

IMPLEMENTATION OF THE DIRECTIVE SEVESO IN ROMANIA IN MURES COUNTY

Florica MORAR*
Iulian ZIDARESCU**

ABSTRACT: *Introduction of Seveso II Directive (Directive nr.96/82/CE) aims to prevent accidents and also limiting their consequences for population and environment. In Romania, the same direction was implemented in 2003 by GD. 95 of 23 January 2003 on the control activities of major accident hazards involving dangerous substances, Official Gazette no. 120 of February 25, 2003. The above mentioned judgment was replaced by GD. 804 of July 25, 2007, on the control of major accident hazards involving dangerous substances, to which changes were made by GD no. 79 of 11 February 2009 (published in Official Gazette no. 104 of February 20, 2009). In Mures County responsible for implementing the Seveso Directive are competent authorities like: -the Inspectorate for Emergency Situations "Horia" of Mures County, National Environmental - the County Commissioner, Environmental Protection Agency Mures - Risk Secretariat. Note that, in the county were identified operators employed at the lower limit (lower risk) and upper limit (high risk), which have certain responsibilities and obligations, regarding the fulfillment of regulations under the Seveso II. In the future it is expected a number of actions in order to consider it as a rigorous compliance (depending on the circumstances in Mures county) of Seveso II Directive.*

KEYWORDS: *legislation, Directive Seveso upper-risk, the lower-risk minor, major accident hazards, hazardous substances.*

JEL CODE: K32

1. INTRODUCTION

Worldwide, the last half century has been a pronounced development of chemical industry which triggered a series of inconveniences and also the possibility of production of major impact events upon population and the environment. This has imposed a forcefully promoting legislation to prevent and control such situations.

The technological accidents involving chemicals like Seveso (1976), Bhopal (1984), Baia Mare (2000), Toulouse (2001), etc. determined the development of Seveso

* Lecturer, dr. eng. University of „Petru Maior” Tg. Mures, ROMANIA.

** Eng. Emergency Situations Inspectorate of Mures County, ROMANIA.

Directives. To introduce this Directive is to prevent accidents and limit their consequences for population and environment.

In 1976, in Italy, Seveso, at a chemical company which dealt with producing pesticides and herbicides³, there was an accident after which over 600 people were evacuated and more than 2000 people were treated for dioxin poisoning. There was at that time an immediate contamination—because of the release from a reactor of a dense cloud of TCDD (tetrachlorodibenzoparadioxin) necessary to produce trichlorofenol – on 10 square kilometers of land and associated vegetation.

The year 1976, following the accident at Seveso, was the starting point for legislation in this area, so in 1982 the Council adopted Directive nr.85/501/CEE on major accidents registered in certain industrial activities⁴; this Directive is known as the Seveso Directive.

Seveso Directive has been amended twice: first in 1987 by Directive nr.87/216/CEE, from March 19, 1987 and the second time in 1988 by Directive nr.88/610/CEE of November 24. The purpose of the two changes was to broaden the scope of the Directive, including provisions relating to the storage of hazardous substances. Later, in the context of the Fourth⁵ and Fifth⁶ Action Programme of environmental protection (1987, 1993 respectively) it was also discussed a general revision of the Seveso Directive, requiring Member States, thus broadening the scope and more better management of risks and accidents.

Moreover, in the same period it was requested to revise the Directive also through an European Parliament resolution. Given this, on December 9, 1996, the Council Directive 96/82/EC on the control of major accident hazards, the so-called Seveso II Directive, was adopted.

For implementation of the administrative regulations and national legislation, EU Member States were given two years. From February 3, 1999 tasks under Directive are mandatory for industries and public authorities and Member States are responsible for implementation and enforcement of its provisions. It should be noted that the Seveso II fully replaced the original Seveso Directive. They introduced important changes in content and completed conceptual framework. Directive 96/82/EC (Seveso II) was extended by Directive 2003/105/EC, due to other industrial accidents (Toulouse, Baia Mare, Enschede) and applies to several thousand industrial units, if in those units there are hazardous substances in quantities exceeding the thresholds in the Directive.

