

COUNCIL ON ENVIRONMENTAL QUALITY

Aligning National Environmental Policy Act Processes

with

Environmental Management Systems

A Guide for NEPA and EMS Practitioners



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Preface

This guide builds on research and consultations undertaken by the Council on Environmental Quality (CEQ) on the complementary aspects of the National Environmental Policy Act (NEPA) and Environmental Management Systems (EMS). It introduces issues and provides information on how NEPA and EMS can be aligned. This guide does not establish new requirements, does not constitute formal CEQ guidance, and its recommendations should not be considered legally binding.

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[I]t is the continuing policy of the Federal Government...to use all practicable means and measures...to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans.

—National Environmental Policy Act of 1969

[T]he head of each agency shall...

(a) implement within the agency sustainable practices for (i) energy efficiency, greenhouse gas emissions avoidance or reduction, and petroleum products use reduction, (ii) renewable energy, including bioenergy, (iii) water conservation, (iv) acquisition, (v) pollution and waste prevention and recycling, (vi) reduction or elimination of acquisition and use of toxic or hazardous chemicals, (vii) high performance construction, lease, operation, and maintenance of buildings, (viii) vehicle fleet management, and (ix) electronic equipment management;
(b) implement within the agency environmental management systems (EMS) at all appropriate organizational levels to ensure (i) use of EMS as the primary management approach for addressing environmental aspects of internal agency operations and activities...

“[S]ustainable” means to create and maintain conditions, under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic, and other requirements of present and future generations of Americans.

—Executive Order 13423

Introduction

The Council on Environmental Quality (CEQ) offers this guide to assist Federal agencies in aligning the National Environmental Policy Act (NEPA) statement of policy in Section 101 and the analysis and decision processes of Section 102 with the elements of an Environmental Management System (EMS) when establishing, implementing, and maintaining their EMS. The Council on Environmental Quality (CEQ) recognizes the benefits of aligning the complementary processes of NEPA and an EMS and encourages Federal agencies to do so where appropriate.

The National Environmental Policy Act of 1969 (NEPA) articulates a broad national environmental policy.¹ NEPA also includes requirements for Federal agencies to analyze the environmental impacts of their actions, and of alternatives. The CEQ NEPA regulations identify these requirements as the “NEPA process.”² The NEPA process includes forecasting the impacts of a proposed action and reasonable alternatives, and identifying mitigation measures for those impacts prior to making decisions and taking action (“predict-mitigate-implement” model). The analyses are documented and made available to the public in NEPA environmental documents such as Environmental Assessments (EAs) and Environmental Impact Statements (EISs).

Federal agencies have been complying with NEPA’s environmental review requirements for more than 35 years. The issuance of Executive Order 13423 in January 2007, which directs Federal agencies to implement EMSs at all appropriate organizational levels³, provides a means to enhance NEPA compliance. It is important for Federal agencies to understand the relationship of EMS to NEPA. Toward that end, CEQ provides this guide to help Federal agencies recognize the complementary relationship of NEPA and EMS and how this relationship can support the policies set forth in Section 101 of NEPA and the NEPA process. This guide is predicated on the assumption that the reader has a basic understanding of NEPA’s analysis and document preparation processes as well as the elements of an EMS.

EMS and NEPA

An EMS⁴ is a structure of procedures and policies used to systematically identify, evaluate, and manage environmental impacts of ongoing activities, products, and services. Designed to provide

1 Pub. L. 91-190, 42 U.S.C. §§ 4321-4347, January 1, 1970, as amended.

2 Council on Environmental Quality, “Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act,” 40 C.F.R. Parts 1500-1508, available at www.NEPA.gov. The NEPA process is defined at 40 C.F.R. § 1508.21.

3 Executive Order No. 13423, “Strengthening Federal Environmental, Energy, and Transportation Management,” 72 Fed. Reg. 3917 (Jan. 24, 2007), available at <http://ceq.eh.doe.gov/nepa/regs/executiveorders.htm>, directs Federal agencies, among other things, to implement EMSs at all appropriate organizational levels. This Order revoked Executive Order No. 13148, “Greening the Government through Leadership in Environmental Management,” 65 Fed. Reg. 24593 (Apr. 26, 2000), 3 C.F.R. 241 (2001), also available at <http://ceq.eh.doe.gov/nepa/regs/executiveorders.htm>, which required EMS at all appropriate facilities.

4 The ISO 14001 Standard represents a widely used framework for establishing an EMS. Most Federal agencies are developing EMSs using the ISO 14001 or a similar standard. The ISO standard was issued in 1996 and updated in 2004. References to the standard in this document are citing the 2004 update.

order and consistency for organizations to address environmental concerns in a comprehensive manner, an EMS for a Federal agency is intended to ensure that all necessary actions are taken to integrate environmental accountability into day-to-day decision-making and long-term planning processes. An EMS employs a continuous, rigorous, self-monitoring cycle for continual improvement of environmental performance. Improvement is achieved by identifying how the activities, products, and services interact with the environment to cause environmental impacts; by establishing and maintaining environmental objectives and targets; by training staff and clearly defining responsibilities; by instituting operational controls, emergency procedures, and monitoring; and by taking corrective action when necessary to avoid and reduce adverse impacts, using the "plan-do-check-act" model.

