Synthetic Organic Chemical Manufacturers Association, Inc.

COMMENTS

On

CHEMICAL FACILITY ANTI-TERRORISM STANDARDS

71 Fed. Reg. 78276 (December 28, 2006)

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SYNTHETIC ORGANIC CHEMICAL MANUFACTURERS ASSOCIATION

ON THE ADVANCE NOTICE OF RULEMAKING ON

CHEMICAL FACILITY ANTI-TERRORISM STANDARDS

The Synthetic Organic Chemical Manufacturers Association (SOCMA) appreciates the opportunity to comment on the Advance Notice of Rulemaking issued by the Department of Homeland Security (DHS) regarding Chemical Facility Anti-Terrorism Standards (the Advance Notice) (71 Fed. Reg. 78276 (Dec. 28, 2006).

SOCMA and its members commend DHS on its substantial efforts to implement Section 550 of the Department of Homeland Security Appropriations Act of 2007 (Pub. L. No. 109-295). SOCMA is pleased that DHS has recognized the need to coordinate the elements of the Advance Notice with potentially overlapping federal programs. DHS is to be commended for publishing such a comprehensive proposal for public comment given the rigorous schedule established by Congress.

Overall, SOCMA supports the basic approach set out in the Advance Notice and agrees that a comprehensive evaluation of whether and how chemical facilities might be potential terrorist targets is the right approach. A consequence-based screening, followed by a more focused assessment of vulnerabilities and risks, and appropriate security measures for high-risk sites, establishes a sound foundation for prioritizing resources and activities.

As discussed below, SOCMA has substantial experience and expertise in the field of chemical site security and has been actively working with the public and private sector for years to promote enhanced chemical site security practices. As the leading trade association representing approximately 300 specialty and batch chemical manufacturers and importers—an innovative, entrepreneurial and customer-driven sector of the chemical industry—SOCMA is particularly focused on the security concerns of specialty and batch chemical manufacturers and the application of appropriate security programs.

SOCMA is committed to continuing work on a collaborative basis with its members, governmental agencies and other sectors in the chemical industry to advance the common goal of adequate and appropriate chemical site security.

SUMMARY OF COMMENTS

SOCMA supports the structure and fundamental components of the Chemical Facility Anti-Terrorism Standards as set out in the Advance Notice. DHS is to be commended for establishing a coherent regulatory strategy for launching this critical initiative in a manner that responds to Congressional intent and builds upon the existing technical knowledge and methodologies that have been developed in the field of chemical facility site security.

A summary of SOCMA's primary comments on the Proposed Rule is set out below:

1) **Consideration of Variable Chemical Risk Is Necessary to Accurately Evaluate Batch and Specialty Chemical Manufacturing Facilities.** As discussed in these comments, the specialty and batch chemical manufacturing sector has unique attributes that must be taken into account in the development of Chemical Facility Anti-Terrorism Standards. Specifically, the business practices and operational realities of custom chemical manufacturing operations, especially the varying risk profiles due to ever-changing materials and processes, must be fully considered when assessing vulnerabilities and risk and developing appropriate standards for batch and specialty chemical manufacturing facilities. SOCMA urges DHS to integrate the concept of variable chemical risk into its regulatory program and guidance in order to assure that the risks at these facilities are accurately assessed and prioritized appropriately, relative to other chemical facilities.

2) **SOCMA Supports a Comprehensive Screening Program but Urges Refinement to the Top Screen To Assure Focus on High Priority Sites**. The Advance Notice establishes a comprehensive definition of "chemical facility" and thereby assures that all facilities that potentially might present high priority risks will be evaluated under the program. SOCMA supports this approach. However, given this initial comprehensive scope, it is particularly important that the initial screening tool, "the Top Screen," be effective in screening out facilities that would not present high risks. To accomplish this goal, SOCMA recommends that the Top Screen be refined by using a focused chemicals list to avoid thousands of facilities unnecessarily being screened in, which would overwhelm DHS and divert scarce resources away from the facilities that pose the highest risks. In addition, SOCMA strongly recommends the addition of a feature that would afford facilities an opportunity to explain "yes" answers in the Top Screen before being labeled a "high-risk" facility or being required to conduct a full-blown vulnerability assessment.

3) **SOCMA Supports the Use of Risk-Based Tiers in the Chemical Facility Anti-Terrorism Standards.** SOCMA considers it critical that risk assessment in the chemical security site context be conducted in a tiered, targeted and risk-based fashion and supports the DHS proposal to use this approach. Further, SOCMA supports the concept of phased implementation since it will allow both industry and DHS to identify and address the highest priority facilities first, and is a rational basis for establishing priorities and allocating resources.

4) **Better Integration of an Asset-Based Approach to Vulnerability Assessment Will Improve the Effectiveness of Vulnerability Assessment for Many Types of Chemical Facilities.** The asset-based approach to vulnerability assessment, which is included and clearly acknowledged in the CCPS publication *Guidelines for Analyzing and Managing Security Vulnerabilities of Fixed Chemical Sites,* must also be clearly acknowledged as an alternative to the scenario-based approach in the Interim Final Rule. SOCMA believes that the asset-based approach is better suited as a risk assessment methodology for many chemical facilities and that its availability can avoid reliance on subjective judgments

regarding attack and threat scenarios that fall outside the experience of the chemical industry.

5) **The Relative "Attractiveness" of a Target to Terrorists Is A Key Component that Should Be Integrated into the Site Security Risk Assessment for Chemical Facilities.** A range of features can be identified and evaluated that combine to make up the relative "attractiveness" of a chemical facility as a potential terrorist target. In many instances, these features and the consequent likelihood that a facility is an "attractive target" can be more objectively analyzed than threats and attack scenarios and, therefore, should be given at least equal weight when assessing overall risk at a particular chemical facility. In addition, factoring in this information has tremendous value in the overall exercise of prioritizing facilities based upon risk.

6) **SOCMA Supports Phased Implementation of the Chemical Facility Anti-Terrorism Standards as a Means to Rapidly Launch an Effective Program Focused on the Highest Priority Facilities.** SOCMA recognizes that DHS is setting out an ambitious schedule for implementation of the Chemical Facility Anti-Terrorism Standards and agrees that expeditious implementation is the right approach. While specific facilities may need to work with DHS on certain aspects of the implementation schedule, the overall plan of addressing high priority facilities first is the best means to allocate both public and private sector resources effectively. SOCMA supports the use of high priority criteria as a means to identify the first group of facilities that will be identified for completion of the Top Screen. Once the first tier of facilities has completed the Top Screen and the resulting information has been processed by DHS, a second tier can then be moved into the program, to follow in sequence through each step of the program.

COMMENTS

I. SOCMA and Its Members Have Substantial Expertise in and Commitment to the Development and Application of Chemical Site Security Programs for the Specialty and Batch Chemical Manufacturing Sector

SOCMA and its members have been actively involved in the development of chemical site security concepts and programs since early 2001. SOCMA has substantial

experience and expertise in the field and is working to assure that it and its members identify and address priority chemical site security risks. In many instances, the manner in which these risks are calibrated must necessarily take into account the unique nature of specialty and batch chemical manufacturing operations.

A. SOCMA Offers Both Experience and Expertise in its Representation of the Unique Interests of the Specialty and Batch Chemical Manufacturing Sector

Since 1921, SOCMA has been the leading trade association representing approximately 300 specialty and batch chemical manufacturers and importers. Around 90% of SOCMA members are small businesses, according to the Small Business Administration. While large companies are also members of the association, primarily represented through their specialty chemical divisions and related businesses, SOCMA principally speaks for and serves batch, custom and small chemical companies.

