
Policy Manual

Engineering Department

Facilities Engineering Services Section
October 2008
Revised September 14, 2011 (Triennial Review)
Revised April 15, 2015 (Triennial Review)



Fermi National Accelerator Laboratory

 Office of Science / U.S. Department of Energy

Managed by Fermi Research Alliance, LLC

This manual provides a compilation of the Policies that constitute the management practices of the Facilities Engineering Services Section, Engineering Department (FESS/E). The purpose of this manual is to control FESS/E policy, practices and procedures, to assure appropriate flowdown, response and implementation of externally imposed requirements and internally developed initiatives.

The policy system includes necessary documentation for receipt, distribution, review, control and response of internally and externally imposed DOE Orders, Federal, state and local laws and regulations. The process further provides for consistent review and interpretation of DOE directives, Federal, State and local laws and regulations, formal establishment of policy with implementation guidance, development of specific implementation procedures by line organizations, independent review and formal approval of procedures, control of changes to policy and procedures, and independent audit and self-assessment of policy implementation.

FESS/E policies typically are initiated as a result of either external input or internal FESS/E initiatives. External initiators are transmitted in formal correspondence. Internal initiatives usually result from FESS/E staff becoming aware of Federal, state and local laws and regulations that have an impact on the department.

SECTION I DOCUMENT HIERARCHY

SECTION II IMPLEMENTATION

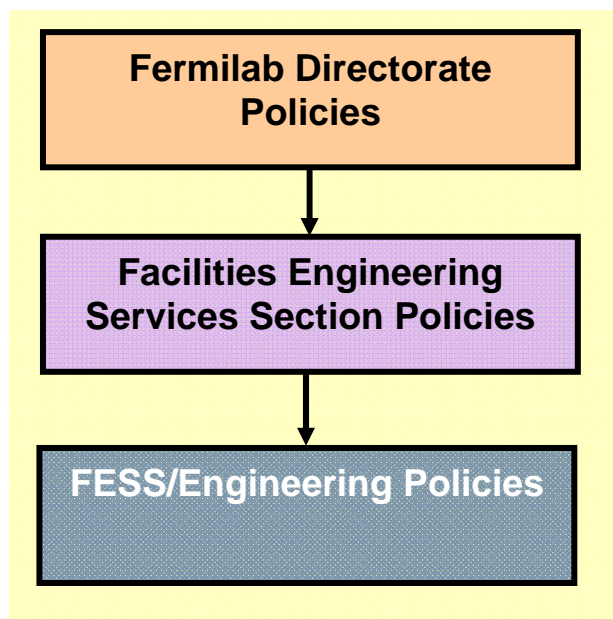
SECTION III POLICIES LATEST EFFECTIVE DATE

FEP 1	Policy on Polices	April 15, 2015
FEP 2	Safety	April 15, 2015
FEP 3	Public Protection	April 15, 2015
FEP 4	Sustainability	April 15, 2015
FEP 5	Tailoring	April 15, 2015
FEP 6	Project Support	April 15, 2015
FEP 7	TM/CC Support	April 15, 2015
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FEP 9	Consultant Support	April 15, 2015
FEP 10	Director's Operating Fund Usage	April 15, 2015
FEP 11	In-Progress Policies & Procedures	April 15, 2015



The FESS/Engineering polices are means of establishing specific means of implementing upper level policies and guidance in the operation of the department.

Shown below is the hierarchy of polices as it relates to the FESS/Engineering department.



Hierarchy of Policies

Fermilab Director’s Polices are top-level documents that provide guidance to the laboratory. These documents are the expression of the Director's management philosophy and are the management documents for the laboratory. These policies are developed and approved by the Director with the assistance of the Associate Director for Administration.

The Director’s Policy Manual can be found on the Fermilab web page at http://www.fnal.gov/directorate/Policy_Manual.html.



