

Office of Science

***Independent
Review
Handbook***

May 2007

***Prepared by the
Office of Project Assessment
Office of Science
Department of Energy***

CONTENTS

1. Introduction.....	1
1.1 Purpose of the Handbook.....	1
1.2 Background.....	1
2. The Independent Review	3
2.1 Philosophy.....	3
2.2 Objectives	3
3. Guidelines for Conducting Reviews.....	5
3.1 Planning	5
3.2 Coordination	7
3.3 On-Site.....	9
3.3.1 Technical Procedures.....	9
3.3.2 Administrative Procedures.....	10
3.4 Post Review	11
3.4.1 Follow-Up.....	11
3.4.2 Records	11

Appendices

A. Office of Project Assessment Mission.....	13
B. Invitation Letter	15
C. Charge to the Committee	17
D. Committee Participant List.....	19
E. Agenda	21
F. Report Outline.....	23
G. Report Format	25
H. Action Items.....	29

1. INTRODUCTION

1.1 Purpose of the Handbook

This Independent Review Handbook was developed by the Office of Project Assessment (OPA) within the Office of Science (SC). The purpose of this handbook is to provide guidance to individuals and committees that will be conducting independent reviews of SC facilities. This handbook is also intended to aid Program Offices, Operations and Site Offices, and site contractors in the preparations for or participation in independent reviews. This handbook will be modified periodically as guidance and the process for independent reviews evolves.

1.2 Background

The OPA serves as the focal point for independent project reviews of SC projects. One of the primary functions of the OPA (Appendix A) is to conduct independent technical, cost, schedule, and management peer reviews of SC construction projects and experimental equipment. Most reviews are conducted semiannually for ongoing projects and experimental equipment. OPA also reviews projects prior to requesting construction funds in the budget process to establish technical, cost and schedule baselines, and prior to requesting authorization to start operations. This handbook describes the review process.

Intentionally Blank

2. THE INDEPENDENT REVIEW

2.1 Philosophy

The overall purpose of independent review is to determine, by a non-proponent body, whether the scope of programs, projects, or activities; the underlying assumptions regarding technology and management; the cost and schedule baselines; and the contingency provisions are valid and credible within the budgetary and administrative constraints under which DOE must function.

Reviews conducted by the OPA are intended to reduce the risk of project failure by identifying existing and potential problems in a timely manner so that adequate resolution is possible. These reviews assist the field in successfully completing the project, as well as identify areas where SC management needs to focus additional resources to be successful.

OPA reviews are intended to meet the Independent Review requirements of DOE Order 413.3A, Program and Project Management for the Acquisition of Capital Assets, which states that DOE recognizes that independent reviews are valuable in assessing the status of its projects.

2.2 Objectives

The purpose of the independent review is to:

- Determine if the relationship to the mission of the sponsoring program element is appropriate
- Assess whether the project can be delivered within the cost and schedule baselines established by DOE or whether alternative solutions may be preferable
- Determine whether the proposed project and its acquisition strategy represents a technically valid, cost-effective, realistic means of accomplishing its stated objectives

The Independent Review process includes the following:

- An evaluation of all relevant technical, economic, and management factors used to justify the project
- An evaluation of all relevant factors used to develop its scope

- A review of the validity of proposed costs, scopes, and schedules
- Constructive recommendations for alternatives or improvements if the approach is found to be unreasonable, not justified, or not integrated into the overall program activities

Specifically, the independent review addresses:

- Project conformance to mission needs
- Technical work scope documentation
- Cost estimates: level of detail, basis, risks, contingency planning, funding/obligations/cost plans, integration with schedules, overhead rates, material and labor quantities and rates/quotes, and life cycle costs
- Schedules: level of detail, activity and logic assumptions, risks, contingency planning, integration with cost estimates, activity logic alignment with technical-scope planning, and resource planning
- Recommendations and action items from previous reviews
- Procurement Strategy
- Business Management: Management organization, staffing, work assignment process, project management control systems, risk management, baseline and technical work management, quality management, and ES&H/NEPA compliance

The independent review of a project is to be of sufficient detail, using a graded approach, to permit an objective independent reviewer to reach a supportable conclusion about the project's justification in light of the current mission of the DOE program sponsor.

