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Managing the Accident Investigation

The accident investigation is a complex project that involves a significant workload, time constraints, sensitive issues, cooperation between team members, and dependence on others. To finish the investigation within the time frame required, the board chairperson must exercise good project management skills and promote teamwork. The chairperson's initial decisions and actions will influence the tone, tempo, and degree of difficulty associated with the entire investigation. This section provides the board chairperson with techniques and tools for planning, managing, and controlling the investigation.

5.1 Project Planning

Project planning must occur early in the investigation. The chairperson should begin developing a plan for the investigation immediately after his/her appointment. The plan should include a preliminary report outline, specific task assignments, and a schedule for completing the investigation. It should also address the resources, logistical requirements, and protocols that will be needed to conduct the investigation.

The chairperson's initial planning activities are shown in the Accident Investigation Startup Activities List, provided at the end of this section. The chairperson and administrative coordinator can use this list to organize the initial investigative activities.

5.1.1 Collecting Initial Site Information

Following appointment, the chairperson is responsible for contacting the site to obtain as many details on the accident as possible. The field or program office point of contact or the site readiness team leader is usually designated as the liaison with the board. The chairperson needs the details of the accident to determine what resources, board member expertise, and technical specialists will be required. Furthermore, the chairperson should request background information, including site history, site maps, and organization charts. The Accident Investigation Information Request Form (provided at the end of this section) can be used to document and track these and other information requests throughout the investigation.

5.1.2 Determining Task Assignments

A useful strategy for determining and allocating tasks is to develop an outline of the accident investigation report, including content and format, and use it to establish tasks for each board member. This outline helps to organize the investigation around important tasks and facilitates getting the report writing started as early as possible in the investigation process. Board members, advisors, and consultants are given specific assignments and responsibilities based on their expertise in areas such as management systems, work planning and control, occupational safety and health, training, and

any other technical areas directly related to the accident. These assignments include specific tasks related to gathering and analyzing facts, conducting interviews, determining causal factors, developing conclusions and judgments of need, and report writing. Assigning designated board members specific responsibilities ensures consistency during the investigation.

5.1.3 Preparing a Schedule

The chairperson also prepares a detailed schedule using the generic four-week accident investigation cycle and any specific

direction from the appointing official. The chairperson should establish significant milestones, working back from the appointing official's designated completion date. Table 5-1 shows a list of typical activities to schedule.

The schedule developed by the board chairperson should include the activities to be conducted and milestones for their completion. A sample schedule is included as Figure 5-1. The Accident Investigation Day Planner: A Guide for Accident Investigation Board Chairpersons, available from the Program Manager, can assist in the development of this schedule.

Table 5-1. These activities should be included on an accident investigation schedule.

Interviews/Evidence Collection and Preliminary Analysis
Obtain needed site and facility background information, policies, procedures, and training records
Assign investigation tasks and writing responsibilities
Initiate and complete first draft of accident chronology and facts
Select analytical methods (preliminary)
Complete interviews
Complete first analyses of facts using selected analytical tools; determine whether additional tools are necessary
Obtain necessary photographs and complete illustrations for report
Internal Review Drafts
Complete first draft of report elements, up to and including facts and analysis section
Complete development and draft of direct, contributing, and root causes
Complete development and draft of judgments of need
Complete first draft of report for internal review
Complete draft analyses
Complete second draft of report for internal review
External Review Drafts
Complete Classification/Privacy Act reviews
Conduct factual accuracy review and revise report based on input
Complete report review by Office of Oversight
Complete final draft of report
Prepare outbrief materials
Brief relevant site and field office managers on findings
Leave site
Complete final production of report

5.1.4 Acquiring Resources

From the first day, the chairperson and administrative coordinator begin acquiring resources for the investigation. This includes securing office space, a dedicated conference room or “command center,” office supplies, computers (available through the Program Manager for Type A investigations), a secured area for document storage, tools, and personal protective equipment, if necessary. The site’s accident readiness function should provide many of these resources. The Accident Investigation Equipment Checklist (see Section 2) is designed to help identify resource needs and track resource status. The Program Manager retains an investigation “go kit” (see Section 2) containing many of these resources for Type A investigations.

In addition, the board chairperson assures that contracting mechanisms exist and that funding is available for the advisors and consultants required to support the investigation. These activities are coordinated with the Program Manager.

5.1.5 Addressing Potential Conflicts of Interest

The board chairperson is responsible for resolving potential conflicts of interest regarding board members, advisors, and consultants. Each board member, advisor, and consultant should certify that he or she has no conflicts of interest by signing the *Individual Conflict of Interest Certification Form* (provided at the end of this section). If the chairperson or any individual has concern about the potential for or appearance of conflicts of interest, the chairperson should inform the Program Manager and seek legal counsel input, if necessary. The decision to allow the individual to participate in the investigation, and any restrictions on his or her participation, shall be documented in a

memorandum signed by the board chairperson with written concurrence from the Program Manager. If the chairperson relies on the advice of legal counsel, the chairperson shall seek appropriate legal counsel concurrence through the Program Manager. The memorandum will become part of the board’s permanent record.