EMSs employ unique terminology. For EMS purposes, the "cause" in cause-and-effect relationships involving natural resources may be called an "environmental aspect." An environmental aspect for a facility could include such things as air emissions, wastewater discharges, or natural resource consumption. Aspects that are termed "significant aspects" under an EMS include aspects that could result in "significant environmental impacts."⁵ Many EMS processes are geared toward addressing these significant aspects. This process of identifying and evaluating environmental aspects bears many similarities to the NEPA process of identifying and assessing environmental impacts. In the EMS context however, this information is used not only to assess environmental issues, but also to actively manage them.

One way to address significant aspects in an EMS is to take them into account when setting "objectives and targets" for environmental performance. In an EMS, an objective is essentially a goal established for management of an aspect consistent with policy commitments, and targets are interim goals or milestones for achieving objectives. In combination with other system checks and controls, objectives and targets are the basis for continual improvement in an EMS. An EMS ultimately focuses on the active management of environmental issues, including monitoring and action based on monitoring results.

Conversely, the application of NEPA occurs *before* an agency has decided whether and how to undertake a new proposed action or activity. NEPA has generally been viewed as a non-recurring process focused on a specific proposal that terminates with the decision on whether and how to proceed with the proposed action. Generally speaking, agencies have not integrated the NEPA analyses and documents into the ongoing implementation and management of the action. Moreover, the information and analyses contained in NEPA documents are often not revisited to verify or update the accuracy of data, predictions, and/or the efficacy of mitigation options. To a certain extent, the focus of the NEPA process has become the successful production of the NEPA document, the use of which is limited to the point in time a decision on the proposed action is made. The full value of the resources expended in the NEPA process, therefore, frequently does not carry over into the actual implementation and management of the action.

⁵ "Significantly," in the NEPA context, is defined at 40 C.F.R. § 1508.27 and in agency NEPA procedures. In the EMS context "significant" is not defined, and it is not necessarily the same as under NEPA. Consequently, identifying an environmental aspect as "significant" in the EMS does not necessarily mean it is "significant" under NEPA.

Complementary Processes

As shown in the table below, the integration of NEPA with an EMS can substantially benefit an agency's environmental performance and, in so doing, further national environmental policy. The EMS typically requires identification of environmental aspects and significant environmental impacts associated with ongoing activities, products, and services. On the other hand, NEPA forecasts the impacts of proposed actions and any mitigation measures at a discrete proposal design and decision phase. Incorporating an EMS approach into the NEPA process, particularly with regard to monitoring and taking corrective action, would facilitate the use of this impact prediction and mitigation information beyond the decision into actual day-to-day implementation.

The EMS can track and monitor the commitments and mitigation measures established in NEPA decision documents (e.g., Findings of No Significant Impact and Records of Decision). The EMS provides a framework to improve environmental performance in ongoing, day-to-day operations through "operational controls."⁶ Such tracking and monitoring can contribute to training, internal auditing, and identification of appropriate corrective actions.

Communicating and involving the interested public about a proposed action is a major component of the NEPA process. An EMS can provide numerous opportunities for such communication and, by providing information about the proposal under consideration, help focus public participation.

An EMS can also improve the NEPA process by supporting an adaptive management approach for projects that face uncertain or unforeseen conditions during implementation.⁷ Exploiting the complementary elements of the NEPA and EMS processes can help managers make decisions more effectively, reduce environmental impacts, and further NEPA policy goals and processes.

Finally, although they are not functionally equivalent, it is conceivable that an EMS could be designed to include elements of the NEPA process and, thereby, provide the framework for complying with NEPA requirements. CEQ encourages innovative efforts on the part of agencies to experiment with this concept.

For example, the EMS element for communications with the public can support and strengthen communications for public involvement. Although the public involvement requirements of NEPA are more extensive, and prescriptive, than the external communication procedures in a typical EMS, EMS external communication procedures might incorporate the NEPA public involvement requirements (e.g., scoping and commenting on the draft EIS). The communications requirements would then be met using the required NEPA processes. An EMS can also support NEPA public involvement by

⁶ In an EMS, an "operational control" is an operation associated with an identified significant environmental aspect, consistent with the environmental policy, objectives, and targets, to ensure they are carried out under specified conditions. Operational controls are process controls necessary for ensuring the system functions as intended. In industrial processes, a control valve may serve as an operational control. In an environmental decision-making process, a NEPA review may serve as an operational control.