2. IMPLEMENTATION OF SEVESO IN ROMANIA

Year 2002 is important regarding that:

- Environmental Protection Law was amended by Ordinance no.137/1995 no. 91/20 June 2002⁷, which contains new provisions on hazardous substances and industrial accidents;

³ Chemical Accident Prevention, Preparedness and Response, Amendment of the “Seveso II” Directive COM(2001) 624 (adopted), (<http://europa.eu.int/comm/environment/seveso/index.htm>);

⁴ OJ No. L 230 of 5 August 1982;

⁵ JO L 85 din 28 martie 1987;

⁶ JO L 85 din 28 martie 1987;

⁷ Publicată în Monitorul Oficial, Partea I, nr.465/28.06.2002

-Romania has ratified the Convention on the Transboundary Effects of Major Accidents, signed in Helsinki in 1992.

Seveso II Directive nr.96/82/CE- control of major accidents caused by dangerous substances has been implemented in Romania in 2003 by GD. 95 of 23 January 2003 on the control activities of major accident hazards involving dangerous substances, Official Gazette no. 120 of February 25, 2003, which was replaced by GD. 804 of July 25, 2007, on the control of major accident hazards involving dangerous substances published in the Official Gazette no. 539 of August 8, 2007 as amended by Government Decision no. 79 of February 11, 2009, amending Government Decision no. 804/2007 (mentioned above), published in Official Gazette no. 104 of February 20, 2009.

Implementation of the Seveso II nr.96/82/CE- GD no. 95 of 23 January 2003 on the control activities of major accident hazards involving dangerous substances revealed the need for horizontal legislation, specific for the implementation of this Directive: Ministry of Interior:- Order no. 647 of 16 May 2005 approving the Methodological Norms on making contingency plans in case of accidents involving dangerous substances, Official Gazette no. 460 of May 31, 2005.

Ministry of Environment:

- Order no. 1084 of 22 December 2003 on the procedure for notification of activities which present hazards of major accidents involving dangerous substances, namely, major accidents products, published in Official Gazette no. 118 of February 10, 2004. Issued by the Ministry of Agriculture, Water and Environment;
- Order no. 142 of 25 February 2004 Procedure for assessment of the safety hazards on the activities of major accidents involving dangerous substances, Official Gazette no. 191 of March 4, 2004. Issued by the Ministry of Agriculture, Water and Environment;
- Order no. 251 of 26 March 2005 for the organization and functioning of the secretariats of risk control activities of major accident hazards involving dangerous substances, published in Official Gazette no. 298 of April 11, 2005. Issued by Ministry of Environment and Water;
- Order no. 1299 of 23 December 2005 approving the Procedure of inspection for hazards objectives of major accidents involving dangerous substances, published in Official Gazette no. 77 of 27 January 2006. Issued by Ministry of Environment and Water Management.

Ministry of Environment and Water (current Ministry of Environment and Forests) and the Ministry of Interior

- Order no. 520/1.318 of May 29, 2006, the approval procedure for the investigation of major accidents involving dangerous substances, published in Official Gazette no. 522 of 16/06/2006.
- The new provisions are very important for the Seveso II Directive because:
- they make express reference to the proposed legislation harmonized with European and international regulations in the field, to the introduction and monitoring of compliance programs;
- they state the "principle of integrated pollution prevention and control through the use of the best available techniques for activities that may cause significant pollution"⁸

⁸ Publicat în Monitorul Oficial, Partea I nr. 522 din 16/06/2006

- To implement this directive authorities were supported by the European Commission, carrying TAIEX seminars and projects, as follows:
- 2004 - Implementation of the Twinning project RO/2002/IB/EN/02 VOC's, LCP and Seveso II Directives, PHARE - Program 2002 Twinning project of the Romanian Ministry Environment and Water Management and the German Ministry fader for the Environment, Nature Conservation and Nuclear Safety;
- 2009 - Support for implementation of Directive 96/82/EC (Seveso II) and Directive 2003/105/EC - joint project by the General Inspectorate for Emergency Situations and Regional Environmental Protection Agency Region of Veneto (ARPAV) in Italy.
- 2010 - Support for increasing the capacity of the General Inspectorate for Emergency Situations of risk assessment / effects of major accidents - joint project with TUV Austria.

