CHEMICAL SECTOR EMERGENCY PREPAREDNESS TABLETOP EXERCISE

After-Action Report/Improvement Plan

August 16, 2013

American Chemistry Council

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EXECUTIVE SUMMARY

The American Chemistry Council (ACC)-sponsored Chemical Sector Emergency Preparedness Tabletop Exercise (TTX) provided a forum to facilitate discussion and document roles, responsibilities, processes, protocols, and systems used to support an effective public-private response to emerging all-hazard threats and incidents impacting the Chemical Sector. The TTX was meant to validate and provide feedback to enhance the recently developed draft *Playbook for an Effective All-Hazards Chemical Sector Response* (the "Playbook"). As a joint publication of the U.S. Department of Homeland (DHS) and the Chemical Sector Coordinating Council (CSCC),[1] the Playbook is intended to provide a standard operating procedure to assist the Chemical Sector in preparing for, responding to, and recovering from all-hazards emergency events.

The purpose of this After-Action Report and Improvement Plan (AAR/IP) is to analyze exercise results, identify strengths to be maintained and built upon, identify potential areas for further improvement, and outline the next steps for enhancing the Playbook and streamlining public-private incident communications and coordination.

Major Strengths

The major strengths identified during this exercise are as follows:

- There is a solid working relationship between the public and private members comprising the Chemical Sector, with a mutual desire to coordinate all-hazard emergency preparedness across the sector.
- The Chemical Sector has a good start on developing an effective all-hazards Playbook for enhancing public-private response to a large-scale emergency event such as Superstorm Sandy.
- In partnership with various National Laboratories, DHS has developed several analytical tools and multidisciplinary analyses of interdependencies and the consequences of infrastructure disruptions at national, regional, and local levels to support incident planning.

Primary Areas for Improvement

Throughout the exercise, several opportunities for improvement were identified. The primary areas for improvement are the following:

- The Chemical Sector would benefit from advanced incident planning between the public and private sectors to build collaborative relationships, foster communication, update rosters and points of contact, and prepare resources and capabilities. Pre-incident planning could lead to better understanding of supply chain vulnerabilities and

[1] The CSCC is one of the 16 critical infrastructure committees established under the protection afforded by the Critical Infrastructure Partnership Advisory Council (CIPAC). The purpose of the CSCC is to facilitate effective coordination between Federal infrastructure protection programs with the activities of the private sector. The CSCC consists of chemical industry trade associations and owner/operators who are committed to enhancing the physical and cyber security of the sector.

interdependencies and allow time to tailor analytical tools to identified needs.

- Streamline public-private communications during an incident to maximize available resources and reduce the burden on private sector owners and operators responding at the local level. Streamlined communications are essential for promoting information sharing, developing an accurate common operational picture, and coordinating effective response and recovery operations.

- The Chemical Sector would greatly benefit from having a single data repository in place to schedule pre-incident planning sessions, coordinate calls and status reports during an incident, and document best practices and lessons learned post-incident. However, the private sector is reluctant to use the Homeland Security Information Network (HSIN) due to privacy concerns.

- Resolve private sector credentialing concerns permitting incident area access for essential employees and restoration workers following an incident involving massive infrastructure disruptions.

Next Steps

The following steps are recommended to build on the strengths identified above and address identified areas for improvement:

- Finalize the Chemical Sector Playbook to provide written procedures to clarify roles and responsibilities, enhance pre-incident coordination to tailor analytical tools, and streamline communications and coordination during the immediate response and recovery to an incident. The Playbook should be a living document that is updated annually (or to reflect real world incident lessons learned inside the annual update cycle) and implements lessons learned across the Chemical Sector.

- Resolve concerns with HSIN to ensure there is a data repository and process in place that is widely accepted by both public sector and private sector members for scheduling pre-incident planning sessions, coordinating calls and status reports during an incident, and documenting best practices and lessons learned post-incident.

- Establish a DHS-led credentialing task force, in coordination with State and Local agencies and the private sector, to fully capture the issues, challenges, and possible courses of action addressing private sector credentialing and incident area access concerns.

