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Improving the National Environmental Policy Act (NEPA) through ISO 14001

C. H. Wilkinson

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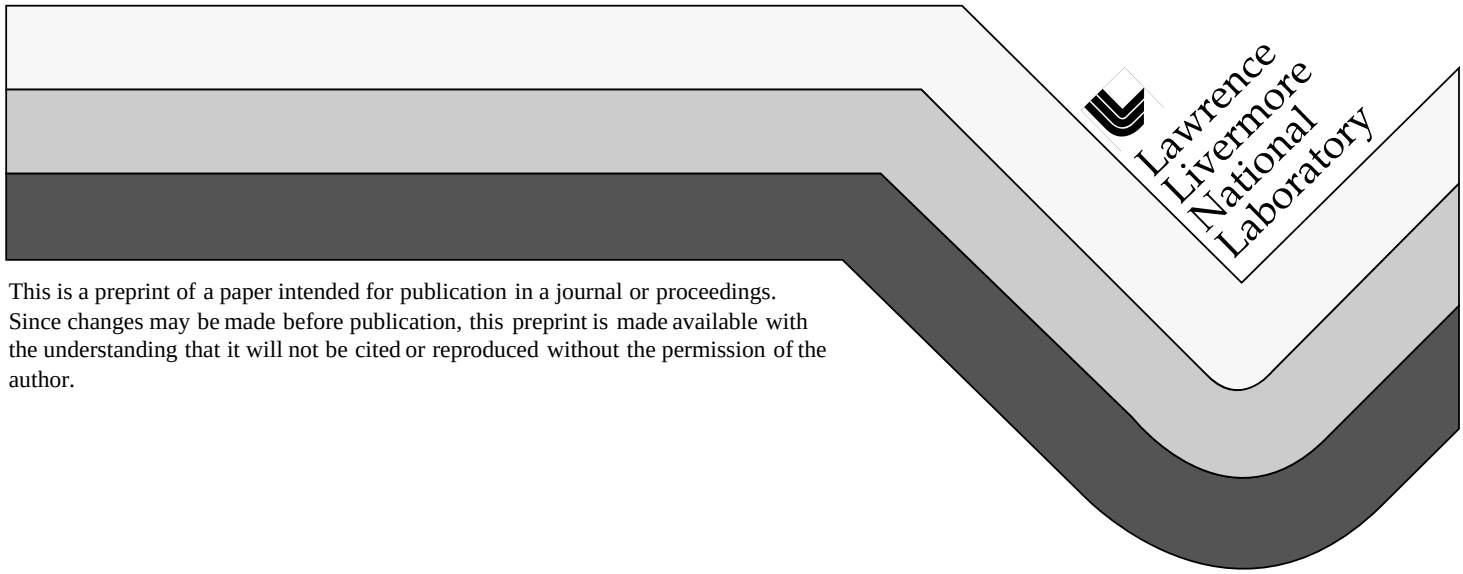

DISCLAIMER

Improving the National Environmental Policy Act (NEPA) through ISO 14001

Cory H. Wilkinson
Lawrence Livermore National Laboratory (LLNL)

INTRODUCTION

The National Environmental Policy Act (NEPA) (or "the Act") has long been criticized for a multitude of issues such as the cost and time involved n the preparation of lengthy documents (Bausch 1996). The criticism of NEPA continues even with the current Congress (Epatko 1998). However, while it is not NEPA's purpose to generate paperwork (even "excellent paperwork"), NEPA seems to excel in causing creation of large documents that are all too often put on the shelf once completed. In some cases, current federal agency implementation of NEPA may have missed the point as far as meeting the goals of Section 101 of NEPA. One of NEPA's underlying purposes is to *take action* (not create paperwork) that restores, protects, and enhances the environment. It is the *action* that begins to get at the real underlying goals of NEPA as expressed in Section 101 of the Act. But how can agencies take such action if they do not take the NEPA document off the shelf and monitor project implementation to ensure that mitigation measures are incorporated and become more than just words on paper? While regulatory provisions exist to require a monitoring and enforcement program, mitigation and monitoring has been identified as a continued weakness in NEPA implementation. One suggestion to strengthen mitigation and monitoring exists with federal implementation of the international standard for environmental management systems, ISO 14001 and the U.S. Environmental Protection Agency (EPA) Code of Environmental Management Principles (CEMP).

