Performing a Task Risk Analysis

Field of application RWE Generation NL

Prepared by GES-NL Safety

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Document information

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Changes compared with the previous version

- Interim review
- Links of documents (under related documents) modified

Purpose of instruction

Ensuring that in activities or activities with increased risk, a task risk analysis is always carried out in a structured manner. In addition, this instruction should also ensure that the TRA is jointly discussed and understood in the workplace by all involved.

Related documents

Document type	Title	Code
Proces	P001WCM	
Instruction	I001 work permits	2001-0046255
Checklist	Decision model TRA	2017-19341
Form (Excel)	TRA Form	2017-19341
SAP-instruction	SAP Quick Guide TRA in WMC	2017-86159

General

In this instruction, where applicable, the roles as described in the RWE work permits instruction I001-000 are used and are shown in bold.

These are the following roles:

Planner

Preparer

Permit Provider

Permit acceptor

Assessment of High-Risk activities

An initial determination in order to establish whether a high risk is present can be done at an early stage, for the priority 2 to 6 work orders, by the Discipline Engineer. In daily practice this provision will be made by the **Planner** during the work preparation. The **Permit Provider** from Operations does this for Priority 1 work orders.

The TRA decision model and the Risk Matrix are leading regarding this. If there is doubt regarding any high/low risk during work preparations, the line manager will always be consulted regarding this.

Performance of Task Risk Analysis

A Task Risk Analysis is to be carried out in stages:

1. Subdivide the task/work into logical activities and enter these in chronological order in the Activity column.
2. Determine conceivable and real risks for each activity, enter them in the Risks column and classify the risks using the RWE Risk Matrix.
3. Establish one or more control measures for each risk which can be taken in order to eliminate or manage that risk. Think of the source approach in each case. Enter the control measures in the Control Measures column. Re-classify the residual risk using the RWE Risk Matrix.

Choosing the task to be analyzed

Sometimes priorities must be set when choosing the task to be the subject of a TRA. The risk classification from the risk matrix can be used for this purpose.

When choosing and analyzing the high-risk task, we must not only think about standard works but above all also about works connected with troubleshooting, cleaning, maintenance, repairs, adjustments and updates, settings and suchlike.

Breaking down the task into task steps

Analysis cannot start until the task has been broken down into several elementary steps. Each step is a chronological part of the task. Each step is to be defined or described using a ‘do sentence’. This will describe ‘what’ is to be carried out and not ‘how’ the step is to be carried out.

The elementary steps into which the task is broken down should not be too small (too detailed) or too big (too general). This is usually the biggest problem with the breakdown. An effective task breakdown can contain around ten to fifteen different steps. A detailed breakdown is often not necessary while if a breakdown is too general, certain aspects of a task will be lost which could give rise to undesirable risks not being identified. If the number of task steps becomes excessive, the task will have to be split into subtasks.

The identification of risks

The tracing and identification of risks can start after the task has been broken down into steps. The intention is to describe the risks associated with each step. It is preferable for the risks to be described based on the type of loss (the effect, what can happen, etc.).

The risks mainly relate to/arise from:

1. The nature of the work.
2. The workplace.
3. The work environment.
4. The working conditions.
5. The complexity.
6. New elements during the work.

Identification of the main occupational risks

1 The nature of the work

This is about the nature of the work that will have to be carried out. This includes industrial cleaning or moving a lifting load, excavation work, working with electricity or in the vicinity of radioactive sources. Are we dealing with short repetitive work or is the work physically heavy?

2 The workplace

For example, we can think of working in confined spaces or working at height. Is the workplace accessible and what room for maneuver do we have during the execution of the work, and finally, where can we find the escape routes, and how can help be provided in an emergency, and whether the right tools are available?

3 The workplace environment

What does the workplace environment look like? What type of company/plant/installation are we dealing with? Will different work be carried out overhead/underneath/in front/behind or in the vicinity at the same time? Will we have to deal with traffic and what type of traffic will there be in the workplace environment? Is there a material storage facility available?

4 The working conditions.

What weather conditions can be expected during the performance of works? What products will we be dealing with? What are the conditions in the immediate vicinity in respect of lighting, noise, temperature, air, for example?

