## Statement of

# Martin Jeppeson, CSP, ARM, CHS-V Director of Regulatory Affairs California Ammonia Company 

Before the

United States House of Representatives Committee on Homeland Security on

The Chemical Facility Anti-Terrorism Act of 2009
June 16, 2009

Good Morning Chairman Thompson, Ranking Member King and distinguished members of the Committee. I am Martin Jeppeson, director of regulatory affairs at the California Ammonia Company - CALAMCO. I have been with CALAMCO for more than ten years and am responsible for all aspects of regulatory compliance, including safety, security and environmental regulation. I was previously in the U.S. Army for 24 years and reached the rank of lieutenant colonel. I am a Certified Safety Professional, Associate in Risk Management and Certified in Homeland Security Level 5.

I appreciate the opportunity to appear before you this morning and look forward to providing you with my views and concerns regarding the "Chemical Facility AntiTerrorism Act of 2009," as currently in draft form.

CALAMCO is a non-profit farmer cooperative made up of approximately 1150 growermembers throughout California, and we also have 42 fertilizer dealer stockholders. We are headquartered in Stockton, Calif., and operate terminals at the Port of Stockton and in Sycamore. CALAMCO specializes in providing nitrogen fertilizers to its grower members and authorized dealers, including anhydrous ammonia, ammonium hydroxide (or aqua ammonia) and liquid ammonium nitrate. We are one of only two ammonia terminals in the state of California and account for approximately 80 percent of all of the ammonia used in California. Our authorized fertilizer dealers are located throughout California and distribute our product to our farmer customers and shareholders.

CALAMCO's mission is to reduce fertilizer costs for our farmer owners and ensure a reliable supply of nitrogen. We import approximately 225,000 tons of anhydrous ammonia, primarily from Trinidad, via bulk vessel into the Port of Stockton, where we transload the product into large storage vessels, and subsequently to rail cars or trucks for delivery to our authorized dealers.

CALAMCO is a member of The Fertilizer Institute (TFI), the leading voice of the nation's fertilizer industry, representing manufacturers, wholesale distributors, importers, retailers and transporters of fertilizer. TFI and its members have worked closely with the Department of Homeland Security (DHS) to establish appropriate standards and ensure compliance with the Chemical Facility Anti-Terrorism Standards (CFATS).

## Fertilizer

Fertilizer is essential to food production. The use of fertilizer currently accounts for 40 to 60 percent of the world's food supply. Because food production depletes the soil's supply of nutrients, farmers rely on fertilizer to keep the soil productive harvest after harvest.

The three main fertilizer nutrients are nitrogen, phosphorous and potassium. My testimony today will focus on the nitrogen industry. To make nitrogen fertilizer, fertilizer manufacturers take nitrogen out of the atmosphere and convert it into a form plants can easily use by combining the nitrogen with hydrogen from natural gas to form anhydrous ammonia. Anhydrous ammonia is then used to create other nitrogen fertilizer products, such as ammonium nitrate, urea, urea ammonium nitrate and aqua ammonia, to name a
few. Ammonia can also be directly applied as a fertilizer. It is the cheapest and most widely used form of nitrogen.

## The Fertilizer Supply Chain

The fertilizer supply chain is made up of manufacturers, importers, wholesale terminals, such as CALAMCO, and the agricultural retailer or farm supply store, which provides product directly to the farmer customers. In the past decade, much of the nitrogen industry in the United States has shut down primarily due to the high cost of energy, increasing our reliance on foreign sources of nitrogen and increasing the importance of terminals such as CALAMCO. Because of CALAMCO's role in distributing ammonia in California, I believe I am in a unique position to identify the impact of proposed changes to the existing CFATS regulations, both to our terminal operations, our authorized retailer dealers and in the end, our farmer customers.

## The Fertilizer Industry and Security

The fertilizer industry has a long history of protecting our products and the facilities where we produce and store those products. Much of the fertilizer supply chain was regulated in 2002, with the passage of the Maritime Transportation Security Act of 2002. For example, CALAMCO's facility at the Port of Stockton falls under these regulations.

