

Survey of Utilization of the Fermilab Engineering Manual

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The Fermilab Engineering Manual

http://www.fnal.gov/directorate/documents/FNAL_Engineering_Manual.pdf

was rolled-out by Director Pier Oddone on July 6, 2010

http://www.fnal.gov/pub/today/archive_2010/today10-07-06.pdf

and serves as the primary document for the Contractor Assurance System (CAS) Engineering Management System

<http://www.fnal.gov/pub/cas/>

The purpose of this survey is to assess how the Fermilab Engineering Manual is being followed and utilized by the Division/Sections/Centers and current Projects. Each D/S/C Head and Project Manager is requested to assess these activities within their own organization and to report their assessment to the CAS Engineering Management System Owner (Head of the Office of Program and Project Support) by Friday, January 13, 2012. This assessment can be delegated to other members of their organization (e.g. Heads of the Engineering Departments) who should report to the Head of OPPS and also to the D/S/C Head and/or Project Manager.

Some questions that should be addressed include:

Is the Fermilab Engineering Manual being followed and utilized in your organization?

Who is responsible for assigning design tasks to individuals?

Who performs and how is the determination made of whether a given design effort meets the minimum requirements of the Fermilab Engineering Manual to perform the graded approach risk analysis worksheet?

Who performs and documents/checks/approves the risk analysis worksheets?

How are the required engineering reviews accomplished, approved, and documented?

How are the designs, reviews, and other documents safeguarded (filed/indexed, etc.) in files, databases, libraries, etc?

How are these Engineering responsibilities and requirements shared or otherwise handled where a group within a Division/Section/Center supports a Project?

How are these Fermilab Engineering Manual activities handled when the engineering groups are external to Fermilab, e.g. Architectural Engineering firms or other collaborating institutions?

If you have written procedures for any of these activities, please send just the titles and reference numbers of such documents.

For your organization, over the last year:

Approximately how many design efforts, however you define them, have been started?

How many design efforts were evaluated using the graded approach risk analysis worksheet?

How many of these design efforts that underwent the graded approach risk analysis worksheet required formal control due to having an element with risk score equal to 5 or sum of risk scores for a given chapter greater than the threshold presented on page 14 of the Fermilab Engineering Manual?

Please submit an example of an outline of a complete documentation for one such design activity that has gone through the complete process as defined in the Fermilab Engineering Manual. A list of the drawing numbers and titles and reference numbers for other design documents, indicating author, approver, and date, will be sufficient, rather than a submittal of the entire actual documents.

Finally, please submit your evaluation and suggestions of how the standardized requirements of the Fermilab Engineering Manual can be better implemented both within your organization and throughout Fermilab.

Please note that this survey/assessment will provide input preparations for the DOE Integrated Service Center (formally CH plus Oak Ridge office) 3-year cycle Quality Review of Fermilab which is scheduled to occur over the July-September, 2012 timescale. The specific topic(s) for this review will be Design Controls and Engineering Requirements in AD and PPD. This DOE review will be in addition to the annual OQBP Quality Assessment of Engineering for all Fermilab organizations.

Please send me any comments, suggestions, questions, or concerns.

Thank you,



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