



LIFE09 ENV/GR/000291

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

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*SUB ACTION 2.3 Analysis and definition of critical information on Strictly  
Controlled Conditions (legislation and on-site procedures)*

### **SUB ACTION 2.3**

**Executive Summary of the Deliverable “Strictly Controlled  
Conditions (SCC)” in English**



LIFE+ Environment Policy & Governance

## Executive summary

In this deliverable (sub-action 2.3) an analysis of Strictly Controlled Conditions (SCC) is carried out for the identified project life cycle (LC) stages (distribution and transport stages) of dangerous substances, taking into account the data included in Safety Management Systems (SMS, SEVESO) for the control of major-accident hazards involving dangerous substances. The term SCC is used by REACH Regulation (EC) No 1907/2006 for intermediates and specifically they are controlling mechanisms of intermediates. According to the guidelines of the European Chemicals Agency (ECHA), the safety issues taken into account for the control of substances under strictly controlled conditions and which explain and analyse SCC are the following:

- 1) the substance is rigorously contained by technical means during its whole lifecycle
- 2) procedural and control technologies shall be used that minimize emission and any resulting exposure
- 3) only properly trained and authorized personnel handle the substance
- 4) in the case of cleaning and maintenance works, special procedures such as purging and washing are applied before the system is opened and entered
- 5) in cases of accident and where waste is generated, procedural and/ or control technologies are used to minimize emissions and the resulting exposure during purification or cleaning and maintenance procedures
- 6) substance-handling procedures are well documented and strictly supervised by the site operator.

All thematic areas of SCC were analyzed for the provisions and HSE procedures addressed. The existing legislation and HSE procedures of project industrial partners defined the framework and analysis of this sub action. Specifically for the analysis and definition of SCC, Safety Management Systems (SMS) (i.e. operational procedures, inspection procedures, etc.) and Health, Safety and Environmental (HSE) procedures were identified and examined for the examined LC stages of the involved processes (loading/ unloading, transport).

SCC were analysed through SMS assessment criteria of the National Guidelines for Inspecting SEVESO sites<sup>1</sup> including 160 questions in total (assessment criteria) regarding the SMS thematic areas: organisation and personnel issues, identification and evaluation of major-accident hazards, operational control issues including maintenance, management of change issues, planning for emergencies, monitoring performance, audit and review. Implementation and matching of SMS questions (for its 7 thematic areas) with specific SCC themes (six conditions with their sub-categories) have been performed for the identification of SCC during loading/ unloading and transportation stages of fuels and other dangerous substances. In the deliverable the results of SCC analysis through the list of SMS assessment criteria are recorded. These results have shown that:

- All SCC provisions as defined in the project correspond very well to the SMS controls for all LC stages with no significant gaps.
- All SCC provisions can be identified in detail for all seven elements of SMS controls, through existing HSE requirements for each and every LC stage (loading/unloading, transportation, service stations, etc).
- The SMS controls are proved appropriate for inspection of SCC provisions in the transportation and handling of dangerous goods and can thus be directly implemented for auditing SCC.

In conclusion, a pilot implementation of the SMS inspection checklist (questionnaire) for the identified life cycle stages: truck loading stations, service stations and road transport of fuels has been carried out for the identification of SCC (Appropriateness assessment). This assessment has been performed taking into account the relevant HSE legislation, the procedures of the project industrial partners, relevant studies (Safety Reports, Environmental Impact Assessment Studies, etc.), the project partners' experience and experience obtained by site visits to critical handling and loading/ unloading areas of fuels and petrochemical products.

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<sup>1</sup> National Guidelines for Inspecting Oil and Gas installations as required by Article 16 of the Common Ministerial Decision 5697/Government Gazette 405/29.3.2000 - Implementation of Directive 96/82/EU (SEVESO II) in Greece, Greek Version, Technical University of Crete (TUC), Chania 2004.

The results of the appropriateness assessment have shown that all SMS questions (assessment criteria) matched with SCC can be answered through safety and environmental protection procedures taking into account all available data (relevant studies, legislation, procedures, etc.) and consequently appropriateness criteria are met. This assessment is the preparatory stage of the benchmarking exercise performed under sub-action 2.6.