

MAY 20 2011

Dr. Nancy Grossman, Director  
Environment, Safety & Health  
Fermilab  
P.O. Box 500  
Batavia, IL 60510

Dear Dr. Grossman:

SUBJECT: FERMI SITE OFFICE ASSESSMENT OF FERMILAB'S NATIONAL  
ENVIRONMENTAL POLICY ACT PROGRAM

As part of our Operational Oversight Program and Integrated Assessment Schedule, the Department of Energy (DOE), Fermi Site Office (FSO), initiated an assessment of Fermilab's National Environmental Policy Act (NEPA) Program. Mr. Joe DiMatteo of the DOE Chicago Office and Mr. Rick Hersemann of the DOE FSO performed the assessment on March 30 and April 5-7, 2011. We want to thank Fermilab, and in particular Ms. Teri Dykhuis, for the logistical and coordination efforts involved with completing this assessment.

Enclosed is the draft NEPA assessment report. Please review the report for factual accuracy and provide any comments to DOE FSO by June 1, 2011. DOE FSO will review and address any comments received into the final NEPA assessment report.

If you have any questions or comments concerning the enclosed draft NEPA assessment report, please contact Rick Hersemann, of my staff, at extension 4122.

Sincerely,

**Original Signed by**  
**Mark E. Bollinger**  
**Deputy Manager**

Michael J. Weis  
Site Manager

Enclosure:  
As Stated

cc: P. Oddone, w/o encl.  
Y. - K. Kim, w/o encl.  
B. Chrisman, w/o encl.

bc: R. Hersemann, w/o encl.  
J. Scott, w/o encl.  
J. DiMatteo, DOE-CH, w/o encl.  
T. Dykhuis, w/encl.





U.S. DEPARTMENT OF  
**ENERGY**

Office of  
Science

# Office of Science (SC)-Fermi Site Office (FSO) National Environmental Policy Act (NEPA) Program Assessment

March 29 – April 7, 2011

Team Leader:

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Peter Siebach, NEPA Compliance Officer  
Office of Science–Chicago Office

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Date

Team Members:

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Gary Hartman, NEPA Compliance Officer  
Office of Science, Oak Ridge Office

\_\_\_\_\_  
Date

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Joe DiMatteo, Environmental Scientist  
Office of Science–Chicago Office

\_\_\_\_\_  
Date

\_\_\_\_\_  
Rick Hersmann, Physical Scientist  
Office of Science–Fermi Site Office

\_\_\_\_\_  
Date

# Office of Science (SC)-Fermi Site Office (FSO) National Environmental Policy Act (NEPA) Program Assessment

**Dates of Assessment:** March 29 – April 7, 2011

**Topic of Assessment:** Office of Science (SC)-Fermi Site Office (FSO) National Environmental Policy Act (NEPA) Program Assessment

**Assessment Team:** Peter Siebach, SC-CH NEPA Compliance Officer (Team Leader), Gary Hartman, SC-ORO NEPA Compliance Officer, Rick Hersemann, SC-FSO NEPA Coordinator, Joe DiMatteo, SC-CH Environmental Scientist, and Stacey Lindeman, SC-CH (Observer)

**Integrated Assessment Schedule Identifier:** OS-2813

## Executive Summary

Safety and Technical Services NEPA Program staff conducted an assessment of key aspects of the SC FSO NEPA compliance program. The assessment was performed pursuant to the Science Management System (SCMS), Quality Assurance and Oversight Management System, Assessments Subject Area, Procedure 2, Performing Assessments. Assessment criteria were drawn from: 1) Department of Energy and Council on Environmental Quality NEPA regulations, 2) DOE Order 451.1B: National Environmental Policy Act Compliance Program, Sections 4, Requirements, and 5, Responsibilities; and 3) SCMS, Implementing the National Environmental Policy Act (NEPA) Within the Office of Science (SC) Subject Area. Information sources included document reviews and customer/partner interviews.

There were no Level 1 Findings, two Level 2 Findings, and four Level 3 Findings (ranked per the Issues Management Subject Area, Managing Issues Identified in Oversight Procedure, Definitions: Quality Assurance and Oversight Management System). Key findings included the lack of a formally designated NEPA compliance officer and lack of approved quality assurance and public outreach plans dedicated to the SC-FSO NEPA program. Strengths and Noteworthy Practices included documenting lessons learned and communication between FSO projects and FSO NEPA staff.

