

**CORRECTIVE ACTION PLANNING FOR ENVIRONMENTAL
COMPLIANCE DEFICIENCIES**
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OCT 27 1997

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ABSTRACT

Effective corrective action planning is one of the cornerstones of an effective environmental management program. Alternatively, ineffective planning can highlight an installation's unwillingness or inability to effectively address environmental compliance deficiencies. The following paper discusses several guidelines to consider in corrective action planning to ensure that plans benefit rather than harm an installation's overall environmental management program.

INTRODUCTION:

Corrective action planning for deficiencies documented in internal and external environmental compliance audits is an important element in an overall environmental management program. Corrective action plans (1) provide an organized summary of actions an installation is taking to correct compliance deficiencies, (2) document aggressive closure of findings, and (3) organize future actions. The benefits of effective corrective action planning warrant a closer look at how to effectively plan corrective actions for environmental compliance deficiencies. This paper, therefore, discusses:

- (1) the relationship between corrective action planning and enforcement,
- (2) guidelines for effective planning, and
- (3) examples of effective planning.

**RELATIONSHIP BETWEEN CORRECTIVE ACTION PLANNING AND
ENFORCEMENT**

1. Criminal Penalties.

The Department of Justice (DOJ) recognizes that the possibility of criminal prosecution for environmental violations is an area of grave concern to the regulated community¹. Criminal prosecutors have broad discretion to bring a criminal action or exercise leniency. DOJ advises its

¹ DOJ 1991.

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prosecutors to evaluate certain factors in exercising its prosecutorial discretion. One of those factors is environmental audits. Thus, a criminal prosecutor may view environmental audit programs such as the U.S. Air Force's Environmental Compliance and Assessment Program (ECAMP) as a mitigating factor in criminal enforcement.

DOJ prosecutors are cautioned that all environmental audits are not equally beneficial as mitigating factors in enforcement. An environmental audit program such as ECAMP must be thorough, address all deficiencies and areas of noncompliance, and result in an aggressive, effective corrective action plan to limit criminal liability. However, the goal of the effective auditing program cannot be merely identifying existing noncompliance. A strong program must also comprehensively evaluate the facility on a regular basis and provide for prompt and complete action to eliminate current sources of noncompliance, lessen environmental harm caused by those sources of noncompliance, and prevent noncompliance in the future. Thus, the corrective action plan is more important than the audit itself. Implementation of the plan must be according to a clearly defined schedule. While good planning alone will not shield a facility, lack of corrective action planning leaves a facility open to prosecution.

2. Civil Penalties.

The correction of environmental noncompliance can be accomplished through regulatory enforcement action. The U.S. Environmental Protection Agency (EPA)² may issue an order demanding compliance within a defined period of time and may also assess a civil penalty against a facility as part of an enforcement action. The initial penalty calculation depends on the potential for harm and the extent to which the facility has deviated from regulatory requirements (called the "gravity penalty"). If the facility has realized an economic benefit by failing to comply with requirements, the amount of that economic benefit, with interest, is added to the gravity penalty. Each day of noncompliance can increase the penalty. Once the appropriate penalty is calculated, adjustment factors are used to increase or decrease the total.

Adjustment factors allow particular circumstances existing at the facility to be factored into the penalty determination. If a facility has made a good faith effort to comply with environmental requirements, including prompt correction of environmental problems, the penalty must be reduced. An environmental audit that accurately assesses areas of noncompliance, but then stops short of creating a good corrective action plan simply tells the regulators "We are not going to cooperate with you." Penalties can be increased for this lack of a good faith effort to comply.

Other adjustment factors include a facility's willfulness or negligence, including the foreseeability of the violation, whether the facility could have acted to prevent the violation, and whether the facility knew or should have known that actions would result in noncompliance. If the corrective action plan was never implemented, or does not fix the problem, government investigators may interpret this as evidence that the facility is willfully or negligently disobeying the law.

