

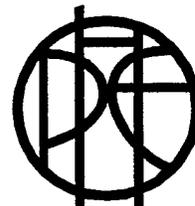
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# A SHORT GUIDE TO THE ENVIRONMENTAL QUALITY ASSESSMENT (EQA) PROGRAM

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**RADIAN**  
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# A Short Guide to the EQA Program

This short guide covers major topics in designing, conducting, assessing, and improving an environmental audit through the Navy's Environmental Quality Assessment (EQA) Program.



## BACKGROUND

The Navy has conducted environmental audits of its operations since 1989 under the Environmental Compliance Evaluation (ECE) Program. This program was developed to assure compliance with environmental laws, regulations, and DOD and Navy policies and was essential to building and improving the Navy's environmental program.

Based on nine years of experience in implementing the ECE program, the Navy has recognized opportunities for improvement. Because the ECE program, with its primary focus on the Major Claimant's Tier 2 ECE once every three years, provided only a snapshot view of an installation's compliance status, it was not the best approach to support day-to-day compliance.

With little guidance on Tier 1 self-ECEs, not all installations clearly understood the scope and objectives, and in many cases, self-ECEs did not add much value. To some installations, a self-ECE meant a simple review of previous Tier 2 ECE findings or a quick run-through of a requirements-based checklist without even getting up from the desk. Other installations recognized that a thorough and comprehensive assessment provided valuable information that program managers could use to improve their programs.

With the ECE program, installations have reduced the number of compliance deficiencies but have not eliminated them. And in spite of their efforts, many installations continue to find the same compliance issues over and over again. To minimize these deficiencies and to eliminate repeat findings the emphasis needs to be on identifying the root cause of each audit finding and then taking the "right" corrective action. The Navy has come to recognize the key relationship between environmental audits and a successful corrective action process in improving the environmental management system (EMS) and environmental performance.

## NEW APPROACH

With the goals of increased efficiency and effectiveness, the Navy revamped its environmental auditing program. The Navy's new EQA Program incorporates an enhanced corrective action process to address root causes. This serves as a significant driver for improvement within the overall management system. Remedying management deficiencies can result in long-term, lasting improvements in environmental compliance with external requirements and internal policies.

Since Navy installations vary significantly in mission, size, organization, program maturity, and environmental performance, the EQA program provides flexibility to installation and claimant decision-makers to tailor their assessment programs to meet the needs of the installation and the command.

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**Environmental  
Quality... That level of  
environmental  
excellence that has  
a baseline of consistent  
regulatory compliance,  
adding continuous  
process improvement  
with a concerted focus  
on pollution prevention.**

Chapter 20,  
OPNAVINST 5090.1B  
Change 2,  
9 September 1999

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**Internal Assessment...***A systematic, documented, objective, and comprehensive environmental compliance review of installation processes, facilities, and practices completed within a 12-month period. Installation personnel or their designees conduct the assessment.*

**Internal Assessment Plan...***the host activity's plan, coordinated with tenants, that describes how a comprehensive internal assessment will be accomplished within the "fence-line" over the course of a year.*

—Chapter 20,  
OPNAVINST 5090.1B  
Change 2, 9 September 1999

**EMS Innovation**

- Require problem solving and enhanced corrective action practices;
- Encourage distributed environmental accountability, integrated planning, and cross-functional coordination;
- Emphasize compliance as a minimum performance requirement;
- Prioritize P2 solutions as the preferred method to reduce environmental impacts; and
- Adopt a continuous improvement philosophy and pursue improvement in discrete steps.

Chapter 20, *Environmental Quality Assessment Ashore* of OPNAVINST 5090.1B, Change 2, 9 September 1999, defines the EQA program and provides policy, procedures, and responsibilities for the assessment and oversight of Navy installations' environmental quality. To support implementation of the EQA Program, the Navy developed the *Environmental Quality Assessment Guide* 31 August 1999. These documents and additional information on the EQA Program are available at the CNO Logistics/N457 Shore Compliance web site: <http://n4.nosc.mil>. In the pulldown menu, select N457 or Shore Compliance.

The EQA Program emphasizes three principles for the Navy's management of its environmental quality efforts:

- The installations design and conduct their own internal assessments to better ensure day-to-day compliance. Within the installation, the responsibility for conducting assessments and **problem solving** is assigned to personnel (often at the operational level) who best know the practices under scrutiny.
- Installation compliance programs become "self correcting" through procedures that identify and correct the root causes of compliance and management problems.
- Major Claimant responsibilities evolve from providing compliance inspections to evaluating the effectiveness of each installation's internal assessment program, problem solving exercises, and EMS.