The results of each review are made available to SC management, program management and the applicable field offices, in support of SC programs. OPA tracks action items resulting from the review to closure and follows-up on all recommendations made at the review, usually by the subsequent review.

3. GUIDELINES FOR CONDUCTING REVIEWS

3.1 Planning

The Review Plan

During the review planning phase, project background information is assembled for the review committee. Key project points of contact at DOE headquarters and the field are identified. The proposed scope of the review is planned in coordination with SC management, SC program managers, and the Federal Project Director. After determining the scope of the review, it is possible to identify the subject matter expertise that should be present on the review committee. OPA identifies and arranges for appropriate personnel to staff each review committee, in consultation with the requesting organization. The end result of the planning process is a review plan that forms the basis for each review. While the structure of each review plan is the same, the content is specifically tailored for each project. The review plan helps the review committee coordinate activities as it executes each review. Table 3-1 shows the review plan elements.

Table 3-1. Review Plan Elements

Purpose	Primary reason for the review
Background	Relationship of the project to the sponsoring DOE program element
Objectives	The scope of each review and should address technical, cost, and schedule baselines, including management factors and acquisition approach used to justify the project and develop its scope
Deliverables	Documentation to be prepared and made available prior to or at the review
Problems/Issues	Key obstacles the project faces
Resources	Size and configuration of the review committee
Budget	Possible budget issues for funding the review
Schedule	Primary activities in the review with completion dates for these activities

The typical activities in a review schedule and associated timing are shown in Table 3-2. The review schedule indicates specifically the persons that are responsible for executing each action. The standard deliverables of a review, in addition to the Review Plan, include the Closeout Report, Draft Review Report, and Final Report.

Table 3-2. Review Schedule

<u>Activity</u>	<u>Typical Time Frame (Relative to Begin Review)</u>
Review Plan	-8 weeks
Charge Memo	-8 weeks
Review Committee (size and configuration)	-8 to -6 weeks
Logistics Planning	-8 to -6 weeks
Outline for Final Report	-8 to -6 weeks
Agenda	-8 wks draft/-6 wks final
Consultant Funding (as required)	-4 weeks
Advance Review Material Prepared	-3 weeks (at least)
Advance Review Material Distribution	-2 weeks
Conference Call with Committee (if necessary)	-1 week
Begin Review	0
Complete Review/Closeout Presentation to Project Management	+3 to +5 days
Summary to Office of Science Management	+2 business days after review
Associate Director Meeting with Office of Science Management	+5 business days after review
Draft Report	+1 to +2 weeks
Review and Comment by Committee	+2 to +3 weeks
Finalize Report	+8 weeks
Track Review Action Items	Action Items until closure, Recommendations to next review

Committee Member Selection

Each review committee is configured to satisfy the unique purpose of the review. It is critical that the individuals selected to perform the independent reviews be credible and possess indisputable integrity and independence. The standard used by SC is that the reviewers have no current affiliation with the project being reviewed and are as independent as possible. In addition, the reviewers are not drawn from the responsible program office within the Program Secretarial Office, related contractors from the project office, or a related funding office.

The review chairperson for SC sponsored reviews is always a DOE Federal employee, usually from OPA. SC review committees can range from two to more than sixty experts. It has been the experience of SC that the committee is primarily drawn from experts from national laboratories, universities, and private industry and Federal employees from other sites or offices. The range of disciplines involved may include project relevant technical disciplines, project management, contract systems, cost engineering, and Environment, Safety and Health.

Review committees also include members of the OPA staff who are trained to support review activities. They are designated to follow the progress of a project throughout its life and are knowledgeable of project specific issues. These members have experience in the policies and procedures for conducting reviews and serve as a resource for maintaining the effectiveness and efficiency of review committee performance.

3.2 Coordination

A significant amount of coordination is necessary in preparation for a successful review. A variety of documents need to be prepared and/or exchanged prior to the review as delineated by the review plan. Advance attention to consistency of automated information processes is critical. Resources necessary at the time of the review must be arranged in advance.

Documentation

Review documentation is prepared in consultation with the appropriate program and project representatives. A brief summary of these documents is shown below.

