Procedure for reporting and analysing NEAR MISS

1. Premise and purpose

This procedure defines the methods for reporting, analysing and managing near misses (near misses) in the laboratories of the Politecnico di Torino, for preventive and training purposes.

It takes into account the plurality of subjects involved, the variability of experimental activities and the presence of equipment, prototypes and risk agents.

Objectives of the procedure:

- identify prevention and protection measures;

- improve risk management;

- promote the culture of safety;

- support activities in safe conditions.

2. Scope

The procedure applies to the following workplaces:

- educational laboratories;
- research and experimental laboratories;
- workshops and technological laboratories;
- ancillary rooms (deposits, technical rooms, instrument rooms);
- places or external environments where teaching or research activities are carried out outside the built-up areas of the Politecnico di Torino campuses (e.g. archaeological, geological, maritime campaigns, etc.)

The procedure involves:

- teachers and researchers;
- technical and administrative staff;
- doctoral students, research fellows, scholarship holders;
- thesis students and students authorized to access the laboratories;

3. Definitions

NEAR MISS (missed injury)

Unplanned event that **could have caused damage (to people or property)**, but which did not produce consequences due to fortuitous circumstances or timely interventions.

Examples in the university – laboratory field:

- chemical spillage without exposure;
- avoided contact with hot surfaces or moving parts;
- procedural error intercepted before the damage;
- Temporary failure of a safety device

RADRL (Head of Teaching and Laboratory Research Activities)

Informs the staff whose teaching and research activities are responsible for the need to detect and report NEAR MISs and the related reporting methods;

collaborates in the analysis of NEAR MISSES;

identifies, with the SPP, the prevention and protection measures to avoid the recurrence of events;

works for the application of the identified prevention and protection measures;

assesses the impacts on experimental and educational activities;

promotes safe behaviour in the work group.

- transmits the report to the Prevention and Protection Service.

RADRL

- Informs the staff for whose research activity it is responsible, of the need to detect and report NEAR MISSs and how to report them;
- collaborates in the analysis of NEAR MISSES;
- identifies, with the SPP, the prevention and protection measures to avoid the recurrence of events;
- works for the application of the identified prevention and protection measures;
- assesses the impacts on experimental and educational activities;
- promotes safe behaviour in the work group.

University Prevention and Protection Service (SPP)

- receives reports;
- records and classifies NEAR MISSs;
- coordinates the analysis of the causes;
- proposes corrective and preventive actions, in collaboration with the RADRL;
- verifies the need to update the DVR following the reports;
- verifies the integration of the DUVRI and laboratory procedures (in collaboration with the Supervisor and the RADRL).

Employer / Facility Manager

- approves corrective actions, if within its competence;
- ensures resources and implementation;
- promotes the reporting system.

