

# U.S. CHEMICAL SAFETY AND HAZARD INVESTIGATION BOARD



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## BUDGET JUSTIFICATION & ANNUAL PERFORMANCE PLAN

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**Fiscal Year 2002**

**U. S. CHEMICAL SAFETY AND HAZARD INVESTIGATION BOARD**

**BUDGET JUSTIFICATION &  
ANNUAL PERFORMANCE PLAN**

**FISCAL YEAR 2002**

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## **BACKGROUND**

The U.S. Chemical Safety and Hazard Investigation Board (the Board or the CSB) is an independent, scientific investigatory agency, not a regulatory or enforcement agency. The CSB was created by the Clean Air Act Amendments of 1990. However, the Board was not funded and did not begin operations until January 1998. As the legislative history states: “The principal role of the new chemical safety board is to investigate accidents to determine the conditions and circumstances which led up to the event and to identify the cause or causes so that similar events might be prevented.”<sup>1</sup> This is a unique statutory mission. Congress explicitly recognized this fact, ensuring in law that no other agency or executive branch official may direct the activities of the Board. The Senate noted:

*The independence of the Board . . . is essential for several reasons. First, it is unlikely that an agency charged both with rule-making and investigating functions would be quick to acknowledge that existing requirements were insufficient to prevent an accident . . . . Second, the Board is intended as an organizational stimulus to an appropriate amount of regulatory activity by the Environmental Protection Agency [(EPA)] in this area . . . . A Board which did not operate independent from the [EPA] Administrator's direction would defeat the objective of stimulating regulatory action -- a stimulus created through the organizational tension built into the statutory relationship between the Board and the [Environmental Protection] Agency. [Senate Report No. 101-228 (1989), pp 229-230]*

Beyond serving as a stimulus to regulators, Congress recognized that Board investigations have the unique ability to identify serious chemical hazards that are not addressed by the Department of Labor’s Occupational Safety and Health Administration (OSHA) or the EPA:

*[T]he investigations conducted by agencies with dual responsibilities tend to focus on violations of existing rules as the cause of the accident almost to the exclusion of other contributing factors for which no enforcement or compliance actions can be taken. The purpose of an accident investigation (as authorized here) is to determine the cause or causes of an accident whether or not those causes were in violation of any current and enforceable requirement. [Ibid.]*

### **Mission Statement**

The mission of the CSB is to promote the prevention of major chemical accidents at fixed facilities.

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<sup>1</sup> Senate Rept. No. 101-228 (Page 231).

### *How the Mission is Accomplished –*

To achieve the mission, the CSB has established the following vision for the organization when it becomes fully operational:

- Produce an average of five accident investigation reports and one hazard investigation report each year.
- Have an effective recommendations program.
- Have a system of chemical accident data collection and analysis that can be used to measure prevention effectiveness.
- Have a diverse, highly trained, productive workforce committed to continuous improvement and prevention of chemical accidents.
- Have an effective Board providing strategic direction and oversight.
- Have shared commitment with key stakeholders and customers on CSB mission, vision and goals.
- Have well-established public and private partnerships.

The CSB also conducts research, advises industry and labor on actions they should take to improve safety, and makes recommendations to local, state, and federal agencies such as the EPA and OSHA, the key federal entities regulating industries that use chemicals. As set forth in our strategic plan, the target date to achieve full operational status is fiscal year 2005.

### **Operations**

#### *Governance –*

The CSB's authorizing statute provides for five Board members including a chairperson, each appointed by the President. The Board, like other similar multi-member federal agencies, is governed by majority vote. The Chairperson and Chief Executive Officer's (CEO) role is to execute the policies of the Board as a whole. As of February 2001, the CSB has three Board members with the positions of Chairperson and one Board member vacant. Significant decisions are made by majority vote. The Board members have divided the day-to-day functions of the CEO.