PROCEDURAL FLAW IN NEPA - MONITORING AND FOLLOWUP

As written in the Council on Environmental Quality (CEQ) regulations, "NEPA's purpose is not to generate paperwork – even excellent paperwork – but to foster excellent action." (40 CFR 1500.1(c)). But it is upon implementing the "action" step that NEPA seems to fall the hardest. Similarly, Ms. Katie McGinty, a former Chair of the CEQ, recognized that the problem with NEPA is not with the law itself, but in its implementation and that the statute has become bogged down in paperwork (Epatko 1998).

While most federal agencies seem to have a grip on the procedural aspects of the "action-forcing" provisions of NEPA, such as writing environmental impact statements (EIS) and environmental assessments (EA), a fundamental weakness of NEPA remains in taking action in furtherance of Section 101 goals to "protect, restore, and enhance the environment" (40 CFR 1500.1(c)). Even in those instances where a mitigating action might be included as part of the EA or EIS or as part of the decision document, CEQ has identified that some agencies do not follow through with a formal mitigation and monitoring program even though the CEQ regulations require a monitoring program for EISs (40 CFR 1505.2(c)). According to CEQ, "agencies do not collect long-term data on the

actual environmental impact of the project . . . [n]or do agencies generally gather data on the effectiveness of mitigation measures"(CEQ 1997). While some agencies such as the U.S. Department of Energy (DOE) require formal Mitigation Action Plans, lack of thorough followup monitoring and mitigation is all too often a flaw in NEPA implementation and reflective of the unfortunate lack of fulfillment of Section 101 goals.

ADAPTIVE MANAGEMENT IS PART OF THE SOLUTION

A proposed solution to this short-fall is an approach recognized by CEQ as Adaptive Management. This approach is the continuous modification of management practices in order to achieve both project objectives and environmental protection (Carpenter 1995 and CEQ 1997). Such approach shifts thinking away from the old project paradigm of "predict, mitigate, and implement" to "predict, mitigate, implement, monitor, and adapt." "Adaptive management recognizes the limits of knowledge and experience and moves iteratively toward goals in the face of uncertainty." (CEQ 1997). However, one problem to overcome in implementing adaptive management includes difficulties in allocation money and time for long-term monitoring in the face of the need to complete a project on a specific time frame and budget (Carpenter 1995). While DOE helps address this issue through its formal Mitigation Action Plan, other solutions to this issue include federal implementation of an Environmental Management System through ISO 14001, or the EPA Code of Environmental Management Principles (CEMP). These two potential solutions are further discussed below.

ISO 14001 CREATES A STRONG ENVIRONMENTAL MANAGEMENT SYSTEM

In September 1996, the International Organization for Standardization (ISO) released the standard ISO 14001 which provides specifications for an Environmental Management System (EMS). The approach of the standard is to create a corporate management system framework for environmental management based on the concepts of total quality management (TQM): Plan, Do, Check, Review. The structure of ISO 14001 integrates with NEPA as shown in Table 1 below (Wilkinson 1997).

Because of its TQM focus, ISO 14001 emphasizes continual improvement and has strong feedback loops for monitoring and improvement. Furthermore, since the management system is adopted on a corporate level, it cuts across the project-based hurdle of adaptive management as discussed above.

The ISO 14001 TQM (Adaptive Management) approach is well-suited to strengthen the mitigation/monitoring weakness of NEPA. Under ISO 14001, periodic audits are required to determine the strength and integrity of the management system and to look for evidence of continuous improvement. The ISO 14001 environmental management system focuses on environmental impacts (called "aspects") and ways to continuously reduce those aspects and correct non-conformances. In this regard, the ISO 14001 TQM-based environmental management system can close the circle on weaknesses of NEPA mitigation and monitoring and help get the expensive NEPA document off the shelf and integrated into site management operations.