⁷ 40 C.F.R. § 1502.22 provides a procedure for addressing potentially significant adverse effects that are uncertain because needed information is unavailable at the time of the impact analysis. An adaptive management approach, which includes monitoring project implementation, also can address uncertainty by validating impact predictions or mitigation efficacy, and taking corrective actions when necessary.

including NEPA public involvement requirements in the EMS legal and other requirements element.⁸ In so doing, an EMS supports NEPA requirements and strengthens the process as a whole.

Monitoring and measurement procedures established for an EMS provide another example of how an EMS can complement the NEPA process in significant ways. Monitoring and measurement procedures established for an EMS address the key characteristics of an organization's operations that can have significant environmental impacts. This is of particular interest when, for example, a NEPA document (e.g., record of decision) commits an agency to implementing mitigation measures to protect a resource. In such a case, the EMS could monitor to ensure the mitigation was implemented, and assess whether the mitigation is performing as expected. Implementing monitoring and other complementary processes is discussed further below.

Implementing complementary processes

Implementing complementary NEPA and EMS processes in a manner that supports national environmental policy can only be achieved if agencies encourage NEPA and EMS practitioners to work together in developing NEPA and EMS procedures and processes. Complementary processes that may be pursued include:

- Incorporating the NEPA process or process milestones into EMS objectives and targets;
- Identifying the NEPA process as an operational control of the EMS, thereby requiring various requirements of the NEPA process to be incorporated into the appropriate elements of the EMS;
- Identifying NEPA knowledge as a competency required for an agency's practices;
- Maintaining appropriate NEPA documents as EMS records;⁹
- Incorporating NEPA impact analyses into the EMS aspects identification process and considering EMS aspects in NEPA impact analyses; and
- Incorporating mitigation commitments from the EIS record of decision (ROD) or EA finding of no significant impact (FONSI) into the EMS legal and other requirements¹⁰, objectives and targets, environmental management program(s)¹¹ and operational controls.

⁸ For Federal agencies that are deciding whether and how to undertake projects or programs with the potential to significantly affect environmental resources (have interactions with the environment), NEPA is a legal requirement. The EMS "legal and other requirements" for that agency would include NEPA requirements as applicable requirements related to environmental aspects.

⁹ NEPA documents such as EIS RODs and EA FONSI may be appropriate EMS records if they include agency commitments to mitigation resulting in EMS "legal and other requirements," or the NEPA document is integral to an objective or target identified in the environmental management program(s) of the EMS.

¹⁰ For an EMS, "legal and other requirements" are an organization's applicable legal requirements and other requirements to which the organization subscribes that are related to its environmental aspects. For Federal agencies that are deciding whether and how to undertake projects or programs with the potential to significantly affect environmental resources (have interactions with the environment), NEPA is a legal requirement.

¹¹ Environmental management program(s) in an EMS are the plans for achieving objectives and targets, including responsibilities for implementation.

The NEPA process generally approaches environmental management decisions on a case-by-case basis for proposed actions, focusing on identifying and mitigating “significant” environmental impacts. An EMS uses a holistic approach to address the full range of ongoing activities (and products and services) the agency has decided to implement with the intent to continually improve environmental performance by minimizing the adverse effects of its environmental aspects. The suggestions below illustrate some specific ways that NEPA and EMS processes can complement each other and improve the management of environmental impacts.

- Identification of environmental aspects in the development of an EMS can build on the environmental aspects identified in a previous NEPA analysis of a facility, activity, program, or policy. Conversely, a new NEPA analysis can consider the identified environmental aspects in an EMS when assessing potential environmental impacts of a proposed action. The EMS can provide a platform to use the information collected and analyses performed in the NEPA process on a going forward basis during implementation of proposed actions.
- Performance measurements and monitoring conducted as part of an EMS can provide comparable and verifiable data to improve environmental impact predictions in future NEPA analyses and documents.
- An EMS provides a systematic framework for an agency to monitor and continually improve its environmental performance. Agencies with an EMS may be able to use the data it generates to establish a record of environmental performance to support, for example: (a) identifying categories of actions that normally require an EIS; (b) finding no significant impact when performance practices are incorporated into a proposed action (which would conclude the EA process without the need to prepare an EIS); or (c) determining that a category of actions does not have individual or cumulative significant impacts and should properly be established as a categorical exclusion which would reduce the need to prepare either an EA or an EIS. Further, when a NEPA analysis is needed, the EMS approach of keeping environmental data up-to-date should facilitate the preparation of the NEPA documents.
- When an EMS has established environmental objectives and targets relevant to resource areas subject to NEPA mitigation measures, the EMS can ensure implementation and performance of mitigation measures through applicable measurement and monitoring programs.
- An EMS can support the implementation of a NEPA “adaptive management” approach when there are uncertainties in the prediction of the impacts or outcome of project implementation, or the effectiveness of proposed mitigation. The checking and corrective action elements of the EMS can add the “monitor and adapt” steps to the traditional NEPA “predict-mitigate-implement” model. The resulting adaptive management approach

(the “predict-mitigate-implement-monitor-adapt” model) can provide managers with the flexibility to make necessary corrections or adjustments, possibly without needing new or supplemental NEPA analyses, when the NEPA process has identified and analyzed the range of possible outcomes and the appropriate adjustments to respond to them.¹² This approach allows continuous improvement in management effectiveness and in reducing environmental impacts within parameters established by the NEPA-informed decision.