Invitation Letter/E-mail. Each review committee participant receives an e-mail from the Director of OPA or the review chairperson. The e-mail formalizes the committee member's participation and provides logistical details, as well as other information pertaining to the review. See Appendix B for example.

Charge to the Committee. This document is the basis of the entire review process. The charge must identify, clearly and concisely, what is expected of the review committee. It includes a discussion of the background for the review, the scope of the review, actions that are affected by the outcome of the review, and the schedule of events surrounding the review, including completion of a review report. See Appendix C for example.

Committee Membership. Prospective committee members are contacted and their participation is confirmed. Then a listing of review participants (both committee members and observers) is prepared. Proponents (those being reviewed) are not included, as this information is usually documented in the review agenda. The listing includes the individual's affiliation, mailing address, phone number, and e-mail address. See Appendix D for example.

Agenda. The agenda details specifics of the review from start to finish. Each review subject is identified with the allotted time, name of presenter(s), and reference information (e.g., Work Breakdown Structure number). Meeting locations (building and room numbers) are also included. Time is allotted for Executive Sessions, report writing and a Closeout Presentation. See Appendix E for example.

Report Outline. This is essentially the table of contents for the review report. Each section is titled and numbered and Appendices are numbered so that references to them will be consistent. In addition, each section is assigned to a committee or subcommittee member for the coordination of writing the report. See Appendix F for example.

Advance Information. Detailed information about the project to be reviewed is provided to the committee (approximately 1-2 weeks) prior to the review. This varies from project to project but generally includes scope documents, management documents, relevant regulatory information, cost estimates and schedules, funding profiles, contingency analysis, and responses to prior recommendations. DOE or program reference documents are also made available where relevant.

Travel Arrangements. Usually included within the invitation letter, the committee members need to be provided with information, about specific arrangements, such as lodging, that have been made for them or suggestions for their own arrangements. Area and review site maps are included as appropriate.

Report Format. The structure to be used when writing the report is provided to ensure report consistency. The report is prepared using a 12 point Times New Roman font. See Appendix G for example.

Resources

Meeting rooms should be of adequate size, appropriately equipped, and arranged in advance of the review. Separate “break-out” rooms are available for additional presentations and discussions. Access to outside phone lines and the Internet are available to the review committee. The primary review facility is equipped with an LCD projector. Access to reproduction facilities is necessary. Dedicated word-processing support for report writing is arranged as necessary.

3.3 On-Site

3.3.1 Technical Procedures

Chairperson Roles and Responsibilities

The chairperson of the review committee is responsible for the success of the independent review. The chairperson is designated as early as possible in the preparation for the review to allow sufficient time for familiarization with the specific project under review and for organizing the review. The chairperson is responsible for the selection of the review committee and organizing the review. At the review, the chairperson's primary responsibilities include:

- Ensuring that the review committee remains focused on the assigned charge
- Maintaining order in the review, managing to the agenda
- Establishing and maintaining interfaces with project staff
- Coordinating the preparation of the draft review report
- Organizing and conducting parallel sessions
- Organizing the closeout briefing

Protocols/Tone/Conduct

The review is conducted as outlined by the agreed upon agenda. Typically, this is in the form of formal presentations by appropriate individuals to the committee using support materials such as viewgraphs, charts, drawings, or photos. Presentations are to be concise and allow for questions and answers within the allotted time. Viewgraphs are to be structured to be consistent from presenter to presenter to be easily read and concise. Detailed information should be transmitted via supplemental handout documents. The review committee is the primary audience for the presentations, but other individuals may attend, particularly if their presence may be advantageous to any line of questioning from the review committee. When the agenda calls for discussion time, or at the conclusion of a particular topic presentation, a more informal round-table format is appropriate.

The Chairperson maintains an appropriate professional code of conduct. This applies to all that are present at the review. In general, the review is rigorous. The tone is success-oriented; questions and challenges of the information presented are made with the goal of improvement. Conversations are non-confrontational.

Lines of Inquiry

The primary guidance document for determining lines of inquiry is the Charge to the Review Committee. However, there are numerous other sources of information that may need to be considered in the execution of the review. For example:

- Established technical, cost, and schedule procedures
- Management plans and organizational structures
- Integration procedures
- Regulatory drivers
- DOE Orders and guidance documents

These documents may be specific to SC or may apply DOE wide.

