



CSB U.S. Chemical Safety and
Hazard Investigation Board

SUBJECT: CSB Recommendation Program

CONTENTS

1.	Purpose.....	1
2.	Effective Date.....	1
3.	References	1
4.	Authority and Scope.....	1
5.	Responsibilities	1
6.	Definitions.....	2
7.	Recommendation Development and Evaluation Policies	2
8.	Recommendation Information, Tracking, and Statistics.....	10
9.	Recommendation Data Quality.....	10
10.	Continual Improvement.....	10
11.	Public Availability of Recommendation Information.....	10
12.	Board Interactions.....	10
13.	Survey of Completed Recommendations.....	11

1. **PURPOSE.** This Order defines the U.S. Chemical Safety and Hazard Investigation Board (Board/CSB) policies for:
 - a) The Board and staff authorities and responsibilities concerning recommendations by the CSB;
 - b) The attributes, development, issuance, follow-up, advocacy, closure, and tracking and record-keeping policies for CSB recommendations;
 - c) Agency expectations of recommendations recipients
 - d) The coordination and documentation of recommendation activities across the Agency; and,
 - e) The public availability of documents related to recommendations activity.
2. **EFFECTIVE DATE.** This Order is effective upon adoption by the Board.
3. **REFERENCES.** This Order implements the provisions of 42 USC § 7412 (r)(6).
4. **AUTHORITY AND SCOPE.**

This Order implements provisions of 42 USC § 7412(r)(6)(c)(ii) of the Clean Air Amendments of 1990, which mandates the CSB to “issue periodic reports to the Congress, Federal, State and local agencies, *including the Environmental Protection Agency and the Occupational Safety and Health Administration*, concerned with the safety of chemical production, processing, handling and storage, *and other interested persons* recommending measures to reduce the likelihood or the consequences of accidental releases and proposing corrective steps to make chemical production, processing, handling and storage as safe and free from risk of injury as is possible and may include in such reports proposed *rules or orders which should be issued by the Administrator under the authority of this section or the Secretary of Labor under the Occupational Safety and Health Act [29 U.S.C. 651 et seq.]* to prevent or minimize the consequences of any release of substances that may cause death, injury or other serious adverse effects on human health or substantial property damage as the result of an accidental release.” [emphasis added]

5. **RESPONSIBILITIES.**
 - a) The Board has the authority to issue, evaluate, assign status, and close recommendations.
 - b) Investigation Supervisors/Managers/Lead Investigators have the lead responsibility for developing draft recommendations for consideration by the Board, in collaboration with the Recommendations Department.
 - c) The Recommendations Director and Department have the lead responsibility for developing draft recommendation evaluations for consideration by the Board, in collaboration the Investigation Supervisors/Managers, as well as responsibility for recommendation follow-up, tracking and record-keeping, as described in this Board Order.

6. DEFINITIONS.

- a) **Recommendation:** A recommendation is a specific and measurable course of action directed to a specific party, based on the findings and conclusions of incident investigations, safety studies, or similar products. The objective of recommendations is to prevent the recurrence or reduce the likelihood or consequences of similar incidents or hazards in the future, to as great an extent as possible (e.g., recommendations likely to have impact at the national level, recommendations likely to reduce high risks experienced by a particular segment of industry, etc.). Recommendations shall seek preventive actions in societal, regulatory, technical, management system, organizational, and human or other factors associated with incidents or hazards.
- b) **Interim Recommendation:** A recommended course of action that is issued during an investigation, prior to the issuance of the final report.
- c) **Urgent Recommendation:** An urgent action recommendation may be developed if:
 - i) an issue is identified during the course of an investigation that is considered to be an imminent hazard and has the potential to cause serious harm unless it is rectified in a short timeframe;
 - ii) A hazard is identified that is likely to exist in a large segment of industry such that the probability of an incident is significant; or,
 - iii) Emergency temporary rule-making or standard setting is necessary due to a significant, imminent hazard.
- d) **Recommendation Response:** Communication (e.g., letter, fax, electronic correspondence, etc.) from the recipient of a recommendation or its designated representative (e.g., legal counsel), either accepting a recommendation and providing a description and/or documentation of the steps taken or planned to implement it, or refusing to implement a recommendation and providing the rationale for the refusal.
- e) **Response Evaluation:** A review by staff of a recommendation response and its supporting documentation, evaluating whether or not the recipient successfully implements the recommendation.
- f) **Recommendation Status:** A classification that describes the degree of implementation of a recommendation, proposed by staff in accordance with Section (7)(g) and assigned by a vote of the Board.

