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EFMA'S PRODUCT STEWARDSHIP PROGRAM

by: J.A.M. van Balken, EFMA, Belgium and Tore K. Jenssen, Norsk Hydro ASA, Norway

Introduction

Mr. Chairmen, Ladies and Gentlemen. I am very happy that the organizing committee gave me the opportunity to give this presentation. However, before doing so, I would like to start by giving you a brief introduction to the European Fertilizer Manufacturers Association.

EFMA represents the major fertilizer manufacturers in Europe. Its members account for some 90% of their region's nitrogen fertilizer production capacity and some 70% of phosphate fertilizer production, resulting in a market share of about 75% of the Western European fertilizer market (EU plus EFTA).

EFMA's mission is to identify, promote and manage the common interests of its members by explaining and promoting the role of mineral fertilizers in European agriculture and horticulture, anticipating and preparing for upcoming issues that may affect the industry, by being the industry's spokesperson and sounding board and by providing its members with a wide range of statistical information and services.

EFMA is an association under Swiss law and has offices in Zurich and Brussels.

Going back to the topic of my presentation: EFMA's Product Stewardship Program

In the last two years four accidents have happened in the European Fertilizer Industry. "This is enough, we cannot afford more" were the words of EFMA's President in the Steering Committee meeting of 8 March, 2002. Mr Clauw again stressed the importance of a good environmental and safety performance for our industry. With this in mind, he proposed the initiation of a EFMA project, "Product Stewardship in the Fertilizer Industry".

It is not that the Industry does not have enough procedures in place but ensuring Implementation is a key issue. In less than a year and a half an EFMA Task Force has completed the task given by the President of EFMA:

- Development of an EFMA Product Stewardship Program for implementation in EFMA member Companies
- A system to check compliance with EFMA's Product Stewardship Program

Today I like to report on this Product Stewardship Program and on the compliance system. In addition I would like to give a short resume on four examples being part of such a program.

The structure of my presentation is as follows:

1. What is Product Stewardship
2. EFMA's Product Stewardship Program For Fertilizers
3. EFMA's Compliance system
4. EFMA's Product Stewardship Program Launch
5. Examples of EFMA's Product Stewardship Program



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* Received: 12.09.2003

email address: hvb@efma.be & tore.k.jenssen@hydro.com

What is Product Stewardship?

Product Stewardship is the management of the safety, health and environmental aspects of a product throughout its lifecycle in an ethically responsible way. It is the Responsible care applied to the product. For the Fertilizer Industry it means to make sure that fertilizers and their raw materials, additives and intermediate products are processed and manufactured, handled, stored, distributed and used in a safe way with regard to health, occupational and public safety, environment, and security. It also means that our plant nutrients shall always satisfy society's requirements to safe food production and animal feed...

The concept of Product Stewardship is not new. Several Chemical companies have a Product Stewardship in place and a good examples is the PS GO Product Stewardship Program of the Chemical Industry Association in the UK.

For EFMA and some of its members however, a Product Stewardship program is new and the necessity to implement one I already explained in my introduction.

EFMA's Product Stewardship Program for Fertilizers

The EFMA's product stewardship program for fertilizers consists of a CD Rom containing all information necessary for implementing such a program in EFMA's member companies. For each element in the program it gives guidance on how to comply with legal requirements, EFMA's requirements and guidance on how to implement the issues.

Official EU legal regulations, UN recommendations, as well as to all EFMA guidance Documents are all accessible on the CD Rom.