5.1.6 Establishing Information Access and Release Protocols

Information access and other control protocols maintain the integrity of the investigation and preserve the privacy and confidentiality of interviewees and other parties. The Freedom of Information Act (FOIA) and Privacy Act apply to information generated or obtained during a DOE accident investigation. These two laws dictate access to and release of government records.

TIP

When in doubt about releasing or protecting information under the Freedom of Information Act or Privacy Act, consult with a specialist at the field office or Headquarters.

The FOIA provides access to Federal agency records except those protected from release by exemptions. Anyone can use the FOIA to request access to government records. Therefore, the board must ensure that the information it generates is accurate, relevant, complete, and up-to-date. For this reason, court reporters should be used to record interviews, and interviewees should be allowed to review and correct transcripts.

The Privacy Act protects government records on citizens and lawfully admitted permanent residents from release without the prior written consent of the individual to whom the records pertain.

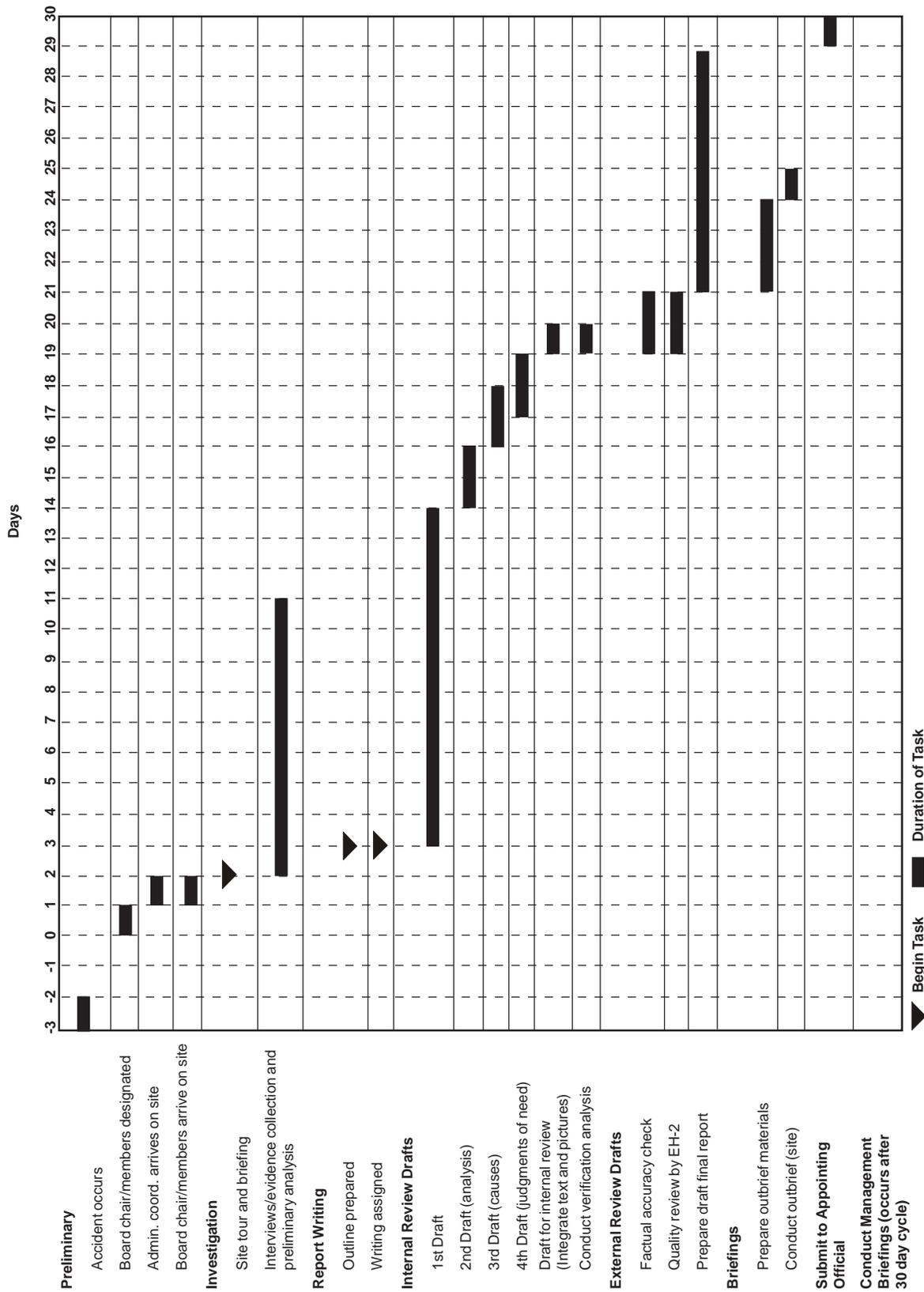


Figure 5-1. A typical schedule of accident investigation activities covers 30 days.