- Validate and test the ACC All-Hazards Alert Notification System (AHANS) to share near real-time information and coordinate public-private communications during an emergency event to more effectively and efficiently deploy resources. ACC AHANS next steps are to:

    - Finalize the ACC AHANS program and inform ACC membership about its availability and use.

- Consider expanding the ACC AHANS beyond just ACC membership to include the entire Chemical Sector community through the CSCC.

- Establish a unique hotline call number for CHEMTREC® to activate AHANS.

- Expand contact groups to include Process Safety and Emergency Response.

- Incorporate annual ACC AHANS testing into the CSCC-DHS pre-season hurricane planning process outlined in the Playbook.

The following sections of the AAR/IP describe the exercise, observations, and recommendations in greater detail. *Section 1* provides a brief overview of the exercise. *Section 2* summarizes the exercise design, describing the exercise purpose, objectives, and scenario. *Section 3* is an analysis of 13 issues discussed at the TTX and is organized according to four broad categories: Access to Analytical Tools and Information, Communications and Coordination, Planning and Preparation, and Incident Response. *Section 4* is the conclusion. *Appendix A* is the Implementation Plan which designates specific actions and responsible organizations for each issue/area for improvement. *Appendix B* is a list of all TTX participants.

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SECTION 1: EXERCISE OVERVIEW

Exercise Name	Superstorm Sandy Tabletop Exercise
Exercise Date	June 11, 2013
Type	Tabletop Exercise (TTX)
Duration	4 hours
Location	700 Second St., NE Washington, DC 20002
Sponsor	American Chemistry Council
Threat or Hazard	Catastrophic Hurricane
Scenario	The exercise presented three narrative moves or "snapshots" based on the Superstorm Sandy experience: 1) pre-season/pre-landfall; 2) immediate response; and 3) short-term recovery. Each move provided a walk-through of infrastructure impacts and response actions as the storm evolved, allowing participants to discuss public-private sector roles, responsibilities, and interaction by phase.
Participating Organizations	There were 36 exercise participants from various levels of Federal and State agencies and the private sector. Public sector participants included representatives from the Department of Homeland Security, Department of Transportation, Department of Energy, Environmental Protection Agency, and the New Jersey Office of Homeland Security and Preparedness. The private sector was also well represented, with Chemical Sector members from numerous companies and regions participating. See Appendix B for a full list of exercise participants.

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SECTION 2: EXERCISE DESIGN SUMMARY

Purpose

The purpose of the TTX was to facilitate a collaborative discussion and document roles, responsibilities, processes, protocols, and systems used to support an effective public-private response to emerging all-hazard threats and incidents impacting the Chemical Sector. The discussion was also meant to validate and provide feedback for enhancing the Chemical Sector Playbook and set the stage for a successful public-private preparedness approach for the upcoming 2013 hurricane season.

Superstorm Sandy was used as the TTX scenario due to the wealth of real-world information available and participant familiarity with the storm's impacts and response actions in lieu of creating a fictitious exercise event. However, the exercise and this report are not an after-action study of the response to Sandy. In fact, DHS, New York, and New Jersey are currently conducting an after-action resiliency study on Superstorm Sandy. When finalized, the Chemical Sector should review the resiliency study and incorporate lessons learned and best practices into the Chemical Sector Playbook.

Objectives

The principal objectives of the Chemical Sector Emergency Preparedness TTX included the following:

1. Identify roles, responsibilities, and required points of interaction between the government at all levels and chemical sector partners in the context of an emergent threat/incident in progress—in alignment with National Incident Management System and Incident Command System.
2. Identify key elements of information required by sector partners and government agencies in such situations.
3. Assess the effectiveness of current incident management coordination and communication structures, protocols, and systems used to link government and industry in such situations.
4. Identify and describe how various critical infrastructure sector dependencies/ interdependencies impact sector situation assessments, stakeholder decision making, and response options.
5. Identify where further improvement is necessary to enhance preparedness for the 2013 hurricane season and other emergencies.
6. Inform the development of a government-industry incident management "playbook" specific to the Chemical Sector.

Scenario Summary

Superstorm Sandy formed on October 22, 2012, and dissipated on October 31, 2012. Its highest sustained winds were 115 mph extending across an area up to 1,150 miles wide. Sandy brought extensive damage, flooding 7 subway tunnels, knocking power out to over 10 million customers, and destroying hundreds of homes. Causing over $75 billion in damages, it was the second costliest storm in U.S. hurricane history after Katrina. Sandy also resulted in 285 deaths, including at least 117 in the U.S.