DOCUMENT HIERARCHY

FESS/E Policy Manual

Section I

Facilities Engineering Services Section (FESS) policies are the second tier of documents that provide guidance on the implementation of the Director's Policies and are intended to be consistent and in support of the Director's Policies. These policies are generally FESS specific and incorporate the guidance for implementing the FESS mission statement.

Our mission is to establish and maintain a dependable base from which high energy physics and other Fermilab programs can be accomplished safely without interruption.

.... FESS Mission Statement

FESS/Engineering policies constitute the management practices of the Facilities Engineering Services Section, Engineering Department (FESS/E). The purpose of these policies is to control practices and procedures, to assure appropriate flowdown, response and implementation of externally imposed requirements and internally developed initiatives. These policies are intended to be consistent and in support of the FESS policies and the Director's policies.

The FESS Policy Manual can be found on the Fermilab web page at <http://fess.fnal.gov/administration/DirectorsPoliciesComplianceManual.pdf>.



IMPLEMENTATION

FESS/E Policy Manual

All FESS/Engineering policies reside in the FESS/Engineering Policy Manual which is a controlled document.

All FESS/Engineering policies will contain, as a minimum, the following information:

1. Title;
2. FESS/Engineering Policy Identifier;
3. Effective Date;
4. Policy Objective;
5. Policy Statement;
6. Responsibilities.

Changes to the FESS/Engineering Policy Manual will be made and issued only by the FESS/Engineering Department Head.

Section II



APPENDIX**FESS/E Policy Manual**

FEP 1	Policy on Polices
FEP 2	Safety
FEP 3	Public Protection
FEP 4	Sustainability
FEP 5	Tailoring
FEP 6	Project Support
FEP 7	TM/CC Support
FEP 8	Workforce Development
FEP 9	Consultant Support
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APPENDIX**APPENDIX**

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FESS/Engineering Policy

Policy Name: Policy on Policies and Procedures

Policy Identifier: FEP 1

Date: September 14, 2011

Objective
Ensure compliance with applicable upper level policies.
Applicability
Design, construction, and project management work under the direction of FESS/Engineering.
Policy Statement
The Directorate has overall responsibility for establishing and maintaining Fermilab's policies. The Facilities Engineering Services Section (FESS) Head is responsible for establishing Section-wide programs and procedures to implement Fermilab policies. It is the policy of FESS/Engineering to operate in a manner consistent with all Director's Policies, FESS policies, programs, and procedures, FRA contract requirements and commitments and to comply with all applicable DOE Orders, Federal, State and local laws and regulations. In all cases, the Directorate receives and reviews all new DOE Orders or other requirement imposed on the Laboratory and establishes Fermilab policies.
Responsibilities
FESS/E Department Head will perform self-assessment reviews on a triennial (or as necessary) basis to confirm consistency between Fermilab, FESS, and FESS/E policies. FESS/E Leadership team will maintain a process for identification of need, development and implementation of additional procedures and policies. All FESS/E staff shall maintain a working knowledge of all directorate policies, FESS and FESS/E policies and procedures, Fermilab Environmental, Safety and Health Manual (FESHM) and Fermilab Radiological Control Manual (FRCM) that are applicable to their work.
References
Fermilab Human Rights Policy: http://www.fnal.gov/pub/news03/humanrightspolicy.html Director's Policy Manual: http://www.fnal.gov/directorate/Policy_Manual.html FESS Policy Manual: http://fess.fnal.gov/administration/DirectorsPoliciesComplianceManual.pdf FRA/DOE Contract: http://www.fnal.gov/directorate/documents/DOE_Contract/Contract_TOC.html Fermilab Environment, Safety and Health Manual: http://www-esh.fnal.gov Fermilab Radiological Control Manual: http://www-esh.fnal.gov
Other
None noted

Version Number	Date	Author	Change Summary
0	04/15/2008	S. Dixon	Initial Release
1	09/14/2011	R. Alber	Triennial Review
2	04/15/2015	R. Alber	Triennial Review