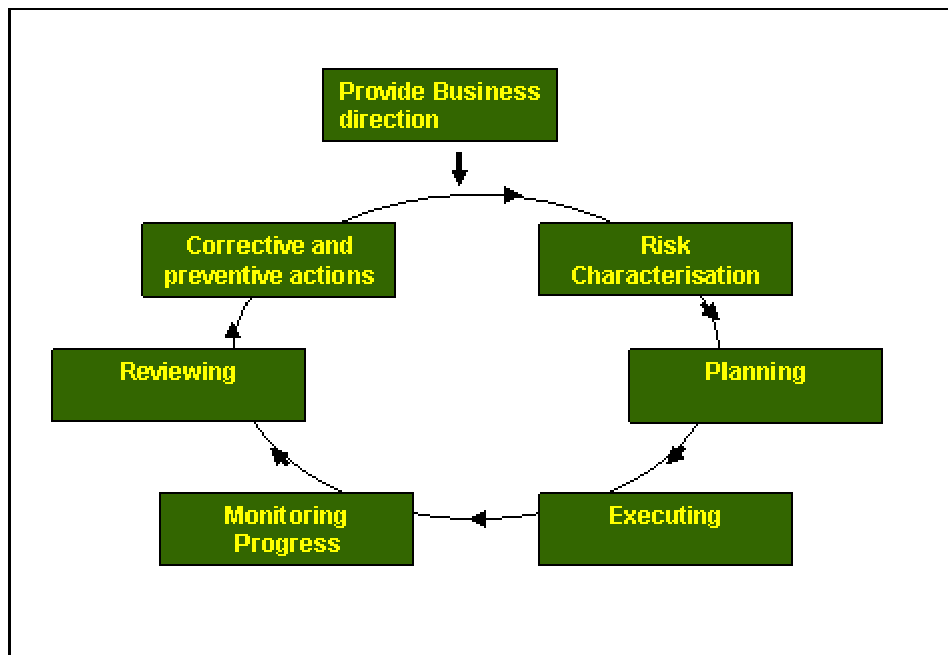
There are 5 main elements in the program:

1. Managing Product Stewardship
2. Product Life Cycle
3. Risk management
4. Communication
5. Partnership

1) Managing Product Stewardship

This chapter addresses the role of the senior management, their commitment and their responsibility not only to implement the program in their company but also to regularly review the program. A tool to achieve this goal is the management cycle. The management cycle starts by providing business direction. All activities in the lifecycle are assessed for their risks. Plans are executed and progress in monitored.

Regularly the process is reviewed and corrective actions are taken if necessary. The cycle starts again.



2) Product Life Cycle

The product life cycle is the core of the program based on the principle “cradle to crave”. It gives further guidance to what to implement in the 9 stages in the product life cycle being:

- a) Sourcing of raw materials, intermediates and additives
- b) Research and Product development
- c) Product manufacture
- d) Packaging and/or storage on site
- e) Product marketing and sales
- f) Product transport and delivery
- g) Product storage at distributor
- h) Customer service, application at the farm.
- i) Re-use, recycling and /or disposal of packaging materials and left-overs

Taking into account the whole life cycle means that the focus is not only on manufacturing operations, but also on the distribution to the farmer... The actions initiated under the umbrella of Product Stewardship require the co-operation of transporters, external storage operators, distributors and customers.

In addition we see the need to address the issue of security and this is part of the EFMA Product Stewardship Program.

3) Risk Management

The purpose of risk management is to ensure that no chemical or process directly related to manufacturing, transport, use or disposal, presents any unacceptable risks to people or the environment, and that any risks that do exist are reduced to the lowest practical level. The process consists of two major parts:

- 1) Risk Characterization
- 2) Risk Reduction and Control

4) Communication

An effective communication process is an important element of any Product Stewardship Program. Comprehensive HSE information should be available and targeted to those who are involved in the product life cycle. Measures should be in place to ensure that this HSE information is understood and implemented by those who are involved.

EFMA will communicate the positive messages the fertilizer industry has to give such as the joint EFMA/TFI testing program on products, EFMA's Best Available Techniques Booklets, members' HSE reports, and EFMA's message that "Fertilizers are Safe and Feed the World".

Main elements in this chapter are:

- a) Implementation of product stewardship by EFMA members

This chapter deals with the members commitment to EFMA's core values. The official signing of EFMA's core values took place on the 28th May, 2003. It also deals with EFMA's compliance system which I will discuss later in my presentation.