The TTX was presented in three narrative moves or "snapshots": 1) pre-season/pre-landfall; 2) immediate response; and 3) short-term recovery. Each move provided a walk-through of infrastructure impacts and response actions as the storm evolved, allowing participants to discuss public-private sector roles, responsibilities, and interactions by phase of the storm. The following provides a brief summary of each move.

Move 1: Pre-Season/Pre-Landfall

This move began with National Oceanic and Atmospheric Administration (NOAA) predictions for the 2012 hurricane season and allowed participants to discuss their pre-season planning activities, including the availability of and access to analytical tools. The move then followed Sandy's formation, beginning with her becoming a tropical depression south of Jamaica on October 22, 2012. On Wednesday, October 24, 2012, the National Hurricane Center upgraded Sandy to a hurricane as the storm made landfall near Kingston, Jamaica, with 80 mph winds. The next day, Sandy made landfall in Santiago, Cuba, with winds of 115 mph and turned northwest over the Bahamas. FEMA began coordination with emergency partners in Florida, the Mid-Atlantic, and New England. On Friday, October 26, 2012, governors in the Mid-Atlantic and Northeast declared states of emergency as National Guard personnel were activated and voluntary evacuations began. On October 27, 2012, FEMA activated the National Response Coordination Center (NRCC) and transportation came to a halt along the projected path of the storm as flights and rail services were cancelled. On Sunday, October 28, 2012, President Obama signed emergency declarations as Sandy began to re-intensify and turn towards the New Jersey Coast. Participants then discussed major roles and responsibilities corresponding to the pre-landfall hurricane timeline, including public-private conference calls and information requests.

Move 2: Landfall and Immediate Response

On Monday, October 29, 2012, Sandy made landfall in southern New Jersey with winds of 80 mph. Extensive flooding occurred in coastal areas as flood waters downed trees, knocked out power to over 8.5 million customers in New York and 2.6 million in New Jersey, and put entire neighborhoods under water. There was significant damage to transportation, fuel, and electricity infrastructures. On Tuesday, October 30, 2012, President Obama declared major disaster areas for Connecticut, New Jersey, and New York. More than 7,400 National Guardsmen were activated and 1,900 FEMA personnel worked to support response and recovery operations. At the end of this move participants discussed roles and responsibilities during landfall and immediate response, including status report calls and private sector requests for assistance.

Move 3: Extended Response and Recovery

The final move covered Sandy's aftermath up to 2 weeks after landfall. This move highlighted key activities to get critical infrastructure back up and running. During immediate recovery operations, FEMA's National Business Emergency Operations Center provided daily briefings to more than 330 representatives from the private sector. On November 1, 2012, DHS activated the Surge Capacity Force to support response and recovery efforts. As of November 2, 2012, less than 40% of New York and New Jersey gas stations were open and operational, leading to long lines and unruly motorists at operational stations. As of November 3, 2012, millions were still without power across the Northeast. Cargo operations at Port of New York and New Jersey slowly resumed, with two terminals in New Jersey receiving inbound vessels beginning on November 4, 2012, and the NY/NJ Port Authority, Port Newark Container Terminal, and Global Terminal in Jersey City reopening on November 5. In this move, participants discussed immediate recovery roles and responsibilities, as well as lessons learned and areas for improvement going forward.

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SECTION 3: ANALYSIS OF ISSUES

This Section of the AAR/IP captures the discussions, observations, and recommendations for 13 issues discussed during the TTX. These issues are organized according to four broad categories: Access to Analytical Tools and Information, Communications and Coordination, Planning and Preparation, and Incident Response. This categorization helps clarify corrective actions and next steps. However, issues are often inter-related and affect multiple areas, so their categorization should not be interpreted as being exclusive (e.g., an issue may impact "Communications and Coordination" as well as "Incident Response" even though it is categorized only as "Communications and Coordination").

