

Super Storm Sandy
Marine Transportation System (MTS) Recovery
Lessons Learned & Recommendations

Note: The Coast Guard Office of Port and Facility Compliance, CG-FAC, provides these observations and recommendations related to the MTS recovery aspects of Hurricane Sandy. Industry partners and Coast Guard units should consider them as potential “best practices” only. They are not requirement, and may not be appropriate for all facilities, or for all possible contingencies. Special thanks to the Port Authority of New York and New Jersey, the National Cargo Bureau, and Coast Guard Sector New York.



Recommendations for Industry

Relationships Work, Build Social Capital

- Strong professional relationships and networks are absolutely vital in preparing for and responding to incidents which disrupt a region’s marine transportation system. In speaking to industry leaders in the Port of New York/New Jersey, each and every one we spoke to emphasized the importance of these relationships, frequently citing them, including participation in organizations such as Harbor Safety Committees, as the single most import factor in allowing for a safe, rapid, and efficient resumption of trade. In short, there is nothing we can’t overcome if we plan, cooperate, and respond together.
- Accordingly, the Coast Guard strongly encourages stakeholders to participate in Area Committees (pollution response), Area Maritime Security Committees, Harbor Safety Committees, and similar industry sponsored forums. Get to know your local Coast Guard Marine Transportation System Recovery Unit staff, and be sure they know you!
- Because the Marine Transportation System is just a part of the overall energy and transportation system that powers our economy, encourage representatives from across your supply chain to the next Harbor Safety Committee. These might include truck, rail, and energy firms, or representatives from the local Chamber of Commerce or economic development council. You know your vital business partners better than anyone; help us bring them to the table so we can all work together.
- Exercises and training events are great ways to build relationships while honing specific skills and procedures. When planning your next exercise, ask yourself what other businesses, agencies, or organizations will you need to work with in an emergency. Joint exercises and training events are also a way to pool resources and reduce costs.

The Water Goes Where the Water Goes

As anyone who lives near the coast or rivers understands, even the Captain of the Port can't order the tide not to flow, or the river to recede. Given that some extent of flooding is inevitable, and that flood maps are just a guide, facility operators should consider what actions they can take to minimize damage, to protect vital systems and equipment, and to identify repair/replacement options where protection is not possible:

- Employees are your most important asset, and can only do their job if they and their families are safe. Help employees develop plans for their homes and families. Establish a system to contact employees post event to ensure they and their families are safe.
- Develop evacuation plans for employees, including egress routes and equipment removal/power down procedures.
- Move truck and rail cars to high ground.
- Position gantries and other cargo equipment to minimize flood damage.
- For tank farms, develop plans to transfer product to minimize the risk of floating/flooded tanks, transfer product out of the flood zone when possible.
- Underground electrical and mechanical systems are vulnerable to flooding. Where they can't be protected, identify a source of replacement parts from outside the region.
- Fire mains, emergency generators, and similar vital equipment should be located in a protected area.

Containers: The following recommendations are provided by the National Cargo Bureau. As with all of the recommendations and observations, these are best practices, NOT requirements.

- **Containers**
 - Elevate hazmat containers to eliminate potential leaks and spills and to avoid chemical reactions with water or environmental damages (second tier or on wheels depending upon expected surge).
 - Step emptied containers and use twist locks to 'group' them. Containers stacked in stair-step fashion are less vulnerable to wind issues.
 - Stack containers no more than 2 to 3 high.
 - Elevate electric/hybrid vehicles to eliminate water reactive explosions.
 - Elevate vehicles to minimize damage and pollution.
- **Reefer containers**
 - Elevate by stacking on bottom row of empties or leave on chassis.
 - Use back-up generators to ensure continued power if electric grid fails.
 - Ensure Hazmat requiring stabilization by refrigeration (i.e. 5.2 temperature controlled etc) is moved to 'high ground' with power source and back-up generator or stack second tier with back-up generator (same as for any reefer).
- **Empty Chassis:** Stack to limit water damage to bottom tier or two.

Coast Guard Regulations

In the wake of Hurricane Sandy, many facilities in the New York/New Jersey region experienced significant damage to their property, including equipment and systems that were required by Coast Guard safety, security, and environmental regulations.

To facilitate the need to resume commerce quickly, the Coast Guard encouraged facility owners to apply for and implement alternative procedures whenever doing so would meet their needs and achieve an equivalent level of safety/security. As an example, many facilities employed addition guards to maintain perimeter control where cameras and fencing were damaged.

Many Coast Guard regulations include provisions for alternatives. The following regulations address alternative procedures for MTSA (33 CFR 105) and bulk liquid oil/hazmat (33 CFR 154) requirements. Note that facility operators may request alternatives at any time, not only after a natural disaster or other event. Facility owners may wish to discuss alternatives with their local Captain of the Port as part of any internal, continuity of business plans they may have.