Specialty chemicals are materials with highly specialized physical or performance functions, which are the result of certain atoms being attached to a molecule in very specific locations. The specialty chemical economic sector is critical to most other manufacturing industries and, therefore, all regional economies. Specialty chemicals are used in the development of most every other type of product, whether as a building block, raw material, performance additive, ingredient or processing material.

Specialty chemicals differ from commodity chemicals in that each one may have only one or two uses, while commodities may have dozens of different applications for each chemical. While commodity chemicals make up most of the production volume (by weight) in the global marketplace, specialty chemicals make up most of the diversity (number of different chemicals) in commerce at any given time.

The processes used by SOCMA members to produce specialty chemicals are distinctly different from the manufacture of commodity chemicals. Commodity chemicals are typically produced in continuous processes, 24 hours a day, 7 days a week. By contrast, specialty chemicals, because of their complex chemistries and narrowly focused applications, are

frequently produced batch-by-batch in a reaction vessel, which is often referred to as **batch manufacturing**. Generally, since continuous processes employ continuous feeds and yields, the production volume is usually far greater, per chemical, than the output for batch processes. The product lines at commodity chemical manufacturing operations are usually both consistent and predictable. The product lines at batch manufacturing operations, on the other hand, can vary from week to week, or even day to day.

The assets used in batch production are often designed so that they can be easily reconfigured to make a wide variety of different specialty chemicals. The product mix of a specialty chemical manufacturer varies in response to customer demand and may have significant variation in their overall portfolio from year to year. Given this specialization, batch production operations are not necessarily automated (as may be typical for commodity chemical production), and the chemical reaction (which yields the desired product) has a distinct beginning and ending for each batch.

The unique attributes of specialty and batch chemical manufacturing operations have provided SOCMA with a good understanding of the issues that need to be addressed to ensure that performance programs, standards and regulations are designed to be effective for this industry sector. In many instances, security approaches that are both feasible and productive for other industry sectors can be counterproductive or unnecessarily complex or burdensome when applied to batch and specialty chemical operations. Accordingly, SOCMA seeks to assure that new security approaches and programs take account of these attributes and provide realistic and feasible options for its members.

SOCMA is in the unique position of representing the most diverse chemistries in the industry. Fortunately, SOCMA's members are active participants and provide substantial experience and technical expertise that enable SOCMA to provide insights that are scientifically based and drawn from real-world experience, not just theory. SOCMA's staff and member company representatives are routinely consulted for their unique technical perspectives and practicality.

As is discussed below, SOCMA has developed and implemented innovative site security programs for its members and has made SOCMA's site security tools and expertise

available, free of charge, to both the public and private sector. These comments reflect this expertise, as well as the unique nature of the batch and specialty chemical manufacturing sector. SOCMA offers these comments as part of its ongoing commitment to share its knowledge and resources with industry partners, government and other stakeholders interested in chemistry and engineering.

B. SOCMA's Contributions to Chemical Site Security

SOCMA's involvement with chemical site security began prior to September 2001, with a collaborative effort by SOCMA, the American Chemistry Council and The Chlorine Institute to write and publish the *Site Security Guidelines for the U.S. Chemical Industry*. Among its other contributions, SOCMA authored the chapter on vulnerability assessment for this guidance and, in that context, introduced several key concepts. The *Guidelines* were published in October 2001.

One of the key concepts introduced by SOCMA was variable chemical risk. As discussed previously, the nature of batch manufacturing requires SOCMA members to vary product lines throughout any given year in response to customer demand for specific products. Because product lines and materials on-site can change from week to week, or even from day to day, it was important to SOCMA members that any security guidance materials take account of the variable nature of specialty and batch chemical production activities. The changing nature of the product mix and the variability in operations are both significant from a risk perspective. This type of variability makes planning an effective attack on a batch specialty manufacturing site notably more difficult.

In addition, given their smaller size, batch manufacturing facilities tend to be lower-profile sites, with equipment often housed in non-descript buildings. Batch production facilities are often found in industrial parks that contain a variety of businesses, making them less readily identified as chemical manufacturing sites. These factors, coupled with the lower volumes and variability of materials inherent to most batch manufacturing operations, significantly reduces the likelihood that these operations would be identified as terrorist targets.

Following publication of the *Site Security Guidelines for the U.S. Chemical Industry,* SOCMA took further steps to educate various audiences so that they could appreciate

how the variability in batch manufacturing operations, in conjunction with the smaller size of these operations, reduces the probability that batch facilities would be identified as priority targets for terrorist attack. SOCMA has presented the variable chemical risk and attractiveness concepts to Congressional staff as part of the American Chemical Society's *Science on the Hill* series and has continued to work collaboratively with other industry partners to address related chemical site security issues.

C. SOCMA's Contribution to and Asset-Based Model for Security Vulnerability Assessments

Soon after publication of the *Site Security Guidelines for the U.S. Chemical Industry*, attention turned to risk assessment methods. Most existing risk assessment methods used in the chemical industry circa 2001 were geared more for process safety and product usage than for potential terrorist activity. Evaluating vulnerability and risk relative to potential terrorist attacks required new sets of tools.

Sandia National Laboratories, the Center for Chemical Process Safety (CCPS) and SOCMA, as well as several individual chemical companies, all developed security vulnerability assessment (VA) tools that could help companies with their security planning activities. The American Petroleum Institute (API) and National Petroleum Refiners Association (NPRA) soon followed suit with a VA methodology for refineries. Once the U.S. Department of Homeland Security (DHS) was created, it commissioned a new VA method, called Risk Assessment & Management for Critical Asset Protection (RAMCAP), which introduced an upfront screening method to allow DHS to concentrate its efforts on the higher-risk facilities. SOCMA was a participant on both the CCPS and RAMCAP development teams.

The SOCMA SVA Manual and Model were developed concurrently but independently from the other SVA approaches. The SOCMA SVA uses what is termed "an asset-based approach" to vulnerability assessment and is geared for variable-risk chemical facilities. SOCMA found that many of the traditional scenario-based approaches did not adequately address the variability of risk at batch and specialty chemical facilities.

More specifically, an asset-based approach is designed to take account of a range of information and real-world variables that are not given any consideration under the guidelines for a threat-scenario approach. In particular, an asset-based approach takes account of:

- Attractiveness as a target
  - Visibility and profile
  - Ease of planning at attack
  - Surroundings
  - Visible protection
- Emergency response capability
  - Including community response capabilities and mutual aid programs
- Properties and quantities of certain chemicals

Thus, there emerged two primary conceptual approaches to vulnerability assessment, one concentrating on threats and attack scenarios and the other on assets and their inherent attractiveness to terrorists. The scenario-based approach and the asset-based approach share many similarities; however, there are certain differences that may make one approach more suitable than another, depending on the circumstances of the facility being studied. SOCMA has focused on the asset-based approach since it better addresses the variable chemical risk typical of batch and specialty chemical manufacturing operations.

II. General Comments on the Proposed Chemical Facility Anti-Terrorism Standards

SOCMA generally supports the approach taken by DHS to implement Section 550 of the Homeland Security Appropriations Act of 2007 and commends the Department on its ability to quickly publish a set of proposals, maintain the intent of Congress, and seek public comment prior to issuing Interim Final Rules.

Overall, the Advance Notice establishes a sound structure for comprehensive chemical facility anti-terrorism standards. The Advance Notice both builds on the existing methodologies that have been developed for chemical facility site security programs and implements Congressional intent that a broad range of facilities be assessed to determine if they present "high levels of security risk." SOCMA recognizes that the Advance Notice sets a rigorous schedule for identification and regulation of the highest risk facilities and concurs that this is the outcome sought by both Congress and the public.