Specifically, the board is responsible for:

- Informing interviewees why information about them is being collected and how it will be used
- Ensuring that information subject to the Privacy Act is not disclosed without the consent of the individual, except under the conditions prescribed by law. Information that can normally be disclosed includes name, present and past positions or “grade” (e.g., GS-13), annual salaries, duty station, and position description. Therefore, the board should not request this information unless it is relevant to the investigation.

A sample statement that addresses the provisions of both the FOIA and the Privacy Act and their pertinence to interviews for DOE accident investigations is provided at the end of Section 6. This statement should be read at the beginning of all interviews.

The chairperson should obtain guidance from a legal advisor or the FOIA/Privacy Act contact person at the site, field office, or Headquarters regarding questions of disclosure, or the applicability of the FOIA or Privacy Act.

The chairperson also is responsible for establishing other protocols relating to information access and release. These protocol concerns are listed in Table 5-2.

Table 5-2. The chairperson establishes protocols for controlling information.

Protocol	Considerations
Information Security	Keep all investigative evidence and documents locked in a secure area accessible only to board members, advisors, and support staff.
Press Releases	<ul style="list-style-type: none"> ■ Determine whether there is a DOE-designated contact to handle press releases; if so, work with that person. ■ The board is not obligated to release any information. However, previous chairpersons have found that issuing an early press release can be helpful. ■ The initial press release usually contains a general description of the accident and the purpose of the investigation. ■ The board chairperson should review and approve all press releases.
Lines of Communication	Establish liaison with field element management and with the operating contractor at the site, facility, or area involved in the accident to set up clear lines of communication and responsibility.
Format of Information Releases	<ul style="list-style-type: none"> ■ Determine the amount and format of information to be released to the site contractor(s), union advisor, and local DOE office for internal purposes. ■ Never release verbatim interview transcripts or tapes due to the sensitivity of raw information. ■ Do not release preliminary results of analyses. These results can be taken out of context and lead to premature conclusions by the site and the media. ■ Consult with the appointing official before releasing any information.
Approvals for Information Releases	Assure that board members, site contractors, and the local DOE office do not disseminate information concerning the board's activities, findings, or products before obtaining the chairperson's approval. Brief the board on what they can reveal to others.

5.2 Managing the Investigation Process

As an investigation proceeds, the chairperson uses a variety of management techniques, including guiding and directing, monitoring performance, providing feedback on performance, and making decisions and changes required to meet the investigation's objectives and schedule. Because these activities are crucial, the chairperson may designate an individual to oversee management activities in case the chairperson is not always immediately available.

5.2.1 Taking Control of the Accident Scene

Before arriving at the site, the chairperson communicates with the point of contact or the appropriate site readiness designee to assure that the scene and evidence are properly secured, preserved, and documented and that preliminary witness information has been gathered. At the accident scene, the chairperson should:

- Obtain briefings from all persons involved in managing the accident response
- Obtain all information and evidence gathered by the site readiness team
- Make a decision about how secure the accident scene must remain during the initial phases of the investigation. *If there are any concerns about loss or contamination of evidence, play it safe and keep the scene restricted from use.*
- Assume responsibility only for activities directly related to the accident and investigation. The chairperson and board members should not take responsibility for approving site

activities or procedures, or for recovery, rehabilitation, or mitigation activities. These functions are the responsibility of line management.

5.2.2 Initial Meeting of the Investigation Board

The chairperson is responsible for ensuring that all board members work as a team and share a common approach to the investigation. As one of the board's first onsite activities, the chairperson typically holds a meeting to provide all board members, advisors, consultants, and support staff with an opportunity to introduce themselves and to give the chairperson an opportunity to brief the board members on:

- The scope of the investigation, including all levels of the organizations involved up to and beyond the level of the appointing official
- An overview of the accident investigation process, with emphasis on:
 - Streamlined process and limited time frame to conduct the investigation (if applicable)
 - The schedule and plan for completing the investigation
 - The need to apply the components of DOE's integrated safety management system during the investigation as the means of evaluating management systems
 - Report-writing process.
- Potential analytical and testing techniques to be used
- The roles, responsibilities, and assignments for the chairperson, the board members, and other participants
- Information control and release protocols

- Administrative processes and logistics.

At the meeting, the chairperson clearly communicates expectations and provides direction and guidance for the investigation. In addition, at the meeting the chairperson should distribute copies of local phone directories and a list of phone and fax numbers for pertinent individuals at DOE Headquarters. The board should also be briefed on procedures for:

- Handling potential conflicts of interest resulting from using contractor-provided support and obtaining support from other sources
- Storing investigative materials in a secured location and disposing of unneeded yet sensitive materials
- Using logbooks, inventory, checkout lists, or other methods to maintain control and accountability of physical evidence, documents, photographs, and other material pertinent to the investigation
- Recording and tracking incoming and outgoing correspondence
- Accessing the board's work area after hours.