#### *Emphasis on Investigations and Safety -*

Beginning in January 2000, the Board has allocated its resources to emphasize investigations and safety, in a manner consistent with Congressional direction.<sup>2</sup> In

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<sup>2</sup> House Conf. Rept. No. 106-379, (Pages 124 and 125)

FY 2000 the Board issued two incident investigation reports; revised its incident selection criteria and investigation protocol; initiated a hazard investigation<sup>3</sup> on reactive chemicals; and developed a strategic hiring plan that resulted in increasing the staffing in the Office of Investigations and Safety Programs from seven in January 2000, to 16 in January 2001. In FY 2001 the CSB is prepared to launch two new incident investigations and one new hazard investigation, and plans to fill the four vacant positions in the Office of Investigations and Safety Programs. In addition, the Board is finalizing one incident investigation report and preparing two safety bulletins based on prior year investigations. The Board is also negotiating a memorandum of understanding with the National Transportation Safety Board to allow for 24-hour notification of chemical incidents and accidents.

The Board is reactive. The frequency, severity, and complexity of chemical incidents will vary from year to year. This makes planning for investigations difficult, and requires that the CSB be prepared to launch an incident investigation at any time. In addition, the investment of time required for each incident investigation and resource constraints prevent the CSB from investigating more than a small fraction of the accidents that fall within its purview. Therefore, the CSB must carefully select a modest number of incidents to investigate. The CSB prepared an incident selection procedure in FY 2000. The CSB revised the investigation selection procedure and presented it to stakeholders in July 2000. Comments from stakeholders were reviewed and the Board discussed the final draft at a public meeting in September 2000. A final procedure was adopted by the Board and is currently being applied to chemical incidents at fixed facilities. We will continue to refine the procedure as we gain further insight into the scope and characteristics of the universe of chemical incidents.

Incidents investigated by the CSB involve diverse manufacturing operations that typically use dissimilar equipment and proprietary technologies. In early FY 2000, the Board adopted an interim investigation protocol. The CSB subsequently revised the protocol and vetted draft revisions with stakeholders. The revised investigation protocol was presented at a public meeting in September 2000, and is ready for application to the next field investigation. We will continue to modify the procedures as we conduct investigations and identify items that require adjustment.

Incident and hazard investigation reports include recommendations for the prevention of future similar incidents. These recommendations improve chemical safety only if they are accepted and implemented by the appropriate public and private sector parties. To accomplish this, the CSB must have a recommendations program that: (1) identifies the appropriate parties to receive recommendations, (2) disseminates the information to them, (3) conducts ongoing advocacy activity to promote the adoption of its recommendations, and (4) evaluates the effectiveness of its recommendations. With the recent additions to the technical staff, we are now able to fully develop the recommendations program.

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<sup>3</sup> In the course of conducting incident investigations and through other surveillance functions, the CSB sometimes is alerted to the possibility of significant safety problems that are beyond the scope of any one particular investigation. As a result, the Board conducts a hazard investigation (safety study) to better understand the nature and causes of specific safety problems.

*Personnel -*

Prevention of chemical accidents requires the careful application of resources to the conduct of quality scientific investigations, formulation of sound safety recommendations, and effective advocacy in support of them. A highly productive, diverse team oriented staff is an essential resource to accomplish the mission of the agency. The CSB developed and implemented a successful hiring strategy in FY 2000, which resulted in more than doubling the technical staff. The challenge in FY 2001 and FY 2002 is to train and develop the staff so the CSB can complete its investigation reports, advocate for safety recommendations, and assess data systems regarding chemical incidents in a timelier manner.

*Strategic Plan -*

In FY 2000, the Board completed its first Strategic Plan for the agency, which outlines an ambitious but achievable set of goals for itself for Fiscal Year 2001 through Fiscal Year 2005. The Board and staff participated in a comprehensive, structured strategic planning process involving collaboration with all staff in retreats, interviews, and all hands meetings. The CSB also conducted outreach activities with its key stakeholders to solicit input and feedback from professionals working in the fields most impacted by the agency's activities. Outreach and coordination included presentations, public meetings with a broad range of stakeholders, discussions with key Congressional staff, and a Strategic Planning Stakeholder Roundtable. Based on these discussions, the CSB adopted the following two overarching goals:

- **Mission Goal** – Promote the prevention of chemical accidents.