5 The complexity

With what numbers of people is the work carried out and are they employees of one or more contractors? In how much time should the work be carried out? Is it an existing or a new project that needs to be carried out? What are the task factors, and which personal factors play a role in this?

6 New elements during the work

Do new elements emerge during the execution of the work? Do work have to be carried out simultaneously that is not planned? Should tools, auxiliary materials be used that have not been considered? Should the work be carried out with more, fewer or different employees?

During this phase of the task analysis, attention must be paid to various risks that:

- are current during the performance of the step itself.
- arise during the performance of the step-in question and that may arise then or thereafter.
- arise if the step sequence is not followed.
- may arise in unfavorable/unexpected circumstances.

Setup of the TRA

The **Planner** (or **Permit Provider** in case of priority 1) selects the relevant SIM form (the TRA form) in SAP for the relevant work order.

The risks associated with each task or activity will be described based on the individual activities described in SAP whereby the situation at the workplace itself will also be examined and those tasks or activities with a yellow score or higher will be transferred to the TRA form if they have not been managed already in standard work instructions or a standard procedure.

Preparation of TRA

Planner will propose additional control measures on the form for any risks that have not been managed yet in order to reduce the risk in the most efficient and effective way so that an acceptably low residual risk remains. In the process, he will consult the P**reparer** (process-technical) from Operations. The **Planner** invites the executive department well before implementation, for the TRA Consultation.

TRA meeting and determination of control measures

Discipline Engineer, Team Leader Operations, Maintenance Coordinator, representative of the contractor and if applicable other subject matter experts, classify the Increased Risk tasks or activities and determine the corresponding control measures that have not yet been mastered via a SIM form or standard work instruction.

These control measures are recorded on the TRA form.

Compilation of the TRA dossier

The **Planner** compiles the TRA file according to the agreements from the TRA Consultation. The **Preparer** of Operations checks the TRA proposal for quality and covers all risks of the tasks/activities to be carried out. **The digitally completed TRA form is then uploaded in SAP.**

Unacceptable residual risk from TRA

In the event of an unacceptably high residual risk, despite all the described control measures, the **Planner** must call in all necessary expertise in order to still be able to take the additional control measures

Issue of work permit in the case of increased risk

The **Permit Provider** (in function as on-duty Team Leader Operations) and **Permit acceptor** go through the work permit, SIM forms (specific partial permits) and TRA and both sign the TRA during the issuance moment of the work permit.

This moment of communication is a crucial moment to share the right information between the **Permit Provider** and the **Permit Acceptor**. The Provider asks the **Permit Acceptor** for confirmation whether everything is properly understood, and whether he can carry out the work as safely as possible.

Both must ensure that all control measures are in place prior to the execution of the task / work.

Start-of-work meeting in respect of the TRA and LMRA

The **Permit acceptor** of the work permit is responsible for jointly executing the LMRA with his team at the workplace, in the presence of a representative RWE E&M of Operations (see also LMRA instruction).

Topics to discuss:

1 **Work permit** and any **SIM permits** with mentioned risks and control measures.
2 **TRA**.
3 With the help of the **LMRA** card, any remaining risks and dangers at the workplace are determined, and corresponding measures are carried out.

All those involved sign on the LMRA card for having read and understood and will work according to the work permit, TRA and LMRA agreements. All documentation is available at the workplace at the start.

Now that the circumstances give cause to do so, the control measures must be adjusted, and the starting work instruction is carried out again.

The TRA is a fixed part of the 'increased risk' work permit + maintenance order. After interruption, in any case at the end of the day or shift, the complete package (file) with TRA must be returned by the **Permit** acceptor to the **Permit Provider**.

Archiving the TRA dossier and duration

The **Permit Provider** is responsible for ensuring that the TRA and LMRA form, after completion of the work, are archived and available for at least three months.

These three months also apply to any other documents that are part of the TRA file.

Explanation of abbreviations and terms used

SiM	**Si**cherheits **M**aβnahmen = Security control measures. Partial work permit for specific, risky activities, such as hot work, excavation work, etc.
LMRA	**L**ast **M**inute **R**isk **A**nalysis (POWRA)
WCM	**W**ork **C**learance **M**anagement = Process to secure and release plant parts for work