5.2.3 Promoting Teamwork

The board must work together as a team to finish the investigation within the time frame established by the appointing official. To make this happen, the board chairperson should ensure that strong-willed personalities do not dominate and influence the objectivity of the investigation and that all viewpoints are heard and analyzed.

The chairperson must capitalize on the synergy of the team's collective skills and talents (i.e., the team is likely to make better

decisions and provide a higher quality investigation than the same group working individually), while allowing individual actions and decisions. It is important that the chairperson set the ground rules and provide guidance to the board members and other participants in:

- **Member relationships:** Friendship is not required, but poor relationships can impede the board's ability to conduct a high-quality investigation. The chairperson can encourage positive relationships by focusing attention on each member's strengths and downplaying weaknesses. The chairperson can facilitate this by arranging time to allow team members to get to know one another and learn about each other's credentials, strengths, and preferences. Effective interpersonal relationships can save time and promote high-quality performance.
- **Communication processes:** It is the chairperson's responsibility to make sure that all members get a chance to speak and that no one member dominates conversations. The chairperson should establish communication guidelines and serve as an effective role model in terms of the following:
 - Be clear and concise; minimize the tendency to think out loud or tell "war stories"
 - Be direct and make your perspective clear
 - Use active listening techniques, such as focusing attention on the speaker, paraphrasing, questioning, and refraining from interrupting
 - Pay attention to non-verbal messages and attempt to verbalize what you observe

- Attempt to understand each speaker's perspective
 - Seek information and opinions from others, especially the less talkative members
 - Postpone evaluation until all ideas and arguments have been heard
 - Encourage diverse ideas and opinions
 - Suggest ideas, approaches, and compromises
 - Help keep discussions on track when they start to wander.
- **Decision processes:** The chairperson should gain agreement in advance regarding how particular decisions will be made. Decisions can be made by consensus, by vote, by the chairperson, or by an expert. Each method has strengths and weaknesses, and the method used should be the one that makes the most sense for the particular decision and situation. Team members should be aware of which method will be used.
- **Roles and responsibilities:** Team members should clearly understand both the formal and informal roles and responsibilities of each board member, consultant, and support person. Clarifying these roles helps avoid duplication of effort and omission of critical tasks, and reduces power struggles and other conflicts. Board chairpersons should avoid the temptation to reassign tasks when team members encounter problems.
- **Group processes:** For an effective investigation, group processes must be efficient. Time and energy may be needed to develop these processes. The

chairperson should pay attention to and note processes that seem to work well, and ask the group to suggest alternatives to processes that are unsatisfactory.

TIP

Teams are more effective than individuals, because team members have a clear purpose, capitalize on each other's strengths, coordinate their efforts, and help each other. Teamwork promotes a higher quality investigation.

To control team dynamics, the chairperson needs to be aware that groups go through predictable stages as they progress from meeting one another to becoming a high-performance team:

- **Forming:** At this stage, team members get acquainted, understand their purposes, and define their roles and responsibilities. Members are typically very polite at this stage, and conflict is rare. Little work is accomplished during this stage, as the team is still in the planning phase. The chairperson can speed this stage by formally organizing the group; by defining goals, roles, and responsibilities; and by encouraging members to become comfortable with one another.
- **Storming:** Team members begin to realize the sheer amount of work to be done and may get into conflict regarding roles, planned tasks, and processes for accomplishing the work. There may be power struggles. The team focuses energy on redefining work processes. The chairperson can speed this phase by encouraging open discussion of methods and responsibilities and promoting non-defensive, solution-focused communication.

- **Norming:** The team develops norms about roles, planned tasks, and processes for working together. Power issues are settled. Team members start to become productive and assist one another. The chairperson can speed this stage by formalizing new norms, methods, and responsibilities and by encouraging relationship development.
- **Performing:** The team settles into clear roles, understands the strengths of different members, and begins to work together effectively. The chairperson can help maintain this stage by encouraging open communication, a “learning from mistakes” philosophy, and recognizing progress.

TIP

Understanding the four typical stages of team development can help the chairperson manage team interactions and promote team processes throughout the accident investigation.

The chairperson sets the stage for effective teamwork at the very first board meeting. At this meeting, the chairperson should encourage the team to define their goals and tasks, clarify their roles and responsibilities, agree on team processes, and become acquainted with each other’s strengths.

TIP

Many board members may have never worked on an effective team. The chairperson needs to focus on effective team activities, because the members may not immediately see the value of teamwork or may be caught up in their own tasks to the exclusion of the team.

5.2.4 Managing Information Collection

Upon arrival at the accident site, the board begins to collect evidence and facts and to conduct interviews. Table 5-3 provides guidelines to assist the chairperson in monitoring this process.