FESS/Engineering Policy

Policy Name: Safety

Policy Identifier: FEP 2

Date: September 14, 2011

Objective
FESS/E will perform design and construction in a safe and environmentally sound manner.
Applicability
Design, construction, and project management work under the direction of FESS/Engineering.
Policy Statement
FESS/E will systematically integrate excellence in environment, safety and health (ES&H) into the management and work practices of all activities at all levels so that safety is achieved while protecting the public, the workers, and the environment.
Responsibilities
All FESS/E employees shall fully comply with all procedures, instructions and directives contained in the Fermilab Environmental Safety and Health Manual (FESHM) in order to reduce or eliminate hazards in the workplace. FESS/E Department Head shall review procedures to ensure that FESS/E integrates environment, safety and health protection into all aspects of our work, utilizing the principles and core functions of the Integrated Safety Management System. FESS/E employees shall ensure that all required training is kept current. FESS/E supervisors shall ensure that all direct reports are current on all lab and departmental training requirements and that these requirements are documented in the ES&H Training database. FESS/E Department Head shall ensure that training requirements for all FESS/E employees are kept current and that training deficiencies are kept to a minimum.
References
Director's Policy Manual: http://www.fnal.gov/directorate/Policy_Manual.html Fermilab Integrated ES&H Management Plan: http://www-esh.fnal.gov/IESHM_Plan/IESHM_113006.pdf Fermilab ES&H Manual: http://www-esh.fnal.gov/pls/default/esh_home_page.page?this_page=800 FESS Engineering Policy 5 - Tailoring
Other
None noted

Version Number	Date	Author	Change Summary
0	04/15/2008	S. Dixon	Initial Release
1	09/14/2011	R. Alber	Triennial Review
2	04/15/2015	R. Alber	Triennial Review

FESS/Engineering Policy

Policy Name: Public Protection

Policy Identifier: FEP 3

Date: September 14, 2011

Objective
Safeguard life, health and property, to promote the public welfare and to establish and maintain a high standard of integrity in the practice of architecture and engineering.
Applicability
Design and construction work under the direction of FESS/Engineering.
Policy Statement
<p>FESS/E shall undertake to perform professional services only when, together with those engaged as consultants, they are qualified by license, education, and training in the technical areas involved.</p> <p>FESS/E employees engaged in the practice of architecture and/or engineering shall act with reasonable care and competence, and shall apply the technical knowledge and skill which are ordinarily applied by licensed architects and engineers of good standing.</p> <p>FESS/E in designing a project shall take into account all applicable federal, state and local building laws and regulations and shall not knowingly design a project in violation of such laws and regulations. FESS/E shall also follow all applicable rules as defined by the appropriate Fermilab Authority Having Jurisdiction (AHJ) for Fire Protection and Electrical Safety.</p> <p>FESS/E shall encourage its staff to acquire and maintain professional licensing and certifications.</p>
Responsibilities
FESS/E Department Head will strive to maintain a professional and licensed/certified staff in the fields of architecture; professional engineering for civil works; structural engineering; professional engineering for mechanical and plumbing works; profession engineering for electrical works and professional engineering for fire protection works.
References
<p>Illinois Architectural Practice Act: http://www.ilga.gov/commission/jcar/admincode/068/06801150sections.html</p> <p>Illinois Structural Engineering Practice Act: http://www.google.com/search?hl=en&sa=X&oi=spell&resnum=0&ct=result&cd=1&q=illinois+structural+act&spell=1</p> <p>Illinois Professional Engineering Practice Act: http://www.google.com/search?hl=en&q=illinois+professional+engineering+act</p>
Other
None noted

Version Number	Date	Author	Change Summary
0	04/15/2008	S. Dixon	Initial Release
1	09/14/2011	R. Alber	Triennial Review
2	04/15/2015	R. Alber	Triennial Review

