## UN/OECD seminar in follow-up to the 2020 Beirut port explosion

Panel Discussion: Question for Kishore Shah, Fertilizers Europe

What is your industry perception of the key challenges in the safe management, handling and storage of AN, incl. in port areas?

There are significant regional differences in the level of awareness and compliance with good practices. For example, the Product Stewardship programs operated by Fertilizers Europe, UK's Fertilizer Industry Assurance Scheme and the program put in place by the International Fertilizer Association have helped to raise awareness and significantly improve compliance.

However, not all companies or operations have taken up such product stewardship schemes. I will, therefore, comment in the global context.

The annual production of ammonium nitrate is around 49 million tonnes, of which approximately 20% gets exported or imported. These are not small numbers. This confirms the high value of ammonium nitrate. Also, this means land and sea transport is important in addition to production, storage and use.

The ammonium nitrate used in the explosives industry gets traded and transported mostly between two well regulated industries: manufacturing and mining. This helps to contain the safety issues. On the other hand, the fertilizer industry is vastly different. There can be at least four main stakeholders:

- -primary producer of AN,
- -blenders and other downstream industry
- -merchant/distributor/farmer
- -transport industry and port or responsible local authorities

Many codes and guidance documents for the safe storage of AN and AN-based fertilizers are freely available for all stake-holders. Their general message is that it is a very stable substance and its hazards are well known and understood. They stipulate similar safety expectations: non-combustible building design; avoidance of contamination; effective segregation from incompatible materials, sources of heat and shock. These requirements are not difficult to understand and implement.

Against this background, our challenges are:

- How to raise awareness and enhance communication of existing guidance in order to implement the same in the downstream supply chain?
- -How to implement safe management systems throughout the distribution chain?
- How to manage the flow of product through ports, particularly with respect to maintaining high standards for both goods in transit and materials which may require short-term storage in ports in exceptional circumstances?
- Most primary producers recognise that prevention of serious incidents involving fertilizer is vital, and therefore seek to work with highly professional agents, ship owners and port operators.

However, there is a spectrum of standards in the merchant and shipping industry. How can the fertilizer industry remain at the upper end of that spectrum wherever fertilizers are handled? The troublesome history of the ship which brought ammonium nitrate to Beirut is a good example. It will be very helpful if all stakeholders can find ways to support the shipping industry and responsible authorities to find ways to prevent such situations arising.

In conclusion, we believe this seminar will help to disseminate helpful information about AN safety to many and would like to thank UN/OECD and other agencies for organising it.

**Kishore Shah** 

**Fertilizers Europe**