*The CSB accomplishes this goal by:*

- Producing timely, high quality investigation reports, recommendations and other technical products;
  - Developing effective outreach and partnerships with stakeholders; and
  - Developing and implementing a system for chemical accident data collection that can be used to measure prevention effectiveness.
- **Enabling Goal** – Enhance management of CSB and establish a diverse, highly skilled, productive workforce.

*The CSB accomplishes this goal by:*

- Clearly delineating roles, responsibilities and accountabilities for Board members and staff;
- Developing and implementing administrative and personnel policies including family-friendly policies; and
- Completing organizational, information technology, and physical infrastructure.

## **BUDGET REQUEST**

The Board has put the mistakes of the past behind us. We have turned the corner and are moving in a positive direction to fulfill our mission. Now we ask the Congress to provide the resources that will enable us to succeed. As set forth in our strategic and performance plans, the goal is in sight and with the support of the Congress we will reach it.

### *Overall –*

The Board's budget request for FY 2002 is \$9 million.<sup>4</sup> This represents a 20 percent increase over its FY 2001 appropriation of \$7.5 million. Approximately \$1 million of the increase is for additional personnel costs, which are largely attributable to the CSB's successful hiring program conducted during calendar year 2000. The remaining \$443,000 of the increase is for nonpersonnel costs, such as consulting services and space rental, which are necessary to realize the Board's goals stated in our performance plan for FY 2002. The funding will allow the Board to initiate two incident investigations, and one hazard investigation. In addition, Board will be able to evaluate and revise its incident selection criteria, investigation protocol, recommendations program, and continue efforts on data systems issues. Finally, the increase will permit the Board to conduct public meetings, hire three additional staff members in its Office of Investigations and Safety Programs, and continue to develop its infrastructure.

### *Key Components –*

The key components of the Board's total budget are 57 percent for personnel (salary and benefits), 24 percent for support contracts, and 8 percent for rent. In a deliberate effort to limit the growth of its budget and to use the majority of its funds in support of its mission goal, the Board outsources most of its administrative activities. This results in streamlined internal business processes and allows the maximum number of positions to be allocated to investigations and safety programs staff. Whenever possible, the Board buys, through support contracts, specific technical expertise (e.g., performance of laboratory tests on evidence from an incident scene) in lieu of building that particular capability, thus conserving resources.

### *Constraints –*

- **Technical Training.** The Board has been successful in its hiring of technical staff. In FY 2001 and continuing in FY 2002, the Board will focus efforts on training the investigations and safety programs staff. The Board plans to develop and implement a comprehensive technical training program in FY 2001, and plans to fill a training officer position. The CSB's investigations require techniques and analyses that go beyond those generally used to conduct typical public and private sector

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<sup>4</sup> As authorized in its enabling statute, the Board, as an independent agency, is authorized to submit its own budget request directly to the Congress, simultaneously transmitting a copy to the Executive Branch.

investigations, so the CSB training program will include evidence analysis and the production of reports that identify the root and contributing causes of incidents.

- Infrastructure. The Board began operations in January 1998 as a new federal entity, without transference of staff and infrastructure from an existing federal agency. The Board originally anticipated a three-year start up period, but this underestimated the size of the task. In FY 2002, the Board will continue building its physical and organizational infrastructure, and devoting resources to develop its policies and procedures.