After these projects were developed some guidelines:

- Guidelines for assessing the external emergency plan;
- Guide for the application of Seveso Directive in spatial planning and urbanism;
- Guide for assessing safety reports;
- Checklist for inspection fertilizers locations;
- Checklist for inspection of mining activities;
- Checklist for inspection at refineries;
- Inspection Checklist for liquefied petroleum gas deposits;
- Methodology for the analysis of industrial risks involving dangerous substances.

All these can be found at http://www.igsu.ro/domenii_seveso.html. According to the F-Seveso final study (Study of effectiveness of the Seveso II), published on August 29, 2008, in Romania have been identified 202 industrial units, of which 131 with major risk and 71 with lower risk, placing the country on the 10th place in the number of industrial units in the EU Seveso.

2. PARTICULARS OF IMPLEMENTATION SEVESO II IN MURES COUNTY

This study aims to present how to implement the Seveso II Directive nr.96/82/CE-control of major accidents caused by dangerous substances and Directive 105/2003/EC amending the Directive nr.96/82/CE Mures County. Responsible for implementing this Directive are the Ministry of Waters and Environmental Protection (now Ministry of Environment and Forests) and the Ministry of Interior, as central authorities, and the Inspectorate for Environmental Protection (current Environmental Protection Agency), the National Environmental Commissariat County and County Inspectorate for Emergency, as local authorities. Thus in Mures county are responsible for implementing the Directive Seveso competent authorities (Article 5 of the GD 804/2007):

- Inspectorate for Emergency Situations "Horia" of Mures County;
- National Environmental - the County Commissioner;
- Environmental Protection Agency Mures
- Secretariat of Risk.

With the implementation of this Directive, in Mures County were identified the following economical operators⁹:

⁹ Art.5 din H.G. 804/2007

- a) economic operators employed at the higher - Major Risk (MR)
- AZOMURES SA Tg. Mures;
 - DAFCOHIM SRL Tg. Mures;
 - AMGAZ SA Tg. Mures, site Seleus, outskirts of the village, commune Danes, Mures County;
 - DEPOMURES SA Tg. Mures, rural property site in Tg. Mures;
 - S.N.G.N. ROMGAZ S.A. Medias, Ploiesti branch, workshop storage Transylvania Sarmășel store and gas station Sarmășel compression;
 - VITAFOAM ROMANIA SRL Ludus;
 - Carbide Fox Tarnaveni removed in 2007
- b) Economic operators employed at the lower - Minor risk (MR)
- SC COMPANY AQUASERV SA;
 - GABIMEX SRL Tarnaveni:
 - Street Armatei No. 1 workstation,
 - Street Progresului No. 1 workstation
 - ELECTROCENTRALE BUCHAREST SA Branch Electrocentrale Mures, work Iernut power station;
 - EARTH RECYCLING SRL Tarnaveni, removed in 2011

3. OBLIGATIONS OF ECONOMIC OPERATORS PLACED UNDER SEVESO DIRECTIVE

Operators employed at the lower - minor risk (mr).

The operator is required to prepare a document setting out its policy of preventing major accidents and to ensure that it is properly implemented to protect, at a high level, the population's health and the environment by appropriate means, structures and systems and an appropriate management.

Operators employed at the higher - Major risk (Mr)

The operator is required to produce a safety report for:

a) to demonstrate that it the major accident prevention policy and safety management plan of that policy, according to Annex no. 3 by GD. 804 of July 25, 2007, on the control of major accident hazards involving dangerous substances;

b) to demonstrate that the potential hazards of major accidents have been identified and have taken steps to prevent such accidents and limit their consequences on human health and on the environment;

c) to demonstrate that adequate safety measures have been included in the design, construction, operation and maintenance, storage facilities, equipment and infrastructure within the site which present risk of major accidents;

d) to demonstrate that internal emergency plan was developed and the necessary information for the external emergency plan was provided to ISU (Inspectorate for Emergency Situations) to take necessary measures in case of a major accident;

e) to provide the necessary information to the competent public authorities at regional and county level, and to the local authorities responsible for spatial planning to allow decisions on the siting of new activities and future development around existing sites.

Operator is required to provide public safety report.

Operator must develop an internal emergency plan that includes measures to be applied within the site.

Site operator employed at the higher supply ex officio, regularly and in the most appropriate form, information on safety measures in operating and accident behavior of all persons and decision makers in establishments serving the public, which could be affected by a major accident originating on this site. Operators are required to appoint an official person in the site safety management in order to fulfill the provisions of this decision.