7. **RECOMMENDATION DEVELOPMENT AND EVALUATION POLICIES.**

a. **General Attributes of Recommendations**

Recommendations are a primary CSB tool for prevention of chemical incidents. Their effective development and implementation is a key objective of investigations, studies, dissemination materials and other products and activities of the CSB.

The language of the Clean Air Act Amendments of 1990 and its legislative history emphasize recommendations to OSHA and EPA, but they also permit the CSB to issue recommendations to other parties whose actions will similarly “prevent or minimize the consequences” of releases of chemicals substances.

The emphasis of CSB recommendations shall be to reduce chemical hazards in as broad a manner as possible (e.g., through recommendations that will bring about national preventive changes). National legislative, regulatory, voluntary consensus standard and industry recommended practice changes shall be the primary focus of attention of recommendations, because of their national impact and the force of implementation generally or explicitly supporting them.

In addition to federal legislative and regulatory changes, recommendations by the Board may also call for a wide range of preventive measures at the state or local levels, through new or revised voluntary consensus standards and industry guidelines, improvements in safety management systems of companies or other entities, adoption of inherently safe processes, technologies or materials, changes in equipment design, research or data collection efforts, communication of safety information, and other activities.

Recommendations may be issued to a variety of appropriate parties, including federal, state or local regulatory, executive or legislative bodies and agencies, specific firms or establishments, equipment manufacturers, trade associations, trade unions, standards development organizations, professional organizations, safety organizations, research and educational institutions, emergency response organizations and public interest groups.

b. **Recommendation Development:**

As discussed in more detail in the CSB Investigation Protocol, the Board issues recommendations based on the findings and conclusions of incident or hazard investigations, safety studies, or similar evidence. The Investigation Manager/Supervisor shall have primary responsibility for recommendations development.

Recommendations proposed to the Board should:

- i. Describe a clear rationale that links the findings of an investigation, study, or similar product with explicit conclusions that factually support the need and basis for the recommendation; and
- ii. Reflect the consensus of the Investigation and Recommendations Departments whenever possible.

c. Recommendation Issuance, Closure and Status Assignment:

Recommendations are issued, closed or assigned to a given status by vote of the Board. Both regular and urgent action recommendations may be issued before the completion of a report or a study, if the supporting findings and conclusions are sufficient to support it.

- d. Notification of Recipients of Recommendations:** Recipients are notified that a recommendation has been issued by the Board through a letter from the Chair or his/her designee. Recommendations staff will draft the letters for consideration by the Chair. The date of a recommendation for purposes of response deadlines for recipients shall be the date of signature of the letter.

A copy of the investigative report, safety study or other relevant document is provided to recommendation recipients to convey the facts and analysis that form the basis for the recommended measures. Notification letters, and, as appropriate, subsequent communications, shall convey the rationale and intent of the recommendations(s), and request sufficient evidence or documentation of implementation for staff to evaluate the recipient's actions. If recommendations cannot be fully evaluated based on correspondence and written documentation alone, staff may also meet with recipients, conduct field visits, or pursue other forms of fact-finding.

e. Agency Expectations of Recommendation Recipients

The CSB expects recommendation recipients to:

- i. Engage in discussion with CSB staff regarding the rationale, language, benefits, potential obstacles and other factors related to implementation of the proposed recommendation, both prior and subsequent to the issuance of the recommendation.
- ii. Maintain in confidence, with no disclosure to outside parties, the potential content or other aspects of a proposed recommendation, until after the recommendation has been officially approved by a Board vote.
- iii. Upon receipt of a recommendation, respond to the CSB within the timelines described in this Order, including a description and/or

- documentation of the steps taken or planned to implement the recommendation, and a written timetable for completion; or refusing to implement a recommendation and providing the rationale for the refusal.
- iv. Provide the CSB and maintain current the name, title and contact information of the person(s) who will serve as the point of contact of the CSB with the recipient's organization (e.g., name, title, physical street address, and e-mail address), or the name of a designated outside party authorized to speak on behalf of the organization regarding the recommendations, such as an outside counsel.
 - v. Keep the CSB apprised of the progress of the implementation of recommendations on a periodic basis, and advise the CSB in a timely manner concerning any unanticipated delays in implementing the recommendation that extend beyond the timetable previously agreed upon.
 - vi. Upon receipt of a recommendation from the CSB, comply with the deadlines for response described in subsequent sections of this Order.