From the time it was first introduced until it was signed into law by President George W. Bush in December 2007, TFI supported the "Secure Handling of Ammonium Nitrate Act." TFI appreciates the support of the Chairman for his leadership in securing a common sense set of rules and regulations for the safe sale of ammonium nitrate. The fertilizer industry further looks forward to working with DHS to ensure this important product is monitored throughout the distribution chain.

## CFATS

As you are aware, Congress authorized DHS to regulate the nation's highest risk chemical facilities in October 2006. In the regulation, which became effective on November 20, 2007, DHS subjects to regulation several fertilizers if designated quantities are exceeded. These include: anhydrous ammonia, $10,000 \mathrm{lb}$. screening threshold quantity (STQ); aqua ammonia, 20,000 lb. STQ; ammonium nitrate, 2,000 lb. STQ; potassium nitrate, 400 lb . STQ; and sodium nitrate, 400 lb . STQ.

With the thresholds set at these levels, every aspect of the fertilizer industry falls under the DHS regulation - the manufacturer, the wholesale terminal, the agricultural retailer and potentially, the farmer. In TFI’s May 8, 2007, comments to DHS on the proposed list of chemicals and thresholds, TFI requested clarification on the applicability of CFATS to the farming community, commenting, "An average nurse tank contains approximately 1,000 gallons, which is equivalent to more than two tons of anhydrous ammonia [4,000 lbs.]. An eighty-acre field would require the application of four nurse tanks of anhydrous ammonia, bringing into regulation [every] farm with an eighty-acre field."

In a Dec. 21, 2007, letter from Assistant Secretary for Infrastructure Protection Robert Stephan, DHS chose to stay the regulation with respect to the fertilizer industry's farmer customers, stating, "DHS intended to limit the coverage of that requirement, as related to
farmers and other agricultural users of the chemicals of interest, by revising screening thresholds and counting rules for certain chemicals. Since publication of the final list of CFATS chemicals, however, additional questions and concerns have been raised regarding the applicability of the Top-Screen requirement to agricultural facilities and operations." This decision by DHS left the entire fertilizer supply chain regulated, with the exception of the industry's farmer customers.

TFI and its member companies support DHS in its efforts to implement regulations, such as CFATS, that ensure the security of crop nutrients that are produced, transported and distributed by the fertilizer industry. What is important to recognize and analyze, however, is the impact of changes to the CFATS regulation on not just fertilizer manufacturers, but all aspects of the fertilizer supply chain and still, potentially, our farmer customers.

DHS has acted aggressively to establish a comprehensive regulatory regime which we support. While neither of CALAMCO's operations is regulated under CFATS, I can assure you that our industry is regulated and many of CALAMCO's authorized dealers are regulated. It is with this understanding that I now provide you with specific comments about the impact of problematic provisions in the legislation before the committee.

## Inherently Safer Technologies

We fundamentally disagree with the notion that chemical facility security legislation should mandate the use of inherently safer technologies (IST), and we do recognize that IST is a part of every day life in the manufacturing portions of our industry. We believe the requirement for all regulated facilities to assess the use of product substitution, including manufacturers, wholesale distributors and retailers, as proposed in the draft legislation, could have a devastating impact on American agriculture. Such a mandate could jeopardize the availability of lower-cost sources of plant nutrient products, which our farmer customers depend on for specific agronomic reasons. I would now like to explain how a mandate to assess or implement IST could impact each aspect of the fertilizer supply chain.

As defined in Sec. 2101, IST or "methods to reduce the consequence of a terrorist attack" means, "the elimination or reduction in the amount of a substance of concern... through the use of alternative substances, formulations or processes; the modification of pressures, temperatures or concentrations of a substance of concern; and the reduction or elimination of onsite handling of a substance of concern through improvement of inventory control and on-site handling."

