



## **A damage scale for NATECH events: Measuring the impact of floods and forest fires on industrial installations**

E. Krausmann and F. Mushtaq

European Commission, Joint Research Centre, Institute for the Protection and Security of the Citizen, Hazard Assessment Unit, TP 670, Ispra (VA), Italy (elisabeth.krausmann@jrc.it, fesil.mushtaq@jrc.it)

As a contribution to the European 6<sup>th</sup> Framework Programme PREVIEW project a methodology is being developed to characterise natural disaster events by using damage intensity scales for post-disaster damage assessment. In the present work we present an extension of the French flood submersion scales (based on local hydrological criteria for plain floods and flash floods and hence useful for a local description of the event) and the French forest fire scale in an attempt at taking into account the impact of these natural hazards on industrial installations.

Based on an analysis of data on past NATECH events and taking into account existing industrial-accident gravity scales a semi-quantitative description of the damage due to a potential flood- or forest-fire triggered NATECH in an industrial installation was developed and will be presented. This description is a function of the type and size of the industrial activity (and hence a function of the amount of hazardous materials present) and the possible consequences of a NATECH event (toxic release, explosion, fire) including the potential for domino effects.