## Objective and Scope

The assessment team will determine the compliance and effectiveness of the SC-FSO NEPA Program. It will assess the the program pursuant to applicable authorities including; the NEPA statute, DOE and CEQ NEPA regulations, DOE Orders, DOE Policies, and the Science Management System (SCMS) NEPA Subject Area procedures. Additionally, the assessment will examine the integration of the Fermilab/FSO NEPA review processes with Fermilab work planning and control processes.

The Assessment Plan is located in the Appendix to this Report.

Criteria Review and Approach Self-assessment criteria were drawn from:

1. 10 CFR 1021: *DOE National Environmental Policy Act Implementing Procedures*
2. 40 CFR 1500-1508: *CEQ Regulations for Implementing the Procedural Provisions of the National Environmental Quality Act*
3. DOE Order 451.1B: *National Environmental Policy Act Compliance Program, Sections 4, Requirements, and 5, Responsibilities, and*
4. DOE NEPA Policy
5. SCience Management System: *Implementing the National Environmental Policy Act (NEPA) Within the Office of Science (SC) Subject Area.*

These documents lay out requirements, responsibilities, and procedures for DOE NEPA programs and staff; most notably "Heads of Field Organization" (e.g., the Chicago Office Manager), NEPA Compliance Officers (NCOs), and NEPA Document Managers (NDMs). In summary, requirements include:

#### **Heads of Field Organizations**

- Designate a NEPA Compliance Officer for the office and designate a DOE NEPA Document Manager at the start of each environmental assessment process.
- Ensure that internal scoping procedures, a quality assurance plan and a public participation plan are prepared for the office.
- Ensure adequate legal support is available
- Submit an annual NEPA planning summary to DOE General Counsel by January 31 of each year.
- Determine that an environmental assessment or an environmental impact statement is appropriate or required.
- Determine, based on an environmental assessment, that the impacts of a proposed action are significant and that an environmental impact statement is required, or issuing a finding of no significant impact when appropriate.

#### **NCO**

- Develop office NEPA procedures and information management requirements, and document the office's compliance with those procedures and requirements.
- Make categorical exclusion determinations
- Report to the Office of NEPA Policy and Compliance on lessons learned after completing each environmental impact statement and environmental assessment.
- Recommend to the Head of the Office served whether an environmental assessment or environmental impact statement is appropriate or required.

- Assist with the NEPA process and document preparation.
- Advise on the adequacy of NEPA documents and other related documents.
- Coordinate activities with the Office of NEPA Policy and Compliance
- Encourage and facilitate public participation through the NEPA process.
- Report to the Office of NEPA Policy and Compliance on lessons learned after completing the environmental impact statement or environmental assessment.

## NDM

- Establish a team, representing all necessary DOE Elements to plan, assist in preparing, and concurrently review documents.
- Conduct an early internal scoping process.
- Maintain tracking systems to monitor costs of and adherence to the schedule for the NEPA process.
- Manage the document preparation process, including reviewing internal drafts for technical adequacy, controlling cost, and maintaining schedule.
- Encourage and facilitate public participation through the NEPA process.
- Evaluate, upon completion of the environmental impact statement or environmental assessment, any support contractor's performance for timeliness, quality, cost-effectiveness, responsiveness, and application of requirements and guidance.
- Report to the Office of NEPA Policy and Compliance on lessons learned after, completing the environmental impact statement or environmental assessment.

The approach for the NEPA assessment was consistent with SCMS Assessment Subject Area procedures and consisted of document reviews and customer interviews.