Initial Executive Session/Closeout Presentation

Typically, the first agenda item is a “DOE Executive Session”. This is an opportunity to conduct formal introductions and review the charge, procedures, and logistics. Attendance is usually limited to the review committee and DOE observers (e.g., program representatives).

At the close of the review, a “Closeout Presentation” is conducted. At this time the review committee presents the results of the review. Findings, comments, and recommendations are presented and action items are agreed upon. Presentations are made by the subcommittee chairperson assigned to each topic under review (following the draft report outline). Depending on the circumstances, the attendance at this session may or may not be limited. A separate briefing with site management may also be arranged as appropriate. Copies of materials presented at the Closeout Presentation are usually provided.

3.3.2 Administrative Procedures

Report Preparation

The report is divided into sections that are assigned to the subcommittee/individual for writing. Writing may commence prior to the review, based on information provided in advance. Time will be allowed in the review agenda for writing prior to the Closeout. The intention is to

complete a draft report before the review committee leaves the site. The draft report is reviewed by a designated editor to provide consistency without changing content. The draft report is then provided to the committee for a final review. It is also provided to the DOE site representative for a factual accuracy check. Comments are resolved and incorporated by the editor and a final report is generated. The final report is transmitted to the appropriate authorities and the review committee.

Committee members are encouraged to bring portable computers and do word processing, but support is made available at the site.

3.4 Post Review

3.4.1 Follow-Up

Following the review, comments and recommendations are reviewed with headquarters management. This includes a two-page written summary to SC management that identifies status, issues, major recommendations and action items. In addition, the OPA and the responsible SC program Associate Director conducts a conference call with SC management. This call includes appropriate SC program personnel, the review chairperson, the Site Office Manager, and the DOE Project Manager. This meeting briefly reviews the status, issues, recommendations and action items from the review and discusses any related management concerns or additional actions that SC management may have.

The comments and recommendations of the review committee are not necessarily agreed upon by either field or headquarters management. However, written responses within a given time frame are requested for each recommendation. The findings of review committees are not compromised or influenced by headquarters or field management bias. Headquarters project personnel and OPA staff tracks each recommendation and action item to closure.

3.4.2 Records

Unless subject to a sensitive situation, the documentation presented at the review is made available to the committee members to retain as necessary. Presentation materials are provided to the committee. The DOE site representative retains detailed information. It is recommended that all information be retained, by individual committee members, for future reference. This reference may be needed for finalizing the review report and/or for comparison to future reviews. The OPA staff retains this information through the life of the project.

Resumes and relevant information about committee members are collected and tabulated by the OPA staff and are used to assist in developing committees for future reviews.

The final report is transmitted from the Director of OPA to the responsible SC program Associate Director, in response to the charge to the committee. The program office is responsible for transmitting the final report to the laboratory and/or project.

APPENDIX A

OPA MISSION

Office of Project Assessment Mission

Conducts independent technical, cost, schedule, and management peer reviews of SC construction projects and large experimental equipment. Most reviews are conducted semiannually for ongoing projects and large experimental equipment. Also, reviews large projects prior to requesting construction funds in the budget process to establish technical, cost, and schedule baselines, and prior to requesting authorization to start operations.

Provides project management and staff support regarding construction management activities to the SC Program Offices and Field Organizations; collaborates with these SC organizations and provides oversight services on construction management issues. Assists senior management on issues related to project performance including implementation of corrective actions.

Acts as the SC Secretariat for the ESAAB and the project BCC processes. Facilitates Program Office compliance by providing hands-on assistance in the preparation of documents, maintaining schedules, and coordinating with all other DOE Offices engaged in the processes.

Prepares analytical documents as required by senior DOE or SC officials on the status of facilities.

Works collaboratively with SC program and project staff to ensure project documentation is accurate, complete, consistent, and complies with DOE requirements. Documentation includes but is not limited to: Mission Need Statements, Acquisition Strategies, Office of Management and Budget (OMB) Exhibit 300s, Project Execution Plans, Project Management Plans, Risk Management, etc.

