**Risk Analysis**

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| Objectives:  At the end of the module, participants:   * Will be able to the assess risks related to an operation. * Will understand that the major risks are assessed using risk analyses called TRA. |

**This sequence is to be built locally. To this end, 2 options are available to you:**

* **either a local (or branch) training exists and meets these objectives. In this case, it can be used instead of this module.**
* **if this is not the case, you must build your own training session by following the suggestions below.**

**This document contains content suggestions and educational activities to achieve the goals of this module.**

**You will find the necessary elements to build your slides in the "TCT 5.1 Ressources.pptx" file.**

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| Key elements | Support/activities |
| The logic of risk analysis: identify the risks, assess them, determine the precautions to take and check that they are implemented. |  |
| Hazard = severity x probability |  |
| Differences between risk analysis methodologies: the technological risk assessment method is different from performing a risk analysis on an operation. | MRT Pyramid e-learning |

**Estimated duration:**

2 hours 20 minutes (1 hour 30 minutes of which is practice)

**Teaching method recommendations:**

After presenting in the classroom, there is an exercise designed to get participants involved in a risk analysis on an operation

1. Pre-requisite modules for the sequence

* None

1. Preparing the sequence

Before beginning this module, we recommend you ensure:

* The “MRT” e-learning is available.
* You have chosen an activity where participants can get involved in analyzing an operation.
* The documents related to your branch and site/subsidiary on operational risk analyses are up to date on the slides.

1. Suggestion for sequence roll-out

Instructions legend for the trainer:

* Comments for the trainer
* Key content elements
* **Type of activity**
* *“Question to ask”/statement of instructions*

| **Phase/Timing** | **Trainer** | **Module content suggestion** |
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| 1.Introduction  5 minutes | **Welcome participants and present the module objectives.**  **Share** the objectives of the module with the following comments:  *The objectives of this module are:*  *- to understand then carry out a risk analysis related to an operation.*  *- to be aware that technological risks are analyzed using another method (not developed in this module)* | Slide with the objectives:  At the end of this module, you:   * Will be able to assess risks related to an operation. * Will understand that the major risks are assessed using risk analyses called TRA. |
| 2. Hazard, risks, severity, probability.  20 minutes -> 25 minutes | The aim of this sequence is for participants to know the difference between risk and hazard. And for them to be able to characterize the 2 components of a hazard: severity and probability.  To do this:  - **Reminder of the difference between hazard and risk.**  *“Who can remind us of the difference between risk and hazard?”*  The resource slide may be useful.  The aim is for participants to understand that a risk exists from the moment it is uncovered. If it is not uncovered, there is no risk (e.g. if a knife is in the kitchen while you are at the opposite end of the house, the danger (of cutting yourself) exists but there is no risk to you.  In summary, **present** the definition of what a hazard is and an example.  **- Hazard = severity x probability**  Start with an actual situation:  *"Which is the most dangerous?* *A meteorite to the head or spraining your ankle while going down the stairs?"*  And in this situation, **ask** how they would classify them? What means are there?  **Let them discuss** and note on the board (classification according to severity and probability).  Present a slide to sum up. | Slide: definition and example of hazard vs risk |
| 3. Risk assessment method  25 minutes -> 50 minutes | The aim of this sequence is for participants to know the steps of the risk analysis and understand that the technological risks have a specific analysis method (which does not relate to them in their current job).  To do this:  **- Show the MRT e-learning.**  Or ask participants to navigate to it.  **Scroll through** the 2 e-learning sequences: introduction and then, when the pyramid is displayed, the "Risk analysis" module (do not show the "Analysis of technological risks" part).  Before launching the e-learning, **give** the instructions, which are to note the key points as they come up.  **- Organize a debriefing following the e-learning in the form of questions/answers.**  **Ask** the questions on the slide and **ask** participants to answer them.  Questions on the following topics, which are in the e-learning:   * *What are the steps for risk analysis?* * *Can you cite examples of specific risks and technological risks?* * *Are the operational risks dealt with using the same method as the technological risks?* * *What are the methods/circumstances for analyzing the “specific” risks (rounds, Work Permit, particular operations)?* * *What is the residual risk?*   **- Present the risk analysis regulations for your branch/site/subsidiary.**  **Show** the reference regulations: their name, number, and major points of the content.  **Remind** participants of, and **show them,** the matrix used in the branch or at the site/subsidiary, as well as the method in force at the site/subsidiary. |  |
| 5. Exercise on the risk analysis  01:10 -> 02:00 | The aim of this sequence is for participants to experiment in the classroom with the risk analysis on an operation (which you will choose).  To do this:  - **Present** the sequence  We will start by doing an example together, then you will complete an exercise on an operation in groups, then debrief.  - **Present** the method to be used.  **List** the steps on the board and explain **them**. In particular the last one on residual risk (make it clear that it is this risk we want to assess at the end to decide if the operation can be launched).  - **Do an example (together)**  **Start** with an example of an operation that can be either in the professional field (and in line with the site/subsidiary activities) or in a different context (for example: changing the air conditioning or changing a water tap (with weld) close to an electric meter).  **Do** the example with the participants, step by step.  **- Organize the exercise in groups**  **Organize** the groups (3 people) and ask each one to **identify** an operation to be completed.  **Monitor** the groups in turn.  **Ask** a group to present the outcome of their analysis. Then **ask** the others to suggest improvements (if needed).  In conclusion, ask the other participants **to comment** on the difficulties they encountered. | Slide: the steps:   * Identification of the tasks to perform * Identification of the hazards for each task * Identification and assessment of relative risks * Definition of one or more compensatory measures * Assessment of the residual risk |
| 6. What about you?  20 minutes - > 2 hours 20 minutes | The aim of this sequence is to gather what participants have understood and any difficulties they encountered.    **Ask** the participants to answer the following questions:   * *“What lessons have you retained from this module?* * *Do you think you will be involved in risk analyses in your day-to-day work? If so, for what type of operations?* * *What difficulties can you foresee?"*   Organize a **round table discussion**.And ask the other participants (or yourself) for solutions to address these challenges.  **Thank the participants and conclude.** |  |