It is not enough to write a good corrective action plan. The plan must be implemented to correct the identified problem for the entire facility, and when the regulators return, the problem must have been corrected. A history of noncompliance can result in increased penalties, because

²U.S. EPA 1991.

the agency is attempting to deter future violations by assessing higher fines. Recurrent problems as a result of poor corrective action planning and implementation also send the message that the facility is not willing to look after itself. As a result, the regulators must scrutinize the facility more carefully and more frequently. Thus, effective ECAMPs, along with effective correction action planning, are important elements in the overall reduction of installations' enforcement exposure.

GUIDELINES FOR EFFECTIVE PLANNING

Effective corrective action planning provides a strong foundation for preventing or reducing the severity of enforcement actions. However, ineffective planning can have just the opposite effect. Ineffective plans document recalcitrance to comply, ineffectiveness of chosen options, and recurrence of similar issues because the problem was not really fixed. Thus ineffective corrective action plans are potentially more damaging than no planning at all.

Effective corrective action planning requires effort, but the benefits to be gained are substantial. Those benefits include developing a "road map" for achieving compliance, preventing recurrence of compliance issues, and documenting a "good faith" effort to comply. Review of effective corrective action plans has revealed several common characteristics that can be used as guides for preparing effective corrective action plans. The following discussion identifies and explains each characteristic.

1. Address all issues in the finding.

Addressing issues raised in the finding is such an obvious point that stating it appears unwarranted. Nevertheless, one characteristic that contributes to ineffective corrective actions is failure to address each deficiency identified in a finding that includes several parts. The finding cannot be closed until all elements have been addressed.

Multi-part corrective actions are needed to address multi-part findings. Such findings are often written so that issues with the same responsible organization and regulatory requirement are in the same finding. For example, 90-day accumulation points must have an internal communication device and a telephone or hand-held radio. The same general regulatory provision imposes the requirement for both. Therefore, both deficiencies for an accumulation point would typically be written in one finding. The corrective action plan must include the schedule for addressing both deficiencies. Yet it is not uncommon to find that corrective action plans do not address all the issues in a finding.

2. Address underlying issues as well as the superficial issue.

Compliance deficiencies often recur because a root cause that contributes to the deficiency has not been corrected. For example, failure to properly label hazardous waste may be attributable to lack of training, lack of personnel diligence, lack of quality control/quality assurance, and/or lack of management attention. The corrective action should address the root cause in order to develop a lasting resolution of the problem as opposed to including palliative or "band-aid" solutions. Unless underlying issues are addressed, the problem is likely to recur. The immediate "fix" is often easily determined, but the underlying fix may be more complex and

usually involves lack of sufficient manpower, training, and funding. Management diligence to assure training for staff that is continually changing is especially important.

3. Establish a tone displaying good faith effort to comply.

Corrective action plans should be neutral and factual and make no value judgement on the finding. An argumentative tone suggests that the installation does not really want to comply but instead, is trying to find a way out of compliance. Discussion of facts using neutral words can achieve the same end as argument without creating the appearance of not wanting to comply.

Differences in regulatory interpretations between the assessor and the installation are a common source responses that appear argumentative. If installation personnel conclude that the interpretation made in the finding is not valid for their state and their EPA Region, the corrective action plan can address the discrepancy in interpretation more effectively by outlining the EPA regional and state interpretations and explaining how their activities fit the applicable interpretation. Adhering to the facts that surround the issue while explaining the position the installation takes provides an objective way to address the finding without creating an argumentative tone.

4. Track issues to completion. Modify the plan to reflect progress in completing corrective actions.

A common deficiency in corrective action planning is failure to track and document progress to completion. Tracking progress is particularly important for large projects that take years to complete (e.g., constructing a wastewater treatment plant). The installation is out of compliance with requirements until the project is completed. Therefore, the finding may have to be tracked and the response updated for years. This tracking clearly outlines the installation's road map and aggressive efforts to achieve compliance. In other words, the corrective action plan demonstrates in detail the installations good faith effort to comply and the steps they are taking and intend to take to achieve compliance. One of the goals of enforcement is to bring installations into compliance. Having an existing plan for achieving that end reduces the likelihood of enforcement.

5. Close findings only after corrective actions have been completed.

Preparing a corrective action plan alone does not close a finding. The finding can only be closed after all required actions have been completed and the installation is in compliance with respect to the deficiency noted in the finding. A finding is not closed when a work order, for example, has been initiated or approved. The finding is closed when the work order is completed, and the requirements for compliance are met.