Access to Analytical Tools and Information

Issue 1: Pre-Season Analysis

Discussion: In previous years, prior to June 1 and the start of hurricane season, DHS facilitated the assessment, gathering of data, and the production of projected cascading infrastructure impacts analysis based on National Hurricane Center forecasted storm activity. This analysis was developed by the National Infrastructure Simulation and Analysis Center (NISAC) and reflected strategic, multidisciplinary analyses of interdependencies and the consequences of projected infrastructure disruptions at national, regional, and local levels. These analytical tools and reports were posted on HSIN and proactively disseminated to private sector partners and state and local emergency managers to assist in pre-season hurricane preparedness planning. Based on discussions held during the TTX, this analysis is now not conducted until 100 hours out from the projected landfall of a storm, and was of little value in the context of pre-incident planning.

Observation: Additionally, it was noted that many participants from other Federal agencies, State agencies, and the private sector acknowledged that they are aware of these analyses but their ability to absorb all of the analyses is limited. Private sector participants expressed interest in operational-level resources as opposed to high-level strategic information. Participants also expressed interest in having pre-season analysis of specific areas, such as the liquid fuels supply chain and waste water infrastructure. Re-establishing the previous practice of developing and disseminating pre-season forecasted impacts analysis would also be most beneficial.

Recommendation: DHS should re-establish the practice of developing and disseminating pre-season hurricane impacts analysis and collaborate with the Chemical Sector stakeholders to gauge what types of analytical tools and topics would help ensure actionable, easily implementable results that are beneficial to all parties.

Issue 2: Protective Security Advisors (PSAs) Assessments

Discussion: PSAs are DHS employees that are trained critical infrastructure protection and vulnerability mitigation subject matter experts. PSAs work closely with private sector owners and operators to conduct specialized site visits to identify, assesses, monitor, and minimize risk to critical infrastructure at the regional and local levels. Recently, DHS added 80 resiliency questions to the PSA's assessment tool to help mitigate Sandy-type disasters.

Observation: Members from the private sector noted that the PSA assessment tool lacks the capability to identify risks outside of a company's control, such as key supply chain

interdependencies and external dependencies (e.g., power, water, and other utilities). The private sector also expressed a desire for more in-depth post assessment reviews with the PSAs to help fill these knowledge gaps and gain a better understanding of total risk.

Recommendations: DHS IP should consider reviewing the PSA assessment process and tool content to identify opportunities for enhanced analysis of supply chain interdependencies and external dependencies that are beyond the control of the facility/company being assessed. In addition, DHS IP should consider how to facilitate more robust and continuous dialogue with private sector owners and operators post assessment as additional independencies are identified.

Issue 3: Capturing Lessons Learned
Discussion: Some participants expressed concern that the sector needs to improve its ability to share best practices and lessons learned from one disaster to another, especially when the region where the disaster takes place varies. There was a general consensus among private sector participants that many of the lessons learned during Hurricane Katrina had to be re-learned during Superstorm Sandy.

Observation: HSIN could serve as a repository of information critical to sector incident response activities.

Recommendation: The Chemical Sector Playbook should identify a clear process for capturing and documenting best practices and lessons learned to ensure they are updated frequently and managed appropriately to facilitate broad implementation throughout the sector. Simultaneously, the government should explore options for addressing remaining private sector concerns with HSIN.

Communications and Coordination

Issue 4: HITRAC Infrastructure Lists
Discussion: The HITRAC develops infrastructure of concern (IOC) lists—including a strategic critical infrastructure list and a list detailing critical assets for response activities—to inform resource allocation decisions, focus planning efforts, foster coordination, and support incident management.

Observation: State government officials are aware that assets within their area of responsibility are often designated on these HITRAC lists, but are not notified as to the criteria considered that led to their placement on the list. As a result, State officials are unable to effectively identify interdependencies and vulnerabilities to mitigate risks.

Recommendation: HITRAC acknowledged that this is a recognized gap. The HITRAC should review procedures for sharing information with State and local government officials to better communicate *why* an asset/infrastructure is of concern where possible. The solution must take into account the fact that the lists might contain Level 1 or Level 2 chemical assets which are subject to classification (Secret) and require CVI certification.

