SNS-102010200-PC0002-R03

# **Configuration Management Plan**



v U.S. Department of Energy Multilaboratory Project

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#### **CONFIGURATION MANAGEMENT PLAN**

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#### UT-BATTELLE, LLC

managing

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# **CONFIGURATION MANAGEMENT PLAN**

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# ACRONYMS

ANL	Argonne National Laboratory
BCP	baseline change proposal
BES	Office for Basic Energy Sciences
BNL	Brookhaven National Laboratory
CCB	change control board
CFR	Code of Federal Regulations
CMP	Configuration Management Plan
CSTA	cost, schedule, technical assessment
DCC	Document Control Center
DCD	design criteria document
DCN	document change notice
DOE	U.S. Department of Energy
EIS	environmental impact statement
ES&H	environment, safety, and health
ICD	interface control document
IDD	interface definition document
IPS	Integrated Project Schedule
JLab	Thomas Jefferson National Accelerator Facility
LANL	Los Alamos National Laboratory
LBNL	Lawrence Berkeley National Laboratory
MPM	Micro-Frame Project Manager
ORNL	Oak Ridge National Laboratory
ORO	Oak Ridge Operations
PCR	project change request
PEP	Project Execution Plan
QA	quality assurance
SNS	Spallation Neutron Source
SRD	system requirements document
STL	senior team leader
TEC	total estimated cost
TPC	total project cost
WBS	work breakdown structure

#### 1. BACKGROUND AND INTRODUCTION

# 1.1 GENERAL OVERVIEW OF THE SNS PROJECT CONFIGURATION MANAGEMENT PLAN

The Spallation Neutron Source (SNS) project is a U.S. Department of Energy (DOE) Strategic System project that is being carried out as a partnership among six DOE national laboratories to design and build a world-class user facility for research in neutron science. The national laboratories in the SNS partnership are Argonne (ANL), Brookhaven (BNL), Thomas Jefferson (JLab), Lawrence Berkeley (LBNL), Los Alamos (LANL), and Oak Ridge (ORNL). This partnership approach is being used to effectively take advantage of each laboratory's specific technical expertise to provide the best possible facility to the neutron research community. The SNS *Project Execution Plan* (PEP) provides policy guidance for the overall planning and execution approach being used on the project and invokes this *Configuration Management Plan* (CMP) as the vehicle for maintaining the technical, cost, and schedule baselines for the facility. This CMP provides overall guidance to the participating partners on how the complex technical interfaces associated with the design and operation of the facility will be managed and maintained. Fig. 1.1 depicts the principle implementing elements of the SNS Configuration Management Program.

#### **1.2 DESIGN AUTHORITY**

The design authority for the project is the organization having overall responsibility for ensuring that the design of the facility meets critical operational and safety requirements associated with the project. This authority resides with the Level 3 Change Control Board (CCB). (See Section 2, "Organization and Approach.") This senior management team has established a proven program of using the peer review process to effectively capture the expertise of the scientific community in the design and operation of the facility. (See Section 5, "Peer Review Process.")

Each participating laboratory has design authority responsibility for the respective design activities associated with their subsystem of the facility. The following table lists the design authority relationship for the respective components of the facility:

FACILITY COMPONENT	DESIGN AUTHORITY
Front-end facility	LBNL
Linac	LANL
Superconducting linac	JLab
Ring and transfer systems	BNL
Target systems	ORNL
Instrument systems	ANL
Conventional facilities	ORNL/Knight Jacobs

#### 1.3 COLLABORATIVE NATIONAL LABORATORY PROJECT ORGANIZATION RELATIONSHIPS

Each of the partner laboratories has expertise in its respective areas of research. It is imperative that the SNS project maintains this competitive position in the research community. Maximum freedom is being established to allow for independence and accountability of the respective design process within the respective partner laboratory organization. This is being done to facilitate optimum performance by the respective organizations and subsequent infusion of the highest level of expertise by the scientific

community in the design of the facility. A diagram depicting these organizations and the critical interface relationships that must be managed is shown in Fig. 1.2.









#### **1.4 CRITICAL INTERFACE MANAGEMENT PROCESS**

A comprehensive set of interfacing procedures has been developed to ensure that the respective elements of the facility interface, connect, and operate properly when they are installed at the site. These procedures provide a detailed technical description of the interfacing components of the facility. A list of these design requirements documents is listed in Section 2.3.

This set of interfacing documents, along with project management practices, establishes the means for coordination between the respective design entities. The procedures will allow the design and construction of the facility to proceed at an optimum cost and schedule.