FESS/Engineering Policy

Policy Name: Sustainability

Policy Identifier: FEP 4

Date: September 14, 2011

Objective
Provide adequate stewardship of DOE assets.
Applicability
Design and construction work under the direction of FESS/Engineering.
Policy Statement
<p>Fermilab incorporates sustainable design principles into the planning, design and construction of projects.</p> <p>This direction is taken from the Fermilab Director's Policy 3.</p> <p>Sustainability is broadly defined as the design and implementation of projects to simultaneously minimize their adverse environmental impacts, maximize occupants' health and well-being, and improve bottom line, life cycle, economic performance. The concept of sustainability is a desirable approach to development that recognizes that resources are limited, and that there is a responsibility of the present generation to preserve resources for future ones.</p> <p>Following DOE Order 436.1 Departmental Sustainability, Fermilab's new construction and major renovation projects will apply principles of sustainability wherever appropriate and cost-effective to the maximum extent practicable, and document these measures in project documents (e.g., PDR, CDR, etc.). For General Plant Projects and other projects, the implementation of guidelines is accomplished by the use of the Guiding Principles checklist throughout the life of the project, as appropriate.</p>
Responsibilities
FESS/E Project Manager/Engineer will lead the implementation of this policy.

References
Director's Policy #3: http://www.fnal.gov/directorate/Directors_Policy/environment_safety_health.shtml DOE Order 436.1: https://www.directives.doe.gov/directives/current-directives/436.1-BOrder/view Federal Leadership in High Performance and Sustainable Buildings Memorandum of Understanding http://www.energystar.gov/ia/business/Guiding_Principles.pdf U.S. Green Building Council: http://www.usgbc.org/
Other
None noted

Version Number	Date	Author	Change Summary
0	10/01/2008	S. Dixon	Initial Release
1	09/14/2011	R. Alber	Triennial Review
2	04/15/2015	R. Alber	Triennial Review

FESS/Engineering Policy

Policy Name: Tailoring

Policy Identifier: FEP 5

Date: September 14, 2011

Objective
Provide a flexible approach to the level of detail applied to procedures based on the scale, complexity and particular nature of the activity.
Applicability
All FESS/E policies, procedures and standards that are not specifically mandated by law, DOE Order, or Fermilab Policies, except as provided by its self-contained tailoring policy.
Policy Statement
Adjustments or applicability to the adherence of FESS/E policies and procedures shall reside at the level of authority and responsibility as determined by the organizations, documents and customs. In the tailoring approach, requirements are applied to a level of detail based on the size, risk, complexity or duration of the task. However, the tailoring is in the degree of detail, not in omitting the requirements altogether. Tailoring of policies and procedures shall be uniform for like or similar applications. Reasonableness standards shall be applied to adjudicate the appropriateness of tailoring.
Responsibilities
FESS/E Department Head will perform self-assessment reviews on a tri-annual (or as necessary) basis to confirm consistency of tailoring within the department.
References
None noted
Other
None noted

Version Number	Date	Author	Change Summary
0	04/15/2008	S. Dixon	Initial Release
1	09/14/2011	R. Alber	Triennial Review
2	04/15/2015	R. Alber	Triennial Review

FESS/Engineering Policy

Policy Name: Project Support

Policy Identifier: FEP 6

Date: September 14, 2011

Objective
Draw maximum value from our limited staff resources by providing support to line item and plant projects from within our operating structure, to the exclusion of matrixing personnel to the project organizations.
Applicability
Design, construction, and project management work under the direction of FESS/Engineering.
Policy Statement
FESS/E will avoid the practice of matrixing our employees to project organizations. Support to line item and plant project organizations will be provided from within our department organizational structure. Required efforts will typically occupy only a portion of an individual's time, allowing them to participate in multiple projects/tasks simultaneously.
Responsibilities
FESS/E Department Head will ensure that work assignments allow adequate time/effort to fully support all projects. FESS/E employees will fulfill their responsibilities to projects calling upon the full resources of our department as needed.
References
None noted
Other
None noted