SOCMA is committed to continuing its support for chemical site security initiatives and has, as part of its ChemStewards® program, required its members to implement chemical site security programs using both Vulnerability Assessments and Site Security Plans as a condition of membership to the association. Based on this experience, SOCMA offers the following general comments on the Advance Notice, followed by more focused comments of specific issues in subsequent sections.

A. The Importance of Integrated Planning for Federal Programs

An overarching consideration when issuing the Interim Final Rules should be integration with other federal government requirements for security at chemical facilities. Integrating the Chemical Facility Anti-Terrorism Standards with other DHS programs implemented through the Transportation Security Administration (TSA), U.S. Customs & Border Patrol and the U.S. Coast Guard will reduce the burdens on DHS and the regulated community by minimizing duplication and redundancy. SOCMA believes that DHS understands the importance of this issue and is moving in a direction to integrate the elements of the Advance Notice with these various programs.

In this regard, SOCMA notes it believes that security at facilities covered under MTSA, or tenant facilities that are wholly located within a MTSA-regulated hosts' designated "Restricted Area," should not be regulated under the Chemical Facility Anti-Terrorism Standards. Regulating security at the same facility under two or more different sets of regulations would be duplicative and create an undue burden on both the facility and the federal government.

B. SOCMA Supports a Comprehensive Definition of "Chemical Facility"

For screening and prioritization purposes, SOCMA supports a broad and comprehensive definition of "chemical facility." Use of a comprehensive definition of "chemical facility" is the best means of assuring that all facilities that might have potential to present a high security risk are included in the initial screening process.

The only potential drawback of using a comprehensive definition would be the cumulative burden placed on DHS in its processing of the resulting volume of information. However, SOCMA believes that the Advance Notice effectively addresses this issue in two

ways. First, the proposed Top Screen process generally is structured to enable DHS to review initial screening submissions in an efficient fashion. As noted in the following section, however, SOCMA believes that minor modifications to the Top Screen tool can enable DHS to more efficiently screen out facilities that respond affirmatively to a query but have circumstances that negate the level of risk assumed to be present by virtue of a positive response.

Second, DHS will have the ability to establish phased approaches to implementation by "selecting certain chemical facilities for expedited initial processes under these regulations and identifying other chemical facilities or types or classes of chemical facilities for other phases of program implementation." (Proposed § 27.110.) SOCMA considers this a sound approach to allocating resources.

At the same time, as DHS develops its approach and criteria for phasing in the program, SOCMA urges that the criteria and approach be well-defined. It is extremely important that facilities be able to determine easily and with certainty whether a new phase of regulatory requirements applies to them or not. This is particularly true with respect to smaller business or industry sectors that have not yet participated in established site security programs. In this regard, SOCMA believes that the criteria used by DHS to determine which facilities would be required to fill out the Top Screen should be simple, straight forward and allow any company to easily determine if it should be filling out the Top Screen.

For the purposes of clarity and manageability, one possible option for DHS to consider is the inclusion of all facilities subject to the EPA RMP when deciding which facilities must initially fill out the Top Screen in the first phase. This would provide clarity to potentially affected facilities and allow DHS time before phasing in non-RMP facilities.

As DHS develops its approach to defining the categories of facilities required to implement specific phases, it will be important to recognize categories of situations in which the identity of the regulated party may not be as easily ascertained. For example, third-party warehouses and leasing agreements for production facilities on larger chemical campuses may pose challenges to DHS when deciding where the boundaries of the facility are and which parties are responsible for specific areas within the facility. SOCMA believes that the current approach for these situations has been working well, with the owner and tenant usually working collaboratively and determining how security practices will be implemented and regulatory

obligations will be fulfilled. This practice should be allowed to continue with little or no interference. If, however, DHS considers it necessary to more specifically assign responsibility for regulatory obligations at such facilities, the responsibility for security at the facility level should ultimately reside with the owner of the facility, not those who are temporarily leasing space or own products that are only temporarily located at that facility.

C. Defining Risk in a Chemical Site Security Context

DHS is seeking comments related to appropriate sources of information to ascertain relevant risks. Several sources of information, such as EPA, FBI and Department of Commerce lists, have been identified in the preamble to the Proposed Rule. SOCMA suggests that DHS first evaluate and identify the types of risk that are most relevant to its mission, beginning with a definition of risk. DHS has done a reasonable job, considering the tight schedule, of identifying pertinent risk areas. Because the risks are addressed in separate sections of the preamble and the Advance Notice, an assessment of the entire document and attachments is necessary to gain perspective on the assumptions set by DHS to initially define risk.

In the general context of the risk assessment discipline, risk has traditionally been defined as the likelihood that an undesirable event could take place. In the case of chemical facilities, the concept of an undesirable event usually focuses on an unforeseen release of or exposure to a chemical. The likelihood component often considers many different factors, depending upon the risk being analyzed. In the context of process hazard analysis, the likelihood component would consider equipment specifications, operating conditions, and empirical data from previous incidents, among other considerations. Estimating the likelihood for exposure during chemical use would typically include activity patterns, process and environmental controls, and other conditions associated with the use of the chemical.

Taking the basic concept of risk as the likelihood of an undesirable event and applying it in the context of security at chemical facilities presents challenges that are not usually experienced when assessing risk in other disciplines. For example, there are little or no empirical data for terrorist attacks at chemical facilities from which an assessor can extrapolate a probability of occurrence with any kind of certainty. Consequently, the likelihood component of terrorism risk to chemical facilities must use surrogates to address the likelihood of occurrence.

Two distinctly different methods can be used to accomplish this: (1) the scenario-based approach and (2) the asset-based approach.

The scenario-based approach analyzes adversaries, tactics, and weaponry, and uses scenarios and professional judgment to estimate the likelihood of adversary success. SOCMA believes this to be a subjective and very complex approach as it requires the assessor to guess at the likelihood component. SOCMA is concerned that the Advance Notice does little to provide or identify tools that could be used by facilities to help determine the likelihood of adversary success. Consequently, there is significant potential for inconsistent analysis, particularly as the implementation phases of this program reach industry sectors or facilities that have not previously been involved with chemical site security programs and methodologies.

The other method commonly applied at chemical facilities is the asset-based approach, which concentrates on features that would make one particular facility more attractive as a terrorist target than another facility. Attractiveness can be used as an objective surrogate for likelihood if consistent criteria are used to rank and weigh the attractiveness features. Features that make up attractiveness include a facility's visibility and profile; operating policies, safety and security procedures; site conditions that would affect the ease in which an attack could be planned and implemented; the physical makeup and surroundings of the facility; and visible protection and security at the site. SOCMA urges DHS to adopt the concept of attractiveness as a viable surrogate for likelihood in the security risk equation.

For purposes of identifying facilities that could present a high security risk, SOCMA recommends that DHS initially focus on the risks or incidents that could require federal intervention for containment. On this basis, SOCMA recommends that the Advance Notice focus on screening for the following types of risk:

- Significant loss of life or serious, life-threatening injuries on a scale that would overwhelm a local and state government ability to handle the cases
- Significant collateral damage to other infrastructure
- Significant collateral damage to national icons
- Significant environmental damage that would result in a substantial disruption of interstate commerce

- Loss of ability to carry out critical public health services
- Loss of ability to carry out national defense functions

Articulating the level of risk in this manner provides facilities with a clearer understanding of the conditions or circumstances that are being considered in the identification of a facility as presenting a high security risk. Facilities can more readily evaluate whether any events or conditions that could be created by a terrorist attack could have results that would reach this level of significance.