#### 2. ORGANIZATION AND APPROACH

#### **2.1 RESPONSIBILITY**

The design authority for the project resides with the Level 3 CCB. Implementation of design changes and responsibility for accuracy of the documentation for the facility resides with the SNS project director's technical organization. Selected administrative support functions are provided by the baseline change manager. Figure 2.1 illustrates the areas of responsibilities of the baseline change manager, Document Control Center (DCC), and Project Controls organizations.

#### **2.2 OBJECTIVES**

SNS configuration management supports all SNS functional groups, in particular, all partner laboratories in their configuration management/configuration control programs. The objectives of SNS configuration management include the following:

- A. Ensure that integrity and continuity of changes are documented and recorded within the structure of technical, cost, and schedule baselines.
- B. Provide identification, control, and status reporting necessary to assist management in achieving timely system readiness, visibility, traceability, and field support.
- C. Provide managers at all levels with sufficient information for making appropriate, timely decisions throughout the life of the project.
- D. Ensure that the evaluation of proposed configuration changes is timely and includes a thorough consideration of the change's total impact on technical, cost, schedule, operational capability, and support documentation.

#### 2.3 TECHNICAL BASELINE DOCUMENTATION

The *SNS Parameters List*, SNS 10000000-PL0001, and the complete set of issued *SNS WBS* (Work Breakdown Structure) *Descriptors*, SNS 10000000-BL0002, document the technical baseline for the SNS, and together, define all the work to be performed on the SNS. The division directors and senior team leaders are responsible for maintaining the *SNS WBS Descriptors* and the *SNS Parameters List*. The descriptors are prepared at a level (generally Level 4) that is required to define the work to be done. Level 3, 2, and 1 summaries are also included. Only Levels 1, 2, 3, and 4 are placed under configuration control. Lower levels (level 5 and below) may be prepared, but these are not controlled by the configuration management system.

**System Requirements Documents**—**SRDs** provide a comprehensive description of the technical attributes and design basis for major SNS systems or facilities, generally at WBS Level 2. They are the key design basis documents that provide the framework for how each partner design will be developed. They include a functional description of the major system or facility broken down by WBS element and outline the design criteria documents, which will provide additional supporting details to the SRD. They also include a technical description of the design requirements for the associated building or component.

**Design Criteria Documents—DCDs** establish the very detailed design basis criteria associated with the subsystems, components, and elements of the facility. A family of DCDs is developed for each SRD, providing expanded design criteria and requirements details at the lowest project technical baseline levels. Interface requirements regarding other project partners are also provided to ensure that the

framework for design integration is developed, scrutinized, and reviewed at the lowest levels of design activity.

**Interface Control Documents**—**ICDs** define the technical requirements to maintain the technical interface between the highly sophisticated interactions of the subsystems of the facility. These technical documents include a functional description of each section, a description of the technical requirement maintained at the interface, as well as design requirements associated with the subsystem. Interface requirements regarding other project partners are provided to ensure that the framework for design integration is developed, scrutinized, and reviewed at the lowest levels of design activity.

**Interface Definition Documents**—**IDDs** provide system-level technical interface requirements and design authority definitions that must be managed between the various SNS project partners. In many ways, they serve a similar function as the SRDs and address design basis interface management outside each partner's "design authority box." IDDs also define what lower-level interface requirements will be defined in the supporting details of ICDs.

Table 1 provides a list of SRDs, DCDs, ICDs, and IDDs.

#### Table 1. Design basis documents (SRDs and DCDs) and design interface

Lead Lab	Title
WBS 1.3 Front-	End Facilities
LBNL	SRD-WBS 1.3 Front-End Facilities
LBNL	DCD-WBS 1.3: Design Criteria Front End
WBS 1.4 Linear	Accelerator
LANL	SRD WBS 1.4 Linear Accelerator
LANL/JNL	SRD WBS 1.4.? Superconducting Cryogenic Facility
LANL	DCD-WBS 1.4.1.1: RF <sup>a</sup> Power
LANL	DCD-WBS 1.4.1.2: HV <sup>b</sup> Power Conditioning
LANL	DCD-WBS 1.4.1.3: RF Controls
LANL	DCD-WBS 1.4.2.2: DTL <sup>c</sup> Structure
LANL	DCD-WBS 1.4.2.3: DTL Magnets
LANL	DCD-WBS 1.4.2.4: DTL Vacuum System
LANL	DCD-WBS 1.4.2.5: DTL Water Systems
LANL	DCD-WBS 1.4.2.6: DTL Mechanical Systems
LANL	DCD-WBS 1.4.4.2: $CCL^d$ Structure
LANL	DCD-WBS 1.4.4.3: CCL Magnets
LANL	DCD-WBS 1.4.4.4: CCL Vacuum System
LANL	DCD-WBS 1.4.4.5: CCL Water Systems
LANL	DCD-WBS 1.4.4.6: CCL Mechanical Systems
LANL	DCD-WBS 1.4.5.1: MEBT <sup>e</sup> Chopper
LANL	DCD-WBS 1.4.5.2: Diagnostics
JLab	DCD-WBS 1.4.? Superconducting Cryogenic Facility
WBS 1.5 Ring	
BNL	SRD-WBS 1.5 Ring and Transfer System
BNL	DCD-WBS 1.5.1: DCD HEBT <sup>f</sup>
BNL	DCD-WBS 1.5.2: DCD Injection Systems
BNL	DCD-WBS 1.5.3: DCD Magnet Systems
BNL	DCD-WBS 1.5.4: DCD Power Supply System
BNL	DCD-WBS 1.5.5: DCD Vacuum System
BNL	DCD-WBS 1.5.6: DCD RF System
BNL	DCD-WBS 1.5.7: DCD Ring System Diagnostic Instrumentation