## **FY 2002 APPROPRIATION LANGUAGE**

### CHEMICAL SAFETY AND HAZARD INVESTIGATION BOARD Federal Funds

#### General and Special Funds

#### SALARIES AND EXPENSES

For necessary expenses of the Chemical Safety and Hazard Investigation Board in carrying out activities pursuant to section 112(r)(6) of the Clean Air Act, 42 U.S.C. § 7412, including hire of passenger vehicles and for services as authorized by 5 U.S.C. § 3109 but at rates for individuals not to exceed the per diem equivalent to the maximum rate payable for senior level positions under 5 U.S.C. § 5376, and for uniforms, or allowances therefore, as authorized by law (5 U.S.C. § 5901 - 5902), \$9,000,000 to be available until expended.<sup>5</sup>

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<sup>5</sup> For FY 2002, and subsequent years, the Board desires Congressional approval for its appropriations to be available until expended. Because of the nature of chemical incident occurrence, it is not possible to accurately forecast budget requirements for incident investigation from year to year. With the approval of Congress, making funds available until expended will permit the Board to carryover unused funds in years when large numbers of significant investigations are not conducted so that they may be used in other years when additional funding is required. This is consistent with budget authorities of other agencies, such as the National Transportation Safety Board and the Federal Emergency Management Agency, where predictions of future activities are difficult to make.

**CHEMICAL SAFETY AND HAZARD INVESTIGATION BOARD**  
**FISCAL YEAR EXPENSES**  
(in thousands of dollars)

Object Classification	FY 2000 Actual	FY 2001 Available Funding	FY 2002 Estimate
Personnel compensation & benefits	\$ 2,814	\$ 4,078	\$ 5,152
Travel and transportation of persons	88	468	437
Transportation of things	12	3	8
Space rental	383	589	762
Communications, utilities, and miscellaneous charges	152	203	177
Printing and reproduction	75	49	50
Other services <sup>1</sup>	3,027	1,864	2,125
Supplies and materials	227	217	226
Equipment	1,083	12	63
Totals	\$ 7,861	\$ 7,483	\$ 9,000

<sup>1</sup> Includes training

**ANALYSIS OF CHANGE**  
(in thousands of dollars)

**FY 2001 Appropriation ..... \$ 7,483**

**Summary of Adjustments to Base and Built-In Changes:**

*Personnel Cost Increases<sup>1</sup>*

Additional funds for the new FY 2002 FTE positions.....	322
Annualization of new FY 2001 positions and January 2001 pay increase .....	582
Estimated cost of January 2002 pay increase <sup>2</sup> .....	170
<b>Total Increase to Personnel Costs .....</b>	<b>1,074</b>

*Nonpersonnel Cost Increases*

Space Rental.....	173
Travel and transportation of persons.....	(31)
Transportation of things.....	5
Communications, utilities, and miscellaneous charges.....	(26)
Printing and reproduction .....	1
Other services: consulting \$51; incident notification \$61; chemical accident data system \$51; legal services \$7; training \$102; administrative services (\$11).....	261
Supplies and materials .....	9
Equipment: computer equipment \$50; investigation equipment \$1 .....	51
<b>Total Increase to Nonpersonnel Costs.....</b>	<b>443</b>

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**Total Adjustments to Base ..... \$ 1,517**

**FY 2002 Appropriation Request ..... \$ 9,000**

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<sup>1</sup> Benefits are calculated at 22 percent of base pay.

<sup>2</sup> FY 2002 pay raise estimated at 5.5 percent of base pay.

## EXPLANATION OF SIGNIFICANT CHANGES

**Personnel Costs:** Staffing levels will increase from 42 to 45 full-time positions to achieve the planned accomplishments for FY 2002. An increase of \$322,000 will be required to pay the compensation for the new employees. Additional funding of \$582,000 is required to annualize the compensation for employees hired in FY 2001, and to pay costs of the January 2001 pay increase. Finally, we estimate an increase of \$170,000 will be needed to fund the January 2002 pay increase.

**Space Rental:** Space rental costs will increase by \$173,000 in FY 2002. This is due to a 2 percent increase in our overall rental payment, and increased operating expenses (such as cleaning, maintenance, and heating) associated with additional office space obtained to accommodate the staff hired in FY 2001.

