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MARITIME SECURITY

Coast Guard Inspections Identify and Correct Facility Deficiencies, but More Analysis Needed of Program's Staffing, Practices, and Data

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February 2008

MARITIME SECURITY

Coast Guard Inspections Identify and Correct Facility Deficiencies, but More Analysis Needed of Program's Staffing, Practices, and Data

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Highlights

Highlights of GAO-08-12, a report to the Committee on Commerce, Science and Transportation, U.S. Senate

Why GAO Did This Study

To help secure the nation's ports against a terrorist attack, federal regulations have required cargo and other maritime facilities to have security plans in place since July 2004. U.S Coast Guard (USCG) guidance calls for an annual inspection to ensure that plans are being followed. Federal law enacted in October 2006 required such facilities to be inspected two times a year—one of which is to be conducted unannounced. The USCG plans to conduct one announced inspection and the other as a less comprehensive unannounced "spot check." GAO examined the extent to which the USCG (1) has met inspection requirements and found facilities to be complying with their plans, (2) has determined the availability of trained personnel to meet current and future facility inspection requirements, and (3) has assessed the effectiveness of its facility inspection program and ensured that program compliance data collected and reported are reliable. GAO analyzed USCG compliance data, interviewed inspectors and other stakeholders in 7 of 35 USCG sectors of varying size, geographic location, and type of waterway.

What GAO Recommends

GAO recommends the USCG reassess the number of inspection staff needed, compare varying approaches taken by local units in conducting inspections, and improve its facility compliance data. The Department of Homeland Security agreed with GAO's recommendations.

To view the full product, including the scope and methodology, click on GAO-08-12. For more information, contact Stephen Caldwell at (202) 512-8777, caldwells@gao.gov.

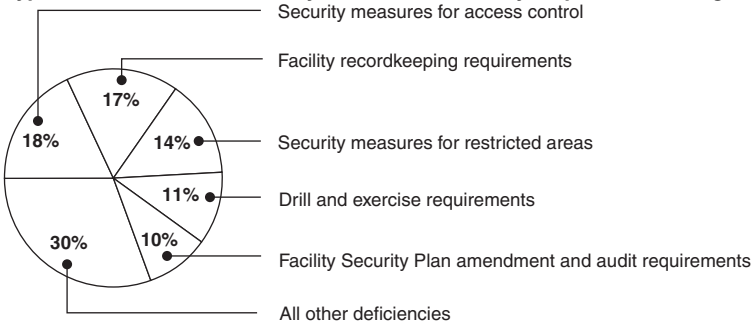
What GAO Found

We could not determine the extent to which the USCG has met inspection requirements because its compliance database does not identify all regulated facilities to establish how many should have been inspected. While the USCG estimates there are about 3,200 facilities requiring inspection, their records indicate 2,126 annual inspections were conducted in 2006. Headquarters officials said field units reported that all required facility inspections were conducted. However, officials also said some inspections may not have been recorded, or were delayed by staff being diverted for natural disasters. The USCG identified deficiencies in about one-third of inspections, mainly for problems with access controls or missing documentation. Over 80 percent of deficiencies identified by the USCG were resolved by facility operators without the USCG applying formal enforcement actions.

Although USCG officials believe they have enough trained inspectors to conduct current and future inspections, two additional factors could affect the USCG's estimates of the number of inspectors needed. First, facility inspectors balance security inspections with other competing duties, such as safety or pollution checks, and giving priority to security inspections could affect these other duties, inspectors said. Second, new guidance for spot checks calls for these checks to be more detailed—and perhaps more time-consuming—than some USCG units conducted in the past. For example, the guidance now requires an on-site visit, whereas some units had allowed the check to be a drive-by observation. The effect of the new guidance on resource requirements in these units is unknown.

The USCG has not assessed the effectiveness of its facility inspection program. Headquarters guidance gives considerable discretion to local USCG units in deciding how to conduct facility inspections—for example, deciding whether a fine is warranted. The USCG has little or no information, however, on which approaches work better than others and is therefore limited in being able to make informed decisions in guiding the program. Flaws in USCG's database, including missing, duplicate, and inconsistent information, complicate the USCG's ability to conduct such analyses or provide other information for making management decisions.

Types of Deficiencies Noted by the USCG in Facility Inspections during 2006



Source: GAO analysis of Coast Guard compliance data.

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Abbreviations

DHS	Department of Homeland Security
FSO	Facility Security Officer
FSP	Facility Security Plan
MISLE	Maritime Information for Safety & Law Enforcement
MTSA	Maritime Transportation Security Act of 2002
OMB	Office of Management and Budget
Results Act	Government Performance and Results Act
SAFE Port Act	Security and Accountability for Every Port Act of 2006

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United States Government Accountability Office
Washington, DC 20548

February 14, 2008

The Honorable Senator Daniel Inouye
Chairman
The Honorable Ted Stevens
Vice Chairman
Committee on Commerce, Science and Transportation
United States Senate

The security of more than 3,200 terminals, chemical plants, factories, and power plants plays an important role in the protection of our nation's ports. Ports and waterways represent attractive targets for terrorist attack, given their importance to the economy, abundance of specific targets, proximity to large populations, and accessibility by water and land. To reduce the opportunity for terrorists to exploit security vulnerabilities, as well as to help minimize the effects of accidents or natural disasters, facilities are required to implement security plans to maintain physical, passenger, cargo, and personnel security and may utilize measures such as fences, security guards, and monitoring activities using cameras. Efficiently implementing such plans can reduce the potential for unauthorized entry and help prevent vulnerabilities from being exploited to kill people, cause environmental damage, or disrupt transportation systems and the economy.

Much of the federal framework for port security is contained in the Maritime Transportation Security Act of 2002 (MTSA).[1] MTSA establishes requirements for various layers of maritime security, including requiring a national security plan, area security plans, and facility and vessel security plans. [2] The act calls for various types of facilities to develop and implement a security plan, and it places federal responsibility for approving and overseeing these plans with the Department of Homeland Security (DHS). DHS has placed lead responsibility for this and other MTSA requirements with the U.S. Coast Guard. Subsequent Coast Guard guidance in 2003-2004 called for conducting annual on-site inspections to verify a facility's compliance with its security plan. The guidance also calls

[1] Pub L. No. 107-295, 116 Stat. 2064 (2002).

[2] In this report, we refer to facilities subject to MTSA regulation collectively as "MTSA facilities." MTSA also required certain vessels to have a security plan. Vessel security plans are not discussed in this report.

for the Coast Guard to provide additional oversight at any time based on perceived risk.

In 2004 we reviewed the implementation of these and other MTSA provisions.[3] We reported that facility owners and operators had made progress in developing their security plans but expressed concerns about challenges the Coast Guard faced in ensuring enough well-trained inspectors and equipping them with adequate guidance to conduct thorough, consistent reviews. We reported that the Coast Guard was in an initial "surge" period during which it had to cope with reviewing security plans submitted at the time for more than 3,000 facilities and over 9,000 vessels. We recommended that after this initial 6-month period, the Coast Guard use the experience to evaluate its initial compliance strategy and take steps to strength the compliance process for the long term.

Since 2004, requirements for inspecting maritime facilities have increased. The Security and Accountability For Every Port Act (SAFE Port Act), enacted in October 2006, among other things, amended MTSA to direct the Coast Guard to inspect facility compliance with its approved facility security plan periodically, but not less than two times per year, at least one of which shall be an inspection of the facility that is conducted without notice to the facility.[4] Thus, in effect, under the SAFE Port Act maritime facility inspection requirements, in addition to an annual inspection, the Coast Guard is also required to make a second unannounced inspection of each MTSA facility.[5]

You asked us to review the Coast Guard's progress in dealing with these expanded inspection requirements and developing a sound oversight strategy. This report addresses the extent to which the Coast Guard

[3] GAO, *Maritime Security: Substantial Work Remains to Translate New Planning Requirements into Effective Port Security*, GAO-04-838 (Washington, D.C.: June 2004).

[4] Pub. L. No. 109-347, 120 Stat. 1884, 1888 (2006). The act stipulated that this inspection requirement was subject to the availability of appropriations. From fiscal year 2007 DHS appropriations, $4.5 million has been allocated to implement the unannounced inspection requirement.

[5] In this report we refer to two types of inspections to ensure facility compliance with their approved security plan. We use the terms annual compliance exam, or annual exam to indicate a comprehensive annual inspection of a facility. The annual exam is pre-scheduled with facilities (announced) unless otherwise indicated. We use the term security "spot check" adopted by the Coast Guard to refer to an unannounced inspection of facility compliance less comprehensive than the annual exam.

- has met its maritime facility inspection requirements and has found facilities to be in compliance with their security plans,

- has determined the availability of trained personnel to meet current and future facility inspection requirements, and

- has assessed the effectiveness of its MTSA facility oversight program and ensured that program compliance data collected and reported are reliable.

To address these questions, we conducted work at Coast Guard headquarters and at various ports in seven of the Coast Guard's 35 sectors.[6] Within each sector, we interviewed Coast Guard officials and inspectors, facility security officials at 29 selected MTSA facilities, and other port stakeholders. We obtained and analyzed data from 2004-2006 on Coast Guard's facility compliance activities from the Marine Information for Safety and Law Enforcement (MISLE) database, which is the agency's primary data system for documenting facility oversight and other activities. As discussed later in this report, we identified some problems with the data, and worked with agency officials to address these problems to the extent possible. To assess the reliability of the data, we (1) performed electronic testing for obvious errors in accuracy and completeness;(2) reviewed related documentation, such as guidance for entering data in MISLE; and (3) held meetings and exchanged correspondence with Coast Guard information systems officials to discuss data entry and analysis and ensure correct identification of specific data fields. We removed 77 records that Coast Guard indicated to be duplicate records, created a dataset linking deficiencies and enforcement actions and worked with Coast Guard to reduce data inconsistencies, and created a new "Sector" field based on Coast Guard identification of the appropriate sector. Based on the steps we took to assess data reliability and our work with Coast Guard officials to resolve problems with the data, we found the data to be sufficiently reliable to provide a general indication of Coast Guard compliance activities. We also reviewed a variety of documents, such as pertinent MTSA provisions, as amended, and their

[6] Coast Guard completed realignment of its field structure in 2006 into 35 sectors based on existing Captain of the Port boundaries. Sectors combine legacy Marine Safety Offices, Groups, Vessel Traffic Services, and some Air Stations into a unified command structure. These seven sectors were selected to reflect diversity in size, type of waterway, and geographic location, and facilities were selected to reflect sector diversity. Information on Coast Guard's inspection program from these sectors cannot be generalized to all Coast Guard sectors.

implementing regulations, Coast Guard circulars, and reports related to port security. A more detailed description of our scope and methodology is contained in appendix I.

We conducted this performance audit from May 2006 through February 2008 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Results in Brief

Although the Coast Guard has conducted thousands of inspections at MTSA facilities and identified facility deficiencies in about one-third of those inspections, we could not confirm whether the Coast Guard has fulfilled its annual compliance exam requirement each year because the Coast Guard's database cannot identify all regulated facilities in prior years that the Coast Guard was required to have inspected. Based on the number of facility security plans approved by the Coast Guard, officials estimated that about 3,200 facilities require inspection. Coast Guard compliance records indicate 2,126 annual inspections were conducted in 2006. Headquarters officials said field units reported that all required facility annual inspections were conducted, as did officials in the seven sectors we visited. However, officials also stated that some inspections conducted may not have been recorded, or inspections were delayed beyond the end of the year by staff being diverted for higher-priority missions, such as natural disasters. In addition to the annual exam, our analysis shows that Coast Guard units had been performing spot checks prior to the SAFE Port Act's passage, but not at all facilities. In calendar year 2006, for example, the Coast Guard conducted about 4,500 spot checks at about 1,200 MTSA facilities. The top categories of deficiencies, collectively accounting for about 35 percent of all recorded deficiencies in 2006, were access controls (such as unlocked gates) and documentation (such as not recording a security exercise). In over 80 percent of the cases, deficiencies were resolved by facility operators without the Coast Guard applying formal action, such as a written warning or fine. Our analysis showed differences in the extent to which individual Coast Guard units took formal enforcement actions.