The chemistry behind the production of nitrogen fertilizer limits a manufacturer's options with regards to IST. Manufacturers of nitrogen fertilizer must produce anhydrous ammonia, a toxic by inhalation chemical, before they can produce any other form of nitrogen fertilizer. As a result, there is currently no IST which could result in the elimination of anhydrous ammonia at the manufacturing level. This determination is simple to come by, when there are no other options for producing nitrogen fertilizer. Our
industry's primary concern, therefore, is not the ability of the owner or operator of a covered manufacturing facility to continue the business of its facility. Our industry's concern is the impact of an IST assessment or mandate on the fertilizer supply chain.

The ability to make changes to formulations, processes, pressures and temperatures does not apply throughout the supply chain. The only alternative which exists when a facility's business is to sell products to the farmer or to move products through the supply chain is the use of safer nitrogen fertilizer products, or to store less on site. These provisions therefore, when applied to CFATS regulated terminal or agricultural retailers, implicitly and explicitly discourage the use of products which are vital to our nation's food production.

Within a wholesale distribution facility, such as CALAMCO, our options are to decrease the product stored on site or switch to a "safer" alternative. As I previously mentioned, CALAMCO meets approximately 80 percent of California’s anhydrous ammonia needs. As such, our facility is a major import terminal. Even the Center for American Progress report recognized that a major "marine cargo terminal which receives, stores and transfers several hundred million pounds of anhydrous ammonia each year" has "no single-facility alternative." Furthermore, even given the minor protections that were included in the draft legislation, which I have reviewed, it would be difficult for DHS to force our facility to switch to an alternative product. After all, the business of our facility isn't just to supply a crop nutrient to farmers; it is to supply the state of California with anhydrous ammonia. Were our facility, however, to be a major fertilizer terminal, the protections included in the legislation would apply with far less certainty.

The applicability of these provisions to an agricultural retail operation is different, however. The options for IST at this level are similar to the options which are applicable to CALAMCO. The choices presented to the retailer are to switch to a "safer" product or reduce the amount of product on-site at the facility. If these facilities are regulated in the highest tiers, DHS could even force an agricultural retailer to switch to a "safer" nitrogen fertilizer product, potentially removing CFATS regulated products, such as anhydrous ammonia, aqua ammonia, ammonium nitrate, potassium nitrate and sodium nitrate from the farmer's agronomic tool box. The protections which apply to the ammonium nitrate producer or the anhydrous ammonia terminal do not apply in the same way to our agricultural retail operation. The business of our authorized dealers, the agricultural retailers and farm supply stores, is to provide fertilizer to the farmer. Not a specific fertilizer, but fertilizer in general. The limited protections in this legislation therefore do not adequately protect an agricultural retailer from being forced to eliminate the use of anhydrous ammonia or ammonium nitrate at their facilities. As long as these facilities will be able to continue to sell a fertilizer, not necessarily a fertilizer needed by the community which they supply, but any fertilizer, DHS will have the ability to mandate the implementation of IST, which in this population segment means the elimination of products.

We are further concerned about the assessment of IST in this segment of the agricultural community. Given the liabilities that could result from continuing to sell a DHS
regulated product as opposed to switching to a safer alternative, the lack of understanding at a small agricultural facility regarding the meaning of an IST assessment and the poor communication about requirements for this portion of the regulated community, it is unknown exactly what impact a mandate to assess the use of safer products will have on the farmers which we supply, the terminals like CALAMCO that are responsible for moving the products and the manufacturers which produce the products which we move.

It is only with this broad understanding and analysis of the fertilizer supply chain, and the supply chains of other segments of the regulated community, that we can conclude understand that it is not economically feasible to switch to alternative products that would threaten our nation's economy and food supply. It is reasonable to assume that an individual agricultural retailer may determine that it is "economically feasible" to switch away from anhydrous ammonia and ammonium nitrate to unregulated products such as urea, but it is unreasonable to assume that each regulated entity, including the manufacturers, terminals and retailers, can adequately analyze the impact of their IST decisions on the rest of the fertilizer supply chain. We believe it is the responsibility of this committee to understand and address the impact of these potential requirements on each regulated supply chain, especially ours, which accounts for 40 to 60 percent of the world's food supply. As the Center for American Progress stated in its November 2008 report entitled Chemical Security 101, "What you don't have can't leak, or be blown up by terrorists." ${ }^{1}$ Similarly, in agriculture, what you don't have can't help grow our nation's food supply.