**Travel and Transportation of Persons:** Although travel associated with investigations will increase in FY 2002, there is a net decrease of \$31,000 due to fewer reimbursements for relocation travel expenses. In FY 2001, the CSB completed the significant hiring of staff for the Office of Investigation and Safety Programs. The majority of these individuals, including all new investigators, lived outside the Washington DC commuting area, and in accordance with our strategic hiring plan we reimbursed qualified staff for their costs to relocate.

**Communications, Utilities, and Miscellaneous Charges** The decrease of \$26,000 is mostly attributable to the Board buying furniture in FY 2001 after moving to new office space. Furniture rental costs for FY 2001 are estimated at \$30,000, and this cost will not be incurred in FY 2002.

**Other Services:** This includes an increase of \$51,000 for consultants to support incident and hazard investigation capabilities, training and guidance, and laboratory analyses on materials. The CSB will obtain notification services from the National Transportation Safety Board for a cost of \$61,000, which will allow for 24-hour coverage of chemical incident activities. The CSB will require support for design of the chemical accident data system, which is an additional cost of \$51,000. Legal services are increased by \$7,000, and training is increased by \$101,000 due to the increased staff level and the fully implemented comprehensive training program for the technical staff. Finally, administrative services will decrease by a net \$11,000, due largely to the Inspector General for the Federal Emergency Management Agency taking over responsibility for auditing our FY 2001 financial statements.

**Supplies and Materials:** Office supplies are budgeted to increase by \$9,000, due to the increased staff and associated workload in FY 2002.

**Equipment:** Computer equipment is budgeted to increase \$50,000, primarily because the servers in our local area network will need to be replaced or upgraded. In addition, investigation equipment will increase by \$1,000 to supply new investigators and to replenish the inventory.

## **PERFORMANCE PLAN**

The CSB's performance plan for FY 2002 reflects the five-year Strategic Plan that was developed during FY 2000 in consultation with stakeholders and other interested parties, and adopted by the Board members on September 29, 2000.

This performance plan explains how the Board's overarching mission and enabling goal that were identified in our strategic plan will be addressed during FY 2002. The Board's overarching goals are:

- **Mission Goal** – Promote the prevention of chemical accidents.
- **Enabling Goal** – Enhance management of CSB and establish a diverse, highly skilled, productive workforce.

Resources requested for FY 2002 will be used in support of these two overarching goals. Aside from general infrastructure expenditures, funds will be used almost entirely for technical personnel (Board staff and contractors), expenses, and support activities associated with conducting investigations.

The CSB is faced with many challenges in FY 2002. Developing the technical staff remains one of the Board's most difficult challenges. Although the CSB has filled 16 positions in the Office of Investigation and Safety Programs, there are currently 4 remaining positions to be filled. In addition, two Board seats and the position of Chairperson are vacant. As the CSB strives to carryout its primary mission of promoting the prevention of chemical accidents, the challenge of developing the technical staff directly impacts the agency's effectiveness to be as productive and efficient as possible. One of the key elements of developing the staff is training them to conduct incident investigations, which require techniques and analyses that go beyond those generally used to conduct typical public and private sector investigations.

**Mission Goal:** Promote the prevention of chemical accidents.

**Workyears and Dollars**  
(in thousands of dollars)

FY 2000 Actual		FY 2001 Available		FY 2002 Estimate	
Workyears	Dollars	Workyears	Dollars	Workyears	Dollars
17	\$5,611	27	\$6,045	33	\$7,320

The Board believes that accomplishing its mission depends on the application of state-of-the art investigative procedures, production of timely investigation reports, well-reasoned and precisely targeted recommendations, design and completion of complementary hazard investigations, and interaction with the professional and technical organizations involved in the prevention of accidental chemical releases. Investigative and research efforts need to be focused on those opportunities that will provide the greatest benefit to chemical incident prevention strategies across the broad spectrum of chemical users. The performance goals identified in support of this strategic goal will enable the Board to meet this challenge. Our processes and procedures will require ongoing evaluation and improvement to ensure that the resources provided are justified and give value to the public.