Ensures SC project performance reporting is timely, accurate and complete in the DOE Project Assessment Reporting System (PARS) and the Monthly Project Status Report. Addresses any deficiencies or significant variances and develops a performance summary for distribution to SC Headquarters and Field Organizations.

Ensures effective and consistent implementation of project management policies and directives by consulting with other DOE organizations and offices with responsibility for project and construction management, including the Office of Engineering and Construction Management (OECM).

Represents the Director of the Office of Science in meetings with DOE, OMB, the Government Accountability Office (GAO), the Inspector General (IG), Congress, and other oversight or investigatory bodies on all matters involving the planning, design, construction, and operation of research facilities.

APPENDIX B

INVITATION

LETTER

Dear Review Committee Member:

Thank you for agreeing to participate in the Department of Energy (DOE) technical, cost, schedule, and management mini-review of the Spallation Neutron Source on May 2-3, 2006. Your expert advice and assistance will be of great value to DOE and the SNS project team.

The review will begin on Tuesday, May 2, at 8:00 a.m. with a DOE Executive Session in the SNS Central Laboratory and Office (CLO) Building, Conference Room C-156. The full committee will hear plenary sessions in the morning, and in the mid-afternoon break into parallel subcommittee presentations and discussions. On Wednesday, May 3, the subcommittees will complete their draft reports, then adjourn at 2:00 p.m. after a Closeout Session with DOE and SNS Project Management.

The primary charge to this committee is to evaluate progress in all aspects of the project: technical, cost, schedule, management, and ES&H. The complete Charge to the Committee [charge.pdf] is attached, as is the following:

- DOE Review Committee [revcomsns.xls]
- Draft Agenda [agenda.doc]
- Draft Committee Report Outline [contents.doc]
- Address/Phone Listing of Participants [maillist.doc]
- SNS Project Points of Contact [subleads.doc]
- Oak Ridge Hotels [hotels-oak ridge.doc]
- November 2005 DOE Review [0511SNSrpt.pdf]
- Map/Direction

I would like the chairperson of each subcommittee to confer with the other subcommittee members and provide the appropriate SNS subsystem leader (sublead.doc) by April 25 with a list of issues and/or questions that need to be addressed. In addition, the chairperson should discuss the content of the parallel subcommittee presentations with the SNS subsystem leader.

SNS project documents may be accessed at [<http://www.sns.gov/nov05rev/>]. If you require additional documentation, please contact your SNS subcommittee point-of-contact or Lori Love at (XXX-XXX-XXXX).

REVIEW LOGISTICS

Map/Directions: See attached maps and directions. Please plan to carpool from your hotels if at all possible-- parking at the site is limited.

Hotels: See listing of area hotels, attached as (hotels-oak ridge.doc). Please contact the hotel directly to make your reservation.

Site Access: You must have a DOE badge to enter the ORNL site. Your name will be provided to the guard station for your admittance on the first day. As you arrive at the SNS building you will receive a pass for the remainder of the review. If you do not have a DOE badge, please contact Lori Love to request a visitor pass.

I greatly appreciate your willingness to take time from your busy schedule to assist DOE in evaluating the SNS project. Should you have any questions, please contact Stephen Meador at 301-903-XXXX.

Regards,
Daniel R. Lehman

Director
Office of Project Assessment, SC-1.3
U.S. Department of Energy

APPENDIX C

CHARGE

TO THE

COMMITTEE

memorandum

DATE: March 23, 2006

REPLY TO

ATTN OF: SC-22

SUBJECT: DOE REVIEW OF THE SPALLATION NEUTRON SOURCE PROJECT

TO: Director, Office of Project Assessment, SC-1.3

I would like to request that you organize and lead an Office of Science (SC) Project Completion Review of the Spallation Neutron Source (SNS) project in Oak Ridge, Tennessee during May 2-3, 2006. The purpose of this review is to evaluate progress in all aspects of the project: technical, cost, schedule, management, and ES&H.

The SNS project is approaching completion; virtually all conventional facilities work has been finished; the Front End, Linac, and Ring have been commissioned; and Target commissioning with beam is planned to start in April 2006. The committee should focus its attention on evaluating whether the project will be able to achieve the technical, schedule, and cost baseline commitments established for satisfying Critical Decision 4 (CD-4). These baseline commitments are found in the SNS Project Execution Plan (PEP), with clarifying guidance provided in my November 1, 2000 memorandum to the Federal Project Director.