## Documents reviewed

- FSO Procedure 2.8, *Implementation of and Compliance with the National Environmental Policy Act (NEPA)*, dated December 30, 2010
- Fermi Site Office – *Internal Scoping Procedures for Environmental Assessments*, dated September 21, 2007
- Fermi Site Office – *Quality Assurance Plan for National Environmental Policy Act (NEPA) Process*, dated September 21, 2007
- Fermi Site Office – *Public Participation Plan for Environmental Assessments*, dated September 21, 2007
- *Fermi Site Office FY 2011 Annual Performance Plan*, dated September 2011
- Various CXs approved by the FSO
- **DOE/EA-1670: Final Environmental Assessment for Construction and Operation of Neutrinos at the Main Injector Off-Axis Electron Neutrino Appearance Experiment at the Fermi National Accelerator Laboratory, Batavia, Illinois, and St. Louis County, Minnesota (06/2008)**

- Army Corps of Engineers Permit transmitted on December 24, 2008, from Robert Whiting, Chief of the Regulatory Branch, Army Corps of Engineers, St. Paul District, to Van-Anh Tang, University of Minnesota
- State Historic Preservation Officer approval transmitted on October 17, 2008, via letter from Britta L. Bloomberg, Deputy SHPO to Joanna Livengood, Fermi Site Office Manager
- *DOE Fermi Site Office and Fermilab Lessons Learned From the NOvA Project Experience with the National Environmental Policy Act Process*, March 9, 2009.
- Delegation of Categorical Exclusion Authority (to the Batavia Area Office), May 22, 1995
- FESHM 8060: National Environmental Policy Act (NEPA) Review Program, dated January 2011
- FESHM 8010: Environmental Management System, dated April 2008
- FESHM 2060: Work Planning and Hazardous Analysis, dated October 2010
- FESHM 5010: Environment, Safety and Health and National Environmental Policy Act Procurement Review, dated October 2006
- FESHM 2010: Planning and Review of Accelerator Facilities and Their Operations, dated October 2010
- FESHM 2020: Work Permit and Notification Form, dated November 2010
- FESHM 1080: Environment, Safety and Health Requirements for Experimenters, dated July 2005
- Accelerator Division ES&H Procedure (ADSP-08-061), Environment, Safety and Health Review of Procurement Actions and Proposed Projects
- Draft, Particle Physics Division Operating Manual, Review and Approval Record ESH/NEPA Review of Procurements and Proposed Projects
- Facilities Engineering Services Section (FESS), Environmental Review Procedure

### **Personnel Interviewed**

DOE:

Mark Bollinger, FSO, Deputy Manager

Steve Webster, FSO, Federal Project Director

John Scott, FSO, ESH Team Leader

Fermilab:

J. Cooper

T. Dykhuis

R. Walton

R. Merchut

J. Leibfritz

S. Nagaitsev

P. Hruh

R. Alber

R. Sood

C. Cooper

K. Kephart  
A. Soha  
A. Sands  
B. Fritz  
S. Wilson  
B. Scerini  
G. Van Zanbergen  
T. Lackowski  
C. Federowicz

Although they were members of the Assessment Team, because of their involvement with the FSO NEPA Program, Rick Hersemann, the FSO NEPA Coordinator, and Peter Siebach, the Chicago Office NEPA Compliance Officer, provided some information about the FSO NEPA program.

### **Discussion of Results**

#### **Fermi Site Office Implementation of the National Environmental Policy Act (NEPA)**

The Secretary of Energy's Policy Statement on NEPA dated June 1994 (memorandum dated June 13, 1994), explained DOE's intent to; streamline the NEPA process, minimize the cost and time for document preparation and review, emphasize teamwork, and make the process more useful to decision-makers and the public. In Section I, A, certain "Heads of Field Organizations" were invited to request delegation to approve Environmental Assessments (EA's) and associated Findings of No Significant Impact and to re-delegate approval authority for categorical exclusions (CX's). The Policy Statement designates several DOE organizational units as "Field Organizations" including Chicago Operations Office (CH) and Oak Ridge Operations Office (OR). The Chicago Operations Office was delegated on 7/11/94.

Prior to being delegated authority, the Chicago Operations Office followed the delegation process outlined in the Secretary of Energy's Policy Statement on NEPA. The process included preparing a QA Plan, an Internal Scoping Document, ensuring adequate technical/legal resources, and so forth, the intent being that they demonstrate their capability to successfully implement a delegated program.

Subsequent to delegation, Chicago Office subsidiary, field organizational units were re-delegated authority. The Fermi Site (Batavia Area) Office was redelegated on May 22, 1995. In that delegation they were granted CX authority only, which determinations the Manager of the Office was authorized to make.

