The Fertilizer Institute

Nourish, Replenish, Grow

Testimony of

Jim Schellhorn

of

Terra Industries Inc.

on behalf of The Fertilizer Institute

Before the

Senate Homeland Security and Governmental Affairs Committee

Regarding

Chemical Facility Security

DESCRIPTION OF TESTIMONY

A description of the many homeland security efforts American fertilizer and agricultural producers have recently undertaken and steps Congress could take to assist the agricultural community.

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Madam Chairman and members of the committee, I am Jim Schellhorn. I am the director of environmental, health and safety for Terra Industries and am responsible for security for Terra's North American operations. I am here today to testify on behalf of The Fertilizer Institute, or TFI. TFI is the leading voice of the nation's fertilizer industry, representing the public policy, communication and statistical needs of manufacturers, producers, retailers and transporters of fertilizer. I very much appreciate the opportunity to appear here today.

Terra is headquartered in Sioux City, Iowa. We are a leading international producer of nitrogen fertilizers. We have production facilities and terminals in Arkansas, Iowa, Louisiana, Mississippi, Oklahoma, Texas, Ontario, and the United Kingdom, and 50 percent interest in a facility on the island of Trinidad. Worldwide we produce 5.8 million short tons of anhydrous ammonia and ammonium nitrate fertilizers annually, which are considered hazardous materials by the Department of Transportation (DOT) and U.S. Coast Guard. We also produce 4.6 million short tons of urea and urea ammonium nitrate solution—or UAN—annually. These products are not considered hazardous and are not regulated as hazardous materials by the DOT. Anhydrous ammonia is produced not only for sale as a finished product, but also as a feedstock for our other nitrogen products. Our facilities operate 24 hours a day, 7 days a week and Terra employs approximately 1,200 people in North America and the United Kingdom. Although Terra Industries operates a small trucking company, we largely depend on outside trucking companies in addition to rail and barge companies to ship much of our fertilizer and related products.

Fertilizers Role in Food Production

Fertilizer is essential to food production. Without fertilizers contribution to crop production roughly one-third of the world's population would be without food. Because food production depletes soil nutrient supplies, farmers rely on fertilizers to keep the soil productive. With the help of commercial fertilizer, North American farmers are able to produce the most abundant and affordable food in the world.

The air we breathe is about 78 percent nitrogen, but there are very few plants that can make direct use of nitrogen in the air. To make this nitrogen available to support life, fertilizer producers take nitrogen out of the atmosphere and convert it into a form plants can easily use. Nitrogen fertilizer manufacturing captures naturally occurring atmospheric nitrogen, and combines it with hydrogen from natural gas form anhydrous ammonia. Ammonia is then used to make other nitrogen fertilizer products.

Fertilizer and Security

Shortly after the events of Sept. 11, 2001, TFI formed a security task force, of which Terra is a member. In September 2002, TFI's Security Task Force developed and TFI's Board of Directors adopted an industry security code of management practices designed to help the fertilizer industry secure the manufacture and transport of our products using a risk-based approach. The voluntary code calls on the industry to use methodologies developed by the Center for Chemical Process Safety (CCPS) or the Synthetic Organic Chemical Manufacturers Association (SOCMA) – or an equivalent methodology – when conducting security vulnerability assessments (SVA) and making security-related improvements **(Exhibit A)**. The code establishes benchmarks for conducting security vulnerability assessments, implementing security measures, conducting

employee training and drills, communicating with law enforcement, conducting periodic audits and verifying physical site security measures through a third party. The code details timelines for these activities by ranking facilities at high, medium and low risk levels. TFI's Security Task Force monitors code implementation.