We consider it necessary to recall some powers and responsibilities of the competent authorities for the Seveso II implementation in our country:

- Develop and implement a system of inspection and control;
- Inspections at each site - at least once every 12 months;
- Setting up an information office and a new information system and information;
- Creating a national database;
- Making an inventory of facilities performing covered Seveso II;
- Analysis of information in safety reports, reports of major accident prevention, internal emergency plans, taking into account regional planning policies (for each operator);
- Communication of information to all involved and interested in, from the outside (the Commission and other Member States) and in the country (public, local authorities, operators);
- Inspectorate for Emergencies County prepare external emergency plan based on information supplied by the trader in the safety report, internal emergency plan or any other document requested;
- Identifying training needs for those active in risk management and accident prevention, etc..

4. PERSPECTIVE AND TRENDS IN THE MURES COUNTY

1. The refurbishment activity AQUASERV SC COMPANY SA intends to reduce the amount of chlorine that is using the technological process of water treatment.

2. Identification of new operators, but because of the current economic context many operators reduce their activity or even close work, and new operators carry out activities with no chemicals involved.

3. Conducting exercises testing external emergency plans, check out how operators test internal emergency plans, information and training of the population.

4. Inspection and control actions through which to pursue a planned and systematic examination of the systems on site, whether technical, organizational or management in order to ensure that:

- a) the operator can demonstrate that adequate measures were taken on the various activities taking place on site, to prevent major accidents;
- b) the operator can demonstrate that appropriate means for limiting the effects of major accidents within and / or off-site have been used;
- c) data and information contained in the safety report or any other document properly reflect the conditions of the site;
- d) information have been provided to the public.

5. PERSPECTIVE EUROPEAN AND TRENDS

The European Commission started the review process of Directive 96/82/EC on the control of major accidents involving dangerous substances.

Seveso II Directive is to be amended due to changes in the EU system of classification of dangerous substances, to which the Directive refers. In this context, it was decided in 2008 to launch a more comprehensive review as the basic structure of the Directive and its main requirements have remained essentially unchanged since its adoption.

5.1 Coherence with other policies and objectives of the European Union

The main reason for the revision of the Seveso II is to align Annex 1 of GD 804 of 2007 on control of major accident hazards involving dangerous substances to Regulation (EC) no. 1272/2008 on classification, labeling and packaging of substances and mixtures (the "CLP"), amending and repealing Directives 67/548/EEC and 1999/45/EC, to which the Seveso II Directive currently refers.

Rules Regulation no. 1272/2008 (CLP) on classification, labeling and packaging of chemical substances and mixtures become final on June 1, 2015.

REFERENCES

- “Administrativ SHM -Revision”, Association of Swedish Chemical Industries (Kemikontoret), Stockholm 1996.
- “AVRIM2 Manual”, Ministerie van Sociale Zaken en Werkgelegenheid, Den Haag, The Netherlands, 1996.
- “Check-List Chlore”, CRC/CL/003-F, Belgian Ministry of Employment and Labour, Administration of Labour Safety, Technical Inspection
- “Check-list Entrepot”, CRC/CL/004-F, Belgian Ministry of Employment and Labour, Administration of Labour Safety, Technical Inspection Chemical Risks Directorate, Brussels 1997.
- “Check-List LPG”, CRC/CL/005-F, Belgian Ministry of Employment and Labour, Administration of Labour Safety, Technical Inspection Chemical Risks Directorate, Brussels 1997.
- “Criteri e metodi per l’ effettuazione delle ispezioni agli stabilimenti di cui al decreto del Presidente della Repubblica del 17 maggio 1988, n. 175, e successive modificazioni” Decreto del Ministero dell’ Ambiente 5 novembre 1997 (G.U.R.I. n. 27 del 3-2-1998)
- “FOD Guide to Inspection of Health and Safety Management”, Health and Safety Executive (HSE), United Kingdom.
- “Guidance on the preparation of a Safety Report to meet the requirements of Council Directive 96/82/EC (Seveso II)”, Papadakis, G.A., Amendola A. (Eds), EC Publication, EUR Report 17690 EN, Luxembourg 1997. ISBN 92-828-1451-3.
- “Guidelines on a Major Accident Prevention Policy and Safety Management System, as required by Council Directive 96/82/EC (SEVESO II)”, Mitchison, N. and Porter, S. (Eds), European Commission Publication, EUR Report 18123 EN, Luxembourg 1998, ISBN 92-828-4664-4.