4. Survey and analysis of Near Misses

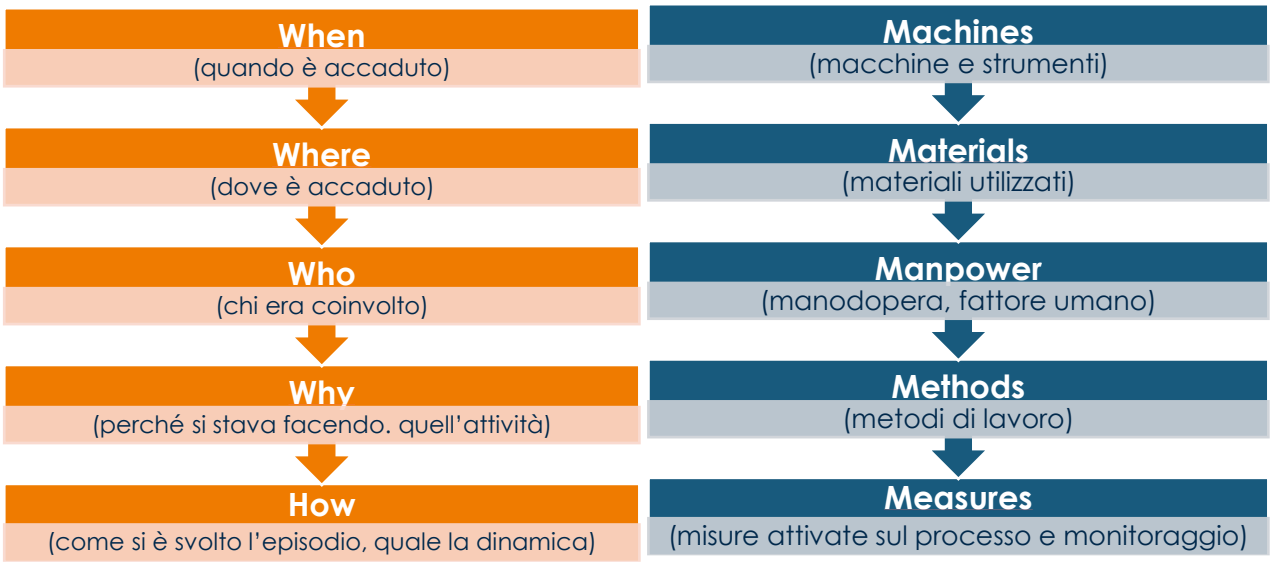
The investigation and the consequent analysis are proportionate and differentiated according to the **potential severity** of the event, understood as the potential for damage that could have resulted, as a greater probability of re-occurrence and/or as the number of subjects potentially involved/exposed.

4.1. Survey methodology

For the purposes of the survey, the following data are collected:

- Place and time of the episode
- Data on injured or otherwise involved persons
- Product damage (to people, environment, property)
- Activity carried out at the time of the episode
- Working conditions and specific elements of that moment
- Whether or not the risk was known
- If a procedure existed and if it was followed
- The level of expertise and experience of the people involved
- Difficulty in using plants or equipment
- Whether the equipment used was the appropriate one and its state of maintenance
- The contribution of interferences (e.g., cleaning, procurement, maintenance) and other contributing factors

Documenting the elements of the classic 'journalist's questions' (4W + H) and the presence and relevance of elements of the '5M', namely:



4.2. Analysis methodology

The analysis is adapted to the specific event and, in particular, to the severity of the potential damage and the probability of recurrence.

The different articulation of the analysis may involve, for example:

a working group that includes different levels of responsibility;

different times and methods of analysis;

a different level of participation of the subjects involved.

The analysis is aimed at identifying the immediate and deep causes (root cause analysis), in order to define effective and lasting improvement actions.

5. Corrective and preventive actions

Actions may include:

updating of laboratory procedures;

changes to the layout and equipment (e.g. repositioning of machines, installation of additional protections, ergonomic improvement of workstations);

integration of the DVR or specific risk analyses;

targeted training and information interventions;

temporary restrictions on activities.

For each action, the following are identified:

a manager;

a timeline for implementation;

a verification of effectiveness.

The actions are defined by a group composed of subjects with different skills, who identify and propose one or more solutions for one or more identified causes. The interventions are then chosen by the management figures (Department Director, Manager, RADRL), with the support of the Prevention and Protection Service and the approval of the Employer, and can be included in the plan to improve the level of safety contained in the University's general DVR.

6. Monitoring and Improvement

NEAR MISSES are recorded in a special archive of the University Prevention and Protection Service, which periodically analyzes the data to identify recurring trends and critical issues.

The programme of actions identified, with an indication of the relevant managers, is integrated into the DVR improvement plan.

The results of the analyses, the corrective action plan and the analysis of the aggregate data on the NEAR MISSs recorded are periodically shared by the Prevention and Protection Service with the Employer, the RLS and the Competent Doctor, and presented at the Periodic Safety Meeting (art. 35 Legislative Decree 81/08).

7. Communication and Training

The lessons learned from the NEAR MISSs are disseminated anonymously and the results are used to integrate and improve:

initial education and training for access to the University and laboratories;

the specific work procedures and operating instructions;

specific procedures and general emergency plans.

Regulatory references

Legislative Decree 81/2008

DM 363/98

State-Regions agreements on training

Health and Safety Regulations of the Polytechnic University of Turin

Attachments:

1. Near Miss report form