The Coast Guard believes it has sufficient numbers of inspectors to conduct all required inspections, but additional factors could affect the Coast Guard's estimates of the number of inspectors needed. Headquarters

officials said their assessments of the number of inspectors needed were based largely on estimates of such things as number of facilities and time needed to conduct inspections. Coast Guard headquarters has not assessed the reliability of these estimates and our field visits identified two potential factors that were not taken into account in making these estimates. First, staff assigned to inspector positions may not be available full time to conduct security inspections because they have other responsibilities. In all seven sectors we visited, inspectors said they had other duties—such as inspecting cargo or monitoring safety and pollution incidents. However, the Coast Guard does not have data on how inspectors' time is allocated. In four of these sectors, inspectors reported to us that meeting the combined responsibilities was a challenge that could affect their ability to conduct all required inspections. Second, inspection requirements themselves have recently changed, and these changes could affect the amount of time needed to complete inspections. Until recently, the Coast Guard did not have guidance specifying how spot checks were to be conducted. We found considerable variation among sectors in the extensiveness of these spot checks. Some units, for example, counted visual drive-bys as spot checks, while others required an on-site presence. As our fieldwork was being completed, the Coast Guard issued guidance calling for a more detailed review than took place for some spot checks in the past. Coast Guard officials did not know what effect these new inspection requirements will have on the inspection workload.

The Coast Guard has not assessed the effectiveness of its facility oversight program, and flaws in data in MISLE, the Coast Guard's main database for inspections, limit the Coast Guard's ability to accurately portray and appropriately target oversight activities. Basic guidance provided by headquarters officials grants considerable discretion to local Coast Guard units in deciding how to conduct facility oversight—for example, deciding whether a fine is warranted. The Coast Guard has little or no information, however, on which approaches work better than others. Our past work has shown that high-performing organizations continuously assess their performance with information about results based on their activities. The Coast Guard is limited in its ability to accurately assess facility oversight activities because its MISLE database suffers from such problems as missing, duplicate, and inconsistent compliance activity data. Accurate and complete data are a key component of any assessment of compliance activities and for management purposes at both the headquarters and local levels. Compliance data flaws make it difficult to produce consistent statistics important for an overall assessment of facility oversight activities and to conduct critical analyses. For example, officials in the seven Coast

Guard sectors we visited said that although MISLE data are useful in tracking an individual facility's performance, the data are of limited use in creating useful and reliable reports across multiple facilities. At the headquarters level, the Coast Guard is hampered in evaluating compliance activities, such as comparing the extent to which various units levy fines or discover various types of deficiencies. Recent Coast Guard guidance calls for improved MISLE data entry; however, changes made as a result of the guidance are not yet known, and the guidance does not address other MISLE compliance data flaws such as lack of consistency in the data.

We recommend that the Secretary of the Department of Homeland Security direct the Coast Guard to improve its facility inspection program. Specifically, we recommend that the Coast Guard be directed to:

- reassess the adequacy of staff to complete required inspections in light of changing inspection guidance regarding how inspections are conducted,
- assess the effectiveness of differences in program implementation, and
- assess its MISLE compliance data reliability and identify strategies for more effective use of the data.

The Department of Homeland Security concurred with our recommendations.

Background

The importance and potential vulnerability of our nation's ports are well documented. National ports and waterways are responsible for moving over 99 percent of the volume of overseas cargo, with over $5.5 billion worth of goods moving in and out of U.S. ports every day, according to the American Association of Port Authorities. With more than half of the crude oil and all of the liquefied natural gas used in the country in 2005, any disruption in the flow of commerce could have major economic consequences. As vital as ports are to the country, they are susceptible to terrorist acts due to their size and openness—easily accessible by water and land and are attractive targets given the proximity of many ports to urban areas and collocation with power plants, oil refineries, and other energy facilities.

Efforts to address port vulnerabilities face the challenge of having to consider the impact that an increase in security may have on the operation of commerce and the impact on maritime facility operators of costly

security requirements. Particularly with "just in time" deliveries, which rely on the quick movement of goods, steps added to the process to increase security may have economic consequences.[7] Actions to improve security are undertaken with the knowledge that total security cannot be bought no matter how much is spent on it because of the difficulty of anticipating and addressing all security concerns.

MTSA Establishes Security Measures for Maritime Facilities

MTSA established a framework to help protect the nation's ports and waterways from terrorist attacks by mandating a wide range of security improvements. Among the major requirements included in MTSA were those related to facilities located in, on, under or adjacent to waters subject to the jurisdiction of the United States that the Secretary of DHS believes may be involved in a transportation security incident.[8] MTSA and Coast Guard implementing regulations establish requirements for owners and operators currently at about 3,200 select port facilities.[9] In general, facilities that receive vessels that carry large or hazardous cargo, vessels subject to international maritime security standards, selected barges, and passenger vessels certified to carry more than 150 passengers are subject to MTSA regulations.

Owners or operators of facilities subject to MTSA regulations (MTSA facilities) were required, among other things, to designate a Facility Security Officer (FSO), ensure that a facility security risk assessment was conducted, and ensure that a facility security plan was approved and implemented. The basic aim of such plans is to develop measures to mitigate potential vulnerabilities that could otherwise be exploited to kill people, cause environmental damage, or disrupt transportation systems and the economy. Facility Security Plans (FSP) encompass a range of security activities, such as access controls and security training to prevent a security incident. MTSA and its regulations set out requirements that are performance-based rather than requiring specific procedures or

[7] The concern with the cost to facility operators was considered when MTSA regulations were drafted, and grant funding was made available to support some facilities with security improvements.

[8] Other MTSA requirements included vulnerability assessments for ports and vessels, developing a maritime transportation security card to help control access to secure areas, and establishing a process for assessing foreign ports from which vessels depart for the United States.

[9] *See*, *e.g.*, 33 C.F.R. Chapter 1, Subchapter H. Vessels regulated under MTSA regulations include for example, specified types of cargo ships, ferries, and tugs and barges.

equipment, thus allowing flexibility for meeting the law's requirements. For example, a facility's plan must include measures to control access to the facility, but how access should be specifically controlled is not mandated by MTSA or its implementing regulations.

The Coast Guard is largely responsible for administering MTSA requirements. For facilities, in addition to issuing regulations, the Coast Guard is responsible for review and approval of facility security plans, ensuring that facilities implement the plans, verifying that facilities continue to adhere to their plans, and for re-approving facility security plans periodically, which were established by Coast Guard regulations as valid for 5 years. The Coast Guard reported that security plans required for over 3,000 MTSA facilities as of July 1, 2004 were approved, and that it had verified that these plans were in place by December 31, 2004. With the 5-year approval of facility security plans complete, the focus shifted to ensuring continued compliance with security measures that have been implemented.

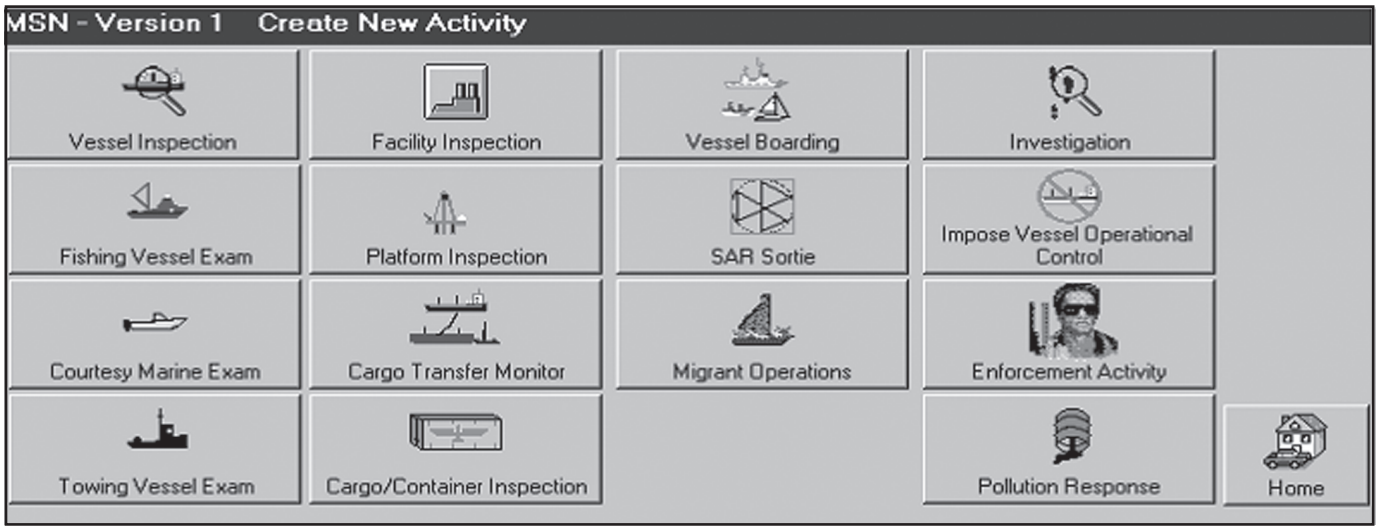
We reviewed the Coast Guard's early MTSA implementation and identified short- and long-term challenges to the Coast Guard's May 2004 strategy for monitoring and overseeing security plan implementation. Key concerns were how the Coast Guard planned to ensure that enough inspectors were available, that they would have a training program sufficient to overcome major differences in inspector experience levels, and that inspectors would be equipped with adequate guidance to help conduct thorough, consistent reviews. Further, we reported that the Coast Guard faced the challenge of ensuring that owners and operators continue implementing their plans and do not mask security problems in ways that do not represent the normal course of business. In this regard, our work has shown that there are options the Coast Guard could consider beyond regularly scheduled visits, such as unscheduled, unannounced visits, and covert testing. We recommended that the Coast Guard evaluate its initial compliance efforts and use the information to strengthen the compliance process for its long-term strategy.

MISLE Database Adapted to Capture MTSA Compliance Data

Coast Guard activities related to MTSA facility security plan approval and facility oversight are captured in the Coast Guard's MISLE database. MISLE began operating in December 2001 as the Coast Guard's primary data system for documenting marine safety and environmental protection activities. Storage of data on MTSA facility oversight and that of other Coast Guard activities, such as vessel boardings and incident response have since been added. The purpose of MISLE is to provide the capability

to collect, maintain, and retrieve information necessary for the administration, management and documentation of Coast Guard activities. Data on facilities are entered by inspectors on an intranet website using dropdown menus and narrative fields related to a specific compliance activity. The information maintained in MISLE is varied, as shown by the entry screen reproduced in figure 1.

Figure 1: Example of Activities Entered into the Coast Guard's MISLE Database



Source: MISLE User's Guide.

Whether All Facility Inspections Requirements Were Met Is Not Clear, but Those Conducted Identified Deficiencies with Facility Compliance in about One-Third of All Inspections

Limitations in Coast Guard's compliance database preclude it from being able to document whether all facilities received an annual exam each year. Coast Guard officials said field units report that they are meeting their inspection requirements, but inspections may not be documented in the compliance database, or inspections may have been delayed by staff being diverted to meet higher-priority needs. The available data indicate that the Coast Guard also conducted many spot checks, but prior to the SAFE Port Act's requirement for an annual unannounced inspection of each facility, these spot checks were concentrated in about one-third of regulated facilities. The types of deficiencies identified most often during annual exams and spot checks fell into five main categories, with the top two categories—not adhering to facility plans regarding access controls (such as gates and fences) and lack of documentation (such as no record of drills) accounting for over a third of deficiencies. Relatively few facilities in the Coast Guard sectors we visited had many or substantial deficiencies,

and Coast Guard officials provided anecdotal evidence that security had generally improved over time. The Coast Guard sectors varied in the extent to which they resolved deficiencies using formal enforcement actions such as written warnings or fines, although overall over 80 percent of deficiencies were resolved without formal actions.