- 33 CFR 105.125 – When a facility must temporarily deviate from the requirements of this part, the owner/operator must notify COTP and either suspend operations or request and receive permission from the COTP to continue operating.
- 33 CFR 105.415 (a) – allows the cognizant COTP to approve amendments to an approved FSP. The amendments by the facility owner or operator shall ensure temporary security measures are implemented to the satisfaction of the COTP. The COTP should expedite reviews of request for amendments. Submissions of amendments via mail, electronic mail, and in emergency cases, by phone call are acceptable. If an amendment request is received by a phone call, proper documentation is vital.
- 33 CFR 105.130 – allows facility operators to apply for waivers to specific requirements when the requirement may be unnecessary in light of the nature or operation conditions of the facility.
- 33 CFR 105.135 – allows facility operators to propose equivalents that meet or exceed the security effectiveness of the original requirement.
- 33 CFR 105.140 – allows facility operators to use an approved Alternative Security Program
- 33 CFR 154.107 – allows facility operators to apply for alternative procedures, methods, or equipment
- 33 CFR 154.108- allows facility operators to apply for exemptions from specific requirements where neither compliance nor alternatives are practical, and risk is minimal.

Recommendations for Coast Guard MTSRU Leaders

Pre-Incident Planning

- The MTS is a part of the global transportation and energy system. All components must be working for the system to function. Invite stakeholders of other modes (e.g. energy, truck & rail) to participate in Area Maritime Security, Harbor Safety Committee, and similar forums. While the Coast Guard has no responsibility for non-marine elements, understanding how they interface with the MTS will promote more effective planning.
- Review Marine Transportation System Recovery (MTSR) checklists and validate baseline Essential Elements of Information (EEI) at least once annually. When validating EEIs (e.g. Bulk Liquid Facilities, Ferry Terminals, etc.), ensure that each EEI has a telephone number to reach the point of contact for that EEI.

MTSRU Staffing

- Determine staffing of the MTSRUs well before an incident occurs. When determining MTSRU leaders, Sector Commanders should ensure that the chosen unit leader has the appropriate level of training to be a MTSRU leader and is fully empowered to make timely/critical decisions.
- Core MTSRU staffing should include local Coast Guard unit personnel with extensive experience in Waterways Management, facility inspections, pollution response, and Port State Control. Supplemental personnel (e.g. Auxiliary and other unit personnel) should be available depending on the severity of the incident. Districts should also be prepared to find MTSRU personnel to augment the local unit for large scale incidents.
- Personnel assigned to the MTSRU must be familiar with using the Common Assessment and Reporting Tool (CART), which is the Coast Guard's primary application for tracking the status of the nation's MTS following a transportation disruption or interruption.
- The MTSRU should include representatives from trade, carrier, and labor support groups, as well as other government agencies and port partners to provide subject matter expertise and ensure the overall effort reflects the needs and realities of the private sector.

Meeting Space/Location

- MTSRU activities should take place in a pre-designated conference space with emergency power for phone and computers. It must be accessible to industry and other government stakeholders. Ideally, this room should be separate from the rest of the incident command.

Technology & Equipment (Go-Kit Supplies)

- Due to the need for MTSRUs to conduct at least once daily conference calls with local maritime industry and OGAs, the MTSRU must have a pre-designated MTSR teleconference number to host at least 100 participants. Information regarding this teleconference number should be published to industry and OGA prior to and during incident management. Marine Safety Information Bulletins (MSIBs) may be an appropriate mechanism to communicate this information to local maritime stakeholders.
- Each Coast Guard MTSRU should have enough computers for each member of the MTSRU. All of these computers must be able to connect to the internet for CART, and at least half of those computers should have connectivity to the Coast Guard network (CG standard workstations) to use Enterprise GIS programs, access the CG Portal, etc.
- Outside unit personnel deployed to support another unit's AOR need to report in with their own laptop with WiFi capability in the event they need to be used as a MTSRU liaison away from the core MTSRU at the incident command post (ICP).
- A MTSRU public email account, similar to "gmail," is needed in the event the standard workstation outlook system is disabled. Public accounts like this one enabled the Sector New York MTSRU, as well as MTSRUs a part of other incidents such as Deepwater Horizon, to receive and push information up the incident command chain and out to the public and maritime industry in a timely manner.
- Additionally, include the following supplies in MTSRU go-kits:
 - Several portable MiFi hotspots (preferably from different cell carriers).
 - Three to four landline speaker phones (polycom phones) and a place to plug them into the phone network.
 - Charts of the AOR w/ MTSA/regulated facilities and bridges pre-labeled (and consistent w/CART).
 - Blank charts of the AOR to color in channels as they are surveyed or note obstructions.
 - Office supplies, especially pads of flipchart paper (two feet by three type) w/ sticky on the back to track miscellaneous tasks or notes during meetings so all participants and stakeholders can see.
 - A printer that can hook up to both standard workstation and stand alone computers, as well as a large quantity of printer paper for printing MTSRU documentation, ICS forms, etc.