Issue 5: Updating Rosters
Discussion: Some participants discussed that the pre-incident period is the time to ensure that sector rosters and key points of contact are up to date and accurate. Participants also noted that

the Emergency Support Function (ESF) playbooks have contacts, responsibilities, resources and capabilities, and statutory authorities that could be used for updating Chemical Sector rosters and the Playbook.

Recommendation: DHS, other Federal agencies, and private sector partners should work together to jointly ensure all rosters and contact information are verified and updated prior to the start of hurricane season.

Issue 6: Public-Private Teleconference: Planning Pre-Landfall
Discussion: There seemed to be some confusion as to when DHS conducted its first public-private call for Superstorm Sandy, though it is believed to have occurred on Sunday, October 28, one day prior to landfall. Many from the private sector expressed a desire to have public-private sector calls earlier to allow more time to prepare for landfall and apply information gleaned from the government (such as storm surge data) to their respective facilities and operations.

Recommendation: The Chemical Sector Playbook should establish a clear process for conducting public-private sector calls at least 72 hours prior to hurricane landfall.

Issue 7: Public-Private Teleconference: Scheduling Post-Landfall
Discussion: Participants noted that many of the State and Federal hurricane response conference calls occurred at the same time, forcing participants to choose which calls they would participate on. Additionally, the calls often contained redundant information and excessive anecdotal discussions (such as lengthy bios and personal stories). These calls overwhelmed private sector owners and operators, and some participants admitted they stopped participating in the calls altogether.

Recommendations:

- The Chemical Sector Playbook should provide guidance for using HSIN to streamline communications and coordinate the various status calls requiring sector participation. The sector could use the HSIN portal to schedule live calls and serve as the single repository for posting status updates, private sector needs, weather updates, road closures, evacuations, and approved waivers. Posting this information on the HSIN portal would limit the live call discussions to critical information and decisions.

- In addition, the Playbook should include a draft template for sector calls convened by DHS to ensure the calls are concise and factual without overwhelming the private sector. The template should be used in Chemical Sector training and exercise activities to ensure its successful implementation.

Issue 8: Public-Private Teleconference: Information Sought by Private Sector
Discussion: Immediately following landfall, the private sector is interested in obtaining information from the public sector as to what waivers are available (e.g., vapor control, tonnage, anti-price gouging), road closures, logistical concerns for employees (e.g., food, water, ice, lodging), weather reports, and other similar information that impact operations.

Recommendation: DHS should consider expanding the use of the HSIN portal to include this information sought by the private sector. At a minimum, the public-private call template (see Issue 7) could include these desired data points sought by the private sector.

Issue 9: Public-Private Teleconference: Information Sought by Public Sector
Discussion: The public sector noted that during Superstorm Sandy they often knew that a certain facility was "down," but they did not know why it was down (e.g., roof damage, power outage, or flooding) for how long, and what it would take to get it back online. Some private sector participants expressed concern that they received 8-10 calls a day seeking status updates from Federal and State government agencies, which overwhelmed their limited resources and burdened their response and recovery operations. The participants acknowledged regulatory constraints, such as Security and Exchange (SEC) requirements and anti-trust rules, which prevent sharing the operating status for facilities of publicly-traded companies. It was noted that the industry response is based on the internal policies of the impacted facility/company and may only allow for "official public communications" confirming the site is "down" and does not release specifics, as such information may impact operations or offer an unfair advantage to competitors.

Recommendation: DHS should consider a legal review in coordination with the Department of Justice, Department of the Treasury, and the SEC to examine status reporting issues, challenges, and potential courses of action. One potential option is to channel requests through the SSA to the SCC and down to the individual members to eliminate the burden on private sector owners and operators. In addition, the public-private call template (see Issue 7) should include these desired data points sought by the public sector.

Planning and Preparation

Issue 10: Advanced Planning
Discussion: Most private sector participants expressed the need for communication and coordination with public sector partners pre-season and pre-landfall in advance to plan for post-landfall operations, particularly plant security.

Observation: Several private sector participants observed that, during Hurricane Katrina, plant security forces were forced to evacuate and were unable to re-enter the area in the immediate post-landfall response environment. Law enforcement officers were engaged on other fronts and unable to support plant security missions. As a result, there was a critical gap regarding the security posture of the plants, many of which represent important terrorism or environmental risks. The private sector would like to know in advance the nature of Federal and State resources and capabilities are likely to be available to support response requirements.