D. SOCMA Supports the Proposed Use of Risk-based Tiers

SOCMA fully supports the concept of a tiered, risk-based approach to chemical facility security. SOCMA believes that three or four distinct tiers should suffice to delineate types of high risk facilities. Requirements for vulnerability assessments, security plans and performance standards should be based on the tier in which a facility falls. The criteria for differentiating between tiers should include the following:

- Attractiveness as a target
  - Visibility and profile
  - Ease of planning and implementing an attack
  - Surroundings
  - Visible protection
- Emergency response capability
  - Including community response capabilities and mutual aid programs
- Answers to Top Screen
  - Prioritize areas addressed by the Top Screen by assigning weight values to certain Top Screen questions
- Properties and quantities of certain chemicals

SOCMA believes that the types of risk most critical to making tier determinations should align with the presumed intent of the terrorists. Casualties, disruption to essential services, economic disruption and the potential to affect other infrastructures or national icons should be considered. The highest weight should be given to the potential to cause mass

casualties or impact other infrastructure or national icons. The potential to disrupt essential services should be given a moderate weight value and economic disruption should be assigned a relatively lower weight than the other factors.

III. SOCMA's Comments on the Structure and Content of Top Screen

SOCMA supports the efforts of DHS to develop a consequence-based screening mechanism to assist the Department in identifying facilities that require a more robust assessment of vulnerability. SOCMA believes the purpose of the Top Screen is to serve as a prioritization tool that allows DHS to focus on the facilities that may pose the highest risks. Generally, the Top Screen addresses appropriate issues that DHS should be considering when prioritizing facilities.

At the same time, as discussed below, there are, several aspects of Top Screen that SOCMA recommends be changed or augmented before Top Screen is deployed.

A. Comments on the General Structure of Top Screen

The premise of the Top Screen is to ask a series of yes/no questions related to the potential consequences a facility may face if attacked. It is primarily an asset-based approach to screening, which SOCMA supports. The challenge faced by DHS is determining which facilities, based on the Top Screen answers, should be required to conduct a robust vulnerability assessment (VA). While most low-risk facilities are expected to be screened out from further consideration, others may have unique circumstances (often temporary) that result in a "yes" answer to one or more of the Top Screen questions. If the Department requires every facility answering a "yes" on the Top Screen (as currently proposed) to conduct a full VA, then DHS will be inundated with full assessments, out of which only a small portion of the information will have utility in determining the appropriate risk level of the facility.

SOCMA recommends that DHS include an opportunity for submitters to explain "yes" answers in more detail, without having to conduct a full VA. This will save DHS time and resources by focusing in on the pertinent attributes and circumstances and not getting bogged down trying to delineate which parts of a VA would be relevant. It would also reduce the overall burden on chemical facilities by allowing submitters to provide adequate characterization of the

facility, without having to delve into areas that are not relevant for purposes of the DHS program.

For example, if a facility has a certain chemical on site, there are other considerations, such as container size and construction, or the length of time it is on site, that must be taken into account before estimating the potential consequences if released or stolen. The second layer to the Top Screen could be as simple as a portal to attach an electronic document that describes the circumstances pertinent to the "yes" answer. After reviewing the supplemental information, if DHS determines that a full VA is necessary to make a more conclusive risk determination, then that particular facility should conduct the VA.

SOCMA thus generally supports the proposed process by which facilities would fill out the Top Screen. However, in addition to providing the opportunity for a short supplemental narrative explanation for certain queries, SOCMA recommends that DHS use its discretion to phase in the timing for filling out Top Screen. The tiering should be based on the same set of criteria that DHS decides to use to identify potential higher risk facilities for the first round of submitters.

B. Comments on the Prediction of Injuries

SOCMA is concerned about the expectation that a facility will be asked to estimate the number of "life-changing" injuries that could be the result of a chemical release. Historical records are of limited value in this exercise, as historical records primarily track fatalities. Further, records for injuries vary widely in their level of detail. It is very difficult to discern from records the significance of the types of injuries that may have occurred. For example, records often reflect the number of exposed people who sought medical attention. These data may not be relevant, however, because historically most exposure-related symptoms for which people have sought medical attention have been related to headache, nausea or vomiting, which are typically transient symptoms.

SOCMA recommends that DHS not place facilities in the position of projecting injuries in this manner or, at a minimum, adopt a much more focused definition for injury, such as the following:

"Serious, irreversible injury that would require hospitalization and disability under established worker compensation programs"

This type of language would better inform facilities about the relevant benchmark for their assessment and would greatly increase the likelihood of some degree of parity in the responses from one facility to the next. Absent sufficient context to assure a level of consistency, the Top Screen will lose its efficacy as a sorting tool for prioritizing facilities

C. DHS Should Establish Its Own List, Based on the RAMCAP Work, to Screen Human Health Consequences of Chemicals on Site

The most integral component of the Top Screen and, ultimately, of overall risk, is the characterization of chemicals that are stored or used on site. There are four main issues related to characterizing the potential hazards at chemical facilities:

1) What chemicals are on site?
2) What type and size of containers are used to store the chemicals?
3) Under what conditions are they stored or used?
4) For what period of time are they present at the site?

The Top Screen only appears to address the first issue. DHS seeks comments on whether it should use a specific list of chemicals and threshold quantities to characterize the chemical hazards on site or whether it should use hazard classes. While most chemical companies are familiar with hazard classes, the classifications and thresholds have more to do with shipping and identification than with the risk of a terrorist attack or a facility's attractiveness as a terrorist target. Therefore, to use these hazard classifications in a chemical site security context, DHS would have to establish new thresholds, as well as a methodology and consistent criteria for developing those thresholds.

Instead, SOCMA recommends that DHS establish its own chemical list, using work done under RAMCAP as the foundation. Chemicals on the DHS list should only include those that would be attractive to a terrorist, primarily those that could cause off-site consequences if released, those that could easily be stolen and deployed in confined spaces and those that could easily be converted to chemical weapons and explosives. The criteria for appearing on the DHS list should include:

- Chemicals that could be used as weapons of mass effect, primarily toxic gases at RMP threshold quantities
    - It is important to distinguish toxic gases from Toxic Inhalation Hazards (TIHs), because TIHs include liquids, which may affect the immediate vicinity, but would not have much potential for off-site consequences
- Highly toxic gases in containers that could easily be hand-carried and concealed
- Chemical Weapons Convention (CWC) Schedule 1 chemical weapons and relevant precursors that could easily be converted to Schedule 1 chemical weapons
    - This should only include precursors that can be converted without specialized knowledge or equipment
- High explosives at certain threshold quantities and certain, unique precursors
    - Care should be taken to avoid including common substances, such as acetone, hydrogen peroxide and diesel fuel, because that would screen in every laboratory and gas station in the U.S.

During the development of RAMCAP, significant time and effort was devoted to establishing a list of chemicals using the criteria above. SOCMA urges DHS to use the list developed for RAMCAP as a method to preliminarily determine potential human health consequences in the Top Screen.

The second, third and fourth questions asked above, concerning containers, how materials are stored or used and the period of time in which a chemical can be found on site, are also essential for understanding the actual risk at a facility. For instance, many batch facilities may be subject to certain federal reporting requirements because a chemical is on site for a short period of time. Constantly changing materials makes planning an attack much more difficult, if not impossible. The ease of planning an attack affects the facility's overall risk profile. SOCMA acknowledges that in some cases it may be necessary for a facility to enhance its security program while particular chemicals are on site for short periods of time. Facilities with changing product lines, however, should not be subject to the same requirements as facilities with those same materials on site throughout the year.