DOE Order 451.1, NEPA Compliance Program, was issued in September 1995 and included the delegation process first introduced in the Secretary's Policy Statement. Provision (5c.), whereby EA authority could also be re-delegated, states:

A Head of a Field Organization may delegate environmental assessment responsibilities to a Head of a subsidiary Field Organization (Area or Project Office) after confirming that the subsidiary organization has prepared adequate internal scoping procedures, a quality assurance plan and a public participation plan; has designated a NEPA Compliance Officer; and has adequate DOE legal resources available. (By such delegation, the authority to make categorical exclusion determinations would transfer to the NEPA Compliance Officer of the subsidiary Field Organization.) A Head of a subsidiary Field Organization may not redelegate responsibilities for approving and adopting environmental assessments and issuing findings of no significant impact except as provided in this Order.

While neither the Fermi Site Office nor any other site office historically managed by the Chicago Operations Office obtained EA delegation under this authority, it was unilaterally granted by the Office of Science on March 15, 2004, via a memorandum entitled "Delegations of Authority" (see Attachment 1, page 8), and they became subject to DOE Order 451.1B. DOE Order 451.1B requires organizations delegated to run their own NEPA programs to:

- 1) Designate a NEPA Compliance Officer
- 2) Ensure availability of adequate legal support
- 3) Have a set of procedures in place
- 4) Have a quality assurance plan
- 5) Have a public outreach plan

- 1) DOE O 451.1B, *National Environmental Policy Act Compliance Program*, requires that "DOE's NEPA Compliance Program shall include... A system of DOE NEPA Compliance Officers.", and that each Head of a Field Organization shall "Maintain a DOE NEPA Compliance Officer for the office". The NEPA procedures for the Office of Science (SC) [*Subject Area: Implementing the National Environmental Policy Act (NEPA) Within the Office of Science (SC), Procedure 1. Implementing the National Environmental Policy Act (NEPA) Within the Office of Science (SC)*] require in Step 2 that "The SO/HFO officially designates an NCO for their immediate organization. If the SO/HFO has not named a permanent NCO, they designate an NCO from the SC Integrated Support Center (ISC) via a service agreement."

In accordance with DOE O 451.1B, one of the responsibilities of an NCO is to "...make categorical exclusion determinations and approve and issue any required associated floodplain and wetland documents." The Fermi Site Office (FSO) has not designated an NCO and is not using the DOE-CH ISC for approval of their Categorical Exclusion (CX) determinations. FSO's current process is for the NEPA Coordinator to sign and the FSO Site Manager to approve categorical exclusion (CX) determinations.

- 2) FSO Procedure 2.8, *Implementation of and Compliance with the National Environmental Policy Act (NEPA)* (approved December 30, 2010) requires in Section 6. Responsibilities that the FSO Manager "appoints a NEPA Compliance Officer

(NCO)." and identifies requirements for the "FSO NEPA Compliance Officer (FSO)." The FSO Procedure 2.8 contains many references to NEPA requirements and guidance, but does not reference the SCMS NEPA procedures or the October 2, 2009, DOE Policy on "NEPA Process Transparency and Openness" which requires online posting of CX determinations, generally within two weeks of making the determination. In addition, some responsibilities identified for the "FSO NEPA Compliance Officer (NCO)" and the "NEPA Document Manager" are not consistent with the requirements stated in DOE O 451.1B; examples include:

- The requirement for submittal of an annual NEPA planning summary is the responsibility of the Head of the Field Organization (not the NCO).
- The requirement for notification of the Office of NEPA Policy and Compliance is the responsibility of the NCO (not the NEPA Document Manager).

FSO Procedure 2.8 could be simplified by referencing the SCMS NEPA procedures, deleting the references section, and only including FSO-specific information.

- 3) Legal Support is provided by the Chicago Office.
- 4) SC-FSO has a quality assurance dating back to its original NEPA delegation in May 1995. Since its full delegation for NEPA, it has developed a draft QA plan. The final should tier off the existing SC-Wide Quality Assurance Description and the FSO Quality Assurance plan, the latter also being a draft. The lack of final QA plans is somewhat mitigated by the existing SC-wide plan and that fact that drafts of FSO and FSO NEPA QA plans exist.
- 5) SC-FSO has a draft public outreach plan.

