



LIFE09 ENV/GR/000291

REACH Protocol for Emissions and Accident Scenarios in Supply
and Distribution of Fuels and Petrochemical products

SUB ACTION 2.6 BATs and Emergency Response Planning for minimizing the environmental damage. Review of practices and standards in the transportation of petrochemicals with focus on potential to environmental damage

PART A

**Executive Summary of the Deliverable “ BATs and
Emergency Response Planning for minimizing
environmental damage” in English**



LIFE+ Environment Policy & Governance

Executive Summary

In this deliverable Best Available Techniques (BATs), emergency response planning techniques and environmental containment guidelines as applied by industry partners and as recommended by other industries and/or the competent Authorities are recorded and analysed. The selected sectors under study correlate to the transport of dangerous petrochemical substances and include emergency response planning and environmental containment techniques practiced by industrial practices, transport sector and maritime sector (emergency plans for spills, the control of sea pollution, major accidents, etc.)

Basic concepts regarding emergency response planning and environmental containment guidelines practiced by industrial sites are specified (Chapter 2). Special reference is made to ports, airports and train stations applying stringent control procedures, conforming to international regulations. An analysis of accidental events is performed, while legislation regarding emergency response planning according to the Common Ministerial Decision 12044/613/2007 (SEVESO II) (internal and external emergency plans) and environmental protection is presented. In the project, incidents that might occur in sites where dangerous substances are temporarily stored are classified in different severity levels and emergency response levels (E1, E2, E3). The study includes a three level response system corresponding to low impact incidents (Level 1), medium impact incidents (Level 2) and high impact incidents (Level 3) each requiring local operations, partial response or full emergency response activation respectively. The emergency response levels and the incidents/ accidents corresponded with each response level are presented in the deliverable based on possible accident scenarios. Moreover, analytical reference is made to a recommended structure of the internal emergency plans in industrial sites and sites/ organizations where dangerous substances are stored (Report an emergency incident – Incident Description, Confirmation – Incident Evaluation, Emergency Plan Implementation – Response, Restoration activities, etc.) and an indicative example of response in cases of emergency in ports for different types of incidents is given. The general structure and the contents of possible accident scenarios (for different emergency response levels) are also presented for typical industrial sites/ organizations that handle and store dangerous substances. Finally the case of service stations is studied including typical emergency procedures and safety management measures.

Chapter 3 includes but is not limited to practical guidelines recommended by industry partners and legislative requirements as set out by ADR and RID Regulations specifically referring to the transport of dangerous petrochemicals by road and rail. Reference is made to the main national legislation for the safe transport of dangerous goods by road and rail and safety measures and standard operating procedures for road truck and tank-wagons loading/ unloading are recorded (procedures before loading or unloading, inspection procedures, road truck loading, road truck/ portable tank-wagon unloading, general cautions during loading/ unloading, basic actions in case of an emergency, etc.). In addition special emergency scenarios and response measures are also presented.

Chapter 4 focuses on emergency response planning techniques and environmental containment guidelines as applied in maritime sector. The study includes operational and accidental pollution prevention strategies and emergency response systems as recommended by the International Convention for the Prevention of Pollution from Ships (MARPOL), the International Maritime Organisation (IMO) and local authorities and as practiced by the maritime industry and industry partners of the project. The 3-Level emergency response system as set out by the National Contingency Plan dealing with pollution incidents caused by oil and other harmful substances at sea, described in Presidential Decree 11/2002, is analysed and a set of practical guidelines are recommended for common emergency response scenarios. In addition analytical reference is made to Oil Spill Contingency Plans of industrial sites taking into account BATs and industrial practices (e.g. main pollution causes, organisation and duties of personnel for the prevention of marine pollution, emergency notification, response actions, personal protective equipment and means of communication, training of personnel, etc.). Reference is also made to the actions, described in the Ministerial Decision 2411/2003 in cases of marine pollution, while various emergency accident scenarios and BATs are studied for the minimization of the environmental damage.

Finally a set of common critical areas and vital emergency response operations are defined taking into account all sectors under study as previously mentioned. A short generic checklist has been developed,

specifying guidelines that are defined as being of vital importance, to be used as a systematic evaluation tool for most emergency response systems (Chapter 5 of the deliverable).