There will be Federal agencies or facilities that have an EMS but do not prepare EAs or EISs for certain proposed actions, just as there will be proposed actions for which an EA or EIS is required which are not covered by an existing EMS. Nevertheless, when an agency is preparing an EA or EIS and the proposed action is within the scope of the EMS, the NEPA process is one of many requirements and procedures that can be managed as part of the EMS.

In conclusion, the table below highlights the complementary processes of EMS and NEPA.¹³ The EMS elements depicted in the left hand column of the Table represent the elements of an International Organization for Standardization EMS standard (ISO 14001) EMS. The information presented in the right hand column relates to commonalities between the EMS element’s procedures or information requirements and the NEPA elements that are described in the middle column. This table will be useful for the NEPA practitioner to identify information and procedures associated with EMS elements that may support the various phases of the NEPA review process and information requirements. The EMS specialist will find the table useful for identifying NEPA review procedures and analyses that can support the development and implementation of EMS procedures and processes.

12 The adaptive management approach for NEPA was examined in the NEPA Task Force Report, “The NEPA Task Force Report to the Council on Environmental Quality—Modernizing NEPA Implementation,” (September 2003), available at <http://www.ceq.eh.doc.gov/nf>. A more extensive description of implementation in the agency context can be found in the Federal Aviation Administration’s paper “Environmental Management Systems and NEPA Adaptive Management” available at http://www.faa.gov/regulations_policies/policy_guidance/envir_policy.

13 Understanding the table requires the reader have a basic understanding of both the NEPA analysis and document preparation processes and the elements of the International Organization for Standardization EMS standard (ISO 14001) with their associated procedures and requirements. While not all EMSs developed in the Federal sector follow the ISO 14001 model, most have similar or common elements.

Table: Complementary Elements of the Environmental Management System and National Environmental Policy Act Processes

EMS Element	NEPA	EMS and NEPA Complementary Examples
<p>Policy</p> <p>The organization states its commitment to environmental compliance, environmental protection, and continual improvement within the scope of the organization's activities and products and services covered by its EMS.</p>	<p>Several provisions in CEQ Regulations address the national environmental policy Congress declared for Federal agencies in Section 101 of the National Environmental Policy Act.</p> <p>The primary provision is at 40 CFR Section 1500.2 (Policy).</p> <p>Other relevant provisions include 40 CFR Sections 1500.1 (Purpose), 1505.1 (Agency decisionmaking procedures), and 1507.2 (Agency capability to comply).</p>	<p>The EMS Policy Statement defines the scope of the agency's organization and activities covered by the EMS; this is likely to include activities for which NEPA analyses are required or have been prepared.</p> <p>In Section 101 of NEPA, Congress provided a common environmental policy statement for all Federal agencies. This policy statement is a general statement of the Federal government's commitment to environmental protection and interagency coordination in the implementation of that policy. The policy goals of Section 101 can serve as a basis for commitments to prevent pollution and comply with other environmental laws.</p>
<p>Environmental Aspects</p> <p>An EMS includes procedure(s) to identify, and keep up-to-date environmental aspects and impacts of activities and products and services it can control and influence, including ongoing and new projects. Significant aspects must be taken into account in establishing, implementing, and maintaining the EMS.</p>	<p>Under NEPA, an agency evaluates a new project at the proposal stage to identify how it or reasonable alternatives will interact with the environment, and what the related impacts will be. Impacts are characterized as to significance based on the setting of the proposed action and the intensity of its impacts.</p> <p>NEPA analyses and documentation are described in the CEQ NEPA Regulations at 40 CFR Parts 1500-1508. The relevant provisions include Sections:</p> <p>1501.2 (Apply NEPA early in the process);</p> <p>1501.3 (When to prepare an environmental assessment);</p> <p>1501.4 (Whether to prepare an environmental impact statement);</p> <p>1501.7 (Scoping);</p> <p>1502.15 (Affected environment);</p> <p>1502.16 (Environmental Consequences); and</p> <p>1508.27 (Significantly).</p>	<p>The EMS aspects can inform the development and preparation of NEPA analyses and documentation. Aspects can inform an agency's identification of the types of activities that normally merit an EA or EIS which should be included in its agency NEPA procedures developed in accordance with 40 CFR Section 1507.3(b).</p> <p>An EMS can include procedure(s) that consider the identification of new impacts or the significance of impacts in existing NEPA documents¹⁴ when establishing associated significant aspects. The completed NEPA process can provide information to update the EMS aspects. Aspects addressed in the EMS should be reviewed and updated as new NEPA reviews are completed or as relevant associated monitoring data become available.</p> <p>Thresholds of impact significance considered in the preparation of an EA or EIS may be considered as significance criteria for the EMS aspects procedure.¹⁵</p>

14 For the purposes of this crosswalk, NEPA documents include Environmental Assessments and related Findings of No Significant Impact, and Environmental Impact Statements and their associated Records of Decision.

