



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

AUG 3 2011

THE INSPECTOR GENERAL

MEMORANDUM

SUBJECT: Proposed Fiscal Year 2011 Management Challenges and Internal Control Weaknesses for the Chemical Safety and Hazard Investigation Board

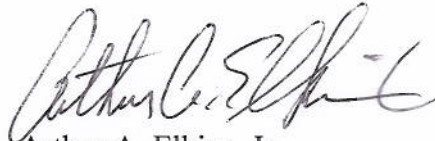
TO: The Honorable Rafael Moure-Eraso
Chairperson
Chemical Safety and Hazard Investigation Board

The Office of Inspector General (OIG) is providing its recommended fiscal year (FY) 2011 management challenges and internal control weaknesses for consideration as part of the Chemical Safety and Hazard Investigation Board (CSB) Federal Managers' Financial Integrity Act (FMFIA) review. We identified two management challenges and one internal control weakness for FY 2011 (attachment). We previously provided you a draft of this documentation, and we revised that draft based on the comments you provided.

The Government Performance and Results Modernization Act of 2010 (GPRA 2010) provides a new governmentwide definition of major management challenges. According to GPRA 2010, major management challenges are programs or management functions, within or across agencies, that have greater vulnerability to waste, fraud, abuse, and mismanagement, wherein a failure to perform well could seriously affect the ability of an agency or the federal government to achieve its mission or goals. Internal control weaknesses are deficiencies in internal control activities designed to address and meet internal control standards.

The Reports Consolidation Act of 2000 requires our office to report what we consider to be the most serious management and performance challenges facing CSB. We used audit and evaluation work, as well as additional analysis of CSB operations, to arrive at the two management challenges and one internal control weakness. Additional challenges and weaknesses may exist in areas that we have not yet reviewed, and other significant findings could result from additional work.

Office of Management and Budget (OMB) Circular A-136 requires that the performance and accountability report or annual financial report include the OIG-identified management challenges and the CSB chairperson's response in the "Other Accompanying Information" section.



Arthur A. Elkins, Jr.

Attachment

***Proposed Management Challenges and
Internal Control Weakness***

Proposed management challenges and internal control weakness	Page
Management Challenge: Clarifying CSB's Statutory Mandate	2
Management Challenge: Promulgating a Chemical Incident Reporting Regulation	4
Internal Control Weakness: Establishing Internal Controls Related to Program Operations	6

Clarifying CSB's Statutory Mandate

Created under the Clean Air Act (CAA) Amendments of 1990,¹ CSB began operating in 1998 as an independent federal government organization. CSB is governed by a board that consists of five members appointed by the President and confirmed by the Senate. One of the board members serves as the chairperson and chief executive officer. As of September 30, 2010, there were five appointed board members, including the chairperson, and a professional staff of 39.

CSB's mission is to enhance the health and safety of the public, workers, and the environment by determining the root causes of accidental chemical releases, and using these findings to promote preventive actions by the private and public sectors. CSB's investigations examine all aspects of chemical accidents, including physical causes such as equipment failures, as well as inadequacies in safety management systems that define safety culture and adherence to government regulations. The board makes safety recommendations to plants, industry organizations, labor groups, and regulatory agencies. Safety recommendations are suggestions for actions to prevent accidents based on lessons learned from each investigation or study.

The CAA Amendments direct CSB to investigate (or cause to be investigated), determine, and report to the public in writing the facts, conditions, and circumstances, and the cause or probable cause, of any accidental chemical release resulting in a fatality, serious injury, or substantial property damage. The CAA Amendments also require CSB to issue periodic reports to Congress; federal, state, and local agencies concerned with the safety of chemical production, processing, handling, and storage; and other interested persons. These reports should recommend measures to reduce the likelihood or the consequences of accidental releases, and propose corrective steps to make chemical production, processing, handling, and storage as safe and free from risk of injury as possible. CSB must also establish, by regulation, requirements that persons report accidental releases into the ambient air subject to the board's investigatory jurisdiction. The CAA Amendments further state, "In no event shall the Board forego an investigation where an accidental release causes a fatality or serious injury among the general public, or had the potential to cause substantial property damage or a number of deaths or injuries among the general public."

