

# ES&H manual

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## Environment, Safety, and Health

### Volume I

### Part 3: Safety Analysis and Work Plans and Procedures

## Document 3.6 Environmental Planning

**Recommended for approval by the ES&H Working Group**

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**New document or new requirements**

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Environmental Planning\*

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\* Editorial revision

## 3.6

### Environmental Planning

#### 1.0 Environmental Evaluation Procedures

All proposed actions at LLNL that involve U.S. government decisions or resources, or that may require a permit or decision by a California state, city, or regional governmental agency, need to be evaluated to determine how environmental impact review requirements apply. In addition, new projects also must be analyzed to determine if permitting issues must be addressed. These two issues are discussed in this section.

##### 1.1 Environmental Impact Assessment

Because LLNL facilities are federally owned and University of California (UC)-operated, the environmental review requirements of both the Department of Energy (DOE) and the State of California are applicable during the project planning process. Environmental impact analyses for federal project requirements are set forth in the National Environmental Policy Act (NEPA); California requirements are governed by the California Environmental Quality Act (CEQA). Reviews are required for virtually all proposed LLNL projects or actions and for changes in existing activities or operations to determine their environmental impacts. The depth of review required varies with the project's environmental impact sensitivity. Some reviews require no documentation, while others may involve years of effort. NEPA or CEQA review requirements can range from preparing environmental checklists or records of review (RORs), to preparing a comprehensive environmental impact statement (EIS) under NEPA, or an environmental impact report (EIR) under CEQA. Both must include detailed descriptions of projected environmental consequences of a particular project as well as mitigation measures to reduce its impacts. These documents are intended to ensure that environmental information is available to public officials (e.g., DOE or state agency decision makers) and to citizens before decisions are made and actions are taken that could impact the quality of the environment.

As part of an effort to evaluate the potential impact of Laboratory operations, a joint EIS/EIR was prepared and finalized in August 1992. This comprehensive document evaluated the environmental impacts of continuing operations of LLNL and Sandia National Laboratories, Livermore, including near-term (within five to 10 years) proposed projects. New projects and modifications to operations usually require preparation of additional environmental documentation. Mitigation measures (i.e., measures to avoid or minimize environmental impacts) already identified in the EIS/EIR that may constrain LLNL activities must be implemented.

## 1.2 Regulatory Summary

### *National Environmental Policy Act (NEPA)*

Under NEPA, all "major federal actions" or projects affecting the quality of human health and the environment must be reviewed to evaluate their environmental effects and to identify project alternatives. Subsequent to enactment of NEPA, the Council on Environmental Quality (CEQ) was established. The CEQ prepared regulations requiring each federal agency to prepare specific procedures for implementing NEPA. These procedures, within DOE, require different levels of environmental documentation, depending on the potential severity of impacts as well as on other factors. This NEPA review process must be completed before final decisions are made by DOE officials to begin the project or action, or before irretrievably committing substantial federal resources.

Under DOE's implementing regulations, NEPA review requirements apply to all proposed actions, not only those that are considered "major" federal actions with potentially significant impacts. The process must begin as early as possible in the project planning cycle since the review must be completed by DOE before beginning Title II-level design (on certain construction projects), before committing substantial resources, or before actually starting the project activities on nonconstruction projects.

### *Environmental Impact Review Process*

The environmental impact review process begins when there is a federal proposed project or proposal having the potential to affect the environment, such as federally funded national laboratory construction projects and/or experiments. Both overhead-funded and direct-funded projects performed on federal property by federal employees are subject to NEPA review. For example, because DOE is a federal agency, its actions—whether they involve a new research project, a modification of the current treatment process for hazardous wastes, or an environmental restoration project—are subject to the requirements of NEPA. Decisions as to whether the NEPA review process is adequate rest with DOE; DOE cannot delegate the authority to make NEPA determinations to contractors such as UC/LLNL.