### **Environmental Impact Statements and Environmental Assessments**

No Environmental Impact Statements have been prepared for DOE actions at Fermilab and only one Environmental Assessment (EA) since April 1999 when the *8 GeV Fixed Target Facility at the Booster and Neutrino Detectors* EA was prepared. The Assessment Team therefore limited its review to the following EA:

**DOE/EA-1670:** Final Environmental Assessment for Construction and Operation of Neutrinos at the Main Injector Off-Axis Electron Neutrino Appearance Experiment at the Fermi National Accelerator Laboratory, Batavia, Illinois, and St. Louis County, Minnesota (06/2008)

The NOvA EA contained two commitments. Both were successfully addressed and resolved:

- 1) The Army Corp. of Engineers and Section 404 Wetlands: The NOvA EA reported that construction of an access road to the NOvA site would result in the destruction of about 3.5 acres of wetlands. The University was required to mitigate this. The University entered into a permit with the Department of the Army, requiring the University to buy 5.2 acres of banked

wetlands to compensate for the impacts. The validated Permit was transmitted to the University of Minnesota on December 24, 2008, via letter from Robert Whiting, Chief of the Regulatory Branch, Army Corps of Engineers, St. Paul District, to Van-Anh Tang, University of Minnesota.

2) Minnesota State Historic Preservation and the Virginia & Rainy Lake Company Railroad: The National Historic Preservation Act Section 106 Programmatic Agreement entered into with the State and Tribes required closure with the State Historic Preservation Officer (SHPO) prior to the commencement of access road construction. The intent was to ensure the design mitigated impacts to a historic railroad bed, which the road would align with. The SHPO communicated their approval of the design via an October 17, 2008 letter from Britta L. Bloomberg, Deputy SHPO to Joanna Livengood, Fermi Site Office Manager

### Categorical Exclusions

Since categorical exclusion determinations have been maintained on the web, 10 determinations have been made by FSO. These were all examined.

Determination Date	Name of Action: Description
4/1/2010	<u>Installation of 50 cassettes into Digital Hadron Calorimeter located at Meson Test Beam area. The cassettes contain Resistive Plate Changers with a gas mixture used to detect subatomic particles.</u>
5/19/2010	<u>Drell-Yan SeaQuest Project will build &amp; operate a new spectrometer (detector) in the New Muon 4 (NM4) Hall to measure quart &amp; antiquark structure of the nucleon. The experiment will utilize unused NM4 space &amp; existing shielding, magnetics, &amp; gas chambers</u>
5/27/2010	<u>MINERvA Test Beam Detector Calibration Experiment will install a smaller version of the full scale MINERvA detector and expose it to a test beam. The experiment will calibrate the detector scintillator response to protons, pions, and electrons: measure detector resolution; and estimate the bias on the calorimetric energy reconstruction for the protons, pions, and electrons.</u>
6/23/2010	<u>Industrial Area Site Upgrade will replace utilities currently under the Collider Detector Facility parking lot in a new alignment adjacent to Road D and construct a new parking lot between the Central Helium Liquefier facility and Industrial Building 1.</u>
7/1/2010	<u>The Illinois Accelerator Research Center (IARC) will be a 40,000 square foot building and paved areas constructed adjacent to and north and west of the existing Fermilab Collider Detector Facility Building</u>
7/9/2010	<u>A1 to CDF Paving Project will include paving Road D from the A1 Road intersection to the Collider Detector Facility. The roadside drainage will be regraded and new storm sewers and swales installed. The project will include the reconfiguration of the A1 Road/Road D intersection to include bike trails.</u>
7/13/2010	<u>D-Zero Experiment Emergency Generator Fuel Tank will include replacing the existing single-walled fuel tank with a new 390 gallon double-walled fuel tank that meets the secondary containment requirements of the Spill Prevention, Control and</u>