For many installations, achieving "self correcting" status will depend on:

- Capitalizing on EMS development and innovation.
- Assigning greater responsibility for environmental performance to practice owners whose missions

may impact environmental resources or the costs of compliance.

- Focusing initially on compliance-related issues, followed by a shift towards improving program efficiency that addresses the **impacts of practices** on the environment and other **assets**.

The EQA program consists of two major elements: the annual internal assessment and the external assessment.

**INTERNAL ASSESSMENTS**

Annually, the host activity, in coordination with tenant activities, conducts the internal assessment. The assessment addresses all applicable compliance requirements within the "fence-line" on a schedule based on the relative environmental impacts associated with various activities on the installation. The internal assessment may also include review of the EMS.

The purpose of the internal assessment is to identify, characterize, and document compliance and management system deficiencies.

**Planning and Execution**

The heart of the internal assessment is the Internal Assessment Plan (IAP). Planning and executing the assessment is a ten-step process:

1. Determine the approach (e.g., two-week standdown, continuous over the course of the year).
2. Inventory business and management practices, assets, and locations.
3. Identify program management requirements for specific media.
4. Identify required **inspections/monitoring**.
5. Identify inspection priorities.
6. Determine inspection frequency.
7. Assign responsible personnel.
8. Schedule assessments.

9. Implement the IAP.
10. Maintain the IAP.

With appropriate training provided by the installation's environmental office, **practice owners** and other units can staff much of the inspection and monitoring effort. The environmental office provides oversight by accompanying the owners on some inspections or reviewing inspection/monitoring results, for example. As with other portions of the EQA Program, installations are encouraged to determine and assign roles and responsibilities appropriate to installation-specific conditions; however, training practice owners to conduct their own environmental inspections has three benefits:

- A regular presence and improved results, since practice owners are on site and most familiar with the day-to-day details of their jobs.
- Improved environmental awareness and understanding of environmental requirements and impacts for practice owners.
- Reduction in the effort required by the environmental office for inspections.

### Documentation and Reporting

Chapter 20 of OPNAVINST 5090.1B requires the following:

**Internal Assessment Plan**—The IAP is developed through the internal assessment planning process described above, and should include:

- A description of the approach to scheduling inspections and **compliance evaluations**;
- Assigned roles and responsibilities to implement the inspections and compliance evaluations, problem solving, and EMS Review if performed by the installation; and

- A summary of the planned inspections and compliance evaluations.

#### Internal Assessment

**Documentation**—Rigorous documentation of internal assessment results is necessary: (i) to record information for the sake of communication, in case of personnel turnover, and to provide history on problems to facilitate corrective actions so deficiencies are not repeated, and (ii) to support other Chapter 20 reporting requirements (IAP update and EQA Report). Required documentation includes:

- A brief summary of each program/media area (e.g., major facilities, permits, any special arrangements with regulators);
- A description of identified deficiencies;
- Assigned root cause categories;
- Recommended corrective actions and problem solving documentation (if developed); and
- Plans of Action and Milestones (POA&M) for corrective actions.

**EQA Report**—Once a year, the installation prepares the EQA Report, a summary of the health of the installation's environmental program as of the end of a specified reporting period. The EQA Report is provided to the host activity's Major Claimant and to claimants of the tenants whose business practices have significant environmental aspects. Those tenants should be involved in development of the report and should also receive copies. The report includes information on critical issues that the Major Claimant should be aware of and that may require Major Claimant attention and/or resources.

Appendix F of the EQA Guide provides example samples of the IAP, internal assessment documentation,

#### The EQA Report may contain four items:

- Program Area Status Summary Chart;
- Summary of Problem Solving Efforts and Corrective Actions;
- Status of Top 5 Environmental Issues/ Concerns; and
- Updated IAP.

and the EQA Report. Chapter 4 of the EQA Guide provides detailed guidance on how to design, implement and document internal assessments.

### EXTERNAL ASSESSMENTS

The host installation's Major Claimant, coordinating with Major Claimants of tenant organizations, is responsible for conducting the external assessment. An external assessment consists of two parts:

- An annual document review of the installation's IAP and EQA Report, plus any other information available on the installation's environmental performance (e.g., NOV's received, press coverage, local awards).
- A site visit with a schedule and scope determined by the Major Claimant, based on review of the installation's IAP, EQA Report, environmental performance record, and other available information.