15 See footnote 5.

EMS Element	NEPA	EMS and NEPA Complementary Examples
<p>Legal and Other Requirements</p> <p>An EMS includes procedure(s) to identify and have access to legal and other requirements related to an organization's environmental aspects.</p>	<p>The requirements for complying with the National Environmental Policy Act are found throughout the CEQ NEPA regulations and agency NEPA procedures. Project- and program-related NEPA analysis and document preparation processes are conducted in accordance with these procedures. Provisions that address the legal status of the NEPA requirements are at Sections 1500.6 (Agency authority) and 1506.5 (Agency responsibility). Agency compliance requirements are set out in Part 1507.</p> <p>Decisions made <i>after</i> considering the environmental consequences may establish new requirements. Relevant provisions in the CEQ NEPA Regulations include Sections 1505.2 (Record of decision in cases requiring EISs) and 1505.3 (Implementing the decision).</p>	<p>NEPA imposes requirements which must be identified as part of the EMS "legal and other requirements" where applicable. The requirements could include the procedures to meet NEPA requirements that are in place (e.g., Council on Environmental Quality and agency NEPA regulations and procedures).</p> <p>Regulatory requirements applicable to alternatives should be identified in the NEPA analysis (e.g., permitting, endangered species, etc.). Requirements applicable to the chosen alternative can then be integrated into the EMS.</p> <p>Mitigation and monitoring commitments made in a ROD or FONSI can be incorporated into the EMS and carried through the system.</p>
<p>Objectives, Targets, and Environmental Management Programs (EMPs)</p> <p>Objectives and targets are established to address significant aspects and legal requirements, unless they can be fully addressed with operational controls, and lead to continual improvement.</p> <p>EMPs identify the means and responsibilities for achieving objectives and targets. EMPs are developed for each objective, describing specific tasks, milestones, responsible parties, and measurement parameters.</p>	<p>Numerous provisions of CEQ's NEPA regulations require activities and performance that can be used to develop objectives, targets and EMPs.</p>	<p>EMS objectives may include complying with requirements established under NEPA. For example, Section 1501.8 (Time limits) provides for setting dates for NEPA process milestones (i.e., targets) as well as for completing the process (i.e., objectives).</p> <p>The NEPA process can provide information to help establish relevant objectives, and the performance measures needed to assess attainment of objectives and targets.</p> <p>Mitigation measures identified in a ROD or FONSI can be incorporated in EMS objectives. An EMS may use the results of NEPA review and associated monitoring data, where applicable, to update its objectives and targets.</p>

EMS Element	NEPA	EMS and NEPA Complementary Examples
<p>Resources, Roles, Responsibility and Authority</p> <p>Management must ensure resources are available to establish, implement, maintain and improve the EMS. Roles, responsibilities and authorities must be defined, documented and communicated.</p>	<p>The overarching resources, roles, responsibility and authority for complying with NEPA are addressed in the CEQ NEPA regulations at Section 1506.5 (Agency responsibility) and Part 1507 (Agency Compliance). Several other relevant provisions include Sections 1501.5 (Lead agencies) and 1501.6 (Cooperating agencies).</p> <p>Decisions on how to proceed are made at the conclusion of the NEPA process, and are identified in the EA/FONSI and EIS/ROD.</p>	<p>The EMS can identify roles and responsibilities and the resources necessary to carry out NEPA review and decision-making requirements.</p> <p>The EMS can define roles and responsibilities for carrying out the chosen alternative, as well as mitigation measures identified in a ROD (EIS) or FONSI (EA).</p> <p>Identifying the resources and responsibilities for EMS monitoring activities may assist the NEPA process when monitoring is necessary to allow, for example, an adaptive management approach. A much stronger case can be made for using adaptive management when the responsibilities and resources for carrying it out are clearly identified in the EMS.</p>
<p>Competence, Training and Awareness</p> <p>Person(s) performing tasks for the organization or on its behalf that have the potential for significant impacts must be competent as a result of education, training, or experience.</p>	<p>Staff that contributes to, or uses information from, the NEPA process should be knowledgeable about the CEQ NEPA regulations in addition to agency NEPA procedures (see 40 CFR Part 1507, Agency Compliance). In addition, individuals responsible for the management of agency programs and projects that may have a significant effect on the environment should be aware of specific aspects of the NEPA process, such as those set out in Sections 1506.1 (Limitations on actions during NEPA process) and 1506.10 (Timing of agency action).</p>	<p>Training that is relevant to the achievement of environmental policies, objectives, and targets should be provided to all person(s) within and working on behalf of the agency covered by the EMS.</p> <p>When NEPA is an integral part of the EMS or linked to the agency's environmental aspects, or when NEPA outcomes are linked to the objectives and targets, the EMS can facilitate the NEPA process by requiring appropriate staff be trained on NEPA and related environmental analysis requirements (e.g., how to conduct the process, and how to prepare and document the analysis).</p>