D. The Correct Context for Human Health Consequence Thresholds

In Appendix A to the Advance Notice, DHS notes that one Top Screen question may address whether or not an EPA Risk Management Program (RMP) worst-case exposed population reaches a certain threshold. SOCMA cautions DHS against using data related to the EPA RMP, which is a program with a totally different purpose.

Care must be taken to distinguish between the Emergency Response Planning Guideline (ERPG) levels before even considering the use of RMP data. Worst-case scenarios under RMP are based on unrealistic assumptions and try to estimate a zone of impact based on threshold concentrations (ERPG thresholds), which have nothing to do with predicting casualties that would require federal assistance. With the exception of one incident overseas, historical records of chemical releases (not explosions) repeatedly show low numbers of casualties, which substantiates the invalidity of RMP data for Top Screen purposes. If DHS intends to pursue this line of inquiry, then SOCMA recommends that DHS use historical release data and develop an appropriate conversion factor to estimate probable casualties from RMP data using ERPG-3, if RMP data are to be used at all.

Instead, SOCMA recommends that DHS simplify the process by asking if the facility has certain RMP substances at the RMP threshold quantities. SOCMA is concerned that requesting that facilities provide an estimate of exposed populations or casualties will result in nothing more than guess-work for the submitter, will not be meaningful in the chemical security screening context , and will yield information with little practical utility to DHS.

E. Consideration of Chemical Weapons and Precursors

As mentioned in a previous section of these comments, DHS should consider the availability of certain substances from the CWC list when assessing overall risk. Appendix B to the Advance Notice, however, does not delineate which CWC Schedules would be appropriate to ascertain risk. Additionally, DHS mentions the FBI and Australian Group lists of chemicals. SOCMA recommends that DHS adopt the criteria found in the Human Health Consequences section of these comments for determining which chemicals to consider when assessing overall risk. The FBI and Australia Group lists and many substances from the CWC Schedule 2 and 3 lists do not fit those criteria. Those lists contain many very common laboratory reagents that cannot be easily converted to a weapon of mass effect. Including those types of substances

would inundate DHS with "yes" answers on the Top Screen including affirmative responses from every high school and college laboratory in the country.

SOCMA urges DHS to use the list developed for RAMCAP as a method to help determine a facility's overall risk. SOCMA offers to work with DHS to make any necessary refinements to the list.

F. Thresholds and Criteria for Economic Importance

SOCMA agrees that avoiding disruptions to the U.S. economy is important for those directly affected and for the morale of the public generally. Nonetheless, the threshold for identifying economic impacts as significant in the context of homeland security concerns must be set quite high. It should be clear that only large-scale disruption that can have long-term effects on the national economy should be considered when assessing overall security risks.

In the event of disturbances in commerce, the U.S. marketplace is usually quite efficient at adjusting to meet the conditions contributing to the disruptions. In most cases for chemicals, there are alternative materials or sources to fulfill market needs. As stated previously in these comments, batch producers are able to make many different substances using the same equipment. In the event of a loss in capacity for a particular chemical, batch processing could be used to help keep capacity up to meet the market demand, especially for critical chemicals.

Recognizing that there may be a few cases that require highly specialized equipment for production, SOCMA recommends that DHS set up a voluntary program whereby interested companies could assist the Department in setting up a contingency plan for materials sourcing to anticipate and address any such concerns. SOCMA is willing to work with DHS to develop and establish a voluntary materials continuity program, including the recruitment of volunteer companies, to avoid any identified potential market disruptions that could be significant in the homeland security context.

G. Chemicals Essential to Critical U.S. Missions

SOCMA acknowledges that a small number of chemicals are essential for the U.S. government to be able to carry out its most critical missions. The real issue is not whether the U.S. will have access to a particular substance, but how quickly capacity can be restored. As

stated in the previous section of these comments, U.S. chemical suppliers are very adept at responding to market conditions. Any shift in supply or demand that could affect overall markets probably will result in one or more companies adjusting their business portfolios to meet those new conditions. Therefore, it is reasonable to conclude that there will be very few scenarios in which the supply for essential chemicals will not meet the demand.

In SOCMA's view, the mission-impact questions appearing in Appendix 1, as currently written, will not help DHS determine how essential chemicals affect overall facility vulnerabilities or risks, nor will they delineate the most essential materials. Because specialty chemical firms have very diverse portfolios, it is highly likely that many producers could produce more than 35% of the volume of production in at least one chemical at a given time. A general affirmative answer to this question however, will not provide any useful information, since it does not in any way correlate this answer to a particular chemical. Hence, DHS will still not have any useful information relative to mission critical chemicals.

SOCMA is also concerned about whether and how DHS would manage and evaluate the level of responses that this question could elicit from the specialty chemical sector alone. SOCMA recommends that DHS revise its approach and make a more focused inquiry with respect to an identified set of predetermined materials.

The expectation that chemical manufacturers can answer certain Top Screen questions about the supply chain is unrealistic. There are usually layers of distribution networks between chemical producers, formulators and finished goods manufacturers, all of which survive economically because their business relationships are kept confidential. Many in the distribution chain do not physically store chemicals on their own property and, therefore, cannot be construed as chemical facilities. Information from this section of the supply chain will be difficult to obtain.

In a similar fashion to the recommendation in the previous section, for a voluntary materials continuity program, SOCMA recommends that DHS convene a special task force to develop a continuity program specifically targeting chemicals that are essential to critical U.S. missions—i.e., critical public health products and services and national defense. The task force should be comprised of key supply chain players, such as the following:

- Batch chemical manufacturers
- Commodity chemical manufacturers
- Formulators
- Parts manufacturers
- Finished goods manufacturers
- Distributors
- Public health representatives
- Department of Defense
- Department of Homeland Security

The task force would begin with the identification of essential materials, including an assessment of alternative materials and sources, then conduct a needs assessment to identify truly vulnerable areas of the marketplace. From that foundation, the task force could develop and implement a materials continuity program for the most essential materials. SOCMA offers to assist in the development and recruitment activities for this task force.

H. Management of Data on Screened Out Facilities

Since part of the Top Screen is designed to capture logistical information associated with facilities, DHS is also seeking comment on what to do with collected information that does not pertain to high-risk facilities and, if kept by the Department, how that information would be updated. While logistical information may seem attractive, it may be outside of the scope intended by Congress—i.e., concentration on high-risk facilities. DHS should avoid the temptation of seeking information that has little or no practical utility.

Another question posed by DHS is whether or not statistical data from collection activities should be made available and, if so, to whom. SOCMA believes that any information derived from Top Screen or other submissions must have demonstrable utility before it is released to any party. Congress did not intend to have DHS become a repository for public information. Furthermore, information would have to be subject to strict sanitation procedures, which would have to be developed before considering release to parties who do not have a need to know. Collected information would also be subject to the requirements of the Data Quality Act, so DHS would have to ensure the quality of data prior to each release.

IV. Comments on the Vulnerability Assessment Approach in the Advance Notice

This section first addresses vulnerability assessments in general, and then provides specific comments related to the current language and requirements for vulnerability assessments in the Advance Notice and in Appendix B. As an initial point, SOCMA believes that the information found in Appendix B may be from an early version of RAMCAP and is concerned that it could be misconstrued as current DHS thinking. Accordingly, SOCMA recommends that DHS either revise Appendix B or remove it entirely and simply allow facilities to use VAs that meet the Department's criteria for robustness.