DOE NEPA review procedures also apply to proposed actions that involve DOE-funded staff, equipment, or operations at offsite (non-DOE) facilities or locations (e.g., Work-for-Others (WFO) projects and Cooperative R&D Agreements [CRADAs]).

If the impacts of a proposed project are not already assessed in a previously DOE-approved NEPA document, a separate review is conducted.

For a number of DOE-defined (and publicly reviewed) classes of actions, there exist Categorical Exclusions (CXs) from detailed NEPA review. Proposed projects must meet a series of DOE eligibility criteria to qualify for such CXs. Analysts from the Environmental Evaluations Group (EEG) of the Environmental Protection Department (EPD) review projects to determine if they are eligible for a CX and to obtain DOE agreement.

If a proposed LLNL action or project does not meet the criteria for a CX, or if there may be a potential for significant environmental impact, LLNL will prepare an Environmental Assessment (EA) for DOE review. If DOE finds that the project's impacts will be insignificant or that the impacts can be mitigated so as to become insignificant, DOE will publish a Finding of No Significant Impact (FONSI). Alternatively, DOE will direct the preparation of an EIS if impacts are significant and cannot be mitigated. The EIS preparation and review process involves substantial public input and review and culminates in a Record Of Decision (ROD) by the Secretary of Energy. If certain measures need to be implemented to help mitigate environmentally significant impacts of the project, a DOE Mitigation Action Plan (MAP) will be prepared and implemented. DOE may also direct preparation of an EIS on certain types of proposed projects simply on the basis of their scope, type, or public controversy. Figure 1 illustrates a simplified form of the process of determining the appropriate needed level of NEPA review or documentation.

### *California Environmental Quality Act (CEQA)*

CEQA was enacted to achieve six objectives: to disclose to decision makers and the public the significant environmental effects of proposed activities; to identify ways to avoid or reduce environmental damage; to prevent environmental damage by requiring implementation of feasible alternatives or mitigation measures; to disclose to the public reasons for agency approvals of a project with significant environmental effects; to foster interagency cooperation; and to enhance public participation. CEQA applies only to discretionary activities proposed or approved by California governmental, quasi-governmental, or public agencies.

LLNL must meet CEQA requirements for certain proposed activities because the University of California is a California state agency. Implementing CEQA is also required when a state, regional, or local governmental agency is required to issue LLNL a permit for or render a decision on an LLNL project. In these latter cases, LLNL, as the applicant, generally is requested to prepare the needed documentation for agency review and approval. LLNL also prepares CEQA documentation for such UC-sponsored actions as the leasing of offsite facilities. Because the vast majority of LLNL projects do not require a California government entity approval or a permit, the need for formal CEQA documentation is less common for NEPA documentation.