	Countermeasure regulations.
7/21/2010	<u>NEA/NEB/NS8 Deactivation and Decommissioning at the fixed target beamline will include the removal and storage of 770 cubic yards of rock from the roofs of NEB and NEA, the removal and reuse of 32 shielding blocks at other</u>
3/8/2011	<u>MicroBooNE project will extract physics discoveries from the first ever large Liquid Argon Time Projection Chamber (LArTPC) detector that will be exposed to a neutrino beam. The 175-ton LArTPC detector for the MicroBooNE project will be located in a below grade cylinder structure similar to the MiniBooNE detector enclosure along the Booster Neutrino Beam line, just upstream of the MiniBooNE detector enclosure.</u>
3/8/2011	<u>Industrial Area Site Upgrades will include changes to enlarge a new parking lot to be constructed between the Central Helium Liquefier facility and Industrial Building 1.</u>

All forms were properly completed and approved, per current FSO Procedures. Categorical exclusions cited were all appropriate. All were posted on the web per:

- *Daniel B. Poneman October 2, 2009 NEPA Policy Statement: NEPA Process Transparency and Openness*
- *Implementation Guidance for the DOE Policy on Documentation and Online Posting of Categorical Exclusion Determinations: NEPA Process Transparency and Openness*
- *Online Posting of Certain DOE Categorical Exclusion Determinations; Policy Statement*

The form used to disclose potential impacts is entitled "Fermilab Environmental Evaluation Notification Form." It is maintained by Fermilab and not by DOE. The Industrial Site Upgrades action notified DOE of a change to a pre-existing project. DOE provided approval that the original CX determination was still valid.

### Fermilab NEPA Compliance

This portion of the assessment evaluated certain Divisions and Sections at Fermilab, specifically the Accelerator Division, Technical Division, Particle Physics Division and Facilities Engineering Services Section for their NEPA Compliance Program implementation. The assessment team reviewed certain pertinent Fermilab documents and interviewed personnel involved in certain specific NEPA recommendation determinations as well as staff providing overall NEPA guidance at Fermilab. Additionally, for certain Categorical Exclusions that have had their proposed actions completed the constructed facilities were inspected. The NEPA Compliance Program at Fermilab is designed to provide NEPA recommendation determinations to DOE-FSO for their final NEPA determination.

The primary mechanism for NEPA implementation at Fermilab is documented in Fermilab Environment, Safety and Health (FESHM) Chapter 8060, National Environmental Policy Act Review Program, dated January 2011; this Chapter assigns roles and responsibilities at the organizational level (i.e., Division), contains appropriate references to DOE Orders and Federal Regulations, provides generic checklists that may be used to document NEPA recommendation determinations and provides for the use of a "Generic Routine Maintenance Categorical

Exclusion”, that has been approved for use by DOE-FSO. It should be noted if Fermilab determines that the proposed activity falls under this “Generic Routine Maintenance Categorical Exclusion”, it does not routinely report those determinations to DOE-FSO. This FESHM Chapter adequately provides the framework to allow Fermilab to make recommendations on NEPA determinations to DOE-FSO in compliance with DOE Orders and Federal NEPA regulations.

The overarching environmental protection program at Fermilab is managed through its environmental management system (EMS) and is documented in FESHM Chapter 8010, Environmental Management System, dated April 2008. This Chapter provides a discussion of Impact Analysis which includes how the NEPA Compliance Program found in FESHM Chapter 8060 fits into work planning and authorization for federally –funded activities that have environmental impacts. Other FESHM Chapters that provide for environmental review include Chapter 2020, Work Permit and Notification, Chapters 2060, 7010 and 7020, Hazard Analysis and Chapter 2010, Planning and Review of Accelerator Facilities and Their Operations. The Fermilab EMS has been registered to the ISO 14001 Standard and conforms to DOE requirements.

The Divisions and Sections at Fermilab have also established procedures that provide further direction to their personnel to implement the NEPA Compliance Program. The Divisions and Section have the following procedures:

- Accelerator Division ES&H Procedure (ADSP-08-061), Environment, Safety and Health Review of Procurement Actions and Proposed Projects
- Draft, Particle Physics Division Operating Manual, Review and Approval Record ESH/NEPA Review of Procurements and Proposed Projects
- Facilities Engineering Services Section (FESS), Environmental Review Procedure

These Divisional and Section procedures are consistent and support FESHM Chapter 8060 for NEPA Compliance Program implementation at Fermilab. It should be noted that FESS procedures are web-based and are undergoing certain revisions to address sustainability requirements that are to be included in the near future into the DOE Order system. Fermilab may wish to consider incorporating those proposed FESS procedure changes for use across the Laboratory.