Coast Guard Officials Report Annual Exams and Spot Checks Have Been Conducted, but Extent to Which All Regulated Facilities Have Received Both Inspections Cannot Be Documented

Coast Guard officials at headquarters and the sectors we visited reported MTSA facilities subject to maritime facility inspection requirements were being inspected. At sectors we visited, Coast Guard officials based this assessment on data from MISLE supplemented by knowledge of facilities under their jurisdiction.[10] Sector officials, like headquarters officials, cannot use MISLE to identify all facilities that were subject to inspection because of flaws in the MISLE database. Some sectors mentioned that they also maintained local spreadsheets documenting exams. Headquarters officials said that they based their assessment on information requested from field units regarding whether the units were meeting annual exam requirements, although they acknowledged that there were some situations in which annual inspections might not have been conducted within the year. Reasons this official and others cited for some facilities possibly not receiving an exam during 2006 included the following:

- Inspectors were diverted to a higher-priority mission. Officials said that activities conducted after Hurricanes Rita and Katrina disrupted inspection activities in the areas affected by the hurricanes and diverted Coast Guard resources from other regions. In the Upper Mississippi River sector, officials similarly reported inspectors being detailed to respond to floods in North Dakota. One inspector said it took an additional 6 months to complete on-the-job training needed be certified as an inspector because of the time she spent detailed away from the sector.

- MISLE data may not reflect all the annual exams that were conducted. For example, officials said that an annual compliance exam could have been conducted while inspectors conducted a pollution inspection, but the activity was only entered as a pollution inspection. No information was available to identify annual exams conducted but not recorded.

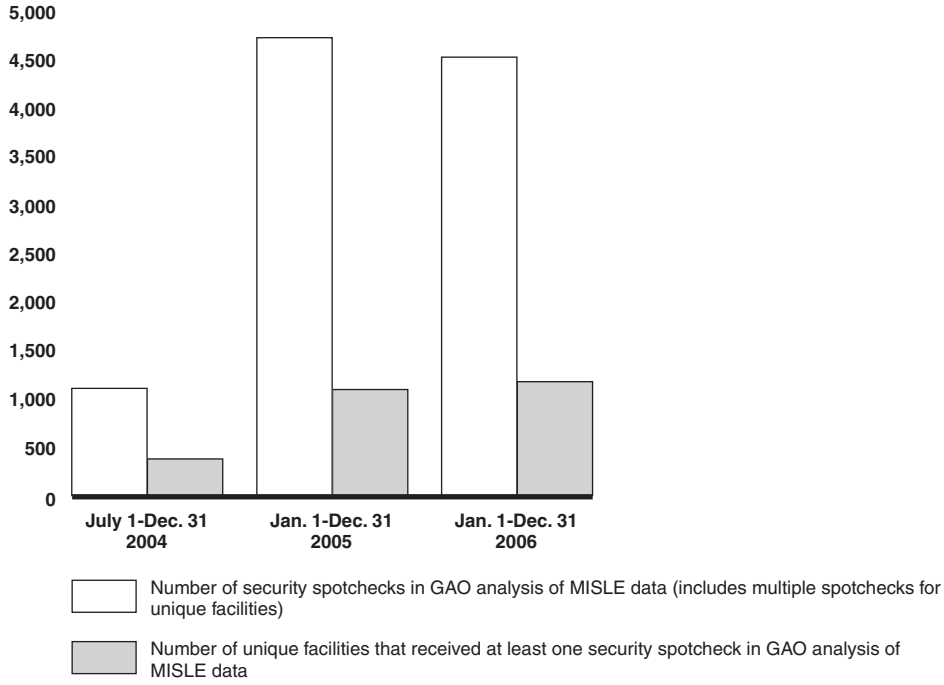
[10] Throughout this report, the terms "MISLE," "MISLE data," and "MISLE database" refer to data from just the MTSA facility compliance portion of MISLE.

Definitive information about the extent to which all facilities were inspected is not available, because the Coast Guard's MISLE database does not have the capability to document the extent to which MTSA facilities received an annual inspection for a particular year. The database can identify which facilities received annual exams in a particular year, but it cannot identify those facilities that did not receive exams but should have. Our analysis of MISLE data on the number of exams reported, however, indicates the total is less than the number of facilities the Coast Guard believes it is regulating. The Coast Guard estimates the number of MTSA facilities at about 3,200 nationwide, based on the number of facility security plans currently approved. Our analysis of MISLE data indicated 2,126 facilities received exams during 2006.[11]

Coast Guard data show that prior to the SAFE Port Act's requirement that each facility receive an unannounced inspection, Coast Guard units were conducting unannounced spot checks, but not at every facility. MISLE data indicate the Coast Guard conducted about 4,500 spot checks in 2006, covering about 1,200 facilities. The pattern was similar in 2005, the first full year of facility oversight (see fig. 2). The SAFE Port Act's requirement for each facility to receive two inspections was not effective until October 2006.

[11] After completion of our analysis, but before this report was issued, Coast Guard reported identifying an additional 344 annual exams that were conducted in 2006, and said that they were investigating why these exams were not previously identified and included in the data GAO was provided.

Figure 2: Recorded Security Spot Checks Performed by the Coast Guard in 2004, 2005, and 2006 and Number of Facilities Receiving Spot Checks



Source: GAO analysis of Coast Guard MISLE data.

Coast Guard officials said that, prior to the SAFE Port Act's new unannounced inspection requirement, units used a combination of risk and convenience to decide which facilities should receive spot checks. As a result, some facilities received a number of checks in a year's time, while others received none. For example, Coast Guard officials at two sectors said if inspectors are frequently at a facility to examine arriving vessels, they also have an opportunity to conduct a spot check of the facility's security measures. Several sectors we visited mentioned that they had a goal, even before the new requirement took effect, of spot checking every facility, but officials at these sectors said the risk-based approach took precedence, leading to numerous checks at facilities with higher risk.

Given the resources provided in DHS fiscal year 2007 appropriations, related Coast Guard allocations, and the number of spot checks conducted in prior years, Coast Guard officials said they expect sectors to meet—and

likely exceed—the spot-check requirements.[12] At sectors we visited where additional staffing resources (temporary reservists and permanent staff) were in place, local officials generally agreed with this assessment. At a sector that did not receive additional permanent staff, however, officials said they were still determining how to meet the SAFE Port Act inspection requirements after temporary staff were gone.

Deficiencies Identified in about One-Third of Facilities and Most Were Addressed without Formal Coast Guard Enforcement Action

The Coast Guard identified deficiencies in about one-third of the facilities inspected in 2004-2006, with deficiencies concentrated in a subset of five deficiency categories, for example, failing to follow facility security plans for access control. Facilities with many or substantial deficiencies were relatively few in number, and deficiencies were identified during both annual exams and spot checks. The extent to which formal enforcement actions were used was limited nationally, but varies greatly among Coast Guard sectors. The majority of deficiencies were addressed by the Coast Guard informally, without formal enforcement actions.

Facility Deficiencies Were Concentrated in Five Deficiency Categories

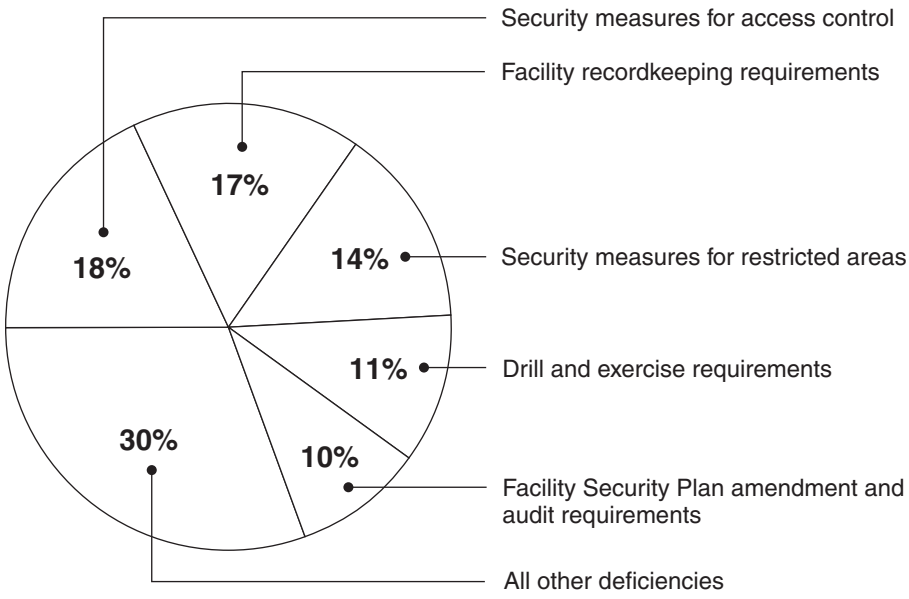
Thirty-six percent of the facilities that the Coast Guard documented as receiving an annual compliance exam or a spot check in 2006 had at least one reported deficiency, according to our analysis of information in MISLE. The previous 2 years were similar, with rates of 30 percent each year. These figures may not include security weaknesses that are corrected on the spot. Headquarters and sector officials told us that, in keeping with Coast Guard policy allowing the practice, inspectors may choose not to record such deficiencies. For example, a facility security officer at one oil facility said the Coast Guard gave him a verbal warning about the failure to display credentials at entrance gates and maintaining better documentation of security drills conducted at the facility. Similarly, the security officer at a gypsum facility said inspectors had suggested more creativity in crafting facility exercise scenarios (which the facility official said he would try to do) but inspectors had not recorded a deficiency.

About 70 percent of the 2,500 reported deficiencies identified in 2006 occurred in five categories: access control (such as fences or gates needing repair), recordkeeping requirements, security for restricted areas

[12] This expectation, however, was based on spot checks conducted prior to Coast Guard guidance (discussed in the following section) that establishes a more comprehensive review than was the case for some of the previously conducted spot checks.

(such as not posting required signs), drill and exercise requirements, and facility security plan amendment (for example failing to get approval for changing a security measure) and deficiencies related to the facility security plan or conducting a facility security audit. As figure 3 indicates, the two top categories, with over one-third of the deficiencies, were access control and facility recordkeeping requirements.[13]

Figure 3: Facility Deficiencies Identified in 2006 by Coast Guard Inspections



Source: GAO analysis of MISLE data.

Access and documentation were also the most common types of deficiencies at the sectors we visited. Table 1 provides examples of deficiencies in these two categories from the sectors we visited. As the examples illustrate, each category can include a variety of violations. Similar deficiencies were reported by officials at facilities we visited within the seven sectors. Examples included not constructing a new fence after a tornado; not screening vehicles, persons, and personal effects; leaving a gate unlocked; not completing exercise requirements; and lack of timeliness in documenting training.

[13] These categories correspond to the types of facility responsibilities cited in the Coast Guard's MTSA regulations. See appendix II for a more detailed description of deficiencies and the numbers of deficiencies by category, for 2004, 2005, and 2006.

Table 1: Deficiency Narrative Examples in 2006 from Selected Sectors Visited by GAO in the Top Two Nationwide Deficiency Categories

Sector	Security measures for access control	Facility recordkeeping requirements
Sector A	Restricted area fence damaged by storm 1 week prior to inspection. Provide work order for repair prior to 1 week from date of inspection.	Show proper documentation of annual facility security plan audit.
Sector B	Facility inspectors found an open gate near the rail that had no security measures in place.	FSO did not provide certified letter of annual audit.
Sector C	Fencing was damaged/pulled away from posts in several locations diminishing access control.	Documentation not available on training for personnel with security duties and personnel without security duties, and drill and exercise requirements.
Sector D	Not screening by hand or device such as x-ray, all unaccompanied baggage prior to loading onto facility.	No maintenance, calibration, and testing of security equipment logs were able to be produced.
Sector E	No narrative available.	Drill and exercise records not in FSP specified format or available for Coast Guard inspection.
Sector F	Signage describing security measures is not in place. Put sign describing security measures in place.	Facility has no records of facility personnel with security duties.
Sector G	FSO greeted inspection team and granted them access to facility without checking ID.	No lessons learned were recorded for the drills.