#### Planning and Execution

The schedule and scope of the site visit are flexible and should be tailored to meet the installation's needs. This allows for varied degrees

## External Assessment...

*A systematic, documented, objective, and periodic review of the installation's environmental management system that may include compliance reviews of selected program areas. Designated persons from outside the organization of the inspected installation conduct the assessment. Those designated persons may be members of the Major Claimant, Naval Inspector General, Naval Audit Service, and/or others. In terms of the EQA Program, regulatory inspections are not considered external assessments.*

—Chapter 20,  
OPNAVINST 5090.1B,  
Change 2, 9 September 1999

### Claimant EQA Summary Contents

- Program Area Status Summary by Installation/ Activity (chart)
- Status of claimants Top 10 Environmental Issues/ Concerns
- EAP Update

of compliance assessment and/or EMS Review. The schedule is at the discretion of the Major Claimant, based on the results of the annual document review. The scope must include, at a minimum, Claimant evaluation of the installation's EMS and internal assessment documentation to determine if the installation is effectively evaluating its compliance status. As appropriate, a site visit may also include compliance reviews of all environmental program areas or target particular program areas.

In conducting the external assessment, assessors should review available documentation (e.g., IAPs, EQA Reports, internal assessment documentation, problem solving efforts, POA&Ms, P2 opportunity reports, EMS guidance) and interview appropriate installation and tenant personnel to determine if the EMS is functioning and individual responsibilities are being met. External assessors may also elect to inspect selected operations conducted at the installation to validate internal assessment inspections and other EMS functions.

## Documentation and Reporting

Chapter 20 of OPNAVINST 5090.1B requires the following:

**External Assessment Plan**—Major Claimants are required to develop an External Assessment Plan (EAP) based on review and analysis of each installation's available data. The EAP is a concise document that identifies the schedule and scope of site visits planned by the Major Claimant at each of its installations and provides a brief description of the basis for these decisions. The EAP should address all activities in the claimancy.

**External Assessment Report**—The External Assessment Report presents the results of the Major Claimant's EMS Review plus any compliance evaluations conducted. The organization of the External Assessment

Report is at the discretion of the Major Claimant.

**Claimant EQA Summary**—Once a year, the Major Claimant prepares the Claimant EQA Summary, which reports on the health of the environmental programs at all installations and activities in the claimancy. The summary includes information on the critical issues that CNO(N45) should be aware of and that may require top level attention and/or resources.

Chapter 5 of the EQA Guide provides detailed guidance on how to design, implement, and document external assessments. Appendix G of the EQA Guide provides sample formats for the EAP and Claimant EQA Summary.

### External Assessment Report Topics

- Strengths and weaknesses of individual media programs or the EMS as a whole;
- Underlying causal factors that may contribute to the occurrence of observed compliance deficiencies;
- The ability of the installation's compliance programs to be self-correcting;
- Strengths and weaknesses of each of the individual components/elements of an EMS;
- The effectiveness of the system and identification of opportunities for improvement; and
- Effectiveness in implementing elements of the planning loop, the evaluation loop, and the continuous improvement loop (see "The Role of EMS," right).

## THE ROLE OF EMS

Successful planning and implementation of the EQA Program implies that some level of an EMS is in place. At an installation, an EMS exists whether it is deliberately designed or happenstance, and it may or may not be effective. An important feature of the EMS is that it works within the installation's overall management system. Through integrated planning and cross-functional coordination, environmental requirements are considered in business and management decisions. Environmental management is thus integrated into the overall way of doing business.

Several EMS standard models have been developed and are currently

under consideration throughout the Federal sector. These standards have several elements in common.

OPNAVINST 5090.1B requires many of these common elements; thus, installations that comply with the requirements of the OPNAVINST already have a rudimentary EMS in place.

While the potential benefits of an EMS are much greater than compliance, a fundamental goal (or minimal performance standard) is compliance with all pertinent environmental requirements. An EMS that focuses on compliance can be referred to as a "compliance management program."