Recommendations: The recently released CIKR Annex to the national response framework sates on page 4 that "Stafford Act" principles permit consideration of private sector requests for assistance, but the application of these legal principles does not guarantee that needs or requests from private sector entities will be met in all cases. A private sector CIKR owner or operator may receive direct or indirect assistance from Federal Government sources when the need:

- Exceeds capabilities of the private sector and relevant State, tribal, and local governments;
- Relates to immediate threat to life and property;
- Is critical to disaster response or community safety; and

- Relates to essential Federal recovery measures.

The process for coordinating requests for assistance and information from private-sector CIKR owners and operators is described in the Concept of Operations section of the annex.

The Chemical Sector Playbook should detail the process for public-private coordination pre-season and pre-landfall to discuss what resources and capabilities are available based on the size and scope of the incident.

Issue 11: Supply Chain Interdependencies
Discussion: Participants discussed the importance of understanding single points of failure and interdependencies in the supply chain. For example, during Superstorm Sandy, refineries had gas but could not get it to individuals without trucks to transport the gas, cleared roads, power to pump the gas, and communications to process transactions.

Observations:

- The private sector has much better visibility and understanding of single points of failure and interdependencies in the supply chain.
- Superstorm Sandy taught the public sector that it does not have the industry knowledge to make informed decisions about where to send resources without private sector input.
- PSAs can serve as advocates in State Emergency Operations Centers (EOCs) during an incident.
- FEMA is in the process of placing DHS Office of Infrastructure Protection (IP) members on the Incident Management Assistance Teams (IMAT) to increase awareness and understanding and help inform requests for assistance.

Recommendation: Both the public and private sector members within the Chemical Sector should engage in planning activities well before an incident develops. Many single points of failure and supply chain interdependencies are known in advanced and can be mitigated through effective pre-incident planning. On an annual basis, the DHS and CSCC should conduct a joint pre-season workshop as a forum to share lessons learned from the last hurricane season, update rosters, and shape HITRAC analytical studies (in coordination with the National Laboratories) based on private sector feedback, concerns, and known supply chain interdependencies.

Incident Response

Issue 12: Private Sector Credentialing
Discussion: The private sector noted the difficulty in getting essential employees and restoration parties into impacted areas quickly and efficiently, particularly when there are road closures and law enforcement officials are blocking all traffic.

Observation: Some participants noted that obtaining State and/or local-issued credentials, such as ID badges, and establishing relationships with the local government officials pre-incident can help mitigate these problems. However, other participants expressed concern that they had too many facilities and not enough capabilities to secure credentials/relationships with local officials and would like more help from the Federal government with credentialing concerns. Public

sector participants noted that most credentialing issues are at the State level and they cannot waive those requirements on behalf of the State.

Recommendation: DHS should consider establishing a credentialing task force, in coordination with State agencies and the private sector, to fully capture the issues, challenges, and possible courses of action for overcoming private sector credentialing concerns. Another option is a regional approach, using DHS PSAs to help forge relationships and broker local access protocols for essential personnel.

Issue 13: Private Sector Requests for Assistance

Discussion: The Chemical SSA encouraged the private sector to advise them of any requests assistance from Federal, State, and local government agencies. However, during Superstorm Sandy State officials observed that FEMA purchased and/or rented equipment that the State was looking to secure on behalf of its private sector partners and those resources were not available when needed. In addition, State officials noted that they processed private sector resource requests as Stafford Act requests though there is not consistent understanding if this is permissible, and, if so, under what circumstances.

Recommendation: FEMA acknowledged that it is aware of the equipment purchase problem and will take it back for consideration by its resource support cell. FEMA should also provide clarification to Federal, State, and local agencies for processing state-validated private sector requests for assistance under the Stafford Act.

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SECTION 4: CONCLUSION

The ACC-sponsored Superstorm Sandy TTX was a successful and well-attended exercise in which participants displayed a continued commitment to further developing public-private coordination for all-hazards response and recovery within the Chemical Sector. The participant discussions sufficiently addressed all exercise objectives. The TTX itself provided an effective medium allowing participants to discuss roles, responsibilities, processes, protocols, and systems used to support an effective public-private response. The TTX also allowed participants to identify key elements of information required, evaluate the effectiveness of current communication processes, and capture supply chain interdependency concerns.