Version Number	Date	Author	Change Summary
0	04/15/2008	S. Dixon	Initial Release
1	09/14/2011	R. Alber	Triennial Review
2	04/15/2015	R. Alber	Triennial Review

FESS/Engineering Policy

Policy Name: Task Manager/Construction Coordinator (TM CC) Support

Policy Identifier: FEP 7

Date: September 14, 2011

Objective
Ensure first-line oversight of fixed-price and supervision of time and material subcontract construction labor under the direction of FESS/Engineering.
Applicability
Design and construction work under the direction of FESS/Engineering.
Policy Statement
FESS/E manager shall designate Task Managers and Construction Coordinators responsible to oversee and direct work for those activities for which the design, field direction and subcontract documents were prepared under the direction of FESS/E.
Responsibilities
FESS/E shall ensure the implementation of the requirements of: FESHM 7010 ES&H Program for Construction, and FESHM 7020 Subcontractor Safety – Other Than Construction FESS/E Department Head shall ensure that all FESS/E Task Managers (TM) and Construction Coordinators (CC) are properly trained and experienced and provide a list of these approved TM/CCs to the ESH&Q to update the Qualified TM List on an annual basis. Approved TM/CCs shall ensure that all required training is kept current.
References
FESHM 7010 ES&H Program for Construction: http://esh-docdb.fnal.gov/cgi-bin/ShowDocument?docid=415 FESHM 7020 ES&H Subcontractor Safety – Other Than Construction: http://esh-docdb.fnal.gov/cgi-bin/ShowDocument?docid=537 FNAL Qualified TM/CC's: https://esh-docdb.fnal.gov:440/cgi-bin/ShowDocument?docid=75 FESS Engineering Policy 5 - Tailoring
Other
None noted

Version Number	Date	Author	Change Summary
0	04/15/2008	S. Dixon	Initial Release
1	09/14/2011	R. Alber	Triennial Review
2	04/15/2015	R. Alber	Triennial Review

FESS/Engineering Policy

Policy Name: Workforce Development

Policy Identifier: FEP 8

Date: September 14, 2011

Objective
To maintain a staff that has the expertise and credentials to support projects within the expectations of the Department of Energy, Fermi Research Alliance, and Fermi National Laboratory.
Applicability
Projects and tasks under the direction of FESS/Engineering
Policy Statement
<p>FESS/E shall maintain staff that is current in professional licensing, accreditations and applicable technical skills to meet the expectations of the Department of Energy, Fermi Research Alliance, and the Fermi National Laboratory as required for the initiating, planning, executing, monitoring, controlling and closing of projects and tasks.</p> <p>Costs associated with obtaining and maintaining these credentials and skills will be reimbursed as allowed by Fermilab policy. These may include classes, reference materials and testing fees associated with obtaining professional licenses, accreditations and technical skills when required in a hiring agreement, specified in a performance review, or deemed to enhance job skills or prepare the employee for a future assignment. This includes costs associated with continuing education related to professional licensing or accreditation.</p>
Responsibilities
FESS/E Manager will set annual performance goals, and provide a budget for, the FESS/E department and key individuals to develop and maintain the skills and accreditations to competently perform the tasks as defined by DOE and Executive Orders as it relates to the prosecution of the FESS/E work, and to support the development of technical skills as required for specific projects and tasks.
References
<p>Executive Orders: http://www.whitehouse.gov/executive-orders-to-date/ DOE Orders: http://www.directives.doe.gov/ Project Management Institute: http://www.pmi.org U.S. Green Building Council: http://www.usgbc.org</p>
Other
None noted

Version Number	Date	Author	Change Summary
0	04/15/2008	S. Dixon	Initial Release
1	09/14/2011	R. Alber	Triennial Review
2	04/15/2015	R. Alber	Triennial Review

