Recommendations of the International Joint River Bodies on fire prevention strategy

The fire protection concept can be divided into individual measures, which make the occurrence of fire almost impossible, but also detect fire outbreaks in time to be able to combat it with suitable fire fighting appliances.

The individual fire protection measures consist of:

- constructional measures and facilities,
- detection and notification of fires,
- mobile and stationary fire fighting equipment,
- provision of suitable fire fighting agents in adequate quantities,
- administrative measures such as regulations for storage facility, fire prevention plans, training of plant personnel,
- a well trained and equipped fire brigade that is familiar with the special aspects, e.g. a fire in a pesticide storage, and
- The facilities and measures for containing contaminated fire fighting water.

Individual descriptions are given of safety measures which prevent the escape, ignition and explosion or limit the escape of substances or which serve fire fighting purposes.

1 Containment facilities

1.1 Collecting basins for spilled dangerous substances must be adequately dimensioned and must be tight and resistant to the substances.

1.2 Fire fighting water retention facilities must be tight and resistant to the fire fighting water. In regard to their size, the following parameters should be considered:

- Hazardousness of the substances stored (e.g. hazard to water, flammability),
- Readiness of fire brigade,
- Fire protection infrastructure (fire detection system, fire extinguishing system),
- Total area of storage section,
- Height of goods stored, how dense the goods were stacked in the storage and stored quantity,
- Nature of storage facility (e.g. open-air, indoors).

If active delivery systems (e.g. pumps) are required to make the fire fighting water flow into the available fire fighting water containment facilities, such systems must comply with high safety requirements.

2. Constructional fire protection measures

Non-combustible building materials should always be used. The building should be divided into fire cells and zones separated by fire-resistant materials.

3. Fire detection system

The fire detectors should be installed in a way as to guarantee instant detection of fire and must be reliable. Account must be taken of factors that can influence rapid fire detection, such as the height of the room, subdivisions of the roof area (e.g. height of roof trusses), condition of the environment and all possible sources that can result in false alarms.

4. Fire-fighting water supply

   Adequate supplies of fire-fighting water must be ensured.