Chief among the TTX's principal objectives was the testing and validation of the recently developed draft *Playbook for an Effective All-Hazards Chemical Sector Response*. Based upon exercise discussions, DHS and CSCC have a better understanding of the Chemical Sector strengths, areas for improvements, and next steps for updating the Playbook. These updates should include:

- Finalizing the Playbook to incorporate all corrective items identified in this AAR/IP.
- Aligning the Playbook with the National Response Framework and the CI/KR Annex.
- Broadening the Playbook to be an all-hazards approach with defined trigger points for activation based on incident type. Develop threat/hazard-specific annexes for those that pose the greatest risk, such as a hurricane, terrorist attack, and cyber incident.
- Clarifying roles and responsibilities for all-hazards preparedness across the entire Chemical Sector, including efforts to prevent, protect against, mitigate, respond to, and recover from the threats and hazards that pose the greatest risk.
- Detailing the process for public-private coordination pre-incident to discuss what resources and capabilities are available based on the size and scope of the incident.
- Developing a draft template for public-private calls during an incident to ensure the calls are concise, factual and do not "overwhelm" private sector partners.
- Streamlining public-private communications, to include conducting public-private sector calls at least 72 hours prior to a known incident and de-conflicting SCC, SSA, and other calls during an incident.
- Providing guidance on types of waivers, whether local or national, and how to request a waiver pre-incident and during an incident.
- Identifying a clear process for capturing and documenting best practices and lessons learned to ensure they are updated frequently and managed appropriately to facilitate broad implementation throughout the sector.

As the Chemical Sector updates the Playbook and implements the corrective actions detailed in the Improvement Plan (Appendix A) it will be better prepared to effectively manage its unique and complex operational priorities and interdependencies. Enhanced communications and coordination, including use of the ACC AHANS, will help sustain the public-private collaborative effort and promote information sharing. These efforts will help ensure a secure and resilient Chemical Sector that has the capabilities required to respond not only to the 2013 Hurricane Season, but to the threats and hazards that pose the greatest risks in the months and years ahead.

APPENDIX A: IMPROVEMENT PLAN

This Improvement Plan has been developed specifically for the ACC as a result of the Superstorm Sandy TTX conducted on June 11, 2013.

Issue/Area for Improvement	Corrective Action	Primary Responsible Organization	Completed
Access to Analytical Tools and Information			
1. Pre-Season Analysis	Develop and disseminate pre-season hurricane impact analysis in collaboration with the private sector partners	DHS HITRAC	
2. Protective Security Advisors (PSA) Assessments	Reviewing the PSA assessment process and tool content to identify opportunities for enhanced analysis of supply chain interdependencies and external dependencies that are beyond the control of the facility/company being assessed.	DHS IP/PSAs	
	Facilitate PSA post-assessment dialogue	DHS IP/PSAs	
3. Capturing Lessons Learned	The Chemical Sector Playbook should identify a clear process for capturing and documenting best practices and lessons learned to ensure they are updated frequently and managed appropriately to facilitate broad implementation throughout the sector.	DHS/NPPD/IP/COG & CSCC	
Communications and Coordination			
4. HITRAC Infrastructure Lists	Review procedures for sharing information with State and local government officials to better communicate *why* an asset/infrastructure is of	DHS HITRAC	

	concern		
5. Updating Rosters	Ensure all rosters and contact information are verified and updated prior to the start of hurricane season	DHS/NPPD/IP/COG & CSCC	
6. Public-Private Teleconference: Planning Pre-Landfall	The Chemical Sector Playbook should establish a clear process for conducting public-private sector calls at least 72 hours prior to hurricane landfall.	DHS/NPPD/IP/COG & CSCC	
7. Public-Private Teleconference: Scheduling Post-Landfall	The Chemical Sector Playbook should provide guidance for using HSIN to streamline communications and coordinate the various status calls requiring sector participation.	DHS/NPPD/IP/COG & CSCC	
	The Playbook should include a draft template for public-private calls to ensure the calls are concise and factual without overwhelming the private sector. The template should be used in Chemical Sector training and exercise activities to ensure its successful implementation.	DHS/NPPD/IP/COG & CSCC	
8. Public-Private Teleconference: Information Sought by Private Sector	Consider expanding the use of the HSIN portal to include key information sought by the private sector (e.g., available waivers, road closures, logistical concerns for employees, credentials, and weather reports).	DHS IP	
9. Public-Private Teleconference: Information Sought by Public Sector	DHS should consider a legal review in coordination with the Department of Justice, Department of the Treasury, and the SEC to examine status reporting issues and challenges for publicly traded companies and develop potential courses of action for overcoming these legal and regulatory challenges. One potential option is to channel requests through the SSA to the SCC and down to the individual members to eliminate the	DHS	