6. The WIMS-ES provides a means of updating status as status changes.

Ensure that the WIMS-ES is kept up to date with respect to corrective action status. The WIMS-ES provides a way to document current status. Several fields (e.g., estimated completion date, actual close date, comments, etc.) allow documentation of the efforts taken to close a finding and the actual closure of the finding. Providing as much information as possible in the WIMS-ES will ensure that the good faith efforts taken by the base are formally documented.

7. Organize future actions.

Items 1 through 6 provide key elements required to organize actions to correct compliance deficiencies and establish schedules for implementing actions required to achieve compliance. This section takes these elements and explains how to organize actions by building on the finding information and elements 1 through 6.

The road map to compliance should address each major root cause for noncompliance and incorporate a chronological flowchart to assist in monitoring the corrective actions to ensure accomplishment of each necessary action. Each action must identify a responsible manager to ensure the necessary corrective actions are accomplished. At a minimum, the following elements should be included in the road map:

1. Detailed deficiency description, including:
 - the responsible organization or base wide, and
 - the responsible manager to track corrective actions.
2. Detailed description of immediate fix.
3. Identification of underlying root cause(s).
4. Identification of root cause problems and the fix(es).
5. Implementation of the immediate fix, including:
 - the action(s) scheduled and timeline, and
 - the action completed and the date.
6. Implementation of root cause fix(es), including:
 - the action(s) scheduled and timeline, and
 - the action(s) completed and the date.
7. Objective documentation of actions taken. Documentation may include:
 - copies of memos,
 - budget requests,
 - work orders,
 - contracts,
 - inspection logs of contracts documenting percentage completion.

EXAMPLE CORRECTIVE ACTION PLANS AND IMPROVEMENTS

The following examples describe findings and the associated corrective action plans. The plan for Example 1 could be improved by more specifically addressing the elements in the finding.

Finding Example 1

The Dental Clinic and Medical Logistics accumulate dental amalgam as nonhazardous waste. The amalgam cannot be recycled as scrap metal, and its ultimate disposition is unknown. The amalgam has not been tested to determine if it qualifies as hazardous waste when discarded.

Corrective Action Plan for Example 1

The Dental Clinic reactivated the satellite accumulation point, appointed managers, and scheduled hazwaste training for them. The materials in solution will be handled as hazwaste. Brooks AFB is evaluating storage requirements. If storage in solution is no longer required, the materials can be handled as nonhazardous. If wet storage is required, it will continue to be handled as hazwaste.

The finding indicates that the disposition of amalgam is not known, and inadequate data are available to determine if disposition as nonhazardous waste is appropriate. The corrective action plan, however, does not clarify the issue of appropriate disposition. It does not explain why the presence or absence of fluid makes a difference in the disposition of the amalgam. The plan could be improved by providing more detailed information on the basis for assuming one form of amalgam is acceptable for disposal as nonhazardous waste, while the other is not. This explanation is especially important in light of the fact that EPA considers amalgam to be hazardous waste when it is discarded rather than recycled. The following amended plan explains in more detail why the base takes the position it does on dental amalgam.

Amended Corrective Action Plan for Finding 1

The Dental Clinic reactivated the satellite accumulation point, appointed managers, and scheduled hazardous waste training for them. These actions were completed by mm/dd/yy. The materials in solution will be handled as hazardous waste. Brooks AFB is evaluating storage requirements. If storage in solution is no longer required, the materials can be handled as nonhazardous waste (as documented in EPA Policy Directive XXX and State letter dated mm/dd/yy from Jane Doe, State Environmental Control Division, to Col John Smith, Acme AFB, outlining State interpretation on dental amalgam stored wet and dry). If wet storage is required, materials will continue to be handled as hazardous waste.

The next example does not address the root cause of the finding. Therefore, the installation will have difficulty preventing recurrence.

Finding Example 2

A cracked and leaking lead-acid battery was in the DRMO Yard. Personnel immediately overpacked it.