- “Integrerat Iedningssystem för säkerhet, hälsa och miljö” (Integrated management system for safety, health and the environment), Association of Swedish Chemical Industries (Kemikontoret), Stockholm 1997.
- “L’organisation de l’inspection des établissements soumis à la législation des installations classées”, Direction Régionale de l’ Industrie, de la Recherche et de l’ Environnement (DRIRE), Ministère de l’Environnement, Paris 1997.
- “Manual of the Metatechnical Evaluation System (S.E.M) - An Evaluation System for the Safety Management in the Process Industries”, CRC/CL/001-F, Belgian Ministry of Employment and Labour, Administration of Labour Safety, Technical Inspection Chemical Risks Directorate, Brussels 1997.
- “Minimum Criteria for Inspections”, European Network for the Implementation and Enforcement of Environmental Law (IMPEL), IMPEL Ad-Hoc Working Group on Minimum Standards, EC November 1997.
- “Proceedings of a Seveso Directive Seminar on Inspection Systems and Examination of the Safety Report - Rome 23/25 Sept. 1998”, Pre-print available as Special Publication No. I.98.90, Joint Research Centre, Ispra, Italy 1998.
- “Risk Assessment & Risk Management in the Context of the Seveso II Directive”, Kirchsteiger, C., Christou M. and Papadakis, G. (Eds), Elsevier 1998.
- “Safety Auditing”, Training Package 031, Institution of Chemical Engineers, Rugby, UK 1998.
- “Safety Performance Measurement”, Van Steen, J. (Ed), European Process Safety Centre, Institution of Chemical Engineers, UK 1996. ISBN 0-858295-382-8.
- “SHE - Audit” (English version), Association of Swedish Chemical Industries (Kemikontoret), Stockholm 1996.
- “Successful Health and Safety Management”, Health and Safety Executive (HSE), HS(G)65, HMSO London 1997. ISBN 0 7176 12767.
- Alexandru Ozunu, Evaluarea riscului de mediu, vol.I
- Bellamy, L.J. and Brouwer, W.G.J. (in press) “AVRIM2: A Dutch major hazard assessment and inspection tool”, J. Hazardous Materials, Special Edition (Eds. A. Amendola and K. Cassidy), 1998.
- Chemical Accident Prevention, Preparedness and Response, Amendment of the “Seveso II” Directive COM(2001) 624 (adopted), (<http://europa.eu.int/comm/environment/seveso/index.htm>);
- Er, J., Kunreuther, H.C. and Rosenthal, I., “Utilizing Third-Party Inspections for Preventing Major Chemical Accidents”, Risk Analysis, Vol. 18.No2, 1998.
- http://www.igsu.ro/domenii_seveso.html
- JO L 336 din 7 decembrie 1988
- JO L 85 din 28 martie 1987;
- Jones, A. V., “The Regulation on Major Hazards in France, Germany, Finland and The Netherlands”, Health and Safety Executive (HSE), HMSO Norwich, UK, March 1997 CDCIR 2033
- Lees, F.P., “Loss Prevention in the Process Industries”, Vol.1-3, Butterworth-Heinemann, Oxford 1996.
- Mitchison, N. and Papadakis, G.A., “Safety Management Systems Under Seveso II: Implementation and Assessment”, Journal of Loss Prevention in the Process Industries, 12 (1), 1999.

- O. Salvi, A. Jovanovic, C. Bolvin, C. Dupuis, C. Vaquero, D. Balos, A-M. Villamizar, *F-Seveso. Study of effectiveness of the Seveso II Directive. Final report*, 2008, Available at: <http://www.fseveso.eu-vri.eu/>.
- Octavian-Liviu Muntean – „Evaluarea impactului asupra mediului”, Casa Cărții de știință, Cluj-Napoca, 2006
- OJ No. L 230 of 5 August 1982;
- Ruuhilehto, K. & Kuusisto, A., “Turvallisuskulttuuri - mitä se on?” (Safety Culture - What is it?), TUKES - julkaisu 3/1998 (TUKES Publication 3/1998), Helsinki 1998.