After completing implementation of a recommendation, the CSB expects recipients to:

- i. Provide sufficient evidence or documentation of implementation of the recommendation. Such documentation may include official statements concerning actions taken, copies of relevant documents (e.g., policies, procedures, and standards, photographs of changes, copies of external audits, and others).
- ii. Clearly identify of any information deemed by the recipient to be confidential, and the rationale for this conclusion, consistent with CSB policies for confidential business information
- iii. Cooperate with the agency in surveys and similar activities that the agency may conduct following closure of recommendations, concerning continued adherence by recipients to the recommendations' objectives, shortcomings and benefits of the recommendations process, and related matters.

f. Follow-Up of Recommendations

The following sections provide general guidance for the follow-up and evaluation of recommendation responses by recipients.

- i. Recommendations staff shall monitor each recommendation on a periodic basis, at least once every 12 months, through follow-up contacts. Follow-up may entail electronic, written, phone or fax communications from staff or the Chair of the Board. On occasion,

follow-up may also entail meetings with the recipients, site visits, or participation as observers in ongoing activities (e.g., conferences, meetings, standard committee meetings, etc.).

- ii. Recommendations staff shall maintain retrievable electronic records of all recommendations (open and closed), records of pre-issuance discussions with recipients in which Recommendations staff participate, recommendation responses and related correspondence including supporting documentation, summaries or copies of communications with recipients, and recommendation evaluations acted upon by the Board. Records shall comply with CSB record retention policies.

g. Evaluation of Recommendation Responses from Recipients:

- i. Staff from the Office of Recommendations shall review recommendation recipient responses and their supporting documentation on a timely basis, with reference to the objectives of the recommendation, and:
 - 1. Request clarification and/or additional information from the recipient if necessary;
 - 2. When sufficient documentation is available, or when deadlines as defined elsewhere in this Order are exceeded, develop a written evaluation for the Board with the proposed changes of status, based on the documentation received from the recipient and other relevant information.
- ii. Draft evaluations shall be developed in consultation with the investigative managers or their designees, who shall provide technical and policy input as appropriate.
- iii. Draft evaluations shall:
 - 1. Contain a clear rationale that links the basis of the recommendation(s) as found in the investigation, study, or similar product with the conclusions that factually support the evaluation of the action(s) of the recipient(s);
 - 2. Reflect the consensus of the Investigation and Recommendations Departments whenever possible; and,
 - 3. Have been discussed with recipients prior to submission to the Board, when an “unacceptable” status is involved and the rationale is deemed by staff to be sufficiently complex to deserve more than a written communication.
- iv. Draft evaluations shall be developed within 270 days of receipt of all

necessary documentation from the recipient(s).

- v. Draft evaluations shall be reviewed by the relevant Investigation Supervisor(s)/Manager(s), and subsequently by the Managing Director, and the Chair of the Board, before being finalized by the Office of General Counsel for consideration by the Board in either a public meeting or via notation vote.
 - vi. All evaluations shall include a recommended status for the recommendation.
 - vii. Following Board action, a letter from the CSB Chair or his/her designee shall be sent to the recommendation recipient. The letter will describe the change of status, summarize the rationale for it, and request any additional information or documentation the Board needs for future decisions.
- h. **Recommendation Status:** Following evaluation of recommendation responses, recommendations may be assigned to any one of the following categories:
- i. Open - Awaiting Response or Evaluation/Approval of Response (O - ARE/AR): The recipient has not submitted a substantive response, or the evaluation by CSB staff of a response is pending, or the Board has not yet acted on staff recommendation of status.
 - ii. Open – Acceptable Response or Alternate Response: Response by recipient indicates a planned action that would satisfy the objective of the recommendation when implemented, including a written timetable for completion.
 - iii. Open – Unacceptable Response/No Response Received:
 - 1. A response to the recommendation has not been received within 270 days of the issuance of the recommendation, and the Board concludes that further dialogue and advocacy may persuade the recipient to act.
 - 2. Recipient responds by expressing disagreement with the need outlined in the recommendation or attempts to convince the Board (unsuccessfully) that an alternative course of action is acceptable. The Board concludes, however, that there is enough evidence that further dialogue or advocacy may persuade the recipient to implement it. The communication with the recipient will make it clear that the basis for the recommendations remains valid and that the Board may revise the status classification if the

recipient subsequently takes action to implement it and provides the CSB with adequate evidence. In addition, the recipient will be advised that, in the absence of any effort to implement the recommendation, the status will be changed to “Closed—Unacceptable Action” if the recipient fails to meet the deadlines described in Section H below.