Source: Coast Guard MISLE data verbatim narrative descriptions of facility deficiencies.

Our visits to facilities in the seven sectors also disclosed instances in which a regulated facility's access controls would not prohibit access from a neighboring facility. We observed four instances in which a neighboring facility's building or stacked-up materials would facilitate entry over a regulated facility's perimeter fencing. Figure 4 shows one of those instances.[14] After we pointed out these weaknesses to Coast Guard officials, they assured us that the weaknesses would be corrected. Coast Guard officials told us that any vulnerabilities introduced by neighboring facilities (whether the neighboring facility is a MTSA facility or not) should be identified in a facility's vulnerability assessment, then addressed in a facility's security plan.

[14] Coast Guard officials have pointed out that areas may be covered by surveillance systems that would reduce the risk of entry. In one location where a building was next to the perimeter, the facility FSO said cameras were being added (in addition to existing security patrols) to improve visibility in this area.

Figure 4: Example of Neighboring Facility Conditions Facilitating Entry into a MTSA-Regulated Facility

Source: GAO.

While about one-third of all facilities had at least one deficiency identified and recorded during an annual inspection or spot check, deficiencies in the seven sectors we visited tended to be concentrated in relatively few facilities. According to MISLE data, five or fewer facilities accounted for an average of 61 percent of deficiencies in six of the seven sectors we

visited, and 10 or fewer facilities accounted for an average of 80 percent.[15] One facility that receives passenger vessels in one sector we visited was cited for 12 deficiencies during its annual compliance exam. This facility's deficiencies related primarily to (1) lack of knowledge about security procedures or equipment on the part of the security officer or other personnel and (2) failure to conduct or document security drills and exercises.

Coast Guard officials at the sectors we visited said they thought security awareness and procedures had improved in the years since MTSA's inception. Atlantic Area Coast Guard officials cited MTSA as making a difference in reducing cargo loss as increased security procedures lower theft rates. Officials cited qualitative changes such as the following:

- facilities taking more ownership of their own security and being more aware of security concerns,
- fewer trespassers on waterfront property and increasing security awareness among maritime workers,
- decrease in vandalism as a result of additional cameras in port areas
- more informed security personnel, and
- improved communication with facilities regarding break-ins.

Our analysis of the top deficiencies included in the Coast Guard's database showed that Coast Guard inspectors identified deficiencies both in spot checks and in annual exams, but spot checks tended to identify deficiencies related to access control and control over restricted areas. As table 2 shows, spot checks accounted for 44 percent of all recorded access control deficiencies and 19 percent of restricted area deficiencies, but no more than 9 percent of the other most common categories of deficiencies—drills, recordkeeping, and plan amendment/audits. This may occur because spot checks are sometimes conducted external to the facility and do not involve checking records, drills, or plans.[16]

[15] In the seventh sector, the top 5 facilities accounted for 18 percent of all deficiencies, and the top 10 accounted for 32 percent.

[16] Recent spot check guidance indicates that less emphasis should be placed on items that would not change between annual compliance exams, such as drill/exercise records.

Table 2: Top Five Facility Deficiencies Recorded Nationwide in 2006

Deficiency category	Deficiencies	Percent identified during annual exam	Percent identified during spot check	Percent identified during other activities[a]
Drill and exercise requirements	269	92	7	1
Facility recordkeeping requirements	418	94	6	0
Security measures for access control	458	50	44	6
Security measures for restricted areas	364	79	19	2
Facility Security Plan amendment and audit	243	90	9	1
U.S. Total for top five deficiencies	**1,752**	**78**	**19**	**3**

Source: GAO analysis of Coast Guard MISLE data.

[a] Includes monitoring of facility security plan exercises and other oversight activities.

We attempted to compare deficiencies identified during announced or unannounced annual compliance exams, but until July 2007, activities in the database were not required to indicate whether an exam was announced or unannounced. Headquarters officials acknowledged that there is variation in whether sectors conduct these exams announced or not, but could not provide information for all sectors that would allow a comparison.[17] Furthermore, the Coast Guard has not assessed the effectiveness of each approach to establish whether one approach is more effective in identifying deficiencies.

Informal Enforcement Actions Generally Used for Deficiencies, but Use Varied among Sectors Visited

Inspectors told us they generally use Coast Guard guidance in deciding whether to issue some form of formal enforcement action, taking into consideration the facility's deficiency history and the risk associated with the violation. Several Coast Guard sector officials said the Coast Guard prefers to work cooperatively with facilities to improve security procedures, instead of taking an adversarial or punitive approach. They said they often give facilities several weeks during which to fix a deficiency, instead of issuing an immediate enforcement action.

Most often, a formal enforcement action, such as issuing a letter of warning, a notice of violation, or a civil penalty such as a fine, is not applied. Our analysis of MISLE data indicates that inspectors took one of these formal actions in about 11 percent of recorded deficiencies in 2004, 19 percent in 2005, and 16 percent in 2006. Table 3 shows what types of

[17] Toward the end of our work, the Coast Guard issued a Commandant's message requiring information be entered into MISLE regarding whether the exam was announced or not.

enforcement actions were recorded for the top five deficiencies in 2006 and a total for all deficiencies in 2006. Based on MISLE data, of the top five deficiencies, access control was most likely to result in an enforcement action. For this type of deficiency, formal action occurred 25 percent of the time.

Table 3: 2006 Nationwide Enforcement Actions Recorded for Top Five Deficiencies and All Deficiencies

Deficiency category	Deficiencies	Letter of warning issued	Notice of violation issued	Civil penalty issued	Percent of cases in which enforcement action was issued
Security measures for access control	458	31	57	28	25
Facility recordkeeping requirements	418	15	4	7	6
Security measures for restricted areas	364	11	22	5	10
Drill and exercise requirements	269	4	18	6	10
Facility Security Plan amendment and audit	243	8	9	7	10
Total for top five deficiencies	**1,752**	**69**	**110**	**53**	**13**
Total for all deficiencies	**2,513**	**115**	**181**	**96**	**16**

Source: GAO analysis of Coast Guard MISLE data.

Our analysis of MISLE data shows sectors varied in the extent to which enforcement actions were taken. Coast Guard officials said that sector management is given discretion to use or not use enforcement actions as year 2006, the Coast Guard's use of enforcement actions for the top five nationwide deficiencies in the sectors we visited. Even when the same deficiency is recorded, the sectors we visited vary greatly in whether or not they issued an enforcement action. For example, the first sector shown in the table took no enforcement actions, while the second sector used enforcement actions in each of the five deficiency categories. Our analysis could not determine the reasons for these differences, such as whether the variations reflect different circumstances faced by sectors, nor could Coast Guard officials explain the differences.

Table 4: 2006 Enforcement Actions Recorded in Selected Sectors for Top Five Recorded Deficiencies

Sector	A	B	C	D	E	F	G	Total of Selected Sectors
Drill and exercise requirements								
Number of deficiencies	7	4	10	4	4	34	7	**70**
Percent of cases in which enforcement action was issued	0	100	60	75	75	15	0	**30**
Facility recordkeeping requirements								
Number of deficiencies	7	16	8	2	8	58	19	**118**
Percent of cases in which enforcement action was issued	0	31	13	100	38	5	0	**12**
Security measures for access control								
Number of deficiencies	9	17	25	3	0	7	4	**65**
Percent of cases in which enforcement action was issued	0	41	40	67	-	29	100	**38**
Security measures for restricted areas								
Number of deficiencies	18	7	3	0	0	12	0	**40**
Percent of cases in which enforcement action was issued	0	57	33	-	-	0	-	**13**
Facility Security Plan amendment and audit								
Number of deficiencies	6	5	6	0	7	16	10	**50**
Percent of cases in which enforcement action was issued	0	60	0	-	43	13	0	**16**

Source: GAO analysis of Coast Guard MISLE data.

Data Used in Coast Guard's Assessments of Number of Inspectors Needed Were Limited and Results Could Be Affected by Additional Factors

The Coast Guard's assessments of the number of inspectors needed to meet facility inspection requirements were based on limited data, and since these assessments were conducted, additional factors have arisen that could also affect the number of inspectors needed. The original assessment for meeting MTSA requirements and the subsequent assessment for meeting additional SAFE Port Act requirements were both estimates that were based on limited information, and the Coast Guard has not assessed their reliability. Moreover, our field visits identified two factors that could affect the estimates. One is that persons in inspector positions have other responsibilities that may compete with conducting inspections, so that the amount of time available for inspections may be less than expected. The Coast Guard does not have data on what portion of inspectors' time is actually available for conducting inspections. The

second factor is that recently issued guidance for conducting unannounced spot checks may require inspectors in some locations to spend more time conducting these spot checks than they had spent in the past. Coast Guard officials do not know what the effect of the new spot check requirements will be on resources needed.

Coast Guard Believes It Has Sufficient Inspectors, but Its Estimates Were Based on Limited Data

Although Coast Guard officials said the number of Coast Guard inspectors is adequate, their basis for determining the number of inspectors needed, both for the initial implementation of MTSA and to meet SAFE Port Act inspection requirements, was limited in several respects. When we reviewed the approach the Coast Guard used to project staff needed for meeting MTSA inspection requirements, we found the Coast Guard did not have a great deal of workload data to use in estimating the additional staff needed, nor did it have a system in place for determining how much time its personnel are spending on specific duties.[18] The Coast Guard told us it established its estimates for the number of inspectors needed using working groups, panels, and available data, including information about resources in port security missions since the September 11, 2001, terrorist attacks.[19] The estimates were also based on experience with environmental and safety inspections, but whether those types of inspections were analogous was unclear. Further, the Coast Guard could not provide documentation of the approach it used, limiting its ability to assess the adequacy of its decision. We determined that the Coast Guard had a basis for its estimate, but also that its approach stopped short of providing demonstrable evidence of its validity. The Coast Guard did not assess how reliable this estimate was in meeting inspection needs, but officials noted that sector officials could provide headquarters with feedback on their needs and request additional staff.

The approach the Coast Guard used for estimating the number of additional inspectors needed to meet SAFE Port Act requirements had similar limitations. Coast Guard officials said they also used a general formula to request funding for personnel to conduct these additional inspections. They said they had limited time to prepare the request, and estimated the number needed based on past experience by looking at the number of inspections currently being conducted and the current number

[18] GAO-04-838.

[19] The Coast Guard added 282 positions to local marine safety offices to meet MTSA facility inspection requirements.

of inspectors, plus input from Coast Guard area officials. An additional 39 positions were added with resources stemming from DHS fiscal year 2007 appropriations.[20]

Other than field unit feedback, Coast Guard officials do not currently have a means for determining whether the deployment of staff to inspection positions is sufficient. In 2004 we recommended that the Coast Guard formally evaluate its facility inspection program to look at the adequacy of security inspection staffing, among other things; however, Coast Guard has not done so. Officials discussed using an existing management tool in combination with revised training requirements and staffing standards to be developed in the future as a way to measure the adequacy of staffing for specific mission areas, but as yet had no estimated date for completion of this effort.

Extent to Which Inspectors Are Available for Inspection Duties Is Unclear

One factor that may affect the accuracy of the estimates is that inspectors are also responsible for a variety of other duties, and the extent to which these inspectors are available to conduct security inspections is unclear. Coast Guard data indicate that about 600 personnel have been qualified to conduct MTSA facility inspections. Officials said that as of August 2007 the Coast Guard had 389 MTSA positions, including the 39 new positions added with resources stemming from DHS fiscal year 2007 appropriations for unannounced spot checks, and, most of the positions were filled.[21] Besides these personnel, a July 2007 Commandant message, indicated that Coast Guard districts were authorized to use reservists on a short-term basis to meet inspection requirements. In all, 52 reservist positions were authorized for this purpose.

Our field visits showed that staff assigned to inspector positions were not necessarily working as inspectors, and those that were conducting inspections were also performing a number of other mission tasks as well. Data on the extent to which personnel in inspector positions are actually

[20] Comments provided by the Coast Guard in January 2008 to a draft of this report stated that the Coast Guard is receiving an additional 25 facility inspectors positions to increase its ability to meet the SAFE Port Act mandate. Positions are expected to be filled during the 2008 summer transfer and assignment season.

