**Analysis of Events/Causes (Principles)**

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| Objectives:  At the end of the sequence, participants:   * Will know the analysis method for the events and their causes used on their site/subsidiary. * Will be able to take an active part in an events analysis meeting. |

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

* **either a local (or division) 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 using the root cause analysis.**

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| Key elements | Support/activities |
| There are several methods for analyzing the events and their causes: root cause analysis, Domino model, etc. | Site/Subsidiary/Group regulations |
| Any HSE event (except anomalies) must be analyzed. The method may be different depending on the importance of the events. The aim is to analyze the event, to define, then to introduce the measures to prevent the event from reoccurring. |  |
| For events whose severity is greater than or equal to 4 (Group definition), the root cause analysis method is generally used. It makes it possible to identify and chronologically sequence, a posteriori, all the facts (factors) that have resulted in an undesirable event. | Watch the EP "Introduction to the root cause analysis method (00008118)" e-learning (30 minutes) attached to the folder. |
| The practicalities of on-site execution: when to apply it on-site, who is the guarantor, what they must deliver, who validates it, etc. | Site procedure.  CSB video "Death in the Oil Field" |
| The site procedure XXXX in which the method is formalized. |

**Estimated duration:**

3 hours to 3 hours 30 minutes

**Teaching method recommendations:**

Workshop to enable the newcomers to take part in creating a root cause analysis. If you are using another method to analyze the causes of an incident, adapt this content.

1. Pre-requisite modules for the sequence

Full TCAS 1, TCAS 2 and TCAS 3.

1. Preparing the sequence

Before starting the module, we recommend that you have the "root cause analysis" e-learning available for viewing on the overhead projector, as well as the "Death in the Oil Field" film.

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. Welcome and presentation of the objectives  5 minutes | **Present the objectives of the module** | At the end of the sequence, you:   * Will know the analysis method for the events and their causes used on your site/subsidiary. * Will be able to take an active part in an events analysis meeting. |
| 1. Method presentation.   40 minutes 45 minutes | **Question the participants:**  *"In your opinion, what is the use of analyzing events and their causes?"*  *How can this be done to make it as effective as possible?"*  Discuss with participants: the main objective is to thoroughly understand the sequence of events to ensure that it does not happen again.  **Presentation:**  To summarize, state the principles of analysis for the events and their causes (in view of what?)  If the root cause analysis is the method used…  Look at the e-learning (30 minutes)-  NB: To do this, in the "HTML" folder, double-click "Index.html" and select the preferred language. Then click “start”.  Following the e-learning, ask a participant to recap the various steps and the key points.  **Specific example**  Distribute a root cause analysis + its action plan as an example. Leave time to read and learn about it.  Comment on it as you read it | The analysis of events and their causes: what for? The different methods? What analysis for which event? A Total approach? More advanced courses in the catalog (if you are a guarantor). Specify that it is the recommended method    A root cause analysis aims first of all to identify the causes of an accident by going upstream as far as possible in terms of organizing the work and the operation of the company. It is important to know the following points:  - The key step is to ensure the relevant collection of facts.  - The root cause analysis is not an end but a means. I.e. knowing the causes is only of interest if preventive actions are put in place.  - The root cause analysis is in addition to the analysis methods, by enriching them with real facts.  - The purpose of the root cause analysis is not to explain the accident completely, but to find the factors on which it is necessary to act so that the accident does not happen again.  - It is a team effort. All possible information must be collected.  - We are not looking for a responsible party and in no case do personal attacks have room in such an investigation. Objective progress must be made in understanding the process that led to the accident.  Slide with the summary of the 3 key points: gathering facts on the ground through interviews, hollowing out with a root cause analysis, a final action plan (for continuous improvement)  - Example of a local root cause analysis - |
| 1. Site procedure.   20 minutes 1 hour 05 minutes | **Workshop on site procedure**  *“The site has formalized the method as a procedure. We will take the time to explore it."*  Organize a workshop in which, in pairs, the participants will read the procedure, note down questions and present to the others in 2 minutes those points that seem to them to be key to the site/subsidiary procedure.  Make sure that the instructions are clear and that the groups are formed.  Distribute the paper copy of the procedure.  After 10 minutes, ask one of the groups to present the key points (2 minutes max.).  After each presentation, ask the others to enrich it with aspects they would like to add.  Ensure that all of the practicalities are approached. | - local procedure to be printed or read in the technical standards, if the participants have a computer -  Who can do it? In which situations on-site? Its roll-out? Who approves it? Guarantors? Who decides on triggering? |
| 1. Application exercise   01:00 02:05 | **Root cause analysis exercise:**   * Show the “Death in the oil field” video * Provide the facts on the board and a blank root cause analysis. * The aim: to find the sequence of events by asking the right questions: What did it take…?, Is it necessary…?, Is it enough…?   As the trainer creating the root cause analysis, you need to facilitate the discussion, ensure that everyone is involved and feeds back, and ultimately ensure that there is consensus among the participants about the root causes of the accident.  Finally, ask a participant to summarize the root causes identified. | CSB video "Death in the Oil Field" |
| 1. Summary   30 minutes 02:35 | **Transposition**  Ask participants to anticipate using this method in their future reports:  *"At your station…*   * *Do you think you are going to be involved in root cause analyses? Under what circumstances?* * *Since your arrival, has there ever been a situation that would require one?* * *What do you think is the most important thing to remember in your day-to-day work?"*   Go around the table so everyone can give their answers to these 3 questions.  Finally, conclude and thank participants. |  |