A. General Comments on Vulnerability Assessment

As mentioned in the section *Defining Risk in a Chemical Site Security Context*, there are two key approaches that have been used to assess the vulnerabilities of chemical facilities: the scenario-based approach and the asset-based approach. While the asset-based approach is briefly mentioned, the Advance Notice appears to place an emphasis on threats and scenarios. SOCMA believes that equal consideration should be given to the asset-based approach. While scenarios may be suitable to help determine appropriate measures to reduce vulnerability, many scenarios, especially some of those found in the appendices to the Advance Notice, are not necessary or even useful when assessing risk at chemical facilities.

The main focus of the asset-based approach is the attractiveness of a particular chemical facility as a potential terrorist target. Although most everything on-site can be considered an asset, the asset-based approach with respect to terrorism assumes that the intent behind attacking a chemical facility is to achieve a large-scale release of a chemical, to steal a chemical, or to destroy equipment and reduce capacity. Historically, attacks on processing equipment have been confined mostly to oil refineries. The probability of a terrorist attacking a chemical facility in the U.S., with the main intent of destroying process equipment, is relatively small since incapacitating this type of process equipment will not produce the results traditionally sought by terrorist groups. Therefore, it is reasonable to assume that the intent of a terrorist attack against a chemical facility would more likely be an effort to cause a large-scale release or steal a particular type of chemical.

Focusing on these two key scenarios is what makes the asset-based approach very user-friendly and suitable for vulnerability assessment at chemical facilities, especially variable-risk batch facilities. Instead of trying to think of every conceivable scenario, the asset-based approach focuses on the most probable. This saves time and resources by not analyzing scenarios that are either unrealistic or that the asset owner would not be in a position to address. SOCMA recommends that DHS revise the presentation in the Advance Notice to give equal emphasis to the merits and suitability of the asset-based approach for vulnerability assessments at chemical facilities.

B. General Comments on Appendix B

SOCMA has identified several different concerns with respect to Appendix B to the Advance Notice. Appendix B is almost exclusively focused on the scenario-based approach. Rather than studying the features that may make a facility attractive as a terrorist target, which is the most plausible surrogate for estimating the likelihood that an attack would ever occur, the approach outlined in Appendix B asks facility owners to estimate likelihood based on professional judgment.

Professional judgment is important in any analytical process; however, unless everyone is basing that judgment on similar factors or criteria, the process becomes very subjective. To maximize objectivity, VA approaches should be designed to rely less on undefined professional judgment and to key in, instead, on the factors that contribute to a facility's attractiveness as a target.

Attachment A of these comments contains the *SOCMA Manual on Security Vulnerability Analysis Methodology and Model*, which outlines in detail the features and criteria that can be studied to determine attractiveness. This approach was submitted to the Center for Chemical Process Safety (CCPS) and found to meet the CCPS criteria. SOCMA urges DHS to acknowledge the SOCMA SVA model and method literally in the Interim Final Rule, and give the asset-based approach equal weight to the scenario-based approach.

C. Team Composition for Vulnerability Assessments

With respect to the composition of a team for a vulnerability assessment, SOCMA believes that the experience and skill set of emergency responders is integral to the VA and

security planning processes. It is one of the few areas in which prior planning and training can minimize potential consequences if a material is released. That discipline does not seem to be included in this section, and SOCMA recommends that it be added.

D. The Objectives and Scope of Vulnerability Assessments

The RAMCAP background document "recommends including injury" but does not offer any criteria to determine which injuries to consider. SOCMA urges DHS to adopt the language that SOCMA has offered as an alternative in the Top Screen:

"Serious, irreversible injury that would require hospitalization and disability under established worker compensation programs"

For the reasons stated previously, the vulnerability assessment should focus on an incidence of casualties that could overwhelm capacities at the local and state level.

E. The Hazard Component of the Risk Equation

A major component of risk is the undesirable event—in the case of chemical facilities, a release or theft of a chemical—yet this is not adequately addressed in the Advance Notice. The simple fact that a certain chemical may be on site during a given time period does not fully consider the potential consequences if that chemical is released or stolen. A thorough asset characterization must also consider what type of container is used to store the substance, when and where it is stored, how the chemical is typically used, as well as other factors. SOCMA recommends that DHS incorporate these considerations in the proposed VA method that DHS will eventually require facilities to conduct. SOCMA is willing to work with the Department to augment the VA method to include these important considerations.

F. Threat Assessment

SOCMA is concerned that assessing the threats outlined in Table 12 of Appendix B is an exercise that will not change the outcomes or conclusions of a vulnerability assessment. There is also a reference in Step 3.1 on Page 39 that says the importance of designing threat scenarios "is to develop a design basis threat." While SOCMA believes that this older version of RAMCAP does not reflect current DHS thinking, it will be very important to ensure that this language is not included in the Interim Final Rule. The development of design basis threats is

irrelevant to batch chemical producers and is not a general security objective shared by the chemical industry.

Most privately owned and operated facilities are not in a position to defend against many of the threats listed in Table 12, especially those involving teams of armed attackers with military-grade equipment and weaponry. It is reasonable for a facility operator to assume that a trained team of adversaries with military-grade equipment and weapons is going to achieve its objective, which will probably be related to causing a large-scale release or theft and diversion of a chemical. Hence, there is little utility in going through countless scenarios on how those objectives could be achieved. SOCMA believes that time and resources would be better spent identifying assets that would be attractive targets for achieving those objectives.

The VA process should focus on plausible threats to which facilities can reasonably deter, detect and delay adversaries. SOCMA urges DHS to acknowledge the validity of asset-based approaches and not require facilities to waste time and resources on scenarios that are either unrealistic, or would clearly be variations on scenarios that should simply be presumed to overwhelm the facility's protective capabilities.

G. Estimating Likelihood

One overarching component in all risk assessment is consideration of the likelihood that an undesirable event will take place. Likelihood can be considered in a qualitative (comparative) fashion or it can be quantitative (probabilistic). Akin to chemical safety analysis, the steps outlined in Appendix B, which are proposed to be used as a surrogate to estimate likelihood, require professional judgment. For security vulnerability assessment at chemical facilities, however, there are no well-established criteria to help guide professional judgments. This will introduce a great deal of subjectivity into the assessment process.

SOCMA believes that a more objective surrogate for likelihood is an assessment of a facility's attractiveness as a potential target. This can be accomplished by reviewing policies, practices and equipment, and using specific criteria to judge the relative ranking of each attractiveness feature. Each feature can also be weighted according to its contribution to overall risk. As long as facilities are reviewing the same features and using the same decision-making

criteria, the approach will be more objective than asking facilities to use their best judgment to decide the likelihood of adversary success.

H. Acceptance of Alternative Vulnerability Assessments

SOCMA commends DHS on its willingness to accept different methods for vulnerability assessments, and SOCMA supports the inclusion of those methods that have been reviewed and found to meet certain criteria developed by CCPS. A professional society, nonetheless, should not be presumed indefinitely to be in a position to serve in a certification capacity for the federal government, unless the government can ensure that appropriate expertise is maintained by that professional society. The current expertise of CCPS is unquestionably world-class. At the same time, chemical facility security, is recognized to require a combination of knowledge in chemical safety and security. SOCMA believes that DHS will need to periodically review and confirm whether the expertise and resources tasked by CCPS in this role are sufficient and appropriate.

V. Security Plans and Performance Standards

SOCMA generally supports the process proposed by DHS to review and approve security plans. The timing for submission of security plans should be reflective of the tier in which the facility is placed. For example, a Tier 4 facility should not be expected to develop and complete a security plan in the same time frame as a Tier 2 facility. SOCMA appreciates the collaborative approach proposed by DHS to resolving issues with security plans.