In carrying out its charge, the review committee should respond to the following questions:

1. Will the project be able to meet its Level 0 baseline objectives per the DOE-approved SNS Project Execution Plan (e.g., TPC = \$1,411.7 million, CD-4 by June 30, 2006, capable of at least 1 MW proton beam on target)?
2. Are ES&H aspects being properly addressed for successful project completion and transition into operations? Are Integrated Safety Management Principles being followed?
3. Is the project being managed as needed for its proper completion and transition into an operating user facility? Are there adequate plans to carry out the initial phase of SNS operations to achieve 1 MW proton beam on target?

Jeff Hoy, the SNS Program Manager, will serve as the Basic Energy Sciences point of contact for this review. I would appreciate receiving your committee's report within 60 days of the review's conclusion.

/signed/

Associate Director of Science
for the Office of Basic Energy Sciences

APPENDIX D

REVIEW

COMMITTEE

**Department of Energy Final Review of the
Spallation Neutron Source (SNS) Project**

REVIEW PARTICIPANTS

Department of Energy

Mr. Daniel Lehman, DOE/SC, Chairperson
Mr. Stephen Meador, DOE/SC

Review Committee

Dr. Ned Arnold, ANL
Dr. Guenter Bauer, European Spallation Source
Dr. Klaus Berkner
Dr. Dixon Bogert, FNAL
Dr. Richard Cassel, SLAC
Dr. Robert Diebold
Dr. Helen Edwards, FNAL
Dr. Ian Evans, SLAC
Mr. Rod Gerig, ANL
Dr. Richard Hislop, SLAC
Dr. Rusty Humphrey, SLAC
Mr. Dale Knutson, PNNL
Mr. James Krupnick, LBNL
Mr. Hanley Lee, DOE/SSO
Dr. David Mildner, NIST
Dr. Marc Ross, SLAC
Dr. Ben Prichard, Jr., LANL
Dr. Paul Schmor, TRIUMF
Dr. Gregory Smith, ORNL
Dr. Jay Theilacker, FNAL
Dr. John Tranquada, BNL
Dr. Bruce Warner, LLNL
Dr. Bill Wiffen, ORN

Observers

Pat Dehmer, DOE/SC
Jeff Hoy, DOE/SC
Pedro Montano, DOE/SC
Tom Brown, DOE/SC
Les Price, DOE/ORO

APPENDIX E

REVIEW AGENDA

**Department of Energy Review of the
Spallation Neutron Source (SNS) Project**

AGENDA

Tuesday, May 2, 2006—Conference Room C-156

- 8:00 am DOE Committee Executive Session Lehman
- BES Program Perspective - Charge Dehmer
 - DOE Project Director Perspective Price
- 8:30 am Opening Remarks..... Wadsworth/Dehmer
- 8:35 am SNS Overview Mason
- 9:15 am Project Management, Cost/Schedule, Site Support Summary Strawbridge
- 9:45 am Break
- 10:00 am Experimental Facilities Summary Anderson
- 10:30 am Accelerator Systems Summary Holtkamp
- 11:00 am Site Tour and Photo (CLO Plaza Entrance)
- 12:00 pm Working Lunch ([continued discussions; Room C-150 / C-156](#))
- 12:45 pm Parallel Subcommittee Presentations/Discussions
- Management/Cost Schedule/ES&H (SC 9, 10, 11) [{C-354}](#) Mason/Staff
 - Accelerator Systems (SC1, 2, 3, 6, 8) [{C-156}](#) Holtkamp/ASD Staff
 - Experimental Facilities (SC4, 5) Anderson/XFD Staff
[{SC4 – Room C-152}](#) [{SC5 – Room C-464}](#)
- 3:30 pm DOE Subcommittee Executive Sessions (*meet with groups in assigned rooms*)
- 4:30 pm DOE Executive Session [{Room C-156}](#) Lehman
- 6:00 pm Adjourn