EMS Element	NEPA	EMS and NEPA Complementary Examples
<p>Communication</p> <p>Procedures are established in an EMS for communicating internally and documenting and responding to relevant external communications. An organization has discretion about communicating externally on significant environmental aspects; however, Federal agencies are in a special position to emphasize the importance of ongoing communication and cooperation with the public and interested parties.</p>	<p>One of NEPA's goals is to effectively communicate environmental information to decisionmakers and the public and to facilitate involvement in decisions which affect the quality of the human environment (40 C.F.R. § 1500.2).</p> <p>In addition to the mandate that agencies shall make diligent efforts to involve the public in implementing their NEPA procedures set forth in Sections 1501.4(b) and 1506.6, the CEQ NEPA Regulations address specific stages of the NEPA process when communication with other agencies and the public are required such as Sections 1501.7 (Scoping), 1502.19 (Circulation of the EIS) and 1502.25 (Environmental review and consultation requirements).</p>	<p>The EMS can be used as a platform for ongoing communication and cooperation with the public and interested parties. For example:</p> <ul style="list-style-type: none"> • NEPA procedures for public comment and public involvement at the Scoping stage, and for the Draft and Final EIS, can be part of the EMS procedures for external communication; and • progress toward meeting ROD or FONSI requirements/commitments may be shared with the public as part of the ongoing EMS communication procedures. <p>In developing EMS objectives, the agency should consider the views of interested parties. Comments received during the NEPA review process may provide useful insight when developing objectives.</p>
<p>Documentation</p> <p>Documentation for the EMS must include documents and records necessary for planning, operation and control of processes related to significant environmental aspects.</p>	<p>The CEQ NEPA regulations primarily address the contents of the EA/FONSI in Sections 1508.9 and 1508.13, and the contents of EIS/ROD in Part 1502.</p> <p>The CEQ NEPA regulations provide for efficient documentation in Section 1500.4.</p>	<p>NEPA documents may be essential for planning or controlling processes related to significant environmental aspects. In such a case, EMS documentation would include the NEPA documents.</p> <p>The EA/FONSI and EIS/ROD developed during the NEPA process should be reviewed for inclusion in the EMS documentation, particularly when they set forth agency commitments.</p>

EMS Element	NEPA	EMS and NEPA Complementary Examples
<p>Control of Documents</p> <p>Documents required by the EMS must be controlled using procedures to, among other things, approve documents for adequacy and update and re-approve as necessary.</p>	<p>The process for finalizing EISs described in CEQ NEPA regulations at Sections 1505.2 and 1502.9 are document control procedures that help ensure adequacy, and assist re-approval and updating NEPA documents. Additional relevant provisions include Sections 1502.9(c) (supplemental statements), 1502.20 (Tiering), and 1502.21 (Incorporation by reference).</p>	<p>For NEPA documents required by the EMS, there must be an established procedure for ensuring adequacy, and a process for updating and re-approval if necessary.</p>
<p>Operational Control</p> <p>In an EMS, an "operational control" is a procedure associated with an operation that is an identified significant environmental aspect.</p> <p>Procedures are established to ensure operations related to significant aspects do not deviate from environmental policy or objectives and targets.</p> <p>Operational controls are process controls necessary for ensuring the system functions as intended.</p> <p>Procedures are required for any operation when their absence can lead to a deviation from EMS requirements.</p>	<p>Agency identification of actions that normally require an EA or EIS, or are categorically excluded, are the foundation for using the NEPA process as part of an environmental management program's system of operational controls.</p> <p>The CEQ NEPA regulations describe procedures for conducting the NEPA process to review proposed operations—including, but certainly not limited to:</p> <p>Part 1501 NEPA and Agency Planning;</p> <p>Part 1502 Environmental Impact Statement; and</p> <p>Part 1505 NEPA and Agency Decisionmaking.</p> <p>The following sections of the regulations provide examples of elements of the NEPA process that can be operational controls: 1501.8 (Time limits); 1505.1 (Agency decisionmaking procedures); 1506.1 (Limitations on actions during NEPA process); 1506.2 (Elimination of duplication with State and local procedures); 1506.5 (Agency responsibility for: information to applicants; for applicant prepared EAs; for contractor prepared EISs); and 1506.10 (Timing of agency action).</p>	<p>Procedures to perform the NEPA process can be a key operational control.</p> <p>Specific activities and operations (including mitigation) described in a NEPA document can be incorporated into EMS operational procedures.</p> <p>The procedures can include steps to ensure information regarding aspects developed during preparation of an EA or EIS is reviewed for inclusion in the aspects inventory.</p>

