

6.4 Riverine Flood Preparedness – wet provision (Germany)

OECD GP Activity	UN SF Activity	UN SD Goals / Targets
6. Natech risk in emergency planning, preparedness, and response	4. Enhancing disaster preparedness for effective response	Non-specific targets relevant for Natech Risk Management (3.8, 6.3, 9.4, 11.5, 11.B, 12.4)

Classification according to OECD Guiding Principles, UN Sendai Framework Priorities/Activities, and UN SDGs and Targets

Figure 1: Approaches for safety measures for floods (Annuality of 300 or 100 years)



Source: © Karl-Erich Köppke

Figure 2: Unsecured small containers (left) and secured large tanks (right)



Source: © Karl-Erich Köppke

Short Facts:

Governance approach: Preparedness

Source: Ing.-Büro Prof. Dr. Köppke GmbH

Entry into force:

Targeted Stakeholders: Operators, authorities, assessors/safety experts

Scope of applicability: Enterprises, sites

Natural Hazard(s) Considered:

- Flood

Climate change: Could be included

Description

A risk analysis and the elaboration of an emergency plan were undertaken for a company that fills refrigerants and liquid gases from larger tanks into small containers. The facilities of the company are located directly in the catchment area of a larger river. The high water marks on a building show the water level for events which can occur statistically once in 100 years or in 300 years. The larger tanks are all fixed in the ground, while the small containers are only stacked without securing against flood and flotsam.

The geographic location analysis showed that protection against flood by technical measures (e.g. a flood protection wall) was not possible. Thus, an emergency plan with an early warning system and an evacuation plan was required.

The period of time between a warning and an event, along with personnel and logistics capacities and the provision of a sufficiently large area outside the flood-prone area, are decisive in this context. The warning is in this case to be carried out by the responsible authorities as well as by a separate water-level measurement near the site. An evacuation plan was worked out on the basis of the predicted available time; the staff tests this plan each year.

Link/Contact:

<http://koeppeke.com/>


Comments by the UN/OECD Natech-Steering Group:

The example demonstrates that in the event of riverine floods and extended warning times, the evacuation of hazardous substances can be an effective approach.

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