5.2.5 Coordinating Internal and External Communication

The board chairperson is responsible for coordinating communication both internally (with the appointing official, board members, advisors, consultants, and support staff) and externally (relevant DOE Headquarters managers, local DOE field office site managers, site contractor[s], the media and the public).

Maintaining effective communications includes:

- Conducting daily board meetings to:
 - Review and share the latest information and evidence
 - Discuss how new information may contribute to analyses
 - Review latest analytical findings and potential causal factors and discuss how new information may affect these analyses
 - Note information gaps and prioritize directions to pursue
 - Serve as a checkpoint to ensure that board members are completing their tasks, acting within scope, and not pursuing factual leads of limited potential value.

- Obtaining regular verbal or written progress reports from board members and identifying solutions to potential problems
- Using a centralized, visible location for posting assignments and progress reports to keep everyone informed and up-to-date
- Conducting meetings with site managers and contractor(s) to exchange information and to summarize investigation status
- Conducting weekly conference calls with managers from Headquarters, the local field office, and contractors; calling the appointing official on a pre-determined basis; and providing written status reports to the appointing official
- For Type A investigations, providing daily status updates to the Deputy Assistant Secretary for Oversight
- Coordinating external communications with the public and media through the field office public relations/media representative to ensure that the Department's interests are not compromised

Table 5-3. The chairperson should use these guidelines in managing information collection activities.

■ Review and organize witness statements, facts, and background information provided by the site readiness team or other sources and distribute these to the board.
■ Organize a board walk-through of the accident scene, depicting events according to the best understanding of the accident chronology available at the time. This can help the board visualize the events of the accident.
■ Assign an administrative coordinator to oversee the organization, filing, and security of collected facts and evidence.
■ Develop draft of objectives and topical areas to be covered in initial interviews and oversee development of a standardized list of initial interview questions to save interviewing time and promote effective and efficient interviews.
■ If deemed appropriate, issue a site or public announcement soliciting information concerning the accident.
■ Ensure that witnesses are identified and interviews scheduled.
■ Ensure that board members preserve and document all evidence from the accident scene.
■ Make sure all board members enlist the aid of technical experts when making decisions about handling or altering physical evidence.
■ Establish a protocol agreeable to the board for analyzing and testing physical evidence.
■ Identify and initiate any necessary physical tests to be conducted on evidence.
■ Assess and reassess the need for documents, including medical records, training records, policies, and procedures, and direct their collection. Use the <i>Accident Investigation Information Request Form</i> provided at the end of the section to document and track information requests.
■ Emphasize to board members that to complete the investigation on schedule, they must prioritize and may not have time to pursue every factual lead of medium to low significance. The board chairperson must emphasize pursuits that will lead to the development of causal factors and judgments of need.

- Ensuring that in both internal and external communications (press conferences, briefings), the facts presented are sufficiently developed and validated, and that no speculation, hypotheses, or conjecture is expressed; consulting with the appointing official prior to disseminating any information about the investigation
- Notifying DOE and appropriate Federal, state, or local authorities of unlawful activities, or in the case of fraud, waste, or abuse, the DOE Office of the Inspector General
- Notifying the Director, Office of Enforcement and Investigation (EH-10), the DOE Site Manager, and the contractor of any potential Price-Anderson enforcement concerns identified during the investigation as soon as practical (Table 5-4 provides additional detail)
- Coordinating board activities with all organizations having an interest in the accident (e.g., agencies notified by the appointing official or the Deputy Assistant Secretary for Oversight under DOE Order 225.1A, Paragraph 4.b.).

TIP

Meetings that maximize efficiency have a set length of time and follow a planned, well-focused agenda.

5.2.6 Managing the Analysis

The chairperson is responsible for ensuring that events and causal factors charting and application of the core analytical techniques begin as soon as initial facts are available. This will help to identify information gaps early, drive the fact collection process, and identify questions for interviews. The use of

Table 5-4. The Price-Anderson Amendments Act of 1988.

The Price-Anderson Amendments Act of 1988 provides indemnification (government acts as an insurer against findings of liability from nuclear activities of contractors acting within the scope of their contracts) to DOE contractors who manage and operate nuclear facilities for DOE. The Act subjects DOE indemnified contractors, subcontractors, and suppliers to potential civil and criminal penalties for violations of DOE rules, regulations, and orders relating to nuclear safety requirements. DOE's enforcement procedural rules and policy are published in 10 CFR Part 820.

Some examples of nuclear safety noncompliances that should be reported as potential enforcement items are:

- Any single, unplanned occupational exposure to an individual that exceeds 100 millirem Total Effective Dose Equivalent
- Any single occurrence of personal contamination of clothing (excluding personal protective clothing) that is greater than 100 times the levels specified in 10 CFR Part 835, Appendix D
- An aggregate of related nuclear safety noncompliances indicative of a programmatic breakdown
- A number of nuclear safety-related noncompliances with common root causes occurring at the same site
- Intentional violations involving the failure to perform activities that fulfill nuclear safety requirements, coupled with alteration, concealment, or destruction of documents pertaining to those activities.