	burden on private sector owners and operators.		
	The public-private call template (see Issue 9) should include key data points sought by the public sector, including why a facility is not operational, how long it will be down for, and what it will take to get it back online. Industry response is based on internal policies of the impacted facility/company and may only allow "official public communication" confirming the site is "down" and not release specifics, as such information may impact operations or competitors.	DHS/NPPD/IP/COG & CSCC	
Planning and Preparation			
10. Advanced Planning	The Chemical Sector Playbook should detail the process for public-private coordination pre-season and pre-landfall to discuss what resources and capabilities are available based on the size and scope of the incident.	DHS/NPPD/IP/COG & CSCC	
11. Supply Chain Interdependencies	On an annual basis, conduct a pre-season workshop as a forum to share lessons learned, update rosters, and shape HITRACanalytical studies (in coordination with the National Laboratories) based on private sector feedback, concerns, and known supply chain interdependencies.	DHS/NPPD/IP/COG & CSCC	
Incident Response			
12. Private Sector Credentialing	Establish a credentialing task force, in coordination with State agencies and the private sector, to fully capture the issues, challenges, and possible courses of action for overcoming private	DHS IP	

	sector credentialing concerns.		
	Another option is a regional approach, using DHS PSAs to help forge relationships and broker local access protocols for essential personnel.	DHS PSAs	
13. Private Sector Requests for Assistance	FEMA's resource support cell will consider its policy of purchasing and/or renting equipment during emergency response operations, which practice has blocked State and local operators from having access to needed equipment.	FEMA	
	Provide clarification to Federal, State, and local agencies for whether it is permissible to process private sector resource requests as Stafford Act requests.	FEMA	
Playbook for an Effective All-Hazards Chemical Sector Response			
Playbook	• Finalize the Playbook to incorporate all corrective items identified in this AAR/IP. • Align the Playbook with the National Response Framework and the CI/KR Annex. • Broaden the Playbook to be an all-hazards approach with defined trigger points for activation based on incident type. Develop threat/hazard-specific annexes for those that pose the greatest risk, such as a hurricane, terrorist attack, and cyber incident. • Clarify roles and responsibilities for all-hazards preparedness across the entire Chemical Sector, including efforts to prevent, protect against, mitigate, respond to, and recover from the threats and hazards that pose the greatest risk. • Detail the process for public-private	DHS/NPPD/IP/COG & CSCC	

	coordination pre-incident to discuss what resources and capabilities are available based on the size and scope of the incident. • Develop a draft template for public-private calls during an incident to ensure the calls are concise, factual and do not "overwhelm" private sector partners. • Streamline public-private communications, to include conducting public-private sector calls at least 72 hours prior to a known incident and de-conflicting SCC, SSA, and other calls during an incident. • Provide guidance on types of waivers, whether local or national, and how to request a waiver pre-incident and during an incident. • Identify a clear process for capturing and documenting best practices and lessons learned to ensure they are updated frequently and managed appropriately to facilitate broad implementation throughout the sector.		
ACC All-Hazards Alert Notification System			
ACC AHANS	• Finalize the ACC AHANS program and inform ACC membership about its availability and use. • Establish a unique hotline call number for ChemTREC to activate AHANS. • Expand contact groups to include Process Safety and Emergency Response. • Incorporate annual ACC AHANS testing into the CSCC-DHS pre-season hurricane planning process outlined in the Playbook.	ACC	

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APPENDIX B: EXERCISE PARTICIPANTS

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