Wednesday, May 3, 2006—Conference Room C-156

- 8:00 am Committee Executive Session
- 8:30 am Questions/Responses with SNS Staff as Needed
- 10:00 am DOE Full Committee Executive Session / Closeout Dry Run [{Room C-156}](#)
- 12:00 pm Lunch Available
- 1:00 pm Closeout with DOE and SNS Management [{Room C-156}](#)
- 2:00 pm Adjourn

APPENDIX F

REPORT OUTLINE

**Department of Energy Mini-Review of the
Spallation Neutron Source (SNS) Project**

REPORT OUTLINE/WRITING ASSIGNMENTS

Executive Summary Meador

1. Introduction.....Hoy

2. Technical Systems Evaluations

 2.1 Front End Systems (WBS 1.4) (CQ#1)*Pritchard/Subcommittee 1

 2.2 Linac Systems (WBS 1.4) (CQ#1) Bogert/Subcommittee 2

 2.3 Ring Systems (WBS 1.5) (CQ#1) Gerig/Subcommittee 3

 2.4 Target Systems (WBS 1.6) (CQ#1)..... Bauer/Subcommittee 4

 2.5 Instrument Systems (WBS 1.7) (CQ#1)..... Tranquada/Subcommittee 5

 2.6 Control Systems (WBS 1.9) (CQ#1)..... Humphrey/Subcommittee 6

3. Conventional Facilities (WBS 1.8).....Knutson/Subcommittee 7

4. Accelerator Physics and Pre-Operations (WBS 1.10) (CQ#3)..... Ross/Subcommittee 8

5. Environment, Safety and Health (CQ#2)Hislop/Subcommittee 9

6. Cost Estimate Krupnick/Subcommittee 10

7. Schedule and Funding..... Krupnick/Subcommittee 10

8. Management (WBS 1.2) (CQ#3)..... Warner/Subcommittee 11

***Note: Number in parenthesis refers to the numbered charge questions (CQ) in the charge memorandum.**

Appendices

- A. Charge Memorandum
- B. Review Participants
- C. Review Agenda
- D. Cost Table
- E. Funding Table
- F. Schedule Chart
- G. Action Items

APPENDIX G

REPORT FORMAT

Intentionally Blank

Report Format

FINDINGS

Summary of presentation material, documentation and interviews that the reviewer finds is relevant to supporting the review assessment and recommendations. Narrative, focusing on areas of the review and the project that are positive as well as those areas the reviewer finds lacking. Do not number your findings.

COMMENTS

Assessment of material provided during the review, the reviewer's reaction to that information and the conclusions based on the findings. This narrative carries more emphasis than the Findings, and may lead to one or more Recommendations. Do not number your comments.

RECOMMENDATIONS

These are numbered within each section and should be definite, clear recommendations as to what the proposing organization should do to correct a problem or strengthen the project. The basis for the Recommendations should be discussed under Findings and Comments. These are the items that the project (proposers) must respond to by the next review.

ACTION ITEMS

Those recommendations that are considered particularly important may be elevated to this level or these may be any item to which a response is desired within a definite time. The Action Items are discussed in the Committee Executive Sessions and agreed to by the Committee. Action Items are agreed to in writing by the Committee Chairperson, the DOE field office, and the proposing organization (as appropriate). The Action Items can be for the proposing organization or for DOE to respond to individually or jointly and they carry a date by which response is required.

THE FOLLOWING FORMAT IS USED FOR
HAND-WRITTEN OR TYPED INPUT FOR THE DRAFT REPORT

Your Name
Version Number/Date/Time

2.1 Section Title

2.1.1 Findings

Text or Bullets

- .
- .
- .
- .

2.1.2 Comments

Text or Bullets

- .
- .
- .
- .

2.1.3 Recommendations

1. Begin recommendation with an action verb and end with a suggested date of action.
- 2.
- 3.

APPENDIX H

ACTION ITEMS

**Department of Energy Mini-Review of the
Spallation Neutron Source (SNS) Project**

REPORT OUTLINE/WRITING ASSIGNMENTS

<u>Action</u>	<u>Responsibility</u>	<u>Due Date</u>
1.		
<hr/> Project Manager	<hr/> DOE FPD	<hr/> DOE Review Chairman Office of Science
<hr/> Laboratory Director	<hr/> Site Office Manager	<hr/> Program Manager Office of Science