EMS Element	NEPA	EMS and NEPA Complementary Examples
<p>Emergency Preparedness and Response</p> <p>Procedures are required for identifying potential emergencies and accidents and for preventing adverse environmental impacts from those emergencies and accidents.</p>	<p>CEQ NEPA regulations at Section 1506.11 set out alternative arrangements that can be used for proposed actions that respond to an emergency and have the potential for significant environmental effects.</p> <p>Many NEPA analyses are done for contingency plans or emergency response plans and for actions with potential for accidents or other types of emergency situations.</p>	<p>EMS procedures developed for emergency planning should include provisions for using NEPA emergency procedures.</p> <p>Decisions regarding what action or alternative to take could be used to inform emergency preparedness and response procedures for an EMS.</p>
<p>Monitoring and Measurement</p> <p>An EMS specifies procedures to monitor and measure key characteristics of its operations that can have significant environmental impacts. These include monitoring of performance, operational controls, and conformance with objectives and targets</p>	<p>Section 1505.2(c) of the CEQ NEPA regulations call for the adoption of a monitoring and enforcement program, where applicable, for mitigation measures identified in an EIS record of decision.</p> <p>Other relevant provisions of the CEQ NEPA regulations address:</p> <ol style="list-style-type: none"> (1) When supplemental analyses should be prepared (Section 1502.9(c)); (2) How to deal with incomplete or unavailable information (Section 1502.22); and (3) Methodology and scientific accuracy (Section 1502.24). 	<p>Existing EMS monitoring data may inform analysis and support predictions of environmental impacts throughout the NEPA process.</p> <p>Performance metrics related to activities and mitigation measures identified in the EIS ROD or EA FONSI, may be part of the EMS evaluation process. This can ensure that activities associated with EMS objectives and targets or operational controls are occurring as planned, and the intended results are being achieved.</p> <p>When a monitoring and enforcement program is established through the NEPA process, it can be incorporated into EMS monitoring and measurement activities.</p> <p>An essential component of the adaptive management model (i.e., predict, mitigate, implement, monitor and adapt) is monitoring to assess whether predictions of environmental effects are correct, and that any mitigation implemented is functioning as intended. Monitoring activities implemented for an EMS may subsume or complement the monitoring needed to accomplish adaptive management in the NEPA process.</p>

EMS Element	NEPA	EMS and NEPA Complementary Examples
<p>Evaluation of Compliance</p> <p>The EMS must include procedures to periodically evaluate compliance with applicable legal and other requirements</p>	<p>An agency's responsibilities to comply with NEPA requirements are specifically addressed in Part 1507.</p> <p>Other compliance responsibilities identified in the CEQ NEPA regulations include the responsibility to develop alternatives when there are unresolved conflicts concerning alternative uses of resources (Section 1501.2) and the responsibility to implement mitigation that is committed as part of the decision (Section 1505.3).</p>	<p>When NEPA compliance is an applicable legal or other requirement within the EMS, procedures developed for the EMS must address how the agency will evaluate compliance with NEPA. This can lend support to the agency's NEPA implementation efforts.</p> <p>The EMS would also evaluate compliance with other applicable environmental laws which can inform the NEPA process.</p>
<p>Nonconformity, Corrective and Preventive Action</p> <p>The EMS must include procedures for identifying and correcting nonconformities, mitigating their environmental impacts, and defining actions to avoid nonconformity occurrence. Procedures must also define requirements for reviewing the effectiveness of the corrective and preventive actions taken.</p> <p>Findings, conclusions, and recommendations reached as a result of monitoring and audits of the EMS are the basis for corrective and preventive actions and the systematic follow-up to ensure their effectiveness.</p>	<p>NEPA requirements are assessed as part of ongoing reviews. Nonconformance in conducting the NEPA process would be addressed by corrective and preventive actions. Relevant provisions of the CEQ NEPA regulations include sections 1502.9(c) (preparation of supplemental analyses), 1503.4 (responding to comments), 1506.1 (limitations that should be included in instructions to applicants), and 1507.3(a) (review NEPA policies and procedures).</p> <p>Section 1505.3 of the CEQ NEPA regulations calls for agencies to ensure mitigation committed to in the "decision" is implemented by making the mitigation a condition of grants, permits or other approvals and funding actions. And cooperating and commenting agencies can request information on the progress of carrying out the mitigation, which can help to ensure the mitigation conforms to stakeholder expectations.</p>	<p>In cases where NEPA procedures are key to maintaining operational controls or meeting objectives and targets, and are not being followed, corrective action should be identified and taken. Changes in procedures as a result of corrective action must be documented.</p> <p>For agency actions reviewed under NEPA and also covered by an EMS, monitoring and adaptation associated with adaptive management may fall squarely within the purview of an EMS's preventive and corrective action program.</p> <p>The checking and corrective action elements of an EMS may also identify instances when environmental mitigation commitments in the EIS ROD or EA FONSI are not being implemented and nonconformance in implementing actions would be addressed by the corrective and preventive actions.</p>