Three ongoing processes are fundamental in a generic EMS framework: the planning loop, the corrective

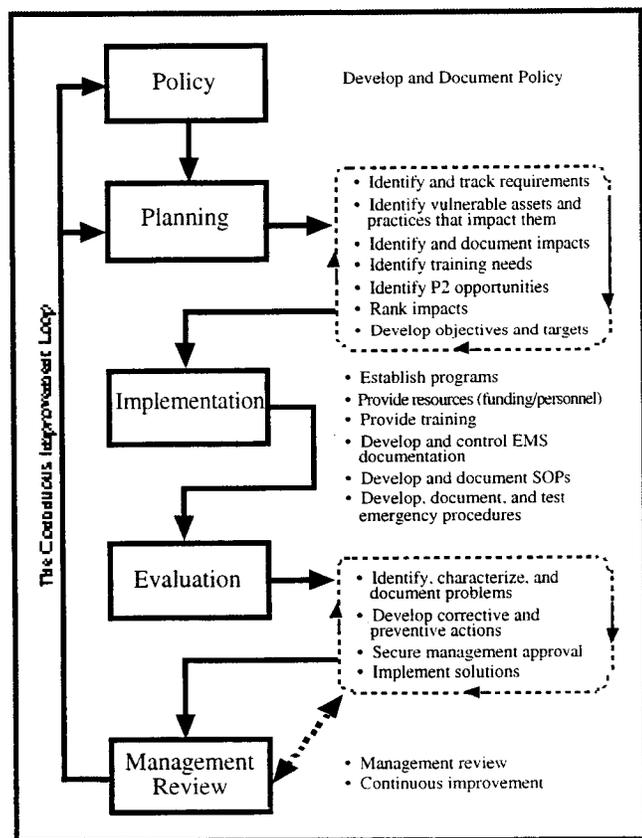
action loop, and the continuous improvement loop. These processes are "loops" in that they should be conducted repeatedly, and information available at the conclusion of one iteration should be used as a basis for the next. The following figure illustrates these three loops and their relation to each other.

**Planning Loop**—The most efficient EMS focuses resources where they are most needed. To understand where to apply resources, an installation will benefit from a current and comprehensive inventory of its regulatory requirements, business and management practices, and the relative impacts of its activities on the environment and other vulnerable assets. A mature EMS is characterized by identification of practices, assets, and impacts throughout the entire installation, across functional boundaries. Practices, assets, and impacts identified during planning should be rigorously documented to support internal assessment planning and the success and continuous improvement of the EQA program.

A comprehensive inventory of practices, assets, and impacts also provides a basis for the remaining planning loop activities, which include:

- Identify and track legal, regulatory, and other applicable requirements;
- Identify P2 opportunities;
- Prioritize impacts; and
- Develop objectives and targets based on prioritized impacts.

Since business and management practices at Navy installations are subject to the dynamic nature of mission, funding, personnel, and environmental requirements, the planning process is described as a "loop"—it is done repeatedly and supports continuous improvement.



**Corrective Action Loop**—Effective implementation of the corrective action loop enables an installation's compliance management program to become "self-correcting"; i.e., it identifies compliance problems and develops and implements effective and permanent solutions. Under EQA, Major Claimants can reduce the scope and frequency of external assessment site visits for installations that are able to document the self-correcting nature of their compliance programs. "Problem Solving," below, describes an approach to characterizing compliance problems and developing effective solutions.

**Continuous Improvement Loop**—Continuous improvement in environmental performance is a fundamental goal of an EMS. Performance includes meeting objectives defined in the planning loop, as well as the effectiveness and efficiency of the overall EMS. The continuous

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**Environmental Management System...** *that part of the overall management system that includes organizational structure, planning activities, responsibilities, practices, procedures, processes, and resources for developing, implementing, achieving, reviewing, and maintaining the environmental program and achieving environmental goals.*

—Chapter 20,  
OPNAVINST 5090.1B  
Change 2, 9 September 1999

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improvement loop contains the planning loop, the corrective action loop, and several other key elements:

- Develop and document environmental policy that provides vision or direction for the EMS and that is articulated through basic performance goals.
- Implement a program to achieve the environmental policy, including:
  - ▲ Appoint personnel with defined roles, responsibilities, and authority for establishing and sustaining the EMS;
  - ▲ Provide resources to address the financial, technical, training, and material requirements;
  - ▲ Document key aspects of the EMS and maintain environmental records; and
  - ▲ Develop written procedures and operating criteria for all practices with impacts identified in the EMS planning process.
- Periodically review the EMS at the top management level.
- Improve the EMS by revising policy, plans, procedures, and objectives/targets based on management's review of performance measurement results.

## EMS REVIEW

EMS Reviews evaluate the effectiveness of the EMS, including the compliance management focus. The results of EMS Reviews provide top management personnel with the information required to revise the EMS (if necessary) in support of continuous performance improvement. Under the EQA program, EMS Reviews are required in the external assessment and are optional components of the internal assessment. They focus either on environ-

mental media-specific program management or on the comprehensive EMS, as appropriate to the maturity of the EMS in place.