In 2004, the U.S. Department of Homeland Security (DHS) OIG identified an investigative gap, defined as the difference between the number of accidents the CSB investigates and the number of accidents that fall under CSB's statutory responsibility to investigate. DHS OIG recommended that CSB develop a plan to describe and address the investigative gap and include the information in future budget submissions to Congress and OMB.²

In FY 2008, the U.S. Government Accountability Office (GAO) found that CSB had not fully responded to the DHS OIG recommendations to address the investigative gap. GAO recommended that CSB develop a plan to address the investigative gap and request the necessary

¹ 42 U.S. Code (U.S.C.) Section 7412(r)(6)

² DHS OIG, *A Report on the Continuing Development of the U.S. Chemical Safety and Hazard Investigation Board*, OIG-04-04, January 7, 2004, pp. 30-31.

resources from Congress to meet its statutory mandate or seek an amendment to its statutory mandate.³

To implement GAO’s recommendation, CSB examined its existing approach to investigating serious chemical accidents and defined a new investigatory methodology to close the gap. The board’s traditional model focused exclusively on deployments to major chemical process accident sites, resulting in full investigations lasting more than 1 year. In 2010, CSB investigators began assessing smaller accidents with significant consequences and generating internal reports outlining the details of the accident. Also in 2010, the board initiated three short, focused safety bulletins and case studies on critical issues facing the chemical and petrochemical industries. Using this model, CSB is able to target high-risk industries using data collected from assessments as well as data in the incident-screening database.⁴

CSB believes it is operating according to its congressional mandate, but cites a lack of resources to investigate more than a portion of the accidents that fall within its legal jurisdiction. In FY 2010, CSB recorded 32 fatal accidents, resulting in the deaths of 38 people—either employed where the accidents took place or members of the public—for which CSB was unable to deploy investigators.⁵ In FY 2009, the total was 25 such instances that resulted in 33 deaths.⁶ CSB initiated 11 investigations in FY 2010⁷ and 8 in FY 2009.⁸

Table 1: Percent of accidents with fatalities investigated by CSB, FYs 2010 and 2009

Fiscal year	Accidents and investigations			Percent investigated
	Initiated	Not initiated	Total	
2010	11	32	43	26
2009	8	25	33	24

Sources: CSB budget justification for FYs 2011 and 2012; CSB performance and accountability reports for FYs 2009 and 2010.

GPRA 2010⁹ creates a more defined performance framework for federal agencies by defining a governance structure and by better connecting plans, programs, and performance information. As described in the Senate Committee report, the new law requires more frequent reporting and reviews (quarterly instead of annually) that are intended to increase the use of performance information in program decisionmaking. The law requires a more explicit and fact-based decisionmaking framework to implement programs that are more results oriented. Specific elements of the performance framework include strategic and performance planning, performance reporting, quarterly reporting on cross-cutting priority goals, codification of the governance framework for performance management, better training for program managers, and a timetable for action.¹⁰ Further, OMB Circular A-123 instructs agencies to design a

³ GAO, *Chemical Safety Board—Improvements in Management and Oversight Are Needed*, GAO-08-864R, August 22, 2008, p. 11.

⁴ *Final Budget Justification, Fiscal Year 2012*, February 2011, pp. 3–4.

⁵ *Ibid.*, pp. 8–10.

⁶ *CSB Budget Justification, Fiscal Year 2011*, February 2010, pp. 11–12.

⁷ *CSB Performance and Accountability Report for Fiscal Year 2010*, November 2010, p. 13.

⁸ *CSB Performance and Accountability Report for Fiscal year 2009*, November 2009, p. 12.

⁹ GPRA Modernization Act of 2010, Public Law 111-352, 124 Stat. 3866, January 4, 2011.

¹⁰ GPRA Modernization Act of 2010, Report of the Committee on Homeland Security and Governmental Affairs United States Senate to Accompany H.R. 2142, December 16, 2010.

management structure that helps ensure accountability for results as they develop and execute strategies for implementing agency programs and operations.¹¹

CSB stated that it needed to seek additional guidance from OMB and Congress before it commits to a long-term plan of action, and agreed to work with Congress to clarify its statutory mandate. In a letter dated November 5, 2009, CSB requested that Congress clarify CSB's statutory mandate as it relates to investigating chemical accidents.¹² To date, there has been no response from Congress. CSB made the following comment to the draft management challenge:

While we have not received a formal written response, our operations continue to be consistent with that letter to our authorizing committees. Specifically, we evaluate incidents using detailed selection criteria and deploy investigators to the ones that we consider the most serious, based on a detailed evaluation. As we stated to Congress, we believe this is consistent with our statute and is the best use of CSB's finite resources.¹³

After Congress clarifies CSB's statutory mandate, CSB's biggest challenge to developing outcome-oriented performance goals and measures will be getting the data needed to measure results. CSB will have difficulty establishing a direct cause-and-effect relationship between its program activities and specific changes in enhancing the health and safety of the public, workers, and environmental conditions. As CSB moves toward developing outcome goals and measures, the specific information needed to measure progress toward preventing chemical accidents will become more apparent. In some cases, CSB may need to establish outcome goals before all the chemical accident data are available, to determine what data should be collected and analyzed. CSB made the following comment to the draft management challenge:

As for our ability to develop goals, the CSB's Strategic Plan is under major redevelopment, with emphasis on outcome related goals and objectives for measuring the CSB's effectiveness. The CSB is extremely fortunate in that the individual who revised the NTSB's Strategic Plan is currently on detail with the CSB to assist us with revising our plan, and we anticipate that we will have a solid framework for measuring performance when the Strategic Plan revision is completed.¹⁴

Promulgating a Chemical Incident Reporting Regulation

CSB has not published a chemical incident reporting regulation as envisioned in the CAA Amendments. In 2008, GAO recommended that CSB publish a regulation requiring facilities to

¹¹ OMB Circular A-123, *Management's Responsibility for Internal Control*, effective beginning FY 2006.