I would now like to provide an analysis of the estimated economic impact on the fertilizer supply chain.

If an agricultural retailer were to switch from anhydrous ammonia to a different nitrogen fertilizer product, the likely alternative would be urea. Anhydrous ammonia is the cheapest form of nitrogen and often the most appropriate for certain crops. In California, anhydrous ammonia is most commonly applied on corn, wheat, alfalfa, tomatoes, cotton and onions. Similarly, in the Midwest, you find anhydrous ammonia applied to our nation's corn crop. The additional cost for a typical 1,000 acre corn farm utilizing urea instead of anhydrous ammonia, given the current cost and nitrogen content of each product, would exceed $\$ 15,000$. However, this does not provide an accurate and fully comprehensive picture as this cost increase would only hold true if there was ample additional urea available at today's prices. The United States, however, is already the world's largest importer of nitrogen fertilizer and the second largest importer of urea, accounting for a full 17 percent of urea traded in the world. If the United States had to turn to the world market to import an additional 7,576,066 tons of urea to replace the nitrogen in anhydrous ammonia - a 116 percent increase (more than double) from our level of imports in the latest fiscal year 07/08 - it would drive the world price of urea sky high. A higher imported urea price would mean significantly higher urea prices paid by U.S. farmers, as the U.S. currently imports 75 percent of its total solid urea supply. This would result in a significant increase from the $\$ 15,000$ estimate, which I previously noted for a typical 1,000 acre corn farm.

[^0]Furthermore, we estimate that the cost for a U.S. manufacturer of nitrogen fertilizers to alter an existing facility to accommodate for the change in demand would be substantial. To build a 1,000 ton per day urea liquor plant on an existing site would cost approximately $\$ 120$ million. It would cost an additional $\$ 60$ million to granulate, dry and store the dry urea. To build a 1,500 ton per day urea ammonium nitrate (UAN) solution plant, you would need both a urea liquor and nitric acid facility. In addition to the $\$ 120$ million urea liquor plant, you would need a nitric acid plant at the approximate cost of $\$ 60$ million. On-site storage for a 50,000 ton UAN tank would cost an additional \$8 million. The upgrades described above would likely take two years from the point of ground breaking to complete and the essential production equipment would need to be imported.

While nitrogen manufacturers do not typically employ more than 170 individuals, these jobs tend to be staples within the foundation of their communities, averaging an annual salary of $\$ 70,000$, often in communities where ours are the best paying jobs.

I am also concerned about the impact of an IST assessment on small businesses and nonprofit entities such as CALAMCO. It is unknown how the process described in Sec. 2111 will be implemented, including which individuals will need to participate or the legal liabilities that will exist due to the assessment. The legislation describes a process which must consider the technical viability, costs, avoided costs (including liabilities), saving and applicability of each IST method which is considered. We anticipate that the team responsible for analyzing the ISTs would require a chemical engineer, process safety engineer, and a legal and risk management presence. While a manufacturing facility may have these individuals on staff, and a facility such as CALAMCO that employs 34 individuals may have some of these individuals on staff, a small agricultural retailer will not. We anticipate that the cost to perform such an assessment will be substantial for a facility of this size.

Specifically, the overwhelming majority of retail facilities do not store quantities of regulated products that would result in being placed in a tier level where they are considered a high security risk to their community. As a result, the majority of agricultural retailers in California can not afford to maintain regulatory compliance or risk specialists at each facility. Under such a mandate, these retailers would have to hire consultants to assess whether the products they carry could be replaced by IST. Since retailers can not afford to maintain risk specialists, the perception of risk from products identified as products that should be assessed for IST, would likely drive retailers to alternative products that may be more costly and less efficacious than their original products at delivering essential plant nutrients. Replacement products would also place retailers in jeopardy of not qualifying for state environmental initiatives, such as the agricultural truck rule provisions of the California State Air Resources Board’s Diesel Engine Replacement regulations. Finally, in a highly litigious state like California, the perception of risk would likely lead to high insurance rates for retailers. All of these examples translate into higher costs to retailers and as a consequence, their grower customers.