The table below presents several approaches to conducting an EMS Review.

## PROBLEM SOLVING

Although three and sometimes four ECEs have been completed for most Navy installations over the past ten years, repeat deficiencies are common. Despite the success of audits in identifying compliance problems, corrective actions to permanently prevent recurrence of the deficiencies have not always been implemented. Total deficiencies have been reduced as a result of audits, but a minimum number persist. This has been referred to as the "compliance plateau."

The corrective action loop includes the initial identification of compliance problems and the problem solving process. Problem solving is a seven-step process that can lower or eliminate the compliance plateau.

Who conducts problem solving? At a minimum, the installation's environmental management office will be involved. This office provides environmental services to all other units and may be directly responsible for some facilities and operations (e.g., hazardous waste tracking, storage, and disposal; and cultural and natural resource management). The environmental management office typically conducts or coordinates compliance evaluations and hosts external assessments, and in most cases is the logical choice to provide the technical, coordination, and documentation functions required for problem solving.

Many other practices are not "owned" by the environmental management office but are the immediate responsibility of other units, including tenants.

The unit owning the practice that is the source or location of a compliance deficiency must take ultimate responsibility for problem solving and should be party to all decisions made during the problem solving process.

Chapter 6 of the EMS Guide provides detailed guidance on how to implement formal problem solving efforts.

## DOCUMENTATION TOOLS

The EQA Program includes new documentation requirements. Comprehensive documentation is essential to realizing the full benefit of the Program. CNO has provided tools to support the development of comprehensive documentation in both the internal and external assessment processes.

**Automated Compliance Evaluation (ACE) Software**—To assist activities in developing internal assessment documentation, the U.S. Navy has adopted ACE, a computer program developed by the U.S. Marine Corps to document both their benchmark ECEs and their self-ECEs. ACE provides a number of data fields in which auditors can enter required documentation for the corrective action loop—identification of compliance problems and problem solving. Documenting the problem solving process is critical if later reexamination becomes necessary. Documentation should be completed whether a deficiency is minor and warrants only an on-the-spot fix or is the focus of a structured problem solving exercise.

### Seven Steps to Problem Solving

- 1 Define Problem and Objectives
- 2 Analyze Contributing and Root Causes
- 3 Develop Alternative Corrective Actions
- 4 Select Corrective Action(s)
- 5 Develop the Corrective Action(s)
- 6 Implement Corrective Action(s)
- 7 Follow-Up Action(s)

Approach to EMS Review	Description
Determine whether the compliance management program is self-correcting	A review of the documentation that the installation maintains regarding its problem solving efforts should demonstrate the installation's initiative in finding and correcting compliance problems. In such a review, it is not the number of deficiencies recognized that is important, but that the search for deficiencies is thorough and that problem solving exercises yield permanent corrective and preventive actions.
Checklists	Develop checklists that specify OPNAVINST 5090.1B or other program management requirements. EMS Review checklists may be developed to assist and standardize the review at an installation, but are not a substitute for critical and independent judgment or decision-making. Installation or Major Claimant personnel, as appropriate, should develop the content and focus of the checklist and tailor it to the maturity of the EMS in place at the installation. These EMS Review checklists can be incorporated into the ACE software (See "Documentation Tools").
Ad-hoc evaluation based on the problem solving in the generic EMS corrective action loop	Identifying the contributing and root causes of compliance problems may reveal deficiencies in the management system itself and thus suggest potential areas for EMS improvement. As installation planners develop corrective actions that implement or enhance management system elements, the scope and effectiveness of the management framework are increased incrementally.
Review against a standard	Evaluate the installation's EMS against an accepted EMS standard. Since most Navy installations have not adopted an EMS standard, Navy installations may wish to consider the generic EMS framework presented in "The Role of EMS." Evaluation of environmental management may be accomplished by identifying which of the components and elements of the generic EMS are in place at the installation, and assessing the effectiveness of each. This approach may add value to the environmental management evaluation process where OPNAVINST 5090.1B requirements fall short of the generic EMS model.

The extent of the documentation should be directly proportional to the seriousness of the problem. For instance, for deficiencies that are not repeats, that could have only minor consequences, and that are therefore not considered a “problem,” an on-the-spot fix recorded in the “Recommended Corrective Action” field of ACE may be sufficient.

**Suggested Report Formats and Documentation Tools**—Appendix E of the EQA Guide provides several case studies illustrating problem solving methods. Appendices F and G provide samples of required internal and external assessment documentation, respectively.