#### management documents (IDDs and ICDs)

Lead Lab	Title
BNL	DCD-WBS 1.5.8: Collimator and Shielding
BNL	DCD-WBS 1.5.9: Extraction System
BNL	DCD-WBS 1.5.10: RTBT <sup>g</sup> System
WBS 1.6 Targ	get Systems
ORNL	SRD-WBS 1.6 Target Systems
ORNL	DCD-WBS 1.6.1: Target Assemblies
ORNL	DCD-WBS 1.6.2: Moderator Systems
ORNL	DCD-WBS 1.6.3: DCD Reflector Assemblies
ORNL	DCD-WBS 1.6.4: DCD Vessel System
ORNL	DCD-WBS 1.6.5: DCD Target Station Shielding
ORNL	DCD-WBS 1.6.6: DCD Target Utility Systems
ORNL	DCD-WBS 1.6.7: DCD Remote Handling System
ORNL	DCD-WBS 1.6.8: Target System Controls
ORNL	DCD-WBS 1.6.9: DCD Beam Dumps
ORNL	DCD-WBS 1.6.10 <sup>o</sup> DCD Accelerator and Target Station Neutronics and
OIUE	Shielding Analysis
WEBS 1.7 Ext	perimental Facilities
ANL	SRD-SNS Instrument Data Acquisition System
ANL	SRD-SNS Instrument Neutron Guide Systems
ANL	DCD for Microvolt Backscattering Spectrometer
ANL	DCD for Magnetism Reflectometer
ANL	DCD for Liquids Reflectometer
ANL	DCD for Instrument #4
ANL	DCD for Instrument #5
ANI	DCD for Instrument #6
ANI	DCD for Instrument #7
	DCD for Instrument #8
	DCD for Instrument #0
	DCD for Instrument #10
	$f = 16^{-11}$
WBS 1.8 CON	SDD WDS 1.8. Land Immersions Duilding Declarge and Site Utilities
OKNL	SKD WBS 1.8: Land Improvements, Building Package, and Site Utilities
OKNL	SKD WBS 1.8: Utility Building
OKNL	SKD WBS 1.8: Front End, Linac, and Klystron Facilities
OKNL	SKD WBS 1.8: King, HEB1, and K1B1
UKNL	SKD WBS 1.8: Larget
OKINL	DCD WBS 1.8.1: Land improvements and Site Utilities
UKNL	DCD WBS 1.8.2: Utility Building
UKNL	DCD WBS 1.8.3: Front End, Linac, and Klystron Facilities
UKNL	DCD WBS 1.8.4: King, HEB1, and KTBT
UKNL	DCD WBS 1.8.5: Larget Building and Dumps
ORNL	DCD WBS 1.8.6: Central Lab and Office Building
UKNL	DCD WBS 1.8./: Superconducting Cryogenic Facility
WBS 1.9 Integ	grated Control System
ALL	SKD WBS 1.9: Integrated Control System
ALL	SKD WBS 1.9.2: Timing System
ALL	SKD WBS 1.9.2: Equipment Protection
ALL	SKD WBS 1.9.9: Personnel Protection
ALL	SRD WBS 1.9.1: Signal and Device Naming
ALL	SRD WBS 1.9.1: Cabling
ALL	DCD-WBS 1.9: Controls Design Criteria Document
ORNL	IDD Conventional Facilities to Technical Systems
LBNL/ORNL	ICD Front-End Facilities/Conventional Facilities
LANL/ORNL	ICD Linac/Conventional Facilities
BNL/ORNL	ICD Ring/Conventional Facilities

Lead Lab	Title
ORNL	ICD Target Systems/Conventional Facilities Target Building
ORNL	ICD Target Systems/Conventional Facilities Beam Dumps
ANL/ORNL	ICD Instrument Systems/Conventional Facilities
ORNL/LANL	IDD Instrument & Controls System to Technical Systems & Conventional
	Facilities
LBNL/ALL	