOR DOWNSTREAM PROCESSING - 8/17 FCE2018C 52

Hazards in the Workplace FREEPORT-McMORAN

5.



WORKPLACE EXAMINATIONS FOR DOWNSTREAM PROCESSING - 8/17 FCE2018C 53


Hazards in the Workplace FREEPORT-McMORAN

6.



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Question	Possible Answers/Hazards
7	<ul style="list-style-type: none"> • Housekeeping issues • Shop vacuum stored less than 3 feet from electrical box
8	<ul style="list-style-type: none"> • Hazardous substance exposure • Oxygen/acetylene tanks • Grinding equipment • Suspended loads • Housekeeping • Material storage

Hazards in the Workplace 

7.



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Hazards in the Workplace 

8.



WORKPLACE EXAMINATIONS FOR DOWNSTREAM PROCESSING - SPT FC23010C 56


PPT slide 57



Instruction

- **Review and discuss the questions on the slide**

Module 3 Debrief



- How will you apply the skills learned in this module to your daily work activities?
- Were there any hazards or controls associated with a workplace exam that surprised you?

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MODULE 3 QUIZ

PPT slide 58-60, SG page 56



Instruction

- Students will write answers to the quiz questions in the SG
- **Review and discuss the answers as a class**

Module 3 Quiz

Directions

1. Complete the quiz in the Student Guide (p. 56)
2. Review the answers as a class

Quiz

WORKPLACE EXAMINATIONS FOR DOWNSTREAM PROCESSING - SPT FC2018C

Module 3 Quiz

1. What is the purpose of guarding?
 a. To prevent access to a hazardous area
 b. To protect equipment from dust and debris
 c. To provide an alternative location for PPE storage
 d. To act as an administrative control against hazards
2. List three electrical hazards and how to mitigate the risks they pose
a. Answers vary.
b. _____
c. _____

WORKPLACE EXAMINATIONS FOR DOWNSTREAM PROCESSING - SPT FC2018C

Module 3 Quiz

3. Travel ways should be:
 a. Free of debris
 b. Easily accessible
 c. Well-lit
 d. All of the above
4. All containers must be labeled.
 a. True
 b. False

WORKPLACE EXAMINATIONS FOR DOWNSTREAM PROCESSING - SPT FC2018C

Answers

Question	Answer	SG page
1	a	page 32
2	Answers vary	page 34-37
3	d	page 41
4	a	page 48

Break

- We recommend taking a 5-10 minute break after this module. Allow students to stand up, stretch, use the facilities, etc. Clearly communicate what time you expect them to return to start the next module.

CONCLUSION

The conclusion contains information about the knowledge assessment, performance assessment, and Student Course Evaluation form.

ACTIVITIES

- Knowledge Assessment
- Performance Assessment
- Student Course Evaluation form

For further details, refer to “Activity Materials” under “Facilitator Preparation” on page 7.

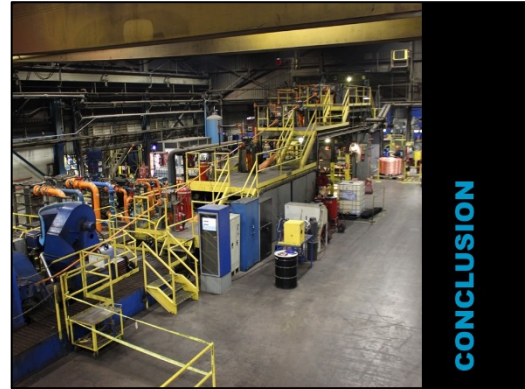
TOTAL TEACHING TIME

The conclusion takes approximately 30 minutes to complete.

PPT slide 61

Instruction

- The conclusion covers:
 - Review
 - Assessments
 - Student Course Evaluation



PPT slide 62, SG page 57



Instruction

- Ask for and discuss any lingering questions, comments, or concerns

Conclusion

What are some key concepts in each module?

- Module 1: Roles and Responsibilities
- Module 2: Conducting a Workplace Examination
- Module 3: Workplace Hazards

Are there any additional questions, comments, or concerns?

WORKPLACE EXAMINATIONS FOR DOWNSTREAM PROCESSING - SPT FC2211C

FREEPORT-McMORAN

62

PPT slide 63

Instruction

- Have students complete the knowledge assessment

Knowledge Assessment

Directions

1. Complete the assessment
2. Return the completed assessment to the facilitator
3. Facilitator scores the assessment

Assessment

WORKPLACE EXAMINATIONS FOR DOWNSTREAM PROCESSING - SPT FC2211C

PPT slide 64



Instruction

- Have students complete the performance assessment

Note: For a portion of the performance assessment, you need to be prepared to take the class to an actual workplace, have a simulated workplace set up, or create posters of different workplaces

Performance Assessment	Assessment
<p>Directions</p> <ol style="list-style-type: none">1. Read through the student directions.2. Complete the assessment while the facilitator observes. <p><small>WORKPLACE EXAMINATIONS FOR DOWNSTREAM PROCESSING - SFT F022016C</small></p>	

PPT slide 65, SG page 67

Instruction

- Have students complete the Student Course Evaluation

Student Course Evaluation	Evaluation
<p>Directions</p> <ol style="list-style-type: none">1. Complete the Course Evaluation in the Student Guide (p. 67)2. Carefully tear out the evaluation3. Return the completed form to the facilitator <p><small>WORKPLACE EXAMINATIONS FOR DOWNSTREAM PROCESSING - SFT F022016C</small></p>	