The fertilizer industry is very diverse. Companies such as Terra produce and sell fertilizer into the retail distribution system, which in turn sells it to farmer customers. Most of Terra's production and storage facilities, like many others in our industry, are located in rural communities. For instance, Terra's Verdigris plant near Claremore, Oklahoma, where I am located, is approximately six miles from Claremore and our nearest neighbor is more than one-quarter mile away. Because we produce and store anhydrous ammonia and other fertilizers at the Verdigris plant, we are subject to many federal safety, security and environmental regulations. For example, we must adhere to the Occupational Safety and Health Administration's, or OSHA's, process safety management regulations, the U.S. Coast Guard's Maritime Transportation Security Act, or MTSA, regulations and the EPA's Risk Management Program requirements. Terra has five facilities along the inland waterway system that are subject to the MTSA regulations and nine facilities that are subject to DOT security regulations for the transportation of hazardous materials. We have nine facilities subject to the Clean Air Act Risk Management Program, or RMP, requirements. Ammonia is the principle product we produce and store that is subject to the RMP regulations.

I would like to take a moment and discuss the specific measures Terra has taken and continues to undertake to secure our facilities and the products we produce.

After TFI developed the industry security code, Terra immediately began to conduct security assessments and audits at all our facilities. We used both outside law enforcement experts and internal resources to identify vulnerabilities, implement countermeasures and develop security plans. At each stage of the process, we ranked both our facilities and our vulnerabilities based upon risk. Using those rankings, we began to address the highest risks first. All of our facilities now have active security plans and our waterfront facilities are in compliance with the MTSA regulations.

Terra has installed additional lighting, fences, physical barricades and video monitors at strategic locations. In addition, all gates are locked when unattended and facility access is tightly controlled by security personnel or employees 24 hours a day, 7 days a week. Specifically, all product trucking companies and drivers are pre-approved; all deliveries to our facilities are checked at the gate prior to entering the facility; and criminal background checks are now required for contractors as well as Terra employees. We have also recently implemented a system to ensure delivery receipts for all truck shipments of ammonium nitrate from Terra-owned facilities.

Terra Industries and other members of TFI have undertaken tremendous efforts to ensure that criminals intent on harming our country could not purchase and misuse fertilizer products that are vital to feeding America and the world.

For example, immediately after the tragedy in Oklahoma City, the fertilizer industry partnered with the Bureau of Alcohol, Tobacco, Firearms and Explosives in an outreach program called *Be Aware for America,* which was aimed at protecting our products in our places of business. A few

years later, again in partnership with ATF, we developed *Be Secure for America*, which provided additional information about keeping our products secure. Both programs were widely distributed to law enforcement and within our industry. After the terrorist attack on Sept. 11, 2001, the fertilizer industry announced our most stringent program yet, called *America's Security Begins with You*. This program has been endorsed by ATF, the Department of Homeland Security and the Association of American Plant Food Control Officials, who regulate fertilizer at the state level. The campaign urges that security plans be developed and implemented, records of sales be maintained, and that law enforcement be alerted to any suspicious activity.

These voluntary programs have primarily focused on ammonium nitrate, the fertilizer used in the Oklahoma City bombing. Recognizing the changing nature of the nation's security, Sens. Thad Cochran (R-Miss.), Mark Pryor (D-Ark.), Pat Roberts (R-Kansas) and Saxby Chambliss (R-Ga.) recently introduced the "Secure Handling of Ammonium Nitrate Act of 2005," (S. 1141). The bill directs the Department of Homeland Security to promulgate regulations requiring all facilities that handle ammonium nitrate fertilizer to register at the state level and maintain records for all purchases of ammonium nitrate fertilizer. The fertilizer industry's support of the Senate legislation – and parallel legislation introduced in the House – takes the industry's voluntary programs to the next level through the creation of a uniform federal set of rules for sellers and purchasers of ammonium nitrate.

What More Needs to Be Done?

We believe that chemical facilities will most effectively address security when given the flexibility to use measures that will address the risks specific to each facility. Quite simply, we at Terra and others in the industry have not employed a "one size fits all" approach at our facilities, and believe that any legislation requiring us to do so would be counterproductive.

Equally important, Congress must recognize the security measures already taken and facilities covered under other federal regulations, such as the MTSA, to avoid duplicate regulations.

