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Testimony before the Texas House Homeland Security and Public Safety committee

Name: Tim Herrman, State Chemist and Director Office of the Texas State Chemist, Professor in the Department of Soil and Crop Science and a member of the Toxicology Interdisciplinary Faculty at Texas A&M University. The Office of the Texas State Chemist is the state government agency tasked with the responsibility of administering the Texas Commercial Fertilizer Control Act of the Texas Agriculture Code Chapter 63, and the Texas Administrative Code Title 4 Chapter 65 Commercial Fertilizer Rules. We are located in College Station and are a part of Texas A&M AgriLife Research.

I've been asked to provide an update on our agencies activities following the West Fertilizer Company incident. The role of the Office of the Texas State Chemist involves protecting the market and consumers of feed and fertilizer. The primary responsibilities of OTSC are to ensure that fertilizer products meet label guarantees and are free of adulteration for purposes of quality assurance and market protection and to ensure that producers and distributors of fertilizer guard against improper sale of or unauthorized access to ammonium nitrate.

Subchapter I of the Texas Commercial Fertilizer Control Act is titled Ammonium Nitrate. While there are 7 paragraphs within this subchapter, there are three primary purposes or goals that I will explain and discuss how our agency has incorporated changes since the West Fertilizer incident. Then, I would like to discuss other changes that we have incorporated under the authority provided by the Texas Commercial Fertilizer Control Act, some of the new requirements, proposed rules and conformance by the industry.

Subchapter I titled Ammonium Nitrate tasks the Service to ensure fertilizer industry conformance with requirements involving sale, registration and security as follows:

- Firms must restrict sale of AN to those who have a specific agronomic purpose, in other words, "Don't sell ammonium nitrate to unauthorized agents." Within this requirement, the agency is tasked with prescribing a form to record sales and we ensure that the sale is performed in conformance with the law and rules through annual or more frequent inspections including a record review of sales transactions and proper identity verification of the buyer. When inspecting sales records our investigators have begun to verify that AN is not stored on farm and that all firms are identified using trace back and trace forward methodology.
- Second, firms must register with OTSC if a firm intends to manufacture, transfer, store, sell or offer for sale AN or AN material. Also, the firm holding a permit must display the registration in conspicuous public view of the person's place of business. This is a form of risk communication and provides a balance between public right to know and the prohibition of agencies within Texas to provide names and location of firms that possess a chemical that could be used to create weapons, as required in Texas Government Code 418.178.
- The third goal of the AN provision involves security in which there are three provisions that include the facility protect against theft by ensuring the storage facility is fenced or otherwise enclosed and locked when unattended. The "and/or" language in this provision requires a facility to be either fenced or otherwise enclosed, not both. Whichever form of security, it must

be locked when unattended. Second, there must be a daily inspection for signs of vandalism and to verify structural integrity. This means 7 days a week, either by an employee of the company, or as some firms have done, by law enforcement authorities who conduct inspection of their establishment over the weekend. This section provides the standard for daily inspection and a standard that we use for assessing the storage facility security. The security must be of such a nature that penetration would require conspicuous vandalism. The 3rd part of the security requirement involves maintaining an accurate inventory of product.

To summarize, if an unauthorized agent is unable to purchase AN for nefarious use, there should be a sufficient barrier to discourage penetration of the storage, but if persistence and determination prevails, their action should be easily detected by the conspicuous vandalism to the storage during the daily inspection and the amount of material stolen reported to our agency which would be passed on to the appropriate law enforcement entity within less than 24 hours.

To date, there have been no breaches in security involving ammonium nitrate storage and one incident of theft by a fertilizer establishment general manager and this incident was reported by the farmer (to whom the product was being sold) to the company and to our agency within approximately 24 hours.

All firms must be in conformance with the law and rules at the time of inspection during their permit renewal inspection and over the course of the year. Thus, it would be an accurate statement to say, all firms are in conformance with the AN provision for storage security when they receive a permit renewal. It would also be accurate to state that almost 50% of the firms have multiple layers of security, some are both fenced and enclosed in secure storages, and some also have surveillance cameras or laser motion detectors or both.

Since the West incident, OTSC field investigators have assessed and provided to this committee the proximity of AN storages to homes, businesses, and public buildings and proximity of AN to other agricultural goods.

OTSC has collaborated with state agencies in a number of ways. We have new requirements that all firms with AN permits file their tier II report prior to receiving their permit renewal in Sept 2013 and they were also instructed to file with the DHS involving the Chemical Facility Antiterrorism Standard. We assist the state fire marshal's office with their inventory of AN fertilizer establishments, since the OTSC has maintained an accurate record of these AN fertilizer establishments since Sept 2007. Our investigators have attended the Fire Marshal public meetings and accompanied them on most of their recent consultations

The Office incorporated in their AN inspection form additional new requirements to 1) remove all combustibles from AN storage, 2) to place the NFPA 704 Warning Placard characterizing the chemical risk on the storage, and 3) that the firm must be able to identify their local competent fire authority. These new requirements were communicated to the fertilizer industry in March 2014 and we have established compliance timelines for those firms that had not yet completed these activities or completed their CFAT registration with a deadline of May, 2014. These requirements are all contained within the revised inspection form and a compliance guide that have been posted on the OTSC website

to provide a transparent and clear path to compliance. We have prepared draft rules that inculcate these new requirements that have been reviewed and approved by the chair and vice chair of our advisory committee and I intend to publish these requirements shortly in the Texas register.

In summary, OTSC has collaborated with DSHS, Fire Marshall, DHS, and industry, and we have increased the requirements, rigor, and frequency of inspections. We have broadened our discussions to incorporate input from TEEEX fire school experts and are using them as a vehicle for further risk communication. We have also involved input from Dr. Sam Mannan's team (including Dr. Mannan) to provide technical expertise and opinion involving our actions to manage risk. Dr. Mannan is director of the Mary Kay O'Conner Process Safety Center in the Department of Chemical Engineering at Texas A&M University and is a world renowned chemical safety expert.

I was asked and came prepared to make some recommendations if it pleases the committee.

Regarding recommendations: OTSC utilizes a disciplined approach to regulatory risk management. Two immediate actions that will reduce risk of another incident similar to the West fertilizer company involve removing/separating all combustibles from the AN storage and ensuring the storage is properly vented. OTSC now requires the removal of all non-fertilizer materials and vehicles from AN storage structures. We rely upon the local the fire authority or state fire marshal's personnel to assess whether the storage is adequately vented.

I recommend conducting a root cause analysis and gap analysis following the release of the Chemical Safety Board (CSB) report by a taskforce comprised of chemical safety, fire, and regulatory science experts that could provide a risk-based and scientifically sound set of recommendations for potential further action. I would be pleased to recommend experts who could participate in this activity as well as have a representative from our agency participate.

The OTSC advisory committee will meet again on May 8, 2014 and among our activities will involve conducting a gap analysis comparing what we have done to date with recommendations provided by The Fertilizer Institute and Agriculture Retailers Association guidelines published Feb 2014.