

Recommendations of the International Joint River Bodies on internal alarm and hazard control planning

The internal alarm and hazard control planning (BAGAP) belong to one of the basic responsibilities of operators of Accident-prone plants. This should include the type and procedure of planned organisational and technical measures after detecting a hazardous situation which can lead to an accident or that can be caused by an accident that has already occurred.

- 1 The internal alarm and hazard control plan must guarantee the rapid report of hazards to the internal and/or external organ designated to receive such reports immediately.
- 2 The internal alarm plan and hazard control plan must contain precise instructions related to specific plants and / or groups of plants for those persons or groups of persons in charge of passing on all messages in emergency cases
- 3 Depending on the scope of the anticipated impacts, different alert levels must be fixed in agreement with the authorities responsible for disaster control. For such situations various co-ordinated alarm procedures are needed (e.g. Rhine warning and alarm system).
- 4 The plant operator must specify in jointly with the authorities who is responsible for which measures in the event of an industrial accident.
- 5 For the internal alarm and hazard control plan it is necessary to specify the persons in charge, their functions and responsibilities, their availability, meeting points and tasks for special squads of the emergency team. In addition, special experts must be listed by names and a schedule for their assignment specified.
- 6 Specify the method of warning and alarming of the water users affected by an industrial accident as well as informing the public.
- 7 For plant-related hazard prevention plan, the following general information are amongst others necessary:
 - Listing of available emergency resources
 - A description of the waters in the vicinity of the installation and any special uses (e.g. drinking water protection area)
 - Nature and quantity of substances in the fire sector and storage facilities of the plants, including safety data sheets and as the case may be, also in-house information on the substance

- 8 For every plant site or unit where there is high danger risk in case of accidental release of substances hazardous to water, the following information must be provided:
 - Fire brigade plans (highly dangerous areas, permitted fire fighting means etc.)
 - Water supply (e.g. fire-fighting water, availability of cooling water)
 - Power supply (e.g. emergency power supply, voltage switch)
 - Drainage plans (e.g. shut-off devices, containment facilities and highly dangerous areas)
 - In-plant alarm and warning equipment
 - Emergency shut-down of hazardous installations (e.g. reactors).
- 9 The main emphasis when specifying hazard control plans must be on the relevant substances hazardous to water and relevant dangerous technical facilities. The crucial factors here are:
 - Nature and quantity of potentially hazardous substances and their effects,
 - Dispersion behaviour of substances, possibilities of managing the damage, further possible consequences
 - - Nature of installation
- 10 Description of the industrial accident scenarios and the corresponding consideration of the impacts of accidental release of substances hazardous to water into surface waters (in terms of how long it takes for it to spread and how far it could spread).
- 11 Description of measures to limit the effects of industrial accidents (e.g. facilities for containing fire fighting water, collecting tanks, fire fighting systems) on the basis of the relevant industrial accident scenarios such as
 - Leakage
 - Overfilling
 - Total failure of vessels, containers, pipelines or other portion of the plant
 - Fire outbreak and the amount of water needed to combat the fire
 - Accidents during in-house transportation of hazardous goods.
- 12 Training in regular intervals on how to respond and the measures to be taken in the event of industrial accidents.
- 13 Update the internal alarm and hazard control plans regularly.

14 Ensure that the local authority and the personnel are informed about the alarm and hazard control plans.