For further information, review DOE Handbook 1089, *Guidance for Identifying, Reporting, and Tracking Nuclear Safety Noncompliances*, contact the Field Office Price-Anderson Coordinator, or contact the DOE Office of Enforcement and Investigation (EH-10).

accident investigation analysis software can be a helpful tool for identifying information gaps and organizing causal factors during the analyses. Another technique is to use multicolored adhesive notes on a wall to portray elements of the events and causal factors chart. A wall-size chart makes it easier for all board members to observe progress, provide input, and make changes.

As the board proceeds with the analyses, the chairperson should monitor and discuss progress to ensure that:

- Several board members and/or advisors work collectively (not one person in isolation) to produce a quality result

TIP

Delegating responsibility for complex analyses to a single individual can produce inferior results. Analyses are strengthened by input from the entire board and its advisors.

- If analysis and information-gathering functions (e.g., interviewing) are assigned to separate groups of board members, these groups should interact regularly to improve coordination, strengthen the analytical process, and maintain appropriate focus
- Analyses are *iterative* (i.e., analyses are repeated, each version producing results that approximate the end result more closely); several iterations of analyses will be needed as new information becomes available
- The analyses address organizational concerns, management systems, and line management oversight functions that may have contributed to the accident's causes

- The causal factors, conclusions, and judgments of need are supported by the facts and analysis
- Significant facts and analyses do not result in a “dead end”; rather, they are linked to causal factors and judgments of need.

5.2.7 Managing Report Writing

Many investigation boards have found report writing to be the most difficult part of the investigation, often requiring several iterations. Report quality is crucial, because the report is the official record of the investigation. Efforts to conduct a quality investigation lose integrity if the report is poorly written or fails to adequately convey a convincing set of supporting facts and clear conclusions. To manage the reporting process, the chairperson should:

- Develop a report outline as soon as possible to facilitate writing assignments and minimize overlap in content between sections
- Begin writing the accident chronology, background information, and facts as soon as information becomes available
- Continuously identify where sections should be added, moved, or deleted
- Adhere to required format guidelines and promote ongoing clarification of format, content, and writing styles
- Quickly identify strong and weak writers and pair them, when possible, to avoid report writing delays
- Encourage authors to consult with one another frequently to become familiar with the content of each section and to reduce redundancy

- If possible, use a technical writer to evaluate grammar, format, technical content, and linkages among facts, analyses, causes, and judgments of need. This is important when several authors have contributed to the report. The technical writer focuses on producing a clear, concise, logical, and well-supported report and ensures that the report reads as if one person wrote it.

It is possible to have serious disagreements among board members regarding the interpretation of facts, causal factors, conclusions, and judgments of need. The board chairperson should make a concerted effort to reach consensus among board members on accident causes, conclusions, and judgments of need. When board members cannot reach agreement and the chairperson cannot resolve the difference, the dissenting board member(s) may opt to produce a minority report.

5.2.8 Managing Onsite Closeout Activities

The investigative portion of the process is considered complete and board members are released when the appointing official formally accepts the final report. The chairperson is responsible for final editing and production of the report, with assistance from selected board members and administrative support staff. In the case of Type A investigations, the chairperson must coordinate with the Program Manager for final report production (e.g., graphics, duplicating, binding).

A briefing on the investigation's outcome to DOE Headquarters (including the Assistant Secretary for Environment, Safety and Health for Type A accident investigations) and field line management with cognizance over the site of the accident is required by DOE Order 225.1A. This briefing is conducted by the board chairperson and the head of the field element of the site at which

the accident occurred. Accident investigation participants (chairperson, board members, and any consultants and advisors deemed appropriate by the chairperson) may attend the briefing. The briefing covers:

- The scope of the investigation, as provided in the appointment letter
- The investigation's participants, including any subject matter experts or other consultants
- A brief summary of the accident (what happened)
- Causal factors (why it happened)
- Judgments of need (what needs to be corrected)
- Organizations that should be responsible for corrective actions.

Other briefings may be provided by the board chairperson and board members, as deemed appropriate by the appointing official. These may include briefing DOE and contractor line management at the site of the accident.

5.2.9 Managing Post-Investigation Activities

The chairperson is also responsible for ensuring that all information resulting from the investigation is carefully managed and controlled. To this end, the chairperson takes the following actions:

- **Controlling the release of information to the public:** The chairperson should instruct board members not to communicate with the press or other external organizations regarding the investigation. External communications are the responsibility of the board chairperson until the final report is

released. The board chairperson should work closely with a person designated by the site to release other information, such as statements to site employees and the public.