[21] The Coast Guard provided data on the number of personnel with MTSA Facility Inspection qualifications. These may include personnel assigned to other types of positions, such as logistics or a strike team. Officials noted that personnel may be qualified for a number of different positions. See appendix I for further discussion.

conducting facility inspections are not available. Coast Guard headquarters officials said it was difficult to know the extent to which an inspector was inspecting MTSA facilities because of the flexibility in how staff are used.[22] Each sector, they said, determines what is needed for its workload. In all seven sectors we visited, staff in inspector positions were responsible for tasks other than facility inspections. Other tasks included responding to pollution incidents, supervising the handling of explosive cargo, monitoring the transfer of oil, conducting harbor patrols, boarding vessels, and conducting inspections of vessels or other matters, such as safety or environmental concerns (see fig. 5).

[22] Officials said inspectors can be assigned elsewhere temporarily, for a day or placed full-time in non- inspection billets based on sector needs that match their qualifications (e.g., as a safety inspector or Marine Science Technician).

Figure 5: Examples of Other Inspector Responsibilities—Harbor Patrols and Cargo Inspections

Source: U.S. Coast Guard.

At four of the seven sectors we visited, officials said meeting all mission requirements for which inspectors were responsible was or could be a challenge, especially after reservists made available for SAFE Port Act inspections were no longer available.[23]

- Officials in one sector said they were meeting inspection requirements at the expense of other missions, such as inspecting containers or monitoring the transfer of oil. They said they make a risk-based judgment call on which activities to undertake.
- In another sector, officials said meeting inspection requirements in the long term would be difficult. The new inspection requirements effectively doubled the required number of facility inspections, and the sector has received only short-term assistance.
- Officials in another sector said available staffing could adequately cover only part of the sector's area of responsibility.
- In another sector, officials said depending on the long-term workload, they may be seeking additional inspectors later this year, after temporary duty staff has left.

Spot Check Guidance May Affect the Sufficiency of Inspectors to Conduct All Inspections

A second factor that may affect the reliability of the estimates is that the Coast Guard based its estimate for the number of inspectors needed in part on the number of spot checks conducted in the past, but subsequent spot check guidance may require inspectors to spend more time on these spot checks than they had previously. After the SAFE Port Act's passage, Coast Guard officials initially said they did not plan to issue specific guidance for spot checks, because developing a single inspection form that encompassed all situations was difficult and because they had not heard from Captains of the Port that such guidance was needed. In July 2007, however, the Coast Guard Commandant issued a message to Coast Guard

[23] All but one of the seven sectors we visited reported receiving short-term authorizations for reserve personnel to assist with SAFE Port Act requirements, and all but one was allotted one or more full-time additional positions. Information from the sectors we visited are case studies representing variation in types and sizes of ports, but cannot be generalized to all 35 sectors.

Area officials that provided some spot check guidance.[24] Among other things, this guidance:

- Defines minimum requirements for security spot checks—for example, specifying that the inspector must confirm that the facility is compliant with unique requirements for specific types of facilities (such as cruise ships) and must provide the facility with documentation of the inspection.

- Identifies activities that do not meet the requirements for a security spot check, such as inspections from a vehicle or checks conducted while performing certain shoreside patrols or facility visits related to vessel boardings (unless the minimum security spot check requirements are met during the patrols or boardings).

- Specified codes for documenting facility inspections in the MISLE database.

Our discussions with sector officials indicated that prior to this guidance, sectors varied considerably in their interpretation of what constituted a security check.[25] For example, one sector considered asking facility officials 15 to 30 minutes of knowledge-based questions as a spot check, while another considered a drive-by with a stop at the gate a type of spot check. Officials in several sectors mentioned that spot checks were conducted during other types of facility visits or missions, such as while escorting a boat, conducting a waterside patrol, or performing a vessel inspection.[26] For documentation, one sector reported entering a record of all spot checks conducted, while several others qualified that "official"

[24] *SAFE Port Act, Waterfront Facility Security R 061821Z.* U.S. Coast Guard Commandant message to Coast Guard Area officials, July 2007. The Coast Guard is also planning other guidance changes such as revising its MTSA regulations and MTSA implementation circular. Information was not available from the Coast Guard on specific changes or how theses changes might affect the need for facility inspectors.

[25] While practices varied considerably for spot checks, the inspectors and facilities in the sectors we visited generally reported consistency in the content and process for conducting annual exams following Coast Guard guidance contained in the circular *Implementation Guidance for the Regulations Mandated by the Maritime Transportation Security Act of 2002 for Facilities.*

[26] Coast Guard headquarters indicated some confusion among inspectors and that they may be using Operation Neptune Shield guidance where this type of inspection is acceptable. However, none of the inspectors we spoke with identified this as a source of guidance to them.

spot checks were logged—a drive by or dropping in to check on a few items might not be recorded. One sector said recording the check or not depended partly on whether a deficiency was identified during the spot check.

The activities called for in this guidance have potential staffing implications. Based on our discussion with headquarters officials and inspectors in all sectors we visited, some of the activities that have been considered spot checks will no longer be considered adequate, such as observing facility security procedures from a vehicle while driving by. Meeting the spot check requirements under the new guidance may thus require more time from inspectors. This in turn may affect sector estimates of the level of resources needed to meet inspection requirements and Coast Guard goals for the number of inspections to be conducted.[27]

In Coast Guard comments on this draft, officials reported a total of 9,403 inspections (spot checks and annual exams) were conducted in 2007, exceeding their internal target of 8,800 inspections. This is an increase in inspections from prior years. Their comment however, did not indicate that each facility received a spot check and an annual exam. Further, since the spot check guidance was not issued until July of 2007, it is not clear how many of the spot checks were conducted following the new guidance. Without this information the implications for staffing are still uncertain.

[27] The Coast Guard is also considering changing its MTSA implementation circular to include SAFE Port Act requirements, among other things. Coast Guard officials said they expected any revisions to be published in early 2008. Officials also indicated that the Coast Guard will be proposing a rule to change the regulations promulgated in 2003 for implementing MTSA. Among other things, the proposed changes would establish training standards for security personnel, add regulations related to the reapproval of facility security plans, and update existing regulations to conform to various requirements in the SAFE Port Act of 2006. Coast Guard officials said they are behind in their original schedule for updating the regulations by late 2008, but the regulations must be completed in time for the reapproval of facility security plans in 2009.

The Coast Guard Has Not Evaluated Its Facility Oversight Program, and Problems with Data Complicate Its Ability to Do So

The Coast Guard has not assessed how its MTSA compliance inspection program is working. Our work across many types of federal programs shows that for program planning and performance management to be effective, federal managers need to use performance information to identify performance problems and look for solutions, develop approaches that improve results, and make other important management decisions. The Coast Guard's ability to assess its compliance program is complicated by omissions, duplications, and other flaws in the data it would most likely use in measuring and evaluating the effectiveness of different monitoring and oversight approaches.

The Coast Guard Has Not Evaluated the Effectiveness of Oversight Efforts

In 2004, when we first examined the Coast Guard's efforts to deal with MTSA requirements, we reported that development of a sound long-term strategy was a critical step in bringing about effective monitoring and oversight. Our work assessing such other areas as airport security and regulatory compliance had identified approaches for ensuring compliance and strengthening security.[28] These approaches included such steps as unscheduled and unannounced inspections, and inspections on weekends or after normal working hours. At the time, local Coast Guard officials said that unscheduled inspections would be a positive component of a longer-term strategy because informing owners or operators of annual inspections can allow them to mask security problems by preparing for inspections in ways that do not represent the normal course of business. We recommended that, after the initial "surge" involved in reviewing security plans and conducting the first round of inspections, the Coast Guard should conduct a formal evaluation of its efforts and use the evaluation as a means to strengthen the compliance process for the longer term.

In the 1990s, a statutory management framework for strengthening government performance and accountability was enacted into law. In particular, the Government Performance and Results Act (Results Act) calls for an increased reliance upon program performance information in

[28] GAO, *Aviation Security: Further Steps Needed to Strengthen the Security of Commercial Airport Perimeters and Access Controls*, GAO-04-728 (Washington, D.C.: June 4, 2004).

assessing program efficiency and effectiveness.[29] The Results Act notes that federal managers are seriously disadvantaged in their efforts to improve program efficiency and effectiveness because of insufficient articulation of program goals and inadequate information on program performance, and that spending decisions and program oversight are seriously handicapped by insufficient attention to program performance and results. Although the Results Act's provisions apply primarily to tracking and reporting performance at the overall agency level, the same sound management principles apply to management of individual programs such as the facility compliance program. In other work, we have identified instances in which agencies can use performance information to improve programs and results. [30]

In many of its areas of activity, the Coast Guard has devoted extensive attention to providing sound data on its activities and analyzing what these data say about what the agency is accomplishing with the resources it expends. In 2006, for example, we reported that for many of its non-homeland security programs, the Coast Guard had developed performance measures that were generally sound and based on reliable data.[31] Further, the Coast Guard was actively engaged in initiatives to help interpret these performance measures and use them to link resources to program results.

The Coast Guard has not, however, applied this same approach to the facility compliance program. Although the Coast Guard agreed with our recommendation in 2004 that the agency formally evaluate its MTSA compliance inspection efforts and use the results as a means to strengthen its long-term strategy for ensuring facility compliance, it has not conducted such an evaluation, and has no current plans to do so. In comments submitted after reviewing a draft of this report, the Coast Guard indicated that facility security program metrics were discussed during a November 2007 workshop with field personnel. The comments also

[29] Government Performance and Results Act of 1993, Pub. L. No. 103-62, 107 Stat. 285 (1993), as amended, requires executive agencies to develop strategic plans, prepare annual performance plans, measure progress toward the achievement of the goals, and report annually on their progress in program performance reports.

[30] See, for example, GAO, *Managing for Results: Enhancing Agency Use of Performance Information for Management Decision Making*, GAO-05-927 (Washington, D.C.: September 2005).

[31] GAO, *Coast Guard: Non-Homeland Security Performance Measures Are Generally Sound, but Opportunities for Improvement Exist*, GAO-06-816 (Washington, D.C.: August 2006).

indicated that the Coast Guard is developing performance goals for monthly review by program management.

We asked the Coast Guard to provide documentation of any systematic effort to assess implementation of its facility compliance program since July 2004, when the agency initiated the compliance phase of MTSA facility oversight. Headquarters officials told us that program managers use MISLE to see the results of inspectors' data entries and to produce reports, but the Coast Guard's only formal analysis of the overall success of MTSA implementation was contained in its Annual Report to Congress.[32] The information the 2005 and 2006 reports provide, which includes figures on the number of enforcement actions and the approximate number of facility security inspections the Coast Guard conducted (included in the 2005 report only), does not include an analysis of the program's operations or provide a basis to determine what, if anything, might be done to improve its operations. The program metrics and performance goals the Coast Guard indicated it is developing may provide data useful for future assessments.

A more thorough evaluation of the facility compliance program could provide information on, for example, the variations we identified between Coast Guard units in oversight approaches, the advantages and disadvantages of each approach, and whether some approaches work better than the others. The Coast Guard has allowed Captains of the Port considerable discretion in implementing facility oversight program at the local level, in order to meet differences in local conditions. An evaluation could also explore the benefits of the variations that have resulted. For example, an evaluation could shed light on such issues as the following:

- **Conducting annual compliance exams unannounced vs. scheduling them beforehand**. Views we heard from different Coast Guard units varied on this issue. Coast Guard policy has encouraged the pre-scheduling of these exams, but some units have decided to conduct them on an unannounced basis because they believe doing so best captures what procedures are normally in place. At some units that scheduled the exams with the facility beforehand, however, Coast Guard officials said conducting exams unannounced would slow the process, because facility personnel would be less prepared with

[32] Annual Report on Compliance with Security Standards Established Pursuant to the Maritime Transportation Security Plans. Submitted in accordance with Title VIII, Section 809(i) of the Coast Guard and Maritime Transportation Act of 2004.

information and because officials with the needed information might be absent entirely. In such situations, delays might affect the unit's ability to complete its inspection workload. An evaluation, done with accurate and sufficient data, could provide information of the effectiveness of various approaches.