SOCMA also supports the acceptance of alternative security programs. ChemStewards® is a management system-based performance improvement program required as a condition of membership to SOCMA. The security component of ChemStewards® contains the same requirements as the security component of Responsible Care®, which was SOCMA's previous performance improvement program. The ChemStewards® security program requires the development of a VA that meets the CCPS criteria, development of a site security plan and verification from a third-party that security enhancements in the plan have been carried out. SOCMA intends to submit the ChemStewards® security program to DHS for consideration as an alternative security program.

Understandably, DHS has not provided significant detail on performance standards in the Advance Notice. Until some of the initial regulatory elements regarding definition of risk and the establishment of tiers are in place, it would be premature for DHS to have progressed to publishing details on this aspect of the program. SOCMA recommends that DHS work closely with industry stakeholders and experts to develop appropriate performance standards and develop effective implementation guidance. The performance standards should not be prescriptive and should focus on vulnerability reduction, not just countermeasures. Guidance materials should include a list of options, versus just one or two, and include sanitized examples of best practices.

One concern of SOCMA is how sites with facilities owned and operated by different companies may be addressed. Because the Advance Notice does not provide any detail in this area, there is a potential for small facilities that are co-located or on the same campus as larger facilities to be treated as having the same risk profile. Care must be taken on a multi-site chemical complex to distinguish between those facilities that pose significant risks and those that do not. The expectations for vulnerability assessments, security plans and performance standards should differ between facilities with differing risks, even if they are co-located or on the same physical property. SOCMA recommends that DHS include language in the Interim Final Rule clarifying that the tiered, risk-based approach applies to co-located facilities in the same fashion as any other set of facilities.

The security of a multi-site chemical complex is not always managed by each tenant; rather, in many cases managed by just one of the tenants who may or may not be the highest risk facility on the complex, it may be difficult to manage security for each site individually. Therefore, SOCMA urges DHS to allow multi-site complexes to work jointly among themselves to develop security measures appropriate for their situation.

Another concern to SOCMA is that the ever-changing materials and processes at batch production facilities are not adequately addressed in the with respect to VAs, security plans and performance standards. The reference in Appendix A that chemicals present “at any time or in the course of a year” would require a “yes” answer on the Top Screen is especially of concern to SOCMA members. The nature of the custom chemical business is very dynamic throughout

the year. Orders for a specific substance can come in at the last minute, which may temporarily change the risk profile of the facility. If a small batch facility is classified as a Tier 4, but for two weeks out of the year has a chemical on site that would raise it to a Tier 2, what will be the expectation regarding performance standards?

An additional concern is any possible expectation that DHS should be immediately notified of risk changes—even temporary ones—and whether or not the facility would be audited and required to obtain approval from DHS before production could begin. Requiring batch production facilities to notify DHS every time the facilities change processes or materials would cause a total disruption in the flow of materials in the marketplace. SOCMA urges DHS to consider the nature of batch production and the business practices of custom chemical manufacturers and incorporate language in the Interim Final Rule that provides flexibility to batch facilities.

One possible option is to allow facilities to generally anticipate certain hazard classes and capacities for batch production on an average annual basis and incorporate those considerations into the facility VA. The security plans could also be approached in this fashion, where the facility could develop plans for periods of heightened security, such as when particular materials are on site for short periods. There should be no expectation from the federal government that a facility will adopt a more stringent set of security performance standards on a permanent basis because a certain chemical in on site for a short period of time. SOCMA offers to work with DHS to provide further background on these operations and to ensure that this issue is fully addressed.

SOCMA also urges DHS to allow sufficient time for security upgrades, especially for small businesses. Capital expenditures for security, as a function of overall company net revenue, can be enormous for small companies. The funding for upgrades will have to come from budgets within the company, so care must be taken when crafting the Interim Final Rule that normal business practices are not unduly disrupted as an unintended consequence to the regulations.

VI. Comments on Various Procedural Elements of the Advance Notice

A. Administrative Procedures for Submission and Approval of VAs and Security Plans

SOCMA generally supports the proposals to administer the submission and approval processes for VAs and security plans. SOCMA believes that the timing for submission of VAs should be based on the preliminary tier of the facility after completing the Top Screen. Submissions for security plans should be timed according to the tier assigned based upon VA review. Flexibility should be afforded companies with multiple sites in different tiers, however, by allowing the companies to submit VAs and security plans for all facilities simultaneously if they wish. SOCMA recommends that DHS first concentrate on Tier 1 facilities, collect information, go through the administrative processes for approval, etc., get feedback from the Tier 1 facilities on the process, and then move forward in a step-wise fashion to the subsequent tiers.

Since there is a chance that some high risk facilities may not have used methods that were reviewed by CCPS, SOCMA recommends extending the Tier 1 submission times for VAs from 60 to 90 days, and submission of security plans from 120 to 180 days. The timing for submission of security plans should begin when the facility receives word back from DHS on its preliminary tier assignment. Starting a security plan any earlier would be premature because any unresolved issues from the results of the VA after initial DHS review would necessarily have to be resolved first. This proposed change on schedule will also provide facilities adequate time to do thorough VAs and deal with budget planning for potentially large capital expenditures.

Updates on VAs and security plans should be based on significant changes in risk profile and not on a frequency basis. This will expedite the review process and make it much less resource intensive for DHS. It will also reduce the overall burden on the regulated community by not asking for information that has already been submitted to the Department. Significant changes should be defined in the Interim Final Rule. Significance should be based on permanent changes at a facility that would constitute a move from one tier to another, in either direction. This could include anything from the addition of secondary containment dike that also serves as a vehicle access control barrier, which could reduce a facility's overall vulnerability, to a new continuous chemical process that requires the use of a toxic gas in sufficient amounts to

reach established thresholds on the DHS list. Some general considerations for requiring updates could include:

- New chemicals brought on site for periods of greater than three months that are on the DHS list and meet threshold quantities
    - This does not include chemicals for a batch run that would only be on site for a short amount of time.
- Greater quantities of existing chemicals on site for periods of greater than three months that are on the DHS list and meet threshold quantities
- Significant, operational changes for periods of three months or greater
- New countermeasures
- New policies that could affect overall vulnerability or risk

Changes to security plans should correspond with changes to the VAs. For ease of review and reduction in paperwork, updates to VAs and security plans could be sent as addenda to the originals. It is important to note that business and operational changes should not be subject to DHS approval before commencement. SOCMA offers to work with DHS to develop criteria for reporting changes that would warrant updates to VAs and security plans.

B. Comments on Reviews and Audits

The chemical sector differs from most other critical infrastructures because of the wide variability among facilities. Most other infrastructures have fewer variables from site to site and have more well-defined risks and vulnerabilities. Reviewing vulnerability assessments and security plans and inspecting chemical facilities with respect to site security requires a multi-disciplinary approach. The security discipline alone is not enough to make appropriate judgment calls for the adequacy and feasibility of security planning at chemical facilities; nor is any other single discipline. Therefore, one of the most important aspects to consider when addressing the proposal for third-party audits and reviews of assessments and plans is the qualifications of the reviewer and auditor.

It is rare for a single person to have both a security background and solid knowledge of chemical properties and hazards. It will be essential to ensure that reviewers and

auditors have adequate knowledge in the appropriate disciplines. SOCMA recommends that DHS quickly develop and establish training programs for DHS reviewers and auditors. Additionally, SOCMA urges DHS to establish knowledge and skills criteria to certify third-parties that may take part in DHS processes related to chemical facilities. SOCMA offers to assist DHS in the development of qualifications criteria, training and testing to ensure that DHS staff and others are prepared to meet the challenges of appropriately securing chemical facilities.