There has also been considerable debate over whether Congress should mandate the use of inherently safer technologies (IST). IST is not a security measure – it is a safety concept that has been misapplied by some groups in a way that we fear could lead to the ban or restricted use of basic nitrogen fertilizers. For instance, if anhydrous ammonia manufacture was banned in the United States as a result of an IST mandate there would be no nitrogen fertilizer manufacturing in the United States because ammonia is the basic feedstock for all other nitrogen fertilizers. U.S. farmers would have to rely on imported fertilizer to grow their crops, and indirectly, the American public would have to rely on foreign fertilizer for their food supply. What's more, without additional security restrictions on imports, foreign ammonia brought in by ship from overseas would pose additional security risks.

Terra and the fertilizer industry are not opposed to evaluating the chemical process safety of their operations and considering ways that process safety can be improved. On the contrary, the process hazard analyses and risk assessments we have conducted as part of our PSM and RMP programs, and the security vulnerability assessments we have performed include consideration of ways to minimize the hazards that are identified. However, this type of hazard assessment can only work when applied by a site owner's engineers who truly understand the facility's operations.

Conclusion

Madam Chairman and members of the committee, American farmers, fertilizer producers and retailers are committed to security. We have demonstrated that commitment through the significant number of voluntary security steps we've taken and will continue to take. Without question, we very much want to help Congress in its endeavors to shield this country from acts of terrorism. We support Department of Homeland Security (DHS) Secretary Chertoff's efforts to evaluate all of the nation's vulnerabilities and then prioritize the federal government's response based on sound risk assessments.

As the federal government proposes its suggestions for chemical facility security legislation, we recommend such proposals are based on reasonable, clear and equitable performance standards. TFI and its members—Terra among them – believe that to be effective, fair, realistic or feasible to implement, the legislation must:

1. Provide for the varying levels of risk posed by different kinds of chemical facilities.
2. Recognize the security measures our industry has already taken and complement the federal regulations with which we already comply.
3. Reject attempts to mandate IST.

Furthermore, we urge that the federal regulations preempt any such action by state or local governments. Layering federal regulation upon a patchwork of state regulations is at best inefficient and at its worst an impediment to efficient compliance.

I thank you for the opportunity to testify today and look forward to answering any questions you might have.

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The Fertilizer Institute

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Exhibit A:

The Fertilizer Institute's
Security Code of Management Practices for the Fertilizer Industry

September 23, 2002

Purpose and Scope

The purpose of The Fertilizer Institute's (TFI's) **"Security Code of Management Practices for the Fertilizer Industry"** is to help the fertilizer industry protect people, property, products, processes, information and information systems by enhancing security, including security against a potential terrorist attack. The fertilizer industry encompasses manufacturers, retailers and distributors.

This code is designed to help the fertilizer industry achieve continuous security performance using a risk-based approach to identify, assess and address vulnerabilities, prevent or mitigate incidents, enhance training and response capabilities, and maintain and improve relationships with key state, local and federal government partners. The code is implemented with the understanding that security is a shared responsibility requiring actions by all stakeholders including carriers, customers, suppliers, service providers, government officials and agencies.

Relationship to Other Industry Commitments

The fertilizer industry's commitment to protecting its employees and the public is demonstrated by the implementation of this security code and other good management practices. The fertilizer industry should regularly reassess these security-related practices in an effort to continually improve performance and identify potential vulnerabilities.

Management Practices

A risk-based security management system for people, property, products, processes, information and information systems throughout the fertilizer industry should be implemented. The fertilizer industry encompasses manufacturers, retailers and distributors.

The security management system must include the following management practices:

1. Leadership Commitment

Senior management commits to continuous improvement through accountability, published policies, and provision of sufficient and qualified resources.

2. Analysis of Threats, Vulnerabilities and Consequences

Use available security vulnerability assessment (SVA) methodologies, prioritize and periodically analyze potential security threats, vulnerabilities and consequences. The writers of this code encourage manufacturing facilities to conduct vulnerability assessments using methods developed by the Center for Chemical Process Safety (CCPS), Synthetic Organic Chemical Manufacturers Association (SOCMA), or other equivalent methods.

Writers of this code encourage retailers and distributors to conduct vulnerability assessments using methods developed by the Agribusiness Security Working Group (whose members include the Agricultural Retailers Association (ARA), CropLife America and The Fertilizer Institute (TFI)), or methods developed by CCPS, SOCMA, or other equivalent methods.