- **The type of enforcement action to take when deficiencies are identified**. The available data indicate that Coast Guard units vary considerably in the extent to which they take formal enforcement actions, such as fines or written warnings. Headquarters officials told us that they could not explain the variation or its impact on continued facility compliance, but that units were allowed to determine actions taken based on the factors involved. These variations might occur for several reasons. Inspectors in sectors we visited told us they rely on Coast Guard guidance and take other factors into consideration, such as the nature of the deficiency, or history of the facility. They said that the decision on what enforcement action is taken depends in part on guidance from the sector's Captain of the Port, and the judgment of the inspector as to the severity of the incident. For example, an inspector is given discretion to decide to issue a facility a fine or written warning at a high-volume port where the consequences for an incident are high, or to take no formal action because it is in a low-volume port where facilities are dispersed and the consequences are less severe. An evaluation, done with accurate and sufficient data, could analyze such differences as possible criteria for deciding when formal or informal actions are most appropriate.

- **Variation in establishing the applicable MTSA regulation for a specific deficiency**. We observed situations in which different inspectors cited different MTSA regulations for the same type of deficiency. For example, deficiencies in which security personnel lacked required training were classified in two different ways—sometimes as noncompliance with the regulation requiring security personnel to be knowledgeable of security-related areas, such as screening, and other times as noncompliance with regulations related to the security officer's responsibilities. Similarly, failure to log a drill or exercise was sometimes categorized as noncompliance with regulations on drills and exercises and sometimes as a recordkeeping deficiency. An analysis of the differences would help managers determine if sectors have varying interpretations, if additional training is needed for facility inspectors regarding the applicability of the regulations, or if the regulations themselves could be improved. The Coast Guard plans to revise its MTSA regulations by 2009, and such an analysis could be instructive in that effort.

We are not the only independent reviewer to point out the need for such an evaluation. In 2006, the Office of Management and Budget (OMB) issued an assessment of Coast Guard performance in meeting goals for the Ports, Waterways and Coastal Security program, which includes MTSA facility oversight.[33] OMB noted that there have been no reviews indicating whether or how the program is achieving results. OMB emphasized the need for the Coast Guard to evaluate the effectiveness of its program, as well as to develop analytical methods and processes that provide routine and objective feedback to program managers.

Database Limitations Hinder Compliance Monitoring and Program Oversight

As we have reported in other work, performance information must meet users' needs for completeness, accuracy, and consistency if it is to be useful.[34] Other attributes that affect the usefulness of performance data include that measures be relevant, accessible, and of value to decisions made at various organizational levels.[35] In MISLE, however, data and database fields were missing, duplicative, and inconsistent, with data entry a particular concern. Specific problems we identified include the following:

- Deficiency data may not be entered at all, or entered twice, officials said. For example, if a facility corrects a deficiency immediately, inspectors can decide not to include it in their report. On the other hand, Coast Guard data analysts acknowledged that there are duplicate deficiencies and enforcement actions in MISLE for example, resulting from the same deficiency being recorded at the sector and subunit levels, or lack of coordination in conducting an exam so that the activities are entered twice.

- Headquarters officials said that some units are unclear about what to enter into MISLE, and the biggest challenge to consistent and

[33] The Office of Management and Budget uses a Program Assessment Rating Tool that is consistent with GPRA objectives as a systematic measure of agency performance across federal programs. The tool asks a series of questions to assess different program performance aspects. Agencies respond to the questions with supporting information and OMB establishes an overall rating for the program. The Ports, Waterways and Coastal Security Program received an overall rating of moderately effective (well managed, but needs improvement).

[34] GAO, *Results-Oriented Government: GPRA Has Established a Solid Foundation for Achieving Greater Results*, GAO-04-38 (Washington, D.C.: Mar. 10, 2004).

[35] GAO-05-927.

comprehensive data is proper data entry. Although inspectors choose from a standardized pick-list of enforcement action citations, the selection process is subjective and as we discussed earlier, a particular violation can fit under multiple citation categories.

- Headquarters officials said that the citation for a deficiency is not always provided when inspectors enter the activity into MISLE. Not entering this information means that the Coast Guard has difficulty showing data on the basis of specific MTSA regulatory deficiencies or specific enforcement actions. Coast Guard officials voiced varying opinions about whether the deficiency citation is a required field for inspectors to enter in MISLE, as well as about what MISLE fields to use to identify security-related deficiencies and enforcement actions.

While the data themselves may pose problems, so too do the data fields[36] into which the data are placed. Insufficient data fields in MISLE make it more difficult for the Coast Guard to conduct critical analyses. We identified two types of analysis that were limited—comparisons across sectors and analysis by year.

- Although the Coast Guard began reorganizing its field units into sectors in 2004 and made sectors the primary management unit, data continues to be entered into MISLE that cannot readily be presented by sector. This limitation makes assessing oversight performance, variability, and facility compliance by sector more difficult.[37]

- The Coast Guard cannot report the number of facilities it regulated under MTSA during a particular period. Although MISLE contains a field to indicate whether a facility is currently regulated by MTSA, it does not have a field for the facility's activation date. (Vessels regulated under MTSA do have an activation date.) Without it the Coast Guard cannot establish the number of facilities that have been regulated, and is unable to calculate a percentage of MTSA facilities that received the required annual compliance exam during a particular period. Coast Guard indicated that this is an area for improvement, but did not identify a specific remedy or time frame.

[36] A data field is a location in a data set where the same information (such as a facility name) for each case is entered.

[37] GAO's analysis of MISLE data by sector was possible after we created a sector field and manually distributed data by unit names into sector designations.

Reporting of MTSA Compliance Activities Could Not Be Replicated and Is Limited in Scope

Due to MISLE data limitations, we were not able to recreate annual report statistics provided to Congress on Coast Guard compliance activities. Furthermore, the annual reports did not provide a comprehensive picture of Coast Guard compliance activities. The Coast Guard and Maritime Transportation Act of 2004[38] mandated an annual report from the Coast Guard on the agency's MTSA compliance-related activities, and so far the agency has issued two reports—one covering part of 2004 and much of 2005 (July 1, 2004 to November 17, 2005), the second covering all of 2006.[39] According to Coast Guard officials, there is no set format for the report, and the type of information reported varies by reports. The report for 2004-2005, for example, includes information about the number of annual compliance exams conducted, while the report for 2006 does not. Coast Guard officials said they did not include information about the number of exams conducted in 2006 as part of an effort to reduce the annual report's size. While figures were not provided in the annual report, the Coast Guard agreed that our analysis of MISLE correctly identified 2,126 annual exams recorded for 2006.[40]

Using three categories of information (annual exams, spot checks, and enforcement actions) that the Coast Guard reported for one or more of those years, we attempted to tie the numbers in the annual reports to the numbers in the MISLE database. Despite working extensively with Coast Guard personnel to resolve discrepancies, we were unable to fully verify the numbers reported in any of these categories. Figure 6 shows, for the annual compliance exam, the totals for 2004 and 2005 as stated in the annual report and the totals contained in MISLE. For 2004, the total shown in the annual report was about 500 more than the total supported in

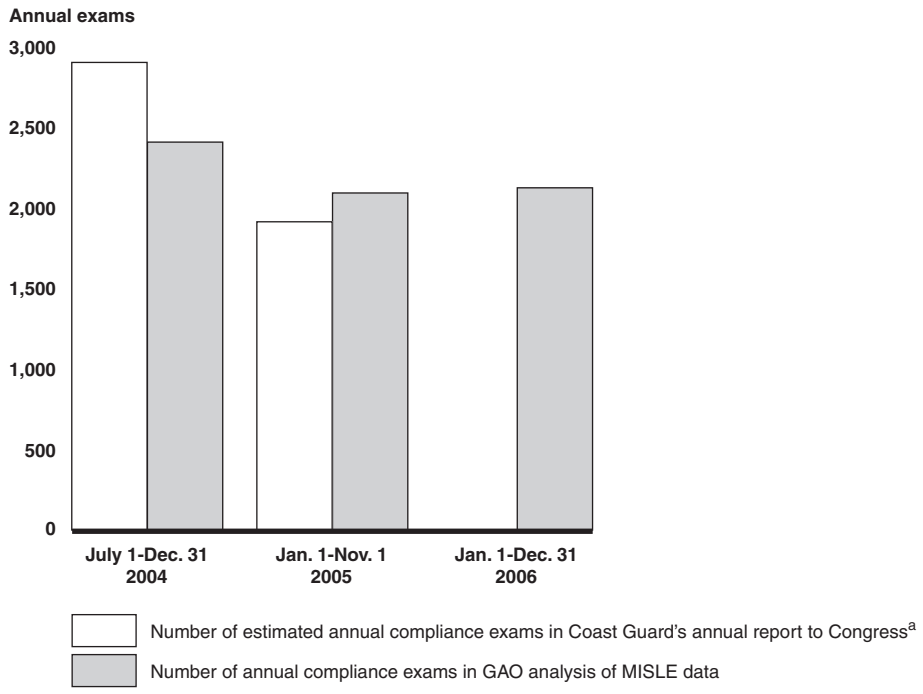
[38] Pub. L. No. 108-293, 118 Stat. 1028 (2004).

[39] Annual Report on Compliance with Security Standards Established Pursuant to the Maritime Transportation Security Plans. Submitted in accordance with Title VIII, Section 809(i) of the Coast Guard and Maritime Transportation Act of 2004. Throughout this section on Coast Guard's Annual Reports, we used the same reporting periods in our analysis as was used in Coast Guard's Annual Reports: July 1 – December 31, 2004, January 1 – November 17, 2005, and January 1 – December 31, 2006, although the 2005 Annual Report did not clarify that the enforcement action data included only part of November 2005.

[40] In October 2007, too late for us to validate as part of this report, Coast Guard officials indicated that they discovered an additional 344 annual exams were conducted in 2006 that were not in the data provided for our analysis. Officials said they were investigating why the additional 344 exams were not previously identified.

MISLE, and for 2005, the total shown in the annual report was about 179 less.[41]

Figure 6: Annual Compliance Exam Numbers in Coast Guard's Annual Report to Congress and GAO Analysis of MISLE Data



Source: GAO analysis of Coast Guard's annual report to Congress and MISLE data.

[a]We estimated the Coast Guard's Annual Report Annual compliance exam figures for 2004 and 2005 from a monthly bar chart without numbers. The Coast Guard was not able to provide us with precise numbers. A Coast Guard official informed us that the bar chart was created using MISLE data as well as sector input due to MISLE query limitations in 2004-2005 and sector data entry issues in 2004.

The Coast Guard did not provide annual compliance exam figures in its 2006 Annual Report to Congress.

[41] For spot checks and enforcement actions, the differences between the annual report and MISLE figures were smaller than the differences we found comparing figures for the annual compliance exam, but we likewise were unable to determine the reasons for these differences. In both categories, the figures in the annual reports were higher than the figures in MISLE.

Coast Guard officials who worked with us to resolve the discrepancies gave several possible reasons for differences:

- The totals in the annual report included a combination of MISLE data and other data reported by officials in field units.[42]
- The annual report inspection data could have included some safety-related activities.
- Some of the information in MISLE may have changed between the time the Coast Guard used the database to prepare numbers for the annual report and the time the Coast Guard provided the data for us.

We were not able to determine the extent, if any, to which these factors contributed to the discrepancies. The more significant issue, however, is not resolving the effect of these three factors, but rather recognizing the fundamental limitation reflected in being unable to reconcile differences between the numbers in the annual report with the numbers in the database. The ability to monitor and oversee a program is limited if officials cannot rely on the accuracy of the information they have at hand.