- b) Dissemination and implementation of information

A second chapter under communication is the dissemination and implementation of EFMA's product stewardship program, Guidance documents, brochures and leaflets and training program. A training program to inform EFMA's members on how to implement the Product Stewardship Program and how to use the compliance system was given on the 23rd September, 2003.

5) Partnership

The building of effective partnership between a Fertilizer supplier and its customers, suppliers, hauliers, distributors, and others involved in the supply chain is a key aspect of Product Stewardship. The ultimate objective is to extend the recognition of the positive contribution of Product Stewardship to all those involved in the product's life cycle. Examples of partnerships addressed in this chapter are:

Partnership with emergency services, suppliers, contractors, customers, resellers and other downstream users, haulier companies, other industries, authorities, and partnership with the scientific community

EFMA's Compliance System

Having a Product Stewardship Program is not enough. It is a prerequisite for EFMA's membership to comply with EFMA's Product Stewardship.

How do we measure this compliance?

1. Self assessment
2. Inspection
3. Reviewing

1. Self Assessment

Self-assessment is done under the responsibility of the CEO of the company. For that purpose EFMA has developed a questionnaire consisting of about 143 questions, covering all the elements of EFMA's Product Stewardship program.

The questionnaire has been developed with Det Norske Veritas a world-wide recognized independent third part specialist in these matters. The questionnaire enables the companies to get an idea on where they stand with the implementation of the program.

The self assessment questionnaire is signed off by the CEO and sent to EFMA for further review.

2. Inspection

For the first year EFMA has chosen for inspecting the Product Stewardship program by an independent department of the company such as a corporate SHE department. For the purpose of auditing EFMA, together with an independent third party (Det Norske Veritas) has developed 5 inspection check lists to validate that day-to day operations are in conformance with EFMA's Product Stewardship Program. The inspection check lists cover the areas in the Product Life Cycle which we believe are most vulnerable as regards to possible accidents:

- 1) Inspection of storages.
- 2) Transportation
- 3) Inspection of contractor management at manufacturing sites. This list can be changed and/or extended to other areas in the Product Life Cycle in the coming years.

3. Reviewing

The result of the assessment of each member company will be displayed against minimum EFMA requirements. Those companies that do not meet the minimum requirements have to comply with it in the next round (2004). The minimum requirements, the scope of the self-assessment and inspection, as well as the compliance system itself, are subject to review.

EFMA's Product Stewardship Program Launch

The EFMA's Product Stewardship Program was officially launched on the 23rd September, 2003 for a broad audience of Press, Members of the Parliament, Commission, Non-Governmental Organizations, EFMA members etc. this to show to the general public that the Industry is serious with this initiative.

Examples of EFMA's Product Stewardship Program

I would like to address four EFMA initiatives as examples of EFMA's Product Stewardship Program. The first two examples are related to partnership with the authorities.

1. Partnership with the Authorities

Be proactive and participate in discussions with international agencies, national competent authorities and local regulatory bodies on Product Stewardship seeking to promote a balanced judgment between the

HS&E, scientific, economic and practical arguments. EFMA regularly discusses with the European Commission, members of the Council and members of the Parliament proposals for new EU legislation. EFMA seeks well balanced legislation where community interest such as environment and safety have an equal place as the economic interest of the fertilizer industry.

Amendment of the Seveso II Directive

Council Directive 96/82/EC of 9 December 1996 on the control of major accident hazards involving dangerous substances (Seveso II or COMAH Directive) regulates risk assessment of storage of dangerous substances.

Ammonium nitrate being one of the dangerous substances is part of that regulation and appears in the following two entries:

Dangerous substances	Qualifying quantity (tonnes) for the application of	
	Article 6 and 7	Article 9
Ammonium nitrate	350	2500
Ammonium nitrate	1250	5000

Immediately after the Toulouse accident, the EU Commission proposed to amend the existing Seveso Directive. Though ammonium nitrate fertilizer conforming with E.U. and French national legislation was NOT involved and the explosion rather involved material classified as off-spec., consisting of off-spec. low density/high porosity ammonium nitrate (technical grade), together with off-spec. high density/stabilised ammonium nitrate (fertilizer grade), the commission proposed to add in their proposal additional entries including one on off-spec material .