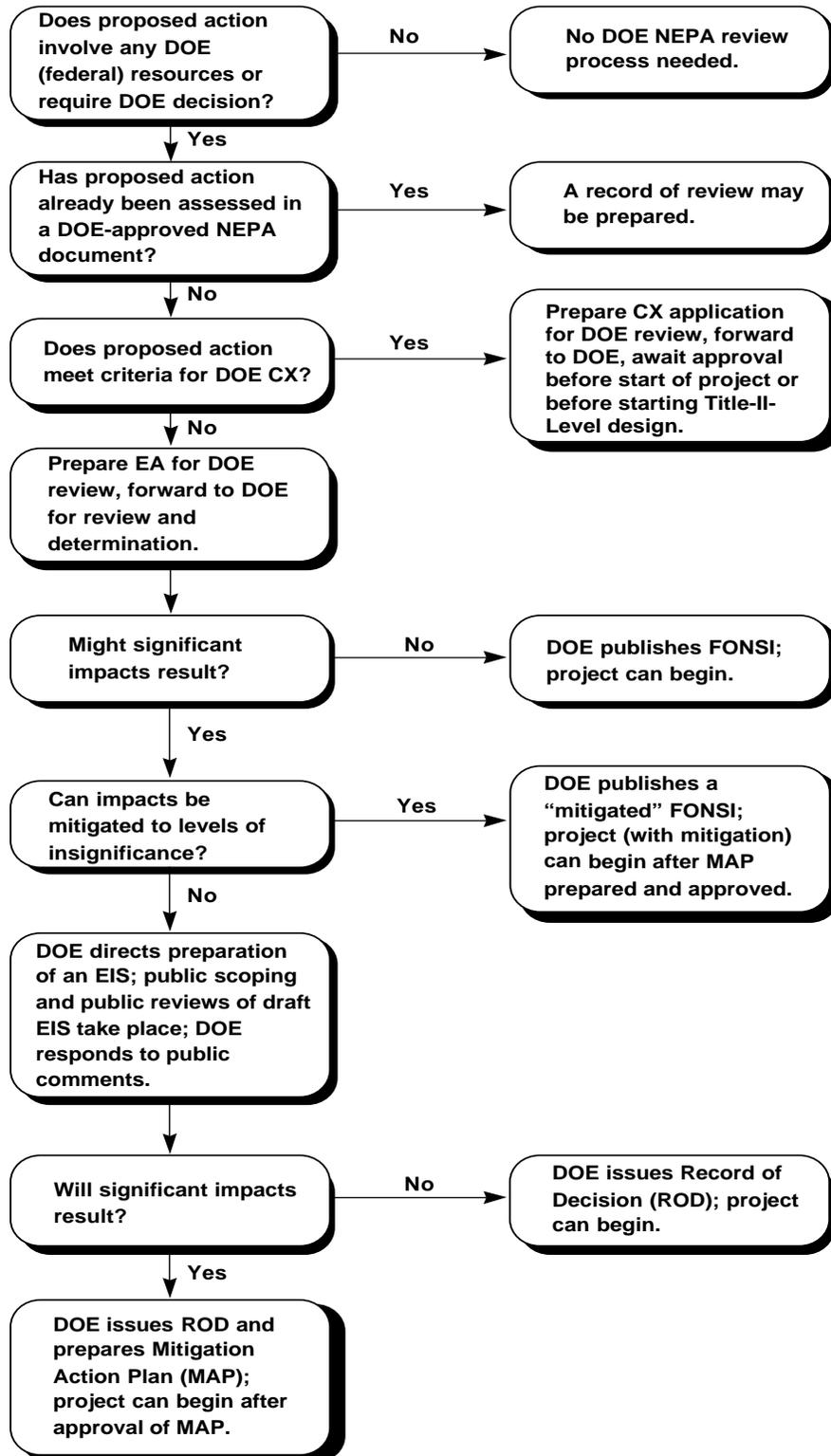


Figure 1. Simplified DOE NEPA screening and review process

CEQA provides for categorical exemptions from further environmental review and documentation for certain "ministerial" (nondiscretionary) and other minor agency actions. As with NEPA, if an action has the potential for significant impact or is not eligible for an exemption, an assessment, called an Initial Study (IS), is prepared and submitted to the appropriate state/local governmental agency for review and determination. The EEG staff is responsible for the CEQA review process and the preparation of appropriate documents. Upon review, the lead state decision-making agency may issue a Negative Declaration (NEG DEC) (similar to a NEPA FONSI) if the project would not have significant impacts or would have impacts that could be mitigated. The agency, however, may direct preparation of a more comprehensive EIR, a document of scope similar to the EIS prepared under NEPA. Upon completion of an EIR review, the lead agency issues a Notice of Determination (NOD) and may require a Mitigation Monitoring and Reporting Program (MMRP).

As was mentioned in Section 1.1, in August 1992, UC and the DOE published the EIS/EIR. This EIS/EIR assessed the impacts of both continuing operations and near-term (five to 10 years) improvements at LLNL and the impacts of renewing the DOE-UC contract for operation of LLNL by UC. Both a ROD (NEPA) and a NOD (CEQA), as well as a MAP (NEPA) and an MMRP (CEQA), were issued. The EIR portion of this joint document was amended by the UC in 1997 to support UC-DOE contract renewal.