At some sectors we visited, Coast Guard officials voiced similar concerns about having to rely on MISLE data for assessing trends. Inspectors in all seven sectors said they use MISLE to track compliance activities at individual facilities, but several reported that using MISLE to produce accurate aggregated information and trend data for the sector was more difficult. Inspectors in four sectors mentioned creating their own spreadsheets outside MISLE to more easily produce reports on administrative information (such as facility addresses and phone numbers), to check for MISLE report errors, and to track additional information not requested in MISLE. They indicated a variety of ways in which MISLE could be improved for use, including allowing MISLE to capture facility-specific security enhancements and weaknesses and linking MISLE data with information on security vulnerabilities captured by the maritime security risk assessment model.

[42] Coast Guard officials explained that 2004 and 2005 annual report inspection numbers included field unit input because, at the time, MISLE queries were unable to relate an inspection type with an inspection date. Field unit input was also included in the 2004 Annual Report inspection numbers because, during 2004, Annual Compliance Exams were sometimes not recorded as inspections, but rather as part of the initial Facility Security Plan review.

A second concern about the annual report compliance data is its limited scope that does not provide a complete picture of Coast Guard compliance activities or a relevant context for reviewing them. Annual compliance exams were not reported in 2006, and the number of deficiencies identified by Coast Guard oversight was not included in either the 2005 or 2006 report. Further, the total number of inspections that the Coast Guard conducted is not provided within the context of the total number of facilities regulated, and the number of spot checks is presented without the number of facilities that received the checks. As we pointed out earlier in this report, some of this information, such as the number of facilities subject to MTSA regulation, is not available in MISLE. To the degree that relevant information is not available or is difficult to extract, decision makers may not be able to see the Coast Guard's activities in full or in context.

The annual report's presentation may also under-represent the Coast Guard's actions in ensuring that facilities comply with security plans. The annual report presents enforcement actions issued, but does not report deficiencies identified. As we discussed earlier in this report, only 16 percent of deficiencies in 2006 resulted in enforcement actions. Since the Coast Guard prefers a strategy of working with facilities to improve facility compliance, rather than a punitive strategy, there are many facility deficiencies that are identified and corrected without an enforcement action, and therefore are not reported in the Annual Report. While enforcement actions generally represent the most severe instances of noncompliance, the extent of the Coast Guard's activity in identifying deficiencies is not presented.

The Coast Guard Has Taken Some Action to Improve MISLE

The Coast Guard has acknowledged improvement is needed in MISLE compliance data and has taken initial steps to reduce some of the database concerns identified during the course of our review. Coast Guard officials at all levels we spoke to said problems introduced during data entry to MISLE were a concern. As we were conducting our review, the Coast Guard took some steps to improve the data.

- In July 2007, in a message to all units about implementing the SAFE Port Act maritime facility inspection requirements, the Commandant mentioned the issue of entering data into MISLE on a timely basis. The message states, "To minimize the need for frequent data calls and to ensure an accurate picture of Coast Guard facility inspection performance, sectors must ensure that MISLE data is entered promptly and that the activity, subactivity data, and AOR (area of responsibility) are accurate." The message also details that inspection records should

indicate whether annual exams or spot checks were performed on an announced or unannounced basis.

- During a 3-day Coast Guard workshop on MTSA and the Transportation Worker Identification Card held in November 2007, MISLE data entry and performance measures were discussed, according to an after action report of the workshop. No action items were detailed that related to changes in MTSA compliance data.

These initial efforts may help to improve MISLE, but they do not address all of the concerns we identified. For example, Coast Guard area officials stated a need for more consistency in how data are entered across violations, noting that inspection dates are fine, but the violations are hard to categorize accurately, leading to the question of whether the data collected is accurate. The steps announced so far do not involve actions for resolving such inconsistencies. Further, as we pointed out, MISLE contains duplicate records, and information is not always complete. The Coast Guard's initial steps do not include solutions to such problems.

Conclusions

Since 2004, the Coast Guard has made progress in shifting the inspection program from one that emphasized putting security procedures in place to one that focuses on continued facility compliance with security procedures. Thus far, the Coast Guard's estimates the number of inspectors has been and will be sufficient to meet inspection requirements, but the multiple roles of many inspectors and the new requirements for spot checks at all facilities could affect the reliability of these estimates. Coast Guard officials currently cannot document how much of inspectors' time is spent on the facility enforcement program versus conducting other tasks. New spot check requirements may pose additional workload requirements, not only because spot checks must now be conducted of all facilities, but also because the Coast Guard's recent guidance calls for placing an inspector inside the facility rather than just driving by. Plans for adding an additional 25 staff will help meet these needs, but without considering all factors, the Coast Guard is at additional risk of inspection requirements not being met.

The Coast Guard gives considerable leeway to sectors and local units in deciding how to implement requirements, and as this report has shown, units have gone in somewhat different directions. For example, some have decided to conduct the annual compliance exam unannounced, while others announce them in advance, and some use formal enforcement actions such as written warnings or fines while others do not. The

inspection program's growing maturity heightens the importance of being able to determine what it is accomplishing and to assess alternative practices sectors have adopted to ensure facility compliance. Coast Guard headquarters, however, has not evaluated these various approaches to determine which ones produce greater results or yield greater efficiency. Finally, whether establishing that basic inspection requirements are being met, comparing the various approaches used in individual sectors, or evaluating other aspects of the facility compliance program, the Coast Guard is handicapped without complete and accurate compliance data. Coast Guard officials acknowledge these data problems, and initiated some improvements; however, efforts have not yet remedied all problems that have been identified.

Recommendations for Executive Action

To help ensure that MTSA facility-related inspection requirements are being implemented effectively, we recommend that the Secretary of Homeland Security direct the Commandant of the Coast Guard to take the following three actions:

- Reassess the adequacy of resources for facility inspections, given changing inspection guidance and the multiple duties of sector personnel.
- Assess the effectiveness of differences in program implementation by sector to identify best practices, including the use of unannounced annual compliance exams and the varying use of enforcement actions.
- Assess MISLE compliance data, including the completeness of the data, data entry, consistency, and data field problems, and make any changes needed to more effectively utilize MISLE data.

Agency Comments

We requested comments on a draft of this report from the Secretary of DHS and from the Coast Guard. The Department declined to provide official written comments to include in our report. However, in an e-mail received January 23, 2008, the DHS liaison stated that DHS concurred with our recommendations. Written technical comments were provided by the Coast Guard that were incorporated into the report as appropriate.

As we agreed with your office, unless you publicly announce the contents of this report earlier, we plan no further distribution of it until 30 days from the date of this letter. We will then send copies to others who are

interested and make copies available to others who request them. In addition, the report will be available at no charge on GAO's website at http://www.gao.gov.

If you or your staffs have any questions about this report, please contact me at (202) 512-9610 or at caldwells@gao.gov. Contact points for our Office of Congressional Relations and Public Affairs may be found on the last page of this report. Key contributors to this report are listed in appendix III.

Stephen L. Caldwell
Director, Homeland Security and Justice Issues

Appendix I: Objective, Scope, and Methodology

This report addresses the Coast Guard's implementation of the Maritime Transportation Security Act of 2002 (MTSA) facility security requirements, as amended by, among other things, the Security and Accountability For Every Port Act (SAFE Port Act). Specifically, our objectives included determining the extent to which the Coast Guard:

- has met its maritime facility inspection requirements under MTSA and the SAFE Port Act and has found facilities to be in compliance with their security plans,
- has determined the availability of trained personnel to meet current and future facility inspection requirements, and
- has assessed the effectiveness of its MTSA facility oversight program and ensured that program compliance data collected and reported are reliable.

To determine whether the Coast Guard has met its inspection requirements and has found facilities to be in compliance with their security plans, we analyzed 2004–2006 compliance activity data from the Coast Guard's Marine Information for Safety and Law Enforcement (MISLE) database. Over a period of 5 months, we requested and obtained data from MISLE to document Coast Guard compliance and enforcement activities related to MTSA facilities from July 1, 2004, the deadline for facilities to be operating under a Coast Guard-approved facility security plan, to December 31, 2006. The Coast Guard extracted three types of data and provided them as data spreadsheets, including:

- **Inspections**: Annual Compliance Exams, Security Spot Checks, and Facility Exercise Monitoring at specific MTSA facilities.
- **Deficiencies**: the number and nature of deficiencies recorded during the inspections.
- **Enforcement Actions**: sanctions and remedial actions directed by the Coast Guard for incurring deficiencies.

To assess the reliability of MISLE data, we (1) performed electronic testing for obvious errors in accuracy and completeness; (2) reviewed related documentation, such as MISLE user guides; and (3) held extensive meetings and exchanged correspondence with Coast Guard information systems officials to discuss data entry and analysis and ensure correct identification of specific data fields regarding the data. When we found

discrepancies, we brought these to the Coast Guard's attention and worked with agency officials to correct them to the extent possible before conducting our analyses. Given the discrepancies we identified, we took several steps prior to our analysis to improve the accuracy and usefulness of the data the Coast Guard supplied. These included:

- Removing 77 records from facility deficiencies that were "opened in error," which Coast Guard indicated generally were duplicate records.
- Creating a dataset linking deficiencies and enforcement actions. We performed several checks on the merged file and worked with the Coast Guard to reduce data inconsistencies.
- Creating a new "Sector" field based on Coast Guard documentation and interviews on the new sector breakdowns, and for 2006 consolidated the existing "Unit" field into the appropriate sector.

Coast Guard data analysts acknowledged that there are duplicate deficiencies and enforcement actions in MISLE and that MISLE has no automated process to accurately determine which duplicate activity to remove—the process would involve looking at individual narratives to attempt to determine which activity was a duplicate. We used the following approach to identify duplicates: when we identified activities that had the same deficiency identification number and citation, we checked 21 other data fields in MISLE for duplication. If two or more observations had the same values in all of these fields, we retained one observation, designating the others as duplicates. Using this process, we classified 32 of 7,620 total observations, or less than 1 percent of deficiencies in each year, as duplicative. We chose to keep the observations in the analyses because it was not clear which activity to delete because we lacked a more reliable means for identifying duplicates that were not identical for all fields examined, and because of the small number of observations our approach identified.

After conducting the above steps, we determined that the data were sufficiently reliable to provide a general indication of the magnitude and relative frequencies of compliance activities. The corrected data sets were used to analyze national and sector-based Coast Guard MTSA compliance activities, including inspections, deficiencies, and enforcement actions. Our report discusses MISLE data problems in more detail, along with the steps we believe are needed to address them.

To supplement our analysis of MISLE data in understanding the Coast Guard's progress on inspection requirements, we selected 7 of the Coast Guard's 35 sectors for more detailed review. We selected sectors that would provide a range of Coast Guard environments in which MTSA is being implemented, and to ensure a broad representation of types of ports, we chose sectors with ports that varied in size, varied in types of waterway (ocean, river, and lake), and geographic diversity. While results from these seven sectors cannot be generalized to all Coast Guard sectors, we determined that the selection of these sites was appropriate for our design and objectives and that the selection would provide valid and reliable evidence. In each sector, we interviewed Coast Guard inspectors responsible for oversight of MTSA facility plans, facility security officers at MTSA facilities (28 facilities overall), and other port stakeholders in each port, such as port authority personnel and facilities adjacent to MTSA facilities. Sectors we visited included Hampton Roads, Virginia; Honolulu, Hawaii; Lake Michigan, Michigan; Los Angeles/Long Beach, California; New York/New Jersey; Seattle, Washington; and Upper Mississippi River, Missouri. We conducted our visits—as well as some follow-up discussions by phone—from December 2006 through August 2007.

We also met with the Coast Guard Atlantic and Pacific area officials to discuss compliance activities, and with headquarters program and information system officials multiple times to discuss our analysis. We reviewed relevant sections of the Maritime Transportation Security Act, the SAFE Port Act, Coast Guard implementing regulations, Navigation and Vessel Inspection circulars, prior GAO reports, and MISLE documentation.