### WHAT'S NEXT?

The EQA Program and Guide include ideas that have never been fully implemented in the Navy. It is not critical that all EQA concepts and methods be instituted immediately. Flexibility to make improvements and establish processes as resource availability allows is inherent in the EQA program. What is important is that the goals and policies of the EQA program be understood so that ongoing improvements will contribute to meeting these goals and policies.

NEPSS organizations will continue to be available for technical and legal consultation and to assist installations and Major Claimants in implementing the EQA program, including conducting compliance audits and EMS Reviews during External Assessments. However, installations and their tenants are expected to conduct their own Internal Assessment inspections and compliance evaluations.

CNO(N45) supports suggestions made during review of the draft EQA Guide that Major Claimants form EQA Implementation Teams. These

Teams would include personnel from several offices that have interests in the Major Claimants' EQA programs. Each Team would select one or more installations where Internal Assessment Plans would be developed and implemented. After a period of implementation, lessons learned would be shared among Teams and would be applied in Internal Assessment planning and implementation at all other installations. CNO(N45) will work with the Major Claimants to organize EQA Implementation Teams and to facilitate sharing of lessons learned.

Because the work of the EQA Implementation Teams will take time, installations and Major Claimants should not wait until the lessons learned are published to take action. Following are tasks that installations can start in the meantime:

- Brief your Commander on EQA requirements and expectations.
- Begin planning your installation's Internal Assessment. While doing this, ask some questions:
  - ▲ What information is readily available?
  - ▲ What additional information on practices will be needed to prepare the actual IAP?
  - ▲ Which installation offices and tenants should be involved in internal assessment planning?
  - ▲ How much of the inspection effort should be provided by practice owners, and what training will they need?
  - ▲ What agreements would be needed between the installation and its tenants to fully implement the EQA?
- Draft a baseline EQA Report using available information. While doing this ask some questions:
  - ▲ How would you explain “inadequate” ratings, and what could the installation do during the next year to avoid having to report these ratings? What would you like to be able to say about each program or media area a year from now?
- ▲ Describe how the installation identifies and solves compliance problems and what might be done to increase the value of this effort.
- ▲ Ask a handful of key people at the installation to list the five top environmental issues/concerns they are aware of and assess the degree of agreement among these people. Are there clear priorities?
- Review the results of the last ECE for your installation. Inspect practices where deficiencies were documented. Are the deficiencies still apparent? If deficiencies linger, conduct trial problem solving and document your analysis using the Problem Solving entries in ACE's POA&M module.
- Obtain a copy of the ACE software and user's manual. Submit requests for the ACE software with your name and complete mailing address to ace@phe.com. Coordinate training sessions with Major Claimants and CNO. Review existing user-level checklists for applicability and make modifications that reflect conditions specific to your installation.
- Begin compiling a comprehensive inventory of practices, assets, and impacts, as described in Chapter 4 of the EQA Guide.
- Build pieces of your plan, perhaps concentrating on a program area, facility, or tenant, and implement that piece to see how it works.

## DEFINITIONS

### Asset

*A resource on which the installation depends or over which it has some responsibility and which may be impacted (adversely or beneficially) by the conduct of practices. Assets could include environmental, cultural, or historical areas; personnel health and safety; mission effectiveness; training lands; real property; financial resources; public relations; etc.*

### Compliance Evaluation

*Identification, characterization, and documentation of compliance deficiencies related to either practices or environmental programs conducted by environmental management office personnel or other environmental professionals designated by the installation. Includes oversight of any inspections that have been performed by practice owners.*

### Impact

*The positive or negative effects on assets of conducting business and management practices.*

### Inspection

*On site examination of practices and related environmental control measures by or on behalf of practice owners to determine whether environmental compliance requirements being satisfied. Includes documentation and reporting of deficiencies as arranged with the installation's environmental*

*management office and any sampling, analysis, or other monitoring activities that the practice owners perform in order to maintain compliance.*

### Practice

*Any activity conducted by an installation or its tenants in performing their missions that has an actual or potential impact on the installation's assets. Includes both business and management practices.*

### Practice Owner

*The person, unit, or organization that operates, conducts, controls or is otherwise responsible for a practice.*

### Problem Solving

*The sequence of steps taken to define a compliance problem analyze its causes, and then select, implement, monitor, and modify corrective actions to achieve specified results*

### Top Management

*Navy installation top management may include the Commanding Officer, Public Works Officer, and other department heads. In a regional complex, top management may include the regional Commander's Regional Advisory Board.*