Corrective Action Plan for Example 2

The battery was overpacked immediately, and the spillage was neutralized and contained.

This corrective action plan does not identify and correct the root cause of the problem. Recurrence, therefore, is more likely. The following amended plan addresses ways to prevent recurrence.

Amended Corrective Action Plan for Finding 2

The battery was overpacked immediately, and the spillage was neutralized and contained. Secondary containment and inspection procedures have been implemented to prevent recurrence. Spill pallets constructed of materials that are compatible with sulfuric acid are used for secondary containment. Items in the DRMO yard, such as batteries and hazardous materials, that are not addressed in the routine hazardous waste inspections are now inspected weekly when the permitted facility is inspected. Inspections are documented separately from the permitted facility's inspections.

Example 3 does not provide adequate detail to verify that when each item identified will be corrected.

Finding Example 3

The SPCC, which serves as the hazardous waste contingency plan, lacks complete names and home phone numbers for the primary on-scene commander and the alternate on-scene commander. Further, site-specific contingency plans have not been developed for all 90-day accumulation points on base.

Corrective Action Plan for Example 3

Amendments to the SPCC will be sent out. Owners of 90-day accumulation points are/will be responsible for developing site-specific plans.

The action plan should explain milestones established to ensure all elements of the plan are completed. For example, what is the target for 90-day accumulation point owners to develop their site-specific plans? How will these plans be coordinated with the larger plan to ensure all requirements of 40 CFR 265 Subpart D are met? The following amended plan provides this detail that documents the installation's steps to ensure compliance.

Amended Corrective Action Plan for Finding 3

Amendments to the SPCC will be sent out to recipients on the distribution list by mm/dd/yy. Owners of 90-day accumulation points are responsible for developing site-specific plans. To ensure that their site-specific plans provide required information, CEV has developed a questionnaire that requests information for each compliance item identified in 40 CFR 265 Subpart D and has distributed a standard format for each accumulation point manager to submit this information to CEV. Accumulation point managers must submit the completed questionnaire in the required format to CEV by mm/dd/yy. CEV will review the

information to ensure that it meets RCRA requirements and incorporate it in an amended SPCC plan coordinated through the Fire Department and Disaster Preparedness. Before finalizing the amendment, Disaster Preparedness and/or the Fire Department will visit each 90-day point and verify that the site-specific plans are adequate for the hazards posed by each accumulation point.

In Example 4, the installation incorrectly states regulatory requirements. These requirements are clearly outlined in the finding, but this regulatory reference was ignored.

Finding Example 4

40 CFR 261.2, Table 1, indicates spent materials that are reclaimed are solid waste. Generators of solid waste must evaluate waste using analytical testing or process knowledge to determine if it is hazardous. Waste antifreeze, a spent material, is stored at Building X for eventual recycling on-site once the base obtains an antifreeze recycler. The antifreeze has not been characterized to determine if it should be accumulated as hazardous waste.

Corrective Action Plan for Example 4

Characterization of this streams is not required unless it is to be disposed of as waste.
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In addition to inaccurately depicting regulatory requirements, this corrective action plan is not neutral in tone. Even if the finding is incorrect, which is not the case with the example, the error can be stated factually rather than argumentatively.

Amended Corrective Action Plan for Example 4

Under 40 CFR 261.XXX, characterization of this waste stream is not required unless it is to be disposed of as waste.

CONCLUSION

Corrective action planning provides many benefits to the audited facility. It provides a way (1) to organize actions to be taken to come into compliance, (2) to assign responsibility for implementing the corrective action plan, (3) to document each stage in completion of the plan, (4) to document good faith effort to comply, and (5) to address root causes to prevent recurrence. The time required to implement an effective plan is well worth the benefits to be gained from effective planning.

REFERENCES

1. U.S. EPA. (Reprint of) *RCRA Civil Penalty Policy*, **Environmental Law Reporter**, February 1991, pages 35089 - 35097.
2. DOJ. *Factors in Decisions on Criminal Prosecutions for Environmental Violations in the Context of Significant Voluntary Compliance or Disclosure Efforts by the Violator*, 1 July 1991

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⑱ DOE, XF

⑲ UC-900, DOE

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