Aside from procedural differences regarding public notice and review procedures, the principal difference between the EIR and EIS processes involves CEQA's requirement that significant impacts be mitigated, that the project be redesigned to avoid significant impacts, or that the lead agency provide "statements of overriding consideration" on unavoidable significant environmental project effects.

### **1.3 Applicability to LLNL Activities**

As noted above, the anticipated environmental effects associated with continuing Laboratory activities and those stemming from near-term proposed projects and needed improvements were evaluated in the August 1992 site-wide EIS/EIR. If you are planning new research or testing projects, construction or infrastructure improvement projects (including CRADAs and WFO projects), or if you are applying for environmental permits from local, state, and/or federal agencies, you should consult your EEG analyst and forward the appropriate integration work sheet (IWS) as early in the process as possible to determine whether these activities will require DOE or state agency environmental impact review under NEPA or CEQA. Your EEG analyst can also help determine whether your proposed activity was adequately assessed in the 1992 EIS/EIR or other NEPA document previously approved by DOE. If so, you may receive a record of review that discusses that coverage. If the proposed activity was not assessed in a previously approved NEPA document, the EEG analyst will help determine the level of NEPA/CEQA required.

## 2.0 Process for Compliance

Because the DOE-NEPA (and state agency-CEQA) processes can take several weeks/months (CXs) to several years (EIS/EIRs) to complete, you need to consult your ES&H Team environmental analyst as soon as you identify a potential project or action. When defining the extent of the proposed activity, be sure to view the project in its totality. All connected elements of a proposed project must be fully analyzed in a single NEPA (or CEQA) environmental review document. NEPA and CEQA regulations do not permit a project to be split into two or more segments with separate environmental reviews because this may lead to underestimating the significance of direct, indirect, and cumulative environmental impacts. Project segmentation can invalidate the piecemeal NEPA and CEQA reviews, invite lawsuits, and cause substantial project delay.

Be sure to familiarize yourself with the 1992 site-wide EIS/EIR mitigation measures LLNL has committed to implement. You can contact your EEG analyst or refer to the August 1992 UC MMRP and October 1993 DOE MAP to identify what needs to be done and to obtain advice on complying with the required mitigation measures. EPD's NEPA Overview Course (EP3001) is also available to provide additional detail and updated information on NEPA and CEQA implementation requirements of DOE and UC, respectively.

## 3.0 Work Standards

### 3.1 Work Smart Standards

DOE O 451.B Chg 1, National Environmental Policy Act Compliance Program

### 3.2 Other Sources

Bass, R.E., and Albert I. Herson, *Successful CEQA Compliance: A Step-by-Step Approach*. 1992

CA Public Resources Code §§ 21000-21177, CA Environmental Quality Act

10 CFR 1021, National Environmental Policy Act Implementing Procedures

40 CFR 1500 et seq., CEQ - Regulations for Implementing NEPA

57 FR 15122, National Environmental Policy Act Implementing Procedure, Final Rule, April 24, 1992.

61 FR 36222, National Environmental Policy Act Implementing Procedures, Final Rule, August 8, 1996.

Mandelker, D.R., *NEPA Law and Litigation*, 2<sup>nd</sup> ed. (Clark, Boardner, Callaghan, Deerfield, IL; Release No. 5, August 1997)

*University of California CEQA Handbook: Procedures Handbook and Model Approach for Implementing the California Environmental Quality Act (CEQA), University of California, May 1991*

*University of California Mitigation Monitoring and Reporting Program for Continued Operation of Lawrence Livermore National Laboratory, August 1992, University of California, SCH90030847*

## **4.0 Resources for More Information**

### **4.1 LLNL Contacts**

Contact your Environmental Evaluations Group (EEG) analyst for guidance on complying with NEPA and CEQA. Your ES&H Team environmental analyst can provide the name and telephone number of the EEG point of contact for your area.