- **Archiving materials:** One of the final activities of the board is to place investigation documents and evidence in long-term storage. For Type A investigations, these materials are archived by the Program Manager. All factual material and analysis products are included, such as logbooks, board meeting minutes, field notes, sketches, witness statements (including interview tapes, if used), photographs, location and custody of any physical evidence, analysis charts, and the various forms completed during the investigation. Medical or personnel records subject to the Privacy Act may be returned to their original location. The administrative coordinator arranges for archiving and for shipping materials to the archive repository during the onsite phase of the investigation.

5.3 Controlling the Investigation Process

Throughout the investigation, the board chairperson is responsible for controlling board performance, cost, schedule, and quality of work. Techniques for implementing these controls are described below.

5.3.1 Monitoring Performance and Providing Feedback

The chairperson uses daily meetings to monitor progress and to measure performance against the schedule of activity milestones. Board members are given specific functions or activities to perform and milestones for completion. The chairperson assesses the progress and status of the investigation periodically by asking such questions as:

- Is the investigation on schedule?
- Is the investigation within scope?
- Are board members, advisors, consultants, and support staff focused and effective?
- Are additional resources needed?
- Are daily board meetings still necessary and productive, or should the interval between them be increased?

The chairperson must be informed on the status of the accident investigation and must be prepared to make decisions and provide timely feedback to board members, site personnel, and other parties affected by the accident. Frequently, decisions must be made when there is not time to reach consensus among the board members. When this occurs, the chairperson informs the board members of the decision and the reason for the urgency. Intermediate milestone revisions can then be made, if events or practical considerations so dictate.

5.3.2 Controlling Cost and Schedule

Cost and schedule must be controlled to ensure that planning and execution activities are within the established budget and milestones.

- **Cost Control:** The board chairperson is responsible for preparing a cost estimate for the activities to be conducted during the investigation and assuring that funds are available to support the investigation process, including costs associated with travel, advisors, and consultants. If necessary, the chairperson may issue a memo authorizing costs incurred by board members, including additional travel expenses, hotel rates over per diem, and incidental expenses. Control can be exercised over costs by using advisors and consultants only when

required and by limiting travel (such as trips home for the weekend) during the onsite investigation. During Type B investigations, the board chairperson should coordinate with the appropriate designee of the head of the field element to ensure that the costs are being tracked. The Program Manager is the point of contact for these concerns during Type A investigations. A method for estimating costs should be agreed upon early in the investigation, and the estimate should be reviewed each week to ensure that the cost of the work is not exceeding the estimate, or that any cost growth is justified and can be funded.

- **Schedule Control:** Progress against the scheduled milestones can be assessed during daily progress meetings with the board and its staff. As problems arise, the schedule may be adjusted or resources applied to offset variances. Because of the relatively short time frame involved, the chairperson must identify and resolve problems immediately to maintain the schedule, or re-evaluate it with the appointing official as circumstances require.

5.3.3 Assuring Quality

Formal quality control measures are necessary because of the seriousness and sensitivity of the accident investigation board's work and because of the need for accuracy, thoroughness, and perspective. The chairperson has the prerogative to implement any quality assurance measures deemed necessary. At a minimum, the chairperson must ensure that the report is technically accurate, complete, and internally consistent. When analytical results are developed into conclusions, all verified facts, the results of analyses of those facts, and the resulting conclusions must be both consistent and logical.

When essential portions of the draft report are complete, the chairperson conducts a requirements verification analysis to ensure that the facts are consistent with the best information available, that all report sections are consistent, and that analyses, causes, and judgments of need logically flow from the facts. Section 9 provides further detail on assuring report quality.

KEY POINTS TO REMEMBER

During the accident investigation, the board chairperson is responsible for managing all aspects of the process, including planning, organizing, directing, and controlling the investigative process:

- Completing initial activities prior to arriving on site is critical to ensuring an efficient and effective investigation.
- Planning and organizing includes using project management techniques to organize the process and team, establishing a schedule, planning, and assigning specific tasks and completion milestones, acquiring resources, and establishing information access and release protocols.
- Directing the investigative process involves developing the board into a team, leading communications, conducting feedback and decision-making activities, evaluating and modifying group processes, and managing investigative activities.
- Controlling the investigative process includes monitoring performance, providing feedback, controlling costs and schedule, and providing quality assurance.

Teamwork is important in assuring that the investigation is completed on schedule with high quality. By understanding the four stages of team development (forming, storming, norming, and performing) the chairperson can facilitate quick progression to the fourth stage. The chairperson promotes effective teamwork by assuring a clear understanding of roles and responsibilities, encouraging effective communications, providing clear explanations of expectations, obtaining agreement on decision-making methods and group processes, and working with board members to resolve potential problems.

The board chairperson has responsibility for representing DOE on all matters pertaining to board activities and the investigation by communicating with other DOE organizations and individuals, as well as external parties. These include the appointing official, DOE Headquarters managers, field managers, site managers, contractors, the media, unions, and other stakeholders with legitimate interests.