FESS/Engineering Policy

Policy Name: Consultant Support

Policy Identifier: FEP 9

Date: September 14, 2011

Objective
Establish fair and uniform guidelines for work with consultant firms.
Applicability
Design and construction work under the direction of FESS/Engineering.
Policy Statement
The following policies statements apply to the use of consultant architectural/engineering firms utilized to supplement the in-house FESS/E staff. <ol style="list-style-type: none">1. Selection and tasking of firms will be done in compliance with FI/Procurement procedures.2. Consultant firms selected by FESS/E will be managed by FESS/E.3. FESS/E will not compete consultant firms on the basis of price.
Responsibilities
FESS/E Department Head will provide oversight and periodic review of use of consultant firms.
References
None
Other
None noted

Version Number	Date	Author	Change Summary
0	04/15/2008	S. Dixon	Initial Release
1	09/14/2011	R. Alber	Triennial Review
2	04/15/2015	R. Alber	Triennial Review

FESS/Engineering Policy

Policy Name: Director's Operating Reserve Fund Usage

Policy Identifier: FEP 10

Date: September 14, 2011

Objective
Establish fair and uniform guidelines for use of Operating Reserve Funds.
Applicability
Design and construction work under the direction of FESS/Engineering
Policy Statement
<p>The following guidelines apply to the use of the Director's Operating Reserve Fund.</p> <p><u>Allowable</u></p> <ul style="list-style-type: none">• Pre-conceptual master planning;• Preparation of Project Plans (Conceptual Design Reports, Project Execution Plans, Project Charters) for Plant Projects;• Reviews under Director's Policy 18;• Maintenance related studies and investigations;• Final design of operating tasks• Construction engineering support (<i>not</i> construction coordination);• Project Definition Reports (Conceptual design) of non-project related office modifications. <p><u>Unallowable</u></p> <ul style="list-style-type: none">• Final Design or Construction engineering support of Plant Projects;• Engineering support associated with programmatic elements including:<ul style="list-style-type: none">○ Pre-conceptual master planning;○ Preparation of Project Plans (Conceptual Design Reports, Project Execution Plans, Project Charters);○ Project management activities.• Construction Coordination support; (engineering support <i>is</i> allowable)• Task Management support;• Actual construction costs.

Responsibilities
<p>FESS/E Department Head will approve the use of Operating Reserve funds up to \$5,000.</p> <p>FESS Head will approve the use of Operating Reserve Funds from \$5000 to \$10,000</p> <p>Approval from the Office of Campus Strategy & Readiness Head is required for tasks greater than \$10,000.</p> <p>The FESS/E Department Head will establish the annual budget request for Operating Funds and shall provide the FESS Section Head and the Office of Campus Strategy & Readiness Head with monthly obligations and costing of these funds with projections to the end of year.</p>
References
Director's Policy 18: http://www.fnal.gov/directorate/Directors_Policy/construction_modification.shtml
Other
None noted

Version Number	Date	Author	Change Summary
0	04/15/2008	S. Dixon	Initial Release
1	09/14/2011	R. Alber	Triennial Review
2	04/15/2015	R. Alber	Triennial Review

FESS/Engineering Policy

Policy Name: In-Progress Policies & Procedures

Policy Identifier: FEP 11

Date: September 14, 2011

Objective
Provide guidance for completing task assignments that lack documented policies or procedures.
Applicability
Design, construction and project management assignments under the direction of FESS/Engineering.
Policy Statement
In the absence of documented policies or procedures, guidance for completing work assignments should be taken from best available sources and, where appropriate, developed into policies or standard operating procedures.
Responsibilities
FESS/E Employee <ul style="list-style-type: none">Follow Standard Operating Procedure 4.3.5.1 FESS/E Department Head <ul style="list-style-type: none">Maintain record of policies and procedures to be documented.
References
FESS/Engineering Standard Operating Procedure 4.3.5.1 – In Progress Procedures
Other
None noted

Version Number	Date	Author	Change Summary
0	04/15/2008	S. Dixon	Initial Release
1	09/14/2011	R. Alber	Triennial Review
2	04/15/2015	R. Alber	Triennial Review