We ask that you not misinterpret our position with regards to security. Our concern regarding the mandate to assess the use of ISTs and products does not mean that we do not take the protection of our products and the fertilizer supply chain seriously. We believe, however, that our facilities can be protected without implicitly or explicitly discouraging the use of our products in legislative text.

## Maritime Transportation Security Act Regulated Facilities

As stated earlier, CALAMCO's port facility in Stockton, Calif., is regulated under the Maritime Transportation Security Act of 2002 (Pub. L. No. 107-295). Due to the regular shipment of bulk fertilizers by barge and vessel, many TFI members, including manufacturers, wholesalers and retailers, have facilities regulated by the Coast Guard under MTSA. In addition, two fertilizer products are classified as Certain Dangerous Cargo (CDC), bringing under jurisdiction of MTSA many retail and wholesale warehouses on our nation's inland water system.

Due to the strong regulation by the Coast Guard, facilities regulated under MTSA were exempted, by statute, from CFATS authorizing legislation. While we understand that the current draft legislation acknowledges and maintains the Coast Guard’s important role with regards to security at MTSA facilities, we are discouraged that facilities, which have been successfully regulated, inspected and secured, would have any additional requirements imposed by this legislation. TFI supports maintaining this exemption.

If the Infrastructure Security Compliance Division, the agency within DHS which is responsible for the CFATS regulations, chooses to enter into a memorandum of understanding (MOU) to encourage information sharing with the Coast Guard, TFI would support these provisions. We cannot support, however, any additional requirements on MTSA facilities which have successfully complied with the Coast Guard's regulation over the past several years. We are further concerned that the requirements of Sec. 2111 would apply at Coast Guard regulated facilities. As we have previously addressed, agricultural facilities at our nation's port facilities have limited alternatives, other than increased shipments of fertilizer products or the elimination of products.

## Private Right of Action

Section 2115 of the proposed legislation includes provisions allowing for private rights of action against regulated parties and against DHS to enforce compliance with applicable requirements. Such private rights of action provisions have proven extremely problematic in other statutory schemes and have fostered enormous amounts of litigation in other contexts. We first and foremost believe that these provisions are not only unnecessary but could prove detrimental to the task at hand - protecting our nation's critical infrastructure.

Agency desires to avoid citizen suits often result in agencies taking less cooperative and more adversarial approaches towards the regulated community in order to ensure compliance. The more adversarial and aggressive the agency action, the less likely a citizen plaintiff will view the action as adequate and file its own suit to enforce
compliance. ${ }^{2}$ The agency thereby avoids the cost of litigation, but at the expense of essential cooperation with the regulated facility. Such aggressive actions are counterproductive, particularly in situations, such as counterterrorism, where cooperation between government and private interests is critical.

Additionally, citizen suits would be unnecessarily redundant with third-party common law claims. Furthermore, the broad discovery rights enjoyed by a plaintiff in a judicial action increases the likelihood of disclosure to the public of sensitive information, which could be used in terrorist activities. The legislation only provides that DHS shall take measures to prevent disclosure, but does not provide any mechanisms to prevent disclosure of sensitive information in the context of a judicial challenge where broad discovery would be necessary to bring and defend any claim. We also believe that potential personal liabilities associated with being named in citizen suits would provide a disincentive for chemical facility employees to take responsibility for implementing the requirements of CFATS.