External communications should be coordinated through a field office public relations/media representative to preserve the interests of the Department. Moreover, prior to any public address, facts pertaining to the investigation must be sufficiently developed and validated.

For all Type A investigations, the board chairperson provides daily status updates to the Deputy Assistant Secretary for Oversight.

Information must be controlled to maintain the integrity of the investigation and preserve the privacy of those involved. Consequently, evidence, interview transcripts, personnel records, analytical and test results, and other material should be locked in a secured area to which only the board has access. Freedom of Information Act and Privacy Act restrictions apply to most investigative materials. Coordinating press releases, developing protocols for access to and release of information, and presenting awareness briefings to the board are common ways to help control sensitive investigation information.

KEY POINTS TO REMEMBER (Continued)

The onsite phase of the investigation is considered complete when:

- The board has reviewed the draft report for internal consistency, and site management and contractors have reviewed it for factual accuracy
- The appointing official accepts the report.

The typical contents of a closeout briefing include:

- The scope of the investigation
- The investigation's participants
- A summary of what happened
- The accident's causal factors
- Judgments of need
- Organizations that should be responsible for corrective actions.

The chairperson is responsible for ensuring that certain post-investigation activities are completed. These include final editing and distribution of the report, briefings requested by Department officials, and archiving investigative files.

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Accident Investigation Startup Activities List

(page 1 of 3)

Description of Activity	Name of Designated Lead		
	HQ	Site	Other
Board Chairperson Responsibilities:			
Attend briefing by appointing official			
Assist in selecting, notifying, and briefing board members and consultants/advisors			
Identify all appropriate site authorities			
Obtain details of accident from site readiness team leader and other site parties			
Ensure that adequate evidence preservation and collection activities were initiated			
Begin identifying and collecting background and factual information			
Ask the Program Manager to search for information about similar accidents			
Review all forwarded site and board member information			
Reassign normal business commitments			
Establish a preliminary accident investigation schedule, including milestones and deadlines			
Contact selected board members, consultants/advisors, and site personnel			
Arrange travel for self and expedite board travel arrangements			
Establish administrative support			
Determine that logistical support for the accident investigation is established			
Travel to site			



Accident Investigation Startup Activities List

(page 2 of 3)

Description of Activity	Name of Designated Lead		
	HQ	Site	Other
Administrative Coordinator Responsibilities:			
Make hotel selection and reserve a block of rooms for the accident investigation board			
Determine site/field office points of contact for administrative and logistical support			
Arrange for local court reporter support for interviews			
Arrange for office/work space and furnishings for the accident investigation board			
Arrange for a large, dedicated conference room that can be locked when not in use by the accident investigation board			
Arrange for several small, hard-walled offices to be used when conducting interviews			
Arrange for security badges/passes for members of the accident investigation board			
Arrange for property permits for personal equipment (cameras, laptops, etc.) for members of the accident investigation board			
Arrange for specific security, access, safety, and health training, as required			
Arrange for dedicated telephone services and a fax machine			
Arrange for a dedicated, high-speed copy machine that has collating and stapling capability			
Obtain office supplies and consumables for use by the accident investigation board			
Arrange after-hours access to site and work space, and assume responsibility for all keys/cards provided by the site			



Accident Investigation Startup Activities List

(page 3 of 3)

Description of Activity	Name of Designated Lead		
	HQ	Site	Other
Prepare and maintain the interview schedule			
Create and maintain accident investigation files			
Arrange for an area central to work space to locate documents, lockable file cabinets, high-speed copy machine, large-volume document shredder(s), and fax machine			



Accident Investigation Individual Conflict of Interest Certification Form

I certify that all work to be performed by me in support of the DOE accident investigation identified as:

(include the accident site name and date)

has been reviewed and does not present a conflict of interest concern.

I have no past, present, or currently planned interests that either directly or indirectly may relate to the subject matter of the work to be performed that may diminish my capacity to give impartial, technically sound, objective assistance and advice. Additionally, I have performed no services that might bias my judgment in relation to the work to be performed, or which could be perceived to impair my objectivity in performing the subject work.

(Print name)

(Signature)

BOARD POSITION: Member Advisor Consultant
(Federal employee)

CONTRACT NO. (if applicable): _____

DATE: _____

The original of this form remains with the accident investigation files. One copy will be sent to the:

DOE Accident Investigation Program Manager
Office of Oversight
Environment, Safety & Health
Department of Energy
(phone) 301-903-5605
(fax) 301-903-4120

NOTE: Statements or entries generally:

Whoever, in any matter within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up by any trick, scheme, or device a material fact, or makes any false, fictitious, or fraudulent statements or representations, or makes or uses any false writing or document knowing the same to contain any false, fictitious, or fraudulent statement or entry, shall be fined not more than \$10,000 or imprisoned not more than five years, or both. (18 USC 1001)