The internal Fermilab NEPA processes for the following ten federal actions were reviewed. Some resulted in DOE CX determinations (and hence are listed above) while others fit within pre-existing generic CXs DOE had already made determinations on.

Recommendation Date	Name of Action: Description
7/15/2010	<u>NEA/NEB/NS8 Project</u>
5/17/2010	<u>MINERvA Test Beam Detector Project</u>
5/6/2009	<u>C-Zero Repair and long-term Storage Facility</u>

3/10/2009	<u>MI-8 Expansion Project</u>
9/1/2006	<u>International Linear Collider test Area (New Muon Laboratory) Project</u>
1/25/2008	<u>DWS Loop to Wilson Hall</u>
2/15/2010	<u>Buffalo Barn Roofing</u>
6/29/2010	<u>Illinois Accelerator Research Center</u>
4/23/2002 3/2/2009	Industrial Building 3 Upgrade
6/20/2008	<u>Integrated Chemical Processing Apparatus for Single Cell Superconducting Radio Frequency (RF) Cavities Project</u>

All NEPA compliance recommendations for CXs to DOE-FSO followed FESHM Chapter 8060 requirements. The specific CXs cited were all appropriate. Two CXs utilized the “Generic Routine Maintenance Categorical Exclusion. The Industrial Building 3 Upgrade provided a secondary notice to DOE-FSO of a change to already approved existing Categorical Exclusion. This assessment also to the extent possible inspected certain CXs to determine if the completed project reflected the proposed action as documented in the Fermilab NEPA documentation. The inspected facilities did reflect that the completed projects were as described in the CX. However, it should be noted that in one instance one additional piece of equipment that did have an environmental impact was installed and was not included in the discussion of “Potential Environmental Effects” in the Fermilab NEPA documentation. Fermilab may wish to consider inspecting its completed projects to ensure they are consistent with its NEPA recommendation determinations.

**Findings**

**Level 1 Findings (Issues of Major Significance)**

None

**Level 2 Findings (Non-Conformances or Deviations)**

L2-1: FSO has not designated a NEPA Compliance Officer (NCO).

L2-2: FSO does not have approved NEPA Quality Assurance and Public Participation Plans.

**Level 3 Findings (Opportunities for Improvement)**

L3-1: FSO Procedure 2.8 does not accurately reflect the current FSO NEPA process and contains some inconsistencies with the requirements of DOE O 451.1B. Much of the information included in the procedure is redundant with information contained within DOE O 451.1B and

the SCMS NEPA procedures. FSO Procedure 2.8 should be revised to reference the SCMS NEPA procedures and should focus on FSO-specific NEPA information.

L3-2: FSO should consider incorporation of a standardized/approved Environmental Evaluation Notification Form (EENF) as an attachment to FSO Procedure 2.8.

L3-3: Fermilab should make available to FSO the determinations it makes under the "Generic Routine Maintenance's CX.

L3-4: Fermilab should verify and make available to FSO that completed Federally funded projects and activities are implemented consistent with NEPA documentation.

### **Strengths**

S-1: The FSO NEPA Coordinator, as well as the Fermilab NEPA Program Manager, are fully integrated into the Fermilab project teams. Project meetings are attended early in the scoping stages to ensure that the NEPA process is followed for new Fermilab projects. Guidance is provided on whether environmental permits, wetland assessments, and cultural resource assessments will be required for the new projects. Example project meetings attended are LBNE, MicroBooNE, Mu2e, Project X, and the Industrial Accelerator Research Center.

### **Noteworthy Practices**

NP-1: FSO prepared their own Lessons Learned Report on the NOvA EA in which a number of recommendations were made for FSO NEPA program improvements, such as better communication and integration with the overall project schedule. Implementation of the lessons learned can optimize efficiency.