Finally, citizen suit provisions create incentives to litigate fiercely, but none to encourage citizen plaintiffs to pick their battles in an effort to achieve socially-optimal compliance and enforcement. Where citizen litigants are reimbursed for their litigation expenses and fees (as they would be under the legislation), they have little budgetary incentive to eschew enforcement. Citizen plaintiffs will also bring suit to attract members, increase their public profile or contributions. Citizen plaintiffs tend to be ideologically predisposed to aggressive enforcement, as they have no ongoing relationship with the facility (as the agency would) necessitating a cooperative relationship. Indeed, studies have indicated that citizen suits do not achieve optimal enforcement levels but instead result in excessive numbers of claims and excessive penalties. ${ }^{3}$

## Federal Preemption

Sec. 2109 allows any state or political subdivision thereof to adopt or enforce any regulation that is more stringent than the federal regulation. We are concerned that the legislation before this committee will encourage the creation of a patchwork of conflicting rules that stretch across federal, state and local lines. We believe that CFATS should preempt inconsistent state and local chemical security laws and rules by preempting state or local requirements only if there is an actual conflict between the two, or the state or local program "frustrates the purpose" of the federal program. Current state chemical facility security laws have not been found to conflict with federal CFATS regulation. Therefore, changes to the existing conflict preemption standards should not be made.

[^1]
## Miscellaneous Issues

Finally, I would like to quickly describe a few additional provisions which raise concern and I believe could easily be amended.

Sec. 2103 discusses training for employees. While CALAMCO, due to its size, may provide each employee with a full knowledge of these aspects of the facility's security, we believe it is inappropriate to provide this level of detail to every individual who may work within the confines of our facility. The prescriptive nature of this provision would result in every contractor, including temporary contractors during manufacturing plant turn around, interns, front desk staff and other temporary employees, having an intimate knowledge of the potential consequences of a terrorist incident and the facility's ability to respond. While we recognize the need for employees at a facility to be aware of the certain vulnerabilities and the methods which may be used to mitigate an incident at a facility, we do not believe that all individuals have a need to know the information which is mandated in Sec. 2104. We encourage you to review and alter these provisions so that they are not only performance based, but allow the owner or operator to determine which information is appropriate for distribution.

Sec. 2105 mandates that a covered facility with one or more certified bargaining agents provide an employee representative, as defined in Sec. 2101, with a copy of any security vulnerability assessment or site security plan. We fundamentally believe that this information should only be provided to employees at the facility with a specific need to know. The definition of "employee representative" does not clarify whether or not this individual must be an employee of the facility. Furthermore, Sec. 2105 would require that the employee representative ensure that security vulnerability assessments and site security plans are properly handled; but it does not specify that an employee representative must keep any information received stored at the covered chemical facility. An owner or operator of a covered chemical facility, or an employee with security responsibilities at multiple facilities may have a need to transfer or transport sensitive security information, removing these documents from the facility should not be permitted by the employee representative.

## Conclusion

We encourage the committee to take decisive action to extend the existing CFATS authority, which expires in September 2009, but we remain concerned about many of the provisions which are included in the draft legislation. We encourage you to maintain the existing regulations and allow DHS to complete the first phase of implementation before altering the existing program. We ultimately believe that DHS could effectively implement their regulation with three year extension.

I would like to once again thank you for allowing me to provide my perspective on the impact of this legislation at CALAMCO and to the broader fertilizer industry supply chain. I look forward to answering any questions which you may have.


[^0]:    ${ }^{1}$ Paul Orum, "Chemical Security 101," Center for American Progress. November 2008.

[^1]:    ${ }^{2}$ Matthew D. Zinn, "Policing Environmental Regulatory Enforcement," 21 Stan. Envtl. L.J. 81 (2002).
    ${ }^{3}$ See David R. Hodas, "Enforcement of Environmental Law in Triangular Federal System," 54 Md. L. Rev. 1552 (1995); see also Barry Boyer \& Erroll Meidinger, "Privatizing Enforcement," 34 Buff. L. Rev. 833 (1985); Ross MacFarlane \& Lori Terry, "Citizen Suits: Impacts on Permitting and Agency Enforcement," Nat. Resources \& Env’t J. (Spring 1997).