EMS Element	NEPA	EMS and NEPA Complementary Examples
<p>Control of Records</p> <p>An EMS includes procedures for maintaining records necessary to demonstrate conformance with the EMS standard.</p>	<p>Procedures for controlling NEPA documents that are also EMS records can be added to the agency NEPA procedures developed in accordance with the provisions in the CEQ NEPA regulations Sections 1505.1 (Agency decisionmaking procedures), and 1507.3 (Agency procedures). They should include procedures for filing records (section 1506.9) and incorporation by reference (section 1502.21).</p>	<p>To the extent that NEPA documents are EMS records, they should be maintained in accordance with EMS records management procedures.</p>
<p>Internal Audits</p> <p>An EMS defines audit programs and processes to assess the EMS itself (e.g., assessing conformity to the EMS standard) at planned intervals. The results of audits must be presented to management.</p>	<p>There is no equivalent NEPA requirement.</p>	<p>Commitments for mitigation made pursuant to the NEPA process may be reviewed in an EMS audit when such commitments are linked to objectives and targets or operational controls in the EMS. In these cases, the EMS audit is another means for ensuring that agency commitments made under NEPA are appropriately implemented.</p> <p>As part of the EMS audit, NEPA processes may be spot-checked and evaluated, and adjustments made to those processes if necessary.</p>
<p>Management Review</p> <p>Senior management reviews the EMS at regularly scheduled intervals to ensure suitability and effectiveness. Reviews assess the need for change in EMS policy or objectives and targets.</p>	<p>Each agency must be capable of complying with the requirements set out in Section 1507.2.</p>	<p>Management review of the EMS is an opportunity to assess the effectiveness of the NEPA program, adjust procedures to take advantage of NEPA/EMS synergy, and enhance areas in which NEPA and EMS procedures are complementary.</p> <p>NEPA procedures that are relevant to maintaining operational controls or meeting objectives and targets should be included in the management review.</p>

Bibliography and Suggested Reading

American Association of State Highway and Transportation Officials Center for Environmental Excellence, "EMS Implementation Guide," (2003): http://www.environment.transportation.org/documents/ems_implementation_guide.asp.

Boling, Edward A., "Environmental Management Systems and NEPA: A Framework for Productive Harmony," *Environmental Law Reporter*, Volume 35, Number 1 (2005), pp. 10022-10031.

Cascio, Joseph, et al, *ISO 14000 Guide—The New International Environmental Management Standards*, (New York: McGraw Hill, 1996).

Council on Environmental Quality, "Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act," 40 C.F.R. Parts 1500-1508 (2005): http://ceq.eh.doe.gov/nepa/regs/ceq/toc_ceq.htm.

Eccleston, Charles H., and Robert B. Smythe, "Integrating Environmental Impact Assessment with Environmental Management Systems," *Environmental Quality Management Journal*, Volume 11, Number 4 (2002), pp. 1-13.

Executive Order 13423, "Strengthening Federal Environmental, Energy, and Transportation Management," 72 Federal Register 3919 (Jan. 26, 2007): http://www.ofee.gov/eo/eo_13423.pdf.

Federal Aviation Administration, "Environmental Management Systems and NEPA Adaptive Management," (May 2004): http://www.faa.gov/regulations_policies/policy_guidance/envir_policy.

International Organization for Standardization, "ISO 14001:2004, Environmental management systems - Requirements with guidance for use" (2004).

International Organization for Standardization, "ISO 14004:2004, Environmental management systems - General guidelines on principles, systems and support techniques" (2004).

Loney, Jon M., Harold M. Draper, et. al., "Integration of the NEPA into a Comprehensive Environmental Management System—The Tennessee Valley Authority Experience," *Environmental Practice*, Volume 5, Number 4 (2003) pp. 231-329

Marcus, Philip A., and Willig, John T., *Moving Ahead with ISO 14000: Improving Environmental Management and Advancing Sustainable Development*, (New York: John Wiley & Sons, Inc., 1997).

NEPA Task Force, "The NEPA Task Force Report to the Council on Environmental Quality—Modernizing NEPA Implementation," (September, 2003): <http://ceq.eh.doe.gov/ntf/report/pdf/toc.html>.

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