APPENDIX

JAN 26 2011

Dr. Bruce Chrisman  
Chief Operating Officer  
Fermilab  
P.O. Box 500  
Batavia, IL 60510

Dear Dr. Chrisman:

SUBJECT: ASSESSMENT OF THE FERMI SITE OFFICE (FSO) AND FERMI NATIONAL ACCELERATOR LABORATORY (FERMILAB) NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) PROGRAM

FSO Hersemann/jp
<i>RH</i>
1/26/11
FSO Scott
<i>[Signature]</i>
1/26/11
FSO Bollinger
<i>MS</i>
1/26/11
FSO Weis
<i>[Signature]</i>
1/26/11

Reference: NEPA Assessment Plan, dated January 25, 2011

As part of our Operational Oversight Program and Integrated Assessment Schedule, the Department of Energy (DOE), Chicago Office (CH) Integrated Support Center (ISC) will conduct an assessment of FSO's and Fermilab's NEPA program. The assessment will be conducted by Mr. Peter Siebach, DOE-CH-ISC, Mr. Joe DiMatteo, DOE-CH-ISC, Mr. Gary Hartman, DOE Oak Ridge Office-ISC, and Mr. Rick Hersemann, DOE-FSO on March 28 - April 1, 2011 or April 4 - 8, 2011. The assessment will determine the compliance and effectiveness of FSO's and Fermilab's NEPA program.

The scope, approach, and schedule for various planned activities are enclosed (see Reference). Please distribute this information further, as needed. DOE will need to interview various Fermilab personnel and review records in order to complete its assessment and prepare a report. DOE requests that Fermilab provide FSO the name of the Fermilab point of contact that will participate in the assessment and schedule interviews with appropriate Fermilab staff by February 15, 2011. If you have any questions, please contact Rick Hersemann, of my staff, at extension 4122.

Sincerely,

Original Signed by  
Mark E. Bollinger  
Deputy Manager

Michael J. Weis  
Site Manager

Enclosure:  
As Stated

cc: P. Oddone, Fermilab, w/o encl.  
Y. - K Kim, Fermilab, w/o encl.  
N. Grossman, Fermilab, w/encl.

bc: J. Scott, FSO, w/encl.  
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P. Siebach, CH-STS, w/encl.

J. DiMatteo, CH-STS, w/encl.  
G. Hartman, ORO-EQMD, w/encl.

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## ASSESSMENT PLAN

**Topic of Assessment:** Office of Science (SC)-FERMI Site Office (SC-FSO) National Environmental Policy Act (NEPA) Program Assessment

**IAS Identifier:** OS-2813, REV-SMART-11/9/2010-6120

**Type of Assessment:** General Assessment (both internal and independent components)

**Planned Dates:** Week of March 28-April 1, 2011 or April 4-8, 2011 TBD

### Assessment Team:

Peter Siebach, Office of Science – Chicago Office (SC-CH) NEPA Compliance Officer: Team Leader

Gary Hartman, Office of Science – Oak Ridge Office (SC-OR) NEPA Compliance Officer: FSO Lead

Joe Dimatteo Office of Science, Chicago Office (SC-CH) Environmental Scientist (SC-CH): Fermilab Lead

Rick Hersemann Office of Science – Fermi Site Office NEPA Compliance

**Objective:** Determine the compliance and effectiveness of the SC-FSO NEPA Program.

**Scope:** The assessment teams will assess the SC-FSO NEPA program pursuant to applicable authorities including; the NEPA statute, DOE and CEQ NEPA regulations, DOE Orders, DOE Policies, and the Science Management System (SCMS) NEPA Subject Area procedures. Additionally, the assessment will examine the integration of the Fermilab/FSO NEPA review processes with Fermilab work planning and control processes.

Recommendations for improvement will be made. The assessment approach will be consistent with SC-CH M 414.1C-1 and consist of document reviews and SC-FSO and Fermilab staff interviews.

**Background:** This assessment will be performed pursuant to DOE Order 451.1B 5.d.(1), which requires NEPA Compliance Officers to “develop office NEPA procedures and information management requirements, and *document the office’s compliance with those procedures and requirements.*” Since Site Offices were delegated responsibility for NEPA compliance—see Memorandum from Raymond Orbach, Director, Office of Science, titled “*Delegations of Authority,*” dated March 15, 2004—compliance has not been formally documented.

### Lines of Inquiry:

Pertinent lines of inquiry will be drawn from the following requirements:

1. P.L. 91-190, *National Environmental Policy Act*
2. 10 CFR 1021, *National Environmental Policy Act Implementing Procedures*