C. Notices of Inspection

SOCMA generally supports the inspection process outlined in the Advance Notice. SOCMA is concerned, however, with the lead time afforded facilities. The lead time should be sufficient to allow the facility to ensure that the appropriate materials and personnel are present for the inspection. Twenty-four hours may not be sufficient. SOCMA recommends a 72-hour lead-time, which will allow adequate time for the facility to gather the necessary materials and give essential personnel who may be traveling or on vacation sufficient time to be present at the facility during the inspection.

D. Background Checks

SOCMA acknowledges that background checks for certain personnel are critical in a facility security program. SOCMA believes that the general approach to background checks should be tiered in the same manner as for background checks in the intelligence community—the level of detail for the check should correspond to the access that the employee or contractor will have.

Because, by law, there are restrictions on the type of information private entities can collect on employees, it may be appropriate for the federal government to conduct background checks for security-sensitive positions at chemical facilities. Because contractors make up a significant portion of the workforce in the chemical sector and are not direct reports to the chemical facilities, DHS will face challenges ensuring that contractors are adequately checked. One option would be a requirement placed on firms that provide contract labor to conduct background checks on employees that could be contracted to work at chemical facilities. The problem with this option, however, is that there is no statutory authority provided to regulate

contracting firms. The other option would be a worker identity card, similar to the original Transportation Worker Identity Card (TWIC) concept.

SOCMA supports the original concept behind TWIC; however, the TWIC program has since evolved into a complex, overly burdensome program with little demonstrable benefit. The nature of the work at chemical facilities makes biometric access controls extremely difficult to employ with success. Working with certain chemicals can degrade the quality of fingerprints over time, templates must continually be replaced and, reading devices cannot always distinguish between fingerprints and dirt and smudge.

SOCMA recommends that DHS disregard the idea of biometric access controls and use an approach similar to the original TWIC concept, where workers would be subject to background checks according to the type of job and access they would have at chemical facilities. For example, plant control operators would be subject to more thorough checks than dock workers. Criteria for disqualification should vary among job type and access as well.

Basing criteria on felonies, misdemeanors, etc., alone does not adequately address fitness for certain job functions at a chemical facility. Only criteria relevant to repeat offenses, potential acts of sabotage and terrorism should be considered for this type of program. This may include checks for situations, such as overextended credit or gambling addiction, that may make an employee easy prey for an adversary looking to recruit an inside colluder.

Since there are many background checks that would need to be conducted, SOCMA advises DHS to consider a phased in approach, according to the following time table:

New Employees	Immediate Check
Employed < 5 years by company	Check within 6 months of effective date
Employed > 5 years by company	Check within 1 year of effective date

DHS is seeking comment on an appropriate fee to sustain a self-funded program. SOCMA believes that the $139 to $159 range is appropriate. Other right-to-work programs that require special qualifications can cost a great deal more.

E. <u>Process for Remedies, Objections and Appeals</u>

SOCMA generally supports the processes proposed in the Advance Notice for remedies, objections and appeals, with the exception of one missing element: judicial review. Although not specifically addressed in Section 550, the regulated community generally has the right to judicial review for federal agency judgments. Judicial review maintains a proper balance of powers within the federal government and avoids conflicts of interest during appeals processes. SOCMA urges DHS to incorporate the right to judicial review in the Interim Final Rule.

F. Counter-terrorism Vulnerability Information (CVI)

SOCMA generally supports the provisions in the Advance Notice for the protection of CVI. Most military, industrial security, law enforcement and intelligence professionals agree that the protection of information that could be exploited by adversaries is paramount to a security program. The only concern to SOCMA is the lack of a notification procedure to alert facilities that CVI may have been disclosed to an unauthorized party. A facility certainly has a need to know if sensitive information pertaining to its site has been disclosed. SOCMA urges DHS to include language regarding notifications to facilities in cases of CVI disclosure to unauthorized parties.

G. Technical Assistance

SOCMA strongly supports the provisions for technical assistance. Assistance should be available to all high risk facilities, not just facilities placed in Tier 1 and, should especially be available to smaller companies. SOCMA urges DHS, however, to consider a separation in enforcement and compliance assistance functions at the Department. Due to past experience with agencies that combine those functions, seeking assistance from those with inspection authority is daunting to the regulated community.

H. Federal Preemption

SOCMA agrees with the conclusions outlined in the Advance Notice regarding federal preemption. Allowing state and local authorities to also regulate chemical facilities in the area of security will create a patchwork of potentially duplicative and confusing laws without any additional benefit to society. Companies with multiple sites in different states would face an even greater burden, having to comply with many different requirements. In addition, the

potential patchwork of laws is sure to disrupt interstate commerce, which is why federal agencies historically have had broad authority to preempt state and local laws.

Conclusion

In closing, SOCMA reiterates its view that the Advance Notice establishes a sound foundation for implementation of the Chemical Facility Anti-Terrorism Standards. Substantial time and effort has been required to develop the Advance Notice on a tight schedule, and SOCMA commends DHS for its efforts to follow the intent of Congress and, in addition, to seek public comments on its proposed path forward.

Overall, SOCMA has identified the following points as key issues to be addressed as DHS moves forward with Chemical Facility Anti-Terrorism Standards:

1) **Consideration of Variable Chemical Risk Is Necessary to Accurately Evaluate Batch and Specialty Chemical Manufacturing Facilities.** The business practices and operational realities of custom chemical producers, especially the varying risk profiles due to ever-changing materials and processes, must be fully considered when assessing vulnerabilities and risk and developing appropriate standards for batch and specialty chemical manufacturing facilities. SOCMA urges DHS to integrate the concept of variable chemical risk into its regulatory program and guidance in order to assure that the risks at these facilities are accurately assessed and prioritized appropriately, relative to other chemical facilities.

2) **SOCMA Supports a Comprehensive Screening Program but Urges Refinement to the Top Screen To Assure Focus on High Priority Sites**. The Top Screen must be refined to avoid thousands of facilities being screened in, which would overwhelm DHS and divert scarce resources away from the facilities that pose the highest risks. SOCMA strongly recommends the addition of a feature that would afford facilities an opportunity to explain "yes" answers in the Top Screen before being labeled a "high-risk" facility or being required to conduct a full-blown vulnerability assessment.

3) **SOCMA Supports the Use of Risk-Based Tiers in the Chemical Facility Anti-Terrorism Standards.** SOCMA considers it critical that risk assessment in the chemical security site context be conducted in a tiered, targeted and risk-based fashion and supports the DHS proposal to use this approach. Further, SOCMA supports the concept of phased implementation, since it will allow both industry and DHS to identify and address the highest priority facilities first, and is a rational basis for establishing priorities and allocating resources.

4) **Better Integration of an Asset-Based Approach to Vulnerability Assessment Will Improve the Effectiveness of Vulnerability Assessment for Many Types of Chemical Facilities.** The asset-based approach to vulnerability assessment, which is included and clearly acknowledged in the CCPS publication *Guidelines for Analyzing and Managing Security Vulnerabilities of Fixed Chemical Sites*, must also be clearly acknowledged as an alternative to the scenario-based approach in the Interim Final Rule.

5) **The Relative "Attractiveness" of a Target to Terrorists Is A Key Component that Should Be Integrated into the Site Security Risk Assessment for Chemical Facilities.** Features that make up the attractiveness of a chemical facility as a potential terrorist target can be more objectively analyzed than threats and attack scenario and, therefore, should be given at least equal weight when assessing overall risk at a particular chemical facility. In addition, factoring in this information has tremendous value in the overall exercise of prioritizing facilities based upon risk.

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