To establish whether the Coast Guard has determined the availability of trained personnel to meet current and future facility inspection requirements, we summarized data provided by the Coast Guard from its Direct Access database on the number of personnel trained to conduct MTSA inspections. Direct Access is the Coast Guard's Human Resource system, used for a variety of personnel functions. The Coast Guard provided a spreadsheet of personnel certified with one or more Maritime Security Qualifications from this database. To assess the reliability of the spreadsheet data, we looked for obvious errors and inconsistencies in the data, and requested information from Coast Guard officials to understand limitations in the data and make corrections where possible. We identified limitations in the data related to duplicate entries and certifications not yet entered into the system. Duplicate entries result, for example, because staff may be listed twice if they are employed as both a reservist and civilian Coast Guard employee, or may be listed under a sector and under a pre-sector unit. We deleted duplicate entries identified by Coast Guard to

arrive at the number of trained personnel, but we were unable to determine how many certifications had not yet been entered in the system. Given this limitation, we found the Direct Access data to be sufficiently reliable to provide only an approximate number of personnel qualified to conduct MTSA facility inspections.

The Coast Guard provided verbal information on the number of personnel currently in facility inspection positions. We conducted several interviews with relevant Coast Guard headquarters managers regarding the number of inspectors that have been trained, the allocation of staff to inspection positions, the training provided to current inspectors, and plans for future training and resources for conducting facility inspections. We also discussed current and planned guidance for conducting facility inspections with headquarters officials. In the seven sectors we visited, we met with facility inspectors to discuss facility inspector training, the adequacy of inspection resources, guidance used to conduct inspections, and other inspector responsibilities. We discussed the consistency of inspections with facility security officers in facilities located in the seven sectors. We also reviewed written Coast Guard guidance related to MTSA facility inspections, such as relevant circulars, memos, and on-line resources, and documents on planned revisions to facility oversight regulations.

To determine the extent to which the Coast Guard has assessed its MTSA facility oversight program and ensured that program compliance data is accurate, we requested the Coast Guard provide documentation of any evaluation of activities related to facility oversight and reviewed the two annual reports that the Coast Guard provided. We reviewed Office of Management and Budget documents and prior GAO reports on assessing program effectiveness. Our assessment of the accuracy of the Coast Guard compliance data was based on our reliability assessment of MISLE data we conducted as part of objective 1. We also discussed the accuracy and utility of MISLE data with facility inspectors during our site visits to seven sectors.

We conducted this performance audit from May 2006 through February 2008 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix II: Total Nationwide Facility Deficiencies for 2004, 2005, and 2006 by MTSA Regulatory Citation

This appendix summarizes GAO's analysis of deficiencies identified by Coast Guard facility inspectors nationwide from 2004–2006 based on the MTSA regulatory citation associated with each deficiency. Facility security plans are written to meet requirements established by MTSA regulations, and the deficiency documentation in the Coast Guard's compliance data includes the citation for the associated MTSA regulation.

Under a specific citation, in most cases there are a number of sub-elements. We summarized the deficiency data at the general citation level because the data collected on facility compliance did not consistently identify deficiencies at a more detailed level.[1]

The data in table 5 is presented based on the frequency the of the deficiency citation for 2006.

Table 5: Total Nationwide Facility Deficiencies for 2004-2006 by MTSA Regulation Citation

		Number of facility deficiencies for each MTSA regulation citation		
MTSA regulation citation	**Citation description**	**2004[a]**	**2005**	**2006**
33CFR105.255 Security measures for access control	Requires security measures to deter the introduction of unauthorized dangerous substances and devices, to check the identity of persons seeking entry, and to identify restricted areas, among other requirements.	696	445	458
33CFR105.225 Facility recordkeeping requirements	Requires facility records be kept for 2 years on measures such as security training, security equipment calibration, drills and exercises, and security breaches.	248	336	418
33CFR105.260 Security measures for restricted areas	Requires measures for protection of restricted areas, such as shore areas, areas with sensitive security information, and areas with dangerous cargo.	545	344	364
33CFR105.220 Drill and exercise requirements	Requires quarterly drills and annual exercises to test personnel performance of security duties and effective implementation of the facility security plan, for example, a drill of personnel responses to a security alarm, or an exercise of security plan communication procedures.	56	180	269

[1] For example, under 33 C.F.R.105.210 *Facility personnel responsible for security duties*, there are 13 specific areas that personnel are required to have knowledge, such as the ability to recognize and detect dangerous substances and crowd management and control techniques. However, a number of the narrative descriptions for this deficiency indicated a general need for security personnel training, rather than specific training needs.

MTSA regulation citation	Citation description	Number of facility deficiencies for each MTSA regulation citation		
		2004[a]	2005	2006
33CFR105.415 Facility Security Plan amendment and audit	Facility security plan amendments, such as a change in a security procedure, must be approved by the Coast Guard following certain procedures, and an annual audit of the plan must be conducted.	37	190	243
33CFR105.205 Facility Security Officer	Establishes facility security officer qualifications, such as knowledge of vessel and facility operations, and other responsibilities, such as ensuring adequate training of security personnel, and that the plan is exercised, among other things.	167	114	152
33CFR105.200 Owner or operator	Requires owner or operator to comply with facility security requirements such as to identify a facility security officer, and ensure coordination of shore leave for vessel personnel, among other things.	76	86	108
33CFR105.210 Facility personnel with security duties	Requires security personnel to have knowledge in security-related areas, such as techniques used to circumvent security procedures, emergency procedures, and relevant security plan provisions, among other things.	144	97	80
33CFR105.250 Security systems and equipment maintenance	Requires security systems and equipment to be in good working order, and be properly tested and maintained, among other things.	63	68	53
33CFR105.405 Format and general content of the Facility Security Plan	Establishes a required structure and content for the facility plan, such as the order for sections, among other things.	49	34	53
33CFR105.215 Security training for all other facility personnel	Requires certain knowledge for non-security personnel, for example, the meaning of varying maritime security levels that apply to them, and emergency procedures.[b]	94	80	48
33CFR105.245 Declaration of Security	Requires the facility owner or operator, among other things, to document security procedures for coordinating security with vessels, such as the transfer of cargo or passengers.	37	34	34
33CFR105.270 Security measures for delivery of vessel stores and bunkers	Requires that security measures are in place for the delivery of vessel stores and bunkers, such as requiring material be inspected before it is accepted.	42	17	33
33CFR105.275 Security measures for monitoring	Requires security measures be in place that allow continuous monitoring, for example of the facility and approaches to it, and monitoring vessels using the facility.	89	44	29
33CFR105.145 Maritime Security Directive	Requires that facility owner or operator must comply with instructions contained in an applicable maritime security directive issued by the Coast Guard.	42	26	25

MTSA regulation citation	Citation description	Number of facility deficiencies for each MTSA regulation citation		
		2004[a]	2005	2006
33CFR105.235 Communications	A facility security officer must have the means to effectively notify facility personnel and others, such as the police, of changes in security conditions, and effectively communicate with others, such as the police, and meet certain requirements, such as having a backup for internal and external communications.	31	35	23
33CFR105.400 Facility Security Plan, General	Requires a facility plan be developed and implemented by the facility security officer, and related requirements, such as the procedures for preventing unauthorized electronic amendment, among other things.	17	30	21
33CFR105.125 Noncompliance	Requires that the Coast Guard be notified if the facility deviates from procedures outlined in their approved security plan, and that the facility stop operations or obtain approval to continue operating.	29	15	18
33CFR105.120 Compliance documentation	After July 1, 2004, documentation of the Coast Guard-approved facility plan or alternative security plan must be available to the Coast Guard on request.	15	20	18
33CFR105.280 Security incident procedures	The owner or operator must ensure that the facility security officer and security personnel are able to respond to security breaches, and evacuate the facility, among other things.	26	10	17
33CFR105.265 Security measures for handling cargo	Requires that security measures relating to cargo handling are implemented, for example to deter tampering, and to ensure cargo is released only to the correct carrier.	67	15	13
33CFR105.295 Additional requirements—Certain Dangerous Cargo facilities	Additional requirements for facilities handling certain dangerous cargo include, for example, all security personnel must record or report their presence at key patrol points, and parking and unloading of vehicles is controlled.	27	7	7
33CFR105.140 Alternative Security Program	Sets the criteria for operating under an approved alternative security plan, for example, if it is appropriate to the facility and is adopted in its entirety.	2	1	6
33CFR105.230 Maritime Security Level coordination and implementation	Requires that a facility operate consistent with the security level established for the port overall, sets time frames for having higher security level measures in place, and identifies possible additional security measures at higher security levels.	28	8	5

MTSA regulation citation	Citation description	Number of facility deficiencies for each MTSA regulation citation		
		2004[a]	2005	2006
33CFR105.410 Facility Security Plan submission and approval	Required that facility security plans be submitted by December 31, 2003, or within 60 days before beginning operations, if operations start after the initial deadline, and outlines the steps for review and approval of the plan.	12	4	3
33CFR105.305 Facility Security Assessment requirements	Establishes information and analysis requirements for facility security assessments, such as requiring an "on-scene" survey of the facility, requiring key security information be included such as the location of evacuation routes, and that vulnerabilities be identified, among other things.	9	0	3
33CFR105.310 Facility Security Assessment submission requirements	Requires that the security assessment be submitted with the facility security plan, allows one assessment be submitted for multiple facilities, and the assessment must be approved by the Coast Guard and updated with security plan reapprovals or revisions.	6	0	2
33CFR105.105 Applicability	Sets the applicability criteria for facilities subject to MTSA regulations, for example, foreign cargo vessels over a certain weight.	2	4	2
33CFR105.290 Additional requirements—cruise ship terminals	Additional cruise ship requirements include for example, screening all persons, baggage and personal effects for dangerous substances or devices.	2	12	2
33CFR105.300 Facility Security Assessment, General	Establishes the assessment as a written document, that an assessment can cover multiple facilities, and that third parties with expertise in areas such as contingency planning can be involved in the assessment.	0	0	2
33CFR105.240 Procedures for interfacing with vessels	Requires facility owner or operator to ensure that there are measures for interfacing with vessels at all security levels.	4	4	1
33CFR105.100 Definitions	Establishes that the definitions in the general maritime security section apply to the maritime facility section as well.	0	0	1 see Note
33CFR105.110 Exemptions	Establishes the exemption criteria from maritime facility requirements, for example, some shipyard facilities are exempt.	0	2	1
33CFR105.296 Additional requirements—barge fleeting facilities	Barge fleeting facilities are also required to designate restricted areas to handle certain dangerous cargoes, and ensure that a certain number of towing vessels are available for a given number of barges, among other things.	0	1	1
33CFR105.285 Additional requirements—passenger and ferry facilities	Passenger and ferry facilities are also required to segregate unchecked persons and personal effects from checked persons, and screen unaccompanied vehicles before loading, among other things.	8	1	0

MTSA regulation citation	Citation description	Number of facility deficiencies for each MTSA regulation citation		
		2004[a]	2005	2006
33CFR105.135 Equivalents	Allows facility owner or operator to propose an equivalent security measure if it is equal or exceeds the effectiveness of the required measures.	4	0	0
33CFR105.106 Public access areas	Allows the designation of a public access area within a MTSA facility serving passenger vessels of a certain size, other than cruise ships.	0	1	0
Total		**2,674**	**2,265**	**2,513**

Source: GAO analysis of Coast Guard compliance data.

Note: Our work identified reliability issues with Coast Guard's data, such as a lack of consistency and missing information. Given these concerns, these figures are presented to provide an indication of the relative frequency that different deficiencies were identified, and not as a precise measure. As one example, the single deficiency identified under 33 C.F.R. 105.100 Definitions, was miscoded, based on the narrative for the deficiency, which indicated the "facility failed to implement proper security measures for monitoring by neglecting to have facility personnel on site at all times while a vessel was moored at the facility."

[a]Facilities were not required to have a facility security plan in place until July 1, 2004, therefore, the reporting period is from July 1, 2004, to December 31, 2004.

[b]Maritime security levels are set by the Commandant of the Coast Guard to reflect level of risk to the maritime transportation system, a higher level reflecting greater risk. Facility security plans incorporate security measures to be taken at varying maritime security levels.

Appendix III: GAO Contact and Staff Acknowledgments

GAO Contact

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Acknowledgments

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GAO Related Products

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