Table 1:
Comparison of Comparison of Management Systems Framework: ISO 14001 and NEPA

ISO 14001	*NEPA*	*NEPA Adaptive Management*
Policy	Establish purpose and need for action	Predict
Planning	Develop proposed action & alternatives	
	Conduct Interdisciplinary impact assessment	
	Plan mitigation measures	Mitigate
Implementation	Implement decision	Implement
Checking & Corrective Action	Mitigation & monitoring	Monitor
Continuous Improvement		Adapt

ISO 14001 is not just for the private sector, but is actively being implemented by several Federal agencies and the contractors of those agencies. Agencies are required to use voluntary consensus standards where possible (NTTAA 1995). Federal application of environmental management systems is encouraged by both the U.S. Environmental Protection Agency (EPA), the White House Office of Science and Technology Policy (Gibbons 1995) and the National Environmental Policy Institute (NEPI 1995). EPA recently released a position statement on ISO 14001 which encourages environmental management systems that focus on improved environmental performance and compliance (EPA 1998).

EPA CEMP ALSO CREATES A STRONG ENVIRONMENTAL MANAGEMENT SYSTEM

EPA also recently issued its own Code of Environmental Management Principles (CEMP) for Federal Agencies (EPA 1997 and 61 FR 54062) which provides for an ISO-14001-like environmental management system structure for use by Federal agencies. The EPA recognizes that CEMP and ISO

14001 are compatible and that some agencies are using ISO 14001 instead of (or in addition to) CEMP. One example of federal implementation of ISO 14001 can be seen with the U.S. Department of Energy (DOE). Several of the DOE contractor companies which manage and operate large DOE sites have become certified to ISO 14001. Others are integrating ISO 14001-like environmental management systems as part of their business operations. Table 2 below shows how the components of CEMP could integrate with NEPA.

Table 2:
Comparison of Comparison of Management Systems Framework: CEMP & NEPA

CEMP	*NEPA*
Management Commitment	Establish purpose and need for action
Compliance Assurance and Pollution Prevention	Develop proposed action & alternatives
	Conduct Inter-disciplinary impact assessment
	Plan mitigation measures
Enabling Systems	Implement decision
Performance and Accountability	Mitigation & monitoring
Measurement and Improvement	

IMPROVED MITIGATION AND MONITORING WILL STRENGTHEN SECTION 101 OF NEPA

Perhaps one of NEPA's basic underlying shortcomings is its focus on Section 102 (requirements for the environmental impact statement) to the exclusion of any real focus on the broader environmental policy goals established in Section 101 of NEPA. A strong federal agency environmental management system under ISO 14001 or the EPA Code of Environmental Management Principles would help both strengthen NEPA's mitigation and monitoring provisions, but also significantly enhance federal compliance with NEPA goals under Section 101 of the Act by encouraging agencies to incorporate environmental values as part of agency missions and as part of daily management.

Upon issuance of the CEMP, EPA stated, "the public has also demanded that the Federal Government and its agencies and departments. . . demonstrate a commitment to a common environmental ethic." "EPA believes that if the Federal Government is willing to make a public commitment to voluntarily adopt an appropriate code of environmental ethics or conduct. . . and hold itself accountable for implementing these principles, then significant progress can be made toward improving public trust and confidence toward Federal facility environmental performance." (61 FR 54062). This desire

for environmental leadership and accountability seems to mirror the basic goals of Section 101 of NEPA as envisioned more than 25 years ago.

CONCLUSION

Federal application of ISO 14001 and / or the EPA CEMP could substantially improve the mitigation and monitoring aspects of the NEPA process. In addition, application of those management systems could also enhance fulfillment of Section 101 goals of NEPA. An ISO 14001 Environmental Management System would provide for a plan to continually address and improve environmental aspects and impacts. The strong feedback and improvement loops in both CEMP and ISO 14001 would help strengthen this weakness of NEPA by providing a mechanism to foster excellent environmental *action*, not just more dusty paperwork.

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