3. Implementation of Security Measures

Develop and implement security measures commensurate with identified risks.

4. Information and Cyber-Security

Protect information and information systems as a critical component of a sound security management system.

5. Documentation

Document key elements in security management programs, processes and procedures.

6. Training, Drills and Guidance

Train, drill, and provide guidance for employees, contractors, service providers, and others, as appropriate, to enhance awareness and capability.

7. Communications, Dialogue and Information Exchange

Communicate, foster dialogue and exchange information on appropriate security issues with employees, contractors, communities, customers, suppliers, service providers and government officials, agencies and law enforcement officials. This dialogue and information exchange should be balanced with safeguards for sensitive information.

8. Response to Security Threats

Evaluate, respond, report and communicate security threats as appropriate. Fertilizer facilities will promptly evaluate the real and credible threats and will report and communicate to the fertilizer industry and law enforcement personnel as appropriate.

9. Response to Security Incidents

Evaluate, respond, investigate, report, communicate and take corrective action for security incidents. If an incident should occur, the fertilizer facility will promptly respond and involve government agencies as appropriate. After investigating the incident, the fertilizer facility will incorporate lessons learned and will, as appropriate, share those lessons with others in the fertilizer industry and government agencies and implement corrective actions.

10. Audits

Conduct periodic audits of fertilizer facilities to assess security programs and processes, and implementation of corrective actions.

11. Third-Party Verification

Verification by a third-party, that facilities with potential off-site impacts have implemented the physical site security measures to which they have committed.

12. Management of Change

Evaluate and manage security issues associated with changes involving people, property, products, processes and information or information systems.

13. Continuous Improvement

Utilize continuous performance improvement processes entailing planning, establishment of goals and objectives, monitoring of progress and performance, analysis of trends and development and implementation of corrective actions.

The fertilizer industry will share information on effective security practices within the fertilizer industry and with external, qualified security professionals. The fertilizer industry will continue

to expand the awareness of and commitment to enhanced security practices throughout the fertilizer industry. TFI will continue to provide guidance, including sharing examples of effective member security practices, to assist the fertilizer industry in implementation of this code. It will periodically review and, as appropriate, revise the guidance, and will continue to serve as the industry clearinghouse for the exchange of information on security through the secure members only Web site: http://www.npknet.org.

Due to the rapidly evolving nature of security issues and related expertise, TFI will reassess this security code, its management practices and implementation timetable two years after code adoption or earlier as appropriate. Security code implementation guidance will be updated as necessary in the interim.

Time Schedule:

One of the first SVA activities is to perform an initial prioritization of potential security hazards at all facilities operated by the enterprise. This initial prioritization assessment, or enterprise level screening process, will establish the "timeframe tier" for the facility. The enterprise level screening process separates facilities into different tiers based on potential severity of attack, difficulty of attack and attractiveness of the target(s). Based on this screening, the company can then focus energies to complete site security vulnerability assessments and implement specific steps to improve security where it is most needed.
The fertilizer industry should implement all security code practices using the initial prioritization timetable below commencing on the date this code is approved. Timelines for completion of site security vulnerability assessments, implementation of site security measures and verification are found below in Table 1.

For example, a Tier I facility would fall into the highest risk level, Tier II medium risk level, and Tier III low risk level.

Table 1: Schedule for Implementation of Security Assessment

Security Process	Timeframe Tier I	Timeframe Tier II	Timeframe Tier III
Complete Site Security Vulnerability	6 months	12 months	18 months

Assessment			
Complete Implementation of Site Security Measures	18 months	24 months	30 months
Verification of Physical Site Security	21 months	27 months	33 months

The Fertilizer Institute (TFI) represents by voluntary membership the nation's fertilizer producers, manufacturers, retailers, trading firms and equipment manufacturers. This security code of manufacturing practices was developed in keeping with TFI's efforts to protect and promote the nation's fertilizer industry. For more information, please contact TFI at (202) 962-0490 or visit TFI's Web site at http://www.tfi.org.