¹² Letter from the CSB Chairperson to the Chairperson and Ranking Member of the Subcommittee on Superfund, Toxics, and Environmental Health, Committee on Environment and Public Works, United States Senate, and the Chairperson and Ranking Member of the Subcommittee on Energy and Environment, Committee on Energy and Commerce, U.S. House of Representatives, November 5, 2009.

¹³ Letter from CSB to EPA OIG commenting on the draft documents for management challenges and internal control weaknesses, July 1, 2011, p. 1.

¹⁴ *Ibid.*, p. 2.

report all chemical accidents. In 2009, CSB notified the public of a proposed reporting regulation. CSB has not yet published the regulation.

The CAA Amendments mandated that CSB establish by regulation a requirement for reporting accidental chemical releases to CSB or to the National Response Center. The CAA Amendments specifically state:

Establish by regulation requirements binding on persons for reporting accidental releases into the ambient air subject to the Board's investigatory jurisdiction. Reporting releases to the National Response Center, in lieu of the Board directly, shall satisfy such regulations. The National Response Center shall promptly notify the Board of any releases that are within the Board's jurisdiction.¹⁵

CSB understood that the purpose of the reporting regulation was to inform CSB of major incidents so that it could deploy investigators. However, in its 2008 report, GAO suggested that the reporting regulation offered additional value. GAO stated that the rule would "better inform the agency of important details about accidents that it may not receive from current sources." GAO also suggested that the information obtained through the reporting rule could improve CSB's ability to "target its resources, identify trends and patterns in chemical incidents, and prevent future similar accidents." GAO recommended that CSB "publish a regulation requiring facilities to report all chemical accidents, as required by law, to better inform the agency of important details about accidents that it may not receive from current sources." GAO believed a reporting rule would improve surveillance of chemical accidents.¹⁶

On June 25, 2009, CSB published an advance notice of proposed rulemaking (ANPR) in the Federal Register, seeking comments and information in advance of drafting a proposed regulation to implement the accidental release reporting requirement.¹⁷ In the ANPR, CSB identified some general approaches for implementing the statutory requirement:

1. A comprehensive approach would require the reporting of information on all accidental releases subject to the CSB's investigatory jurisdiction. CSB expressed concerns that this approach might be unnecessarily broad in scope, duplicative of other federal efforts, and may not be necessary for CSB to learn about most significant incidents that would justify an on-site investigation.
2. A targeted approach would require the reporting of basic information for incidents that met significant consequence thresholds. Such an approach would be consistent with that taken by several other federal agencies.
3. A third approach is a requirement for owners and operators to report to CSB more extensive information on chemical incidents in their workplaces when notified by CSB. CSB would continue to rely on existing sources learn initially about chemical incidents,

¹⁵ 42 U.S.C. Section 7412(r)(6)(c)(iii), p. 27.

¹⁶ GAO, *Chemical Safety Board - Improvements in Management and Oversight Are Needed*, GAO-08-864R, August 22, 2008, pp. 4, 11, 38, 59.

¹⁷ Federal Register/Vol. 74, No. 121/June 25, 2009/Proposed Rule, pp. 30259 - 62.

but would follow up on a subset of the incidents to gather additional information through a questionnaire or online form that the reporting party would be required by regulation to complete and submit to CSB.

4. The fourth approach is to base reporting on the presence or release of specified chemicals and specified threshold amounts. However, CSB investigations have shown that serious consequences may and do result from the release of relatively small amounts of chemicals that may not meet threshold amounts and from chemicals unlikely to be listed.¹⁸

As CSB continues its efforts to implement a chemical incident reporting regulation, CSB should consider how the regulation would coordinate with other chemical incident reporting requirements, the impact such a requirement will have on its resources, and the cost effectiveness associated with using an existing chemical incident reporting system.