Column 1	Column 2	Column 3
Dangerous substances	Qualifying quantity (tonnes) for the application of	
	Articles 6 and 7	Article 9
Ammonium nitrate (Compound, NPK)	5000	10000
Ammonium nitrate (Fertilizer grade)	1250	5000
Ammonium nitrate (Technical grade)	350	2500
Ammonium nitrate (Off-spec).	50	200

Ever since, EFMA has started a discussion with National Authorities, Commission, Council and Parliament with the purpose to have a safe and reasonable amendment for Ammonium nitrate. Although EFMA was not successful at the end in convincing the legislators to consider EFMA's proposal as a better alternative we are sure that we by our actions have prevented a much worse legislation or even a ban.

Commission proposal for a regulation on Cadmium in fertilizers.

More recent the EU Commission proposed a new legislation on Cadmium Fertilizers for consultation by stakeholders. The results is claimed by the Commission to be based on the outcome of the Risk Assessment studies done by the Member States. "Seeking to promote a balanced judgment between the HS&E, scientific, economic and practical arguments" is what I mentioned earlier. These scientific and

economic arguments however, are lacking in this proposal and EFMA continues to discuss with Commission and National Authorities to achieve a much more realistic piece of legislation.

Examples 3 and 4 are related to safe storage loading and filling

2. Establish Best Practice for Safe Loading and Filling

Guidance for safe handling and use of non-conforming fertilizers and related material

Also as a consequence of the Toulouse accident, the West European Fertilizer Industry recognizing that handling of non-conforming material was not part of EFMA's 1992 Handbook Safe Storage of Ammonium Nitrate Based fertilizers. EFMA promised the EU Commission to develop such document a task which recently has been completed.

This guidance identifies sources of such materials, brings out relevant aspects of their properties and outlines various methods available for their safe utilization or disposal. It focuses on solid Ammonium Nitrate (AN) based fertilizers and typical solid fertilizer process raw materials, in packaged or loose bulk form. It also covers urea and urea-based fertilizers, potassium nitrate, potassium sulphate, ammonium sulphate and other common fertilizer raw materials.

This guidance is not prescriptive in nature; it offers alternative options, which operators should evaluate in relation to their own particular situation and select the most suitable one having carried out a risk assessment. As a follow up EFMA now has started a similar guidance document form distributors.

Recommendation for safe storage and reliable inspection of atmospheric, refrigerated ammonia tanks.

As a last example of good Product Stewardship I would like to present EFMA's Recommendations for safe and reliable inspection of atmospheric, refrigerated ammonia storage tanks. A full presentation was given by me in the Joint meeting of the Technical sub-committee and committee Thessaloniki Greece 10 October, 2001.

This document, produced by EFMA and issued in 2002, provides guidance and an optimum basis for the periodic inspection of fully refrigerated anhydrous liquid ammonia storage tanks, operated in Europe. The recommendations and guidelines provided are applicable to those tanks, which operate at or near atmospheric pressure and -33°C. The guidance uses a risk based inspection approach requiring the evaluation of the probability and consequences of failure for each individual tank. Tanks are positioned according to their scores on probability and consequences of failure the need for the frequency of an internal inspection can be determined. EFMA has conducted a survey, covering 37 tanks in Europe, to validate the recommendations. The underlying intention is to maximise operational safety and reliability of these tanks.

With this I would like to end my presentation. Hopefully was able to show you that EFMA is a proactive association, willing to learn and seriously willing, not only to secure today's safe and environmentally responsible production, storage, transport and application of our fertilizers but surely wants to lift our SHE performance up to higher level. EFMA is convinced that the EFMA Product Stewardship Program is a very good tool in achieving this and will be happy to give a helping hand should you wish to accomplish such a program.