*Performance Goal #1*

Produce timely, high quality investigation reports, recommendations, and other technical reports.

**Performance Indicators**

- Two major accident investigations initiated
- At least one hazard investigation report completed and released
- Effective coordination of industry, unions, state, federal and local entities in the conduct of investigations
- Implementation of the majority of the CSB's recommendations

**Operational Processes**

To meet this performance goal, the CSB will:

- Launch 2 new investigations and one hazard investigation
- Complete 2 investigation reports
- Update Memorandum of Understandings with selected agencies
- Implement training program to develop technical staff

## **Validation**

Performance will be verified and validated by:

- Number of accident investigations initiated and reports issued
- Number of hazard investigations initiated and completed
- Data from surveys, questionnaires, and documented interviews of employees from agencies such as EPA, OSHA, and NTSB on effectiveness of coordination efforts in the conduct of each investigation
- Data on number of safety recommendations adopted
- Surveys and data analyses on the effectiveness of CSB's recommendations

### *Performance Goal #2*

Develop effective outreach and partnerships with stakeholders

#### **Performance Indicators**

- National recognition for taking steps that contribute to the prevention of chemical accidents
- Partnerships with stakeholders which promote the prevention of chemical accidents
- Wide distribution of CSB papers/publications

#### **Operational Processes**

To meet this performance goal, the CSB will:

- Continue targeted investigation/recommendation outreach strategies
- Conduct surveys and questionnaires for feedback on investigation recommendations
- Improve public communications capacity
- Implement partnership strategy with stakeholder groups
- Participate in appropriate conferences, symposiums, presentations and publications
- Issue timely safety alerts as appropriate on current investigations

## **Validation**

Performance will be verified and validated by the number of partnership plans with stakeholders on dissemination of accident prevention information and safety alert information and data from surveys and documented interviews of stakeholders on effectiveness of outreach efforts.

### *Performance Goal #3*

Implement a system for chemical accident data collection and analysis that can be used to measure prevention effectiveness

#### **Performance Indicators**

- Stakeholder consensus on key metrics, methodologies, and requirements for chemical accident data collection and analysis.

#### **Operational Processes**

To meet this performance goal, the CSB will:

- Initiate design for data system proposal

#### **Validation**

Performance will be verified and validated by:

- Design of system



**Enabling Goal:** Enhance management of CSB and establish a diverse, highly skilled, productive workforce.

**Workyears and Dollars**  
(in thousands of dollars)

FY 2000 Actual		FY 2001 Available		FY 2002 Estimate	
Workyears	Dollars	Workyears	Dollars	Workyears	Dollars
9	\$2,250	10	\$1,438	12	\$1,680

The Board believes that, if best management practices are emphasized every day throughout every activity, then a professional and efficient atmosphere will exist where other agency program goals can be accomplished. Good management practices dictate that the organization be well run, competent, technically accurate, flexible, and timely, to ultimately benefit both the employees and the taxpayers.

*Performance Goals*

- Clearly delineate roles, responsibilities and accountabilities for Board members and staff
- Develop and implement administrative and personnel policies including family friendly policies
- Complete organizational, information technology, and physical infrastructure

**Performance Indicators**

Efforts are underway in each of the performance goal areas addressed above; the key results will be the completion of each of the performance goals.

**Operational Processes**

To meet these performance goals, the CSB will:

- Incorporate new leadership & Board members
- Continue implementation of hiring plan
- Evaluate organizational structure and modify as necessary
- Update policies
- Implement training program to develop staff
- Evaluate physical and information technology infrastructure

## **Validation**

Performance will be verified and validated by:

- Total personnel on board consistent with each year's annual performance staffing plan
- Performance appraisals on a regular basis
- Board policies established in a timely manner
- Annual performance plans and performance reports submitted in a timely manner
- Training and individual development plans for all employees