CSB made the following comment to the draft management challenge:

The CSB's position has been that the need for a reporting regulation to notify CSB of major accidents has been overtaken by events. Specifically, the requirement for this regulation dates back to the 1980's, prior to internet search engines and alerts that notify the CSB in almost real time of incidents. However, because of a FY 2008 GAO recommendation the CSB agreed to publish a request for information, which took the form of an advanced notice of proposed rulemaking in FY 2009. The CSB plans to publish a proposed rule this year, but it is important to note we are pursuing this largely to comply with the statutory requirement to publish a reporting regulation rather than an expectation that this regulation will result in significantly more timely or accurate notification of incidents.¹⁹

Establishing Internal Controls Related to Program Operations

CSB has not established and implemented a management control program to evaluate and report on the effectiveness of program operation controls. OMB Circular A-123, "Management's Responsibility for Internal Control," states that internal controls "include program, operational, and administrative areas as well as accounting and financial management."²⁰ CSB should develop and implement a comprehensive internal control program encompassing systems and processes for program, operational, administrative, accounting, and financial management functions.

EPA OIG determined that CSB should develop and implement a management control plan to address prior audit recommendations and to improve the board's system of management

¹⁸ *Ibid.*, page 30262.

¹⁹ Letter from CSB to EPA OIG, July 1, 2011, *op. cit.*, p. 2.

²⁰ OMB memorandum, "Revisions to OMB Circular A-123, Management's Responsibility for Internal Control," December 24, 2004, p. 4.

controls.²¹ CSB did not take timely corrective actions to address 24 of 34 audit recommendations from three OIGs and from GAO.²² In four instances, it took CSB 4 years beyond the agreed-upon corrective actions date (or report date) to implement corrective actions. CSB's actions to address 13 recommendations were not completely effective and required additional corrective actions, and 7 recommendations are not yet completed.²³

CSB's control environment and control activities do not ensure accountability. Specifically, CSB's office directors are not accountable for achieving individual and program initiatives leading to chemical accident prevention. Effective control activities, including board orders, have not been developed and implemented. In addition, without a clearly defined statutory mandate, CSB will face difficulties in developing outcome-related goals for measuring its impact on chemical accident prevention.

Information security is an important part of program operations. EPA OIG identified control weaknesses in its FY 2010 audit of CSB's compliance with the Federal Information Security Management Act. Unsecure protocols and default configurations, as well as unpatched devices, significantly elevate CSB's risk of system and data compromise by unauthorized users, which could lead to altered or deleted critical data and degraded system performance. Without a documented and tested contingency plan completed in accordance with National Institute of Standards and Technology guidance, CSB is at increased risk that it would not be able to recover information technology capabilities should a significant incident occur. Further, the lack of a documented procedure for performing and documenting system audit log reviews increases CSB's risk that the log reviews will not be conducted in a consistent manner, which could lead to increased risk of not detecting key security violations and events.²⁴

In its FY 2010 performance and accountability report, the CSB chairperson acknowledged that FMFIA requires an annual evaluation of its management controls to identify any material weaknesses. The chairperson further acknowledged that the requirement applies to all CSB programs and administrative functions.²⁵ However, according to CSB, the assurance statement in its performance and accountability report addresses controls over CSB's financial management operations and not the organization's mission-related program operations.

For CSB's FY 2010 financial statements, the independent auditors noted no matters involving internal controls over financial reporting and its operation that they considered to be a material

²¹ EPA OIG, *Chemical Safety and Hazard Investigation Board Did Not Take Effective Corrective Actions on Prior Audit Recommendations*, Report No. 11-P-0115, February 15, 2011, p. 3.

²² In FY 2004, Congress designated EPA OIG to serve as the inspector general for CSB. As a result, EPA OIG has the responsibility to audit, evaluate, inspect, and investigate CSB's programs, and to review proposed laws and regulations to determine their potential impact on CSB's programs and operations. This includes an annual audit of CSB's financial statements. Prior to FY 2004, the inspectors general for the Federal Emergency Management Agency and the U.S. Department of Homeland Security served as the inspector general for CSB.

²³ EPA OIG, Report No. 11-P-0115, *op. cit.*, p. 4.

²⁴ EPA OIG, *Evaluation of U.S. Chemical Safety and Hazard Investigation Board's Compliance with the Federal Information Security Management Act (Fiscal Year 2010)*, Report No. 11-P-0148, March 8, 2011, p. 3.

²⁵ CSB, *U.S. Chemical Safety and Hazard Investigation Board Performance and Accountability Report, FY 2010*, November 15, 2011, p. 2.

weakness. However, the objective of the audit was not to provide an opinion on internal control, and therefore, they did not express such an opinion.²⁶

CSB made the following comment to the draft internal control weakness:

This year the CSB is developing a management control plan in accordance with OMB Circular A-123. We anticipate formal internal controls over program operations will improve accountability. . . . Development of the internal control plan will be integrated into our strategic planning process.²⁷

²⁶ EPA OIG, *Audit of U.S. Chemical Safety and Hazard Investigation Board's Fiscal Years 2010 and 2009 Financial Statements*, November 12, 2010, pp. 1 and 5.

²⁷ Letter from CSB to EPA OIG, July 1, 2011, *op. cit.*, p. 2.