- iv. Closed – Acceptable Action: The recipient has successfully completed action on the recommendation. The action taken was as specified by the Board in the original recommendation.
- v. Closed – Acceptable Alternative Action: The recipient has successfully completed action on the recommendation. The action taken was approved by the Board as an acceptable alternative to the original recommendation language that meets the objectives envisioned by the Board.
- vi. Closed – Exceeds Recommended Action: Action on the recommendation meets *and* surpasses the objectives envisioned by the Board, in a manner that enhances the extent of reduction of future risk.
- vii. Closed – Unacceptable Action/No Response Received:
 - 1. A response to the recommendation has not been received within 270 days of the issuance of the recommendation, and the Board concludes that further dialogue or advocacy will not persuade the recipient(s) to act, or
 - 2. Recipient responds by expressing disagreement with the need outlined in the recommendation, and the Board does not consider that any alternative action can persuade the recipient to implement the recommendation, or
 - 3. A recipient expresses disagreement with the recommendation and offers an alternative response, but the Board concludes that the recipient has not provided sufficient evidence that the alternative is acceptable or that the recommendation should be reconsidered, and that further actions are unlikely to change the recipient’s views. This status does not modify the validity of the original recommendation, but the Board may modify it upon receipt of evidence of successful implementation of the recommendation by the recipient in the future, or
 - 4. A recommendation was initially classified as “Open-Unacceptable Response,” but the Board no longer considers it possible that further dialogue or other actions will persuade the recipient to implement the recommendation, or the time deadlines under Section H below have been exceeded.

- viii. Closed – No Longer Applicable: Due to subsequent events, the recommended action no longer applies (e.g., the facility was destroyed and not rebuilt, or the company went out of business).
- ix. Closed – Reconsidered/Superseded: Recipient rejects the recommendation based on a rationale with which the Board concurs. Reasons for this status may include, for example, situations when later facts indicate that the conclusions of the Board should be modified, that concerns expressed in the recommendation were addressed prior to the incident, when a recommendation should have been directed to a different recipient, or when a recommendation is superseded by a new, more appropriate recommendation.

i. Deadlines for Recommendations (Non-urgent)

- i. If no response is received within 90 calendar days of issuance of a recommendation, CSB staff will send a re-emphasis letter to the recipient urging a report on actions considered or taken and supporting documentation.
- ii. If no response is received within 270 calendar days of issuance, the staff will propose to the Board that the recommendation be classified as “Open – Unacceptable Action/No Response Received.”
- iii. At the end of 3 years of assignment of “Open—Unacceptable Response,” if the recipient has not completed satisfactory action, CSB staff will review the recommendation and associated action. If the ongoing action is making progress towards the objectives of the recommendation, or there are compelling reasons for going beyond three years for implementation, the recommendation will remain in an “Open” status. If it is determined that the action could have been completed in three years or less, CSB staff will propose that the Board to classify the recommendation as “Closed – Unacceptable Action.” If the Board agrees, the recipient will receive a letter signed by the Chair noting that the new status is being assigned due to a lack of timeliness of implementation. The letter will also make clear that “Closed – Unacceptable Action” status *does not mean* that the recommendation’s original intent is invalid. The letter will also state that the Board may change the status upon receipt of evidence of successful implementation from the recipient.
- iv. Final action on recommendations that did not require urgent attention should generally be completed as soon as possible, but no later than 3 to 5 years after issuance of the recommendation. If the action is not

completed within five years from the issue date of the recommendation, staff will carefully review the record and determine whether further time should be allowed. If staff determines that the action could have been completed within the 5-year period, CSB staff will recommend that the Board classify the recommendation as “Closed – Unacceptable Action.” Recommendations will remain open past five years past the date of issuance in rare instances and only under justifiable circumstances, as approved by the Board. For example, regulatory recommendations to OSHA, EPA and other federal, state, or local agencies, or recommendations to legislative bodies, may require more than five years for completion. In such cases, it will be necessary to document that the regulatory or legislative process is progressing.

j. Urgent Action Recommendations

i. Issuance, Follow-Up and Deadlines for Urgent Action Recommendations:

1. Urgent Action Recommendations may be issued in advance of the completion of an investigation report, hazard study, or similar activity, as soon as findings exist to support it.
2. Urgent Action Recommendation notification letters will request a response within 30 days of issuance of the recommendation. If no response is received within 30 calendar days of issuance, CSB staff will contact the recipient asking for a written response.
3. If no response is received within 90 calendar days of issuance of an Urgent Action Recommendation, the Chair of the Board shall send the recipient a letter re-emphasizing the need for prompt action.
4. If an Urgent Action Recommendations has not been satisfactorily implemented within 6 months of issuance, implementation progress is inadequate, or completion does not appear imminent, the recommendation shall be re-classified as an “Open – Unacceptable Response.” The Chair of the CSB will write the recipient with this information, summarizing the rationale for the Board’s decision and urging expedited action.
5. Because urgent recommendations involving federal or other regulatory actions legislative actions, or development or review of voluntary consensus standards are often likely to require longer than six months for full implementation, the CSB may

extend this deadline by vote of the Board. The CSB may request interim action to mitigate the hazard (e.g., warnings to affected parties, increased enforcement) while appropriate regulations or standards are promulgated by the recipient agency or other entity.

6. If at any point after issuance of an Urgent Action Recommendation the Board concludes that the recommendation no longer requires immediate action, the Board may remove that classification, and routine follow-up shall continue as described in Section F above.

8. RECOMMENDATION INFORMATION, TRACKING AND STATISTICS

Recommendations staff will maintain an electronic database of:

- a. Correspondence and other records (e.g., notes of phone conversations) of exchanges with recommendation recipients;
- b. Copies of documentation submitted by recommendation recipients;
- c. Copies of recommendation evaluations, and their supporting evidence;
- d. Summary statistics describing performance in recommendation follow-up and closure; and,
- e. Other relevant records related to the follow-up, advocacy, evaluation and closure of recommendations.

Stored recommendation information shall comply with existing CSB record retention policies.

9. RECOMMENDATION DATA QUALITY

- a. The Recommendations Department will conduct a yearly Follow-Up Quality Audit to ascertain issues such as on-time follow-up, conformance with timelines, completeness and accuracy of electronic records and similar data.
- b. A written report of the Follow-Up Quality Audit shall be provided to the Board, the Managing Director and Investigation Supervisors/Managers.

10. CONTINUAL IMPROVEMENT

The Director of Recommendations will periodically analyze follow-up activities, data quality, effectiveness of closure and related factors to identify and implement improvement in the recommendations processes.

11. PUBLIC AVAILABILITY OF RECOMMENDATION INFORMATION

- a. Recommendations issued by the Board, and descriptive statistics about the status of all CSB recommendations (e.g., number issued, percentage closed, etc.) shall be made available on the CSB website, as well as through published reports and other means, as appropriate.
- b. Final Board-approved status change summaries shall be made publicly available.

12. BOARD INTERACTIONS

- a. In the event that a Board member questions an evaluation during a voting period, the Recommendations department will develop a written response that includes the question(s) and answer(s). The clarifications by staff shall be made available to all Board members before the voting period closes, whenever possible. A copy of the question and answer shall be placed in the records database along with the Board vote. In the case of a recommendations evaluation considered during a public meeting, the Board vote may be deferred until the Recommendations department provides answers to Board questions.
- b. Periodic Reports to Board – Recommendations staff will present periodic reports to the Board, the Managing Director and Investigation Managers/Supervisors to summarize the status of current recommendation activities, including progress in closing recommendations as well as steps planned or recommended to encourage implementation by recipients.

13. SURVEY OF COMPLETED RECOMMENDATIONS

The CSB will periodically conduct a survey of major closed recommendations to track the continued adherence by recipients of the recommendations' objectives. The survey will:

- a. Be conducted every five years (the first survey was completed in FY 2010);
- b. Focus on a sample of major recommendations, defined as those with a clear potential to reduce risks for issues of national importance;
- c. Ascertain by questionnaire, site visits, and other relevant sources of information the extent to which recipients are adhering to CSB

- recommendations;
- d. Be used by the CSB to explore measures to improve adherence to recommendations as appropriate; and,
 - e. Be made available to the public via the CSB website.

U.S. CHEMICAL SAFETY AND HAZARD INVESTIGATION BOARD

Adopted December 20, 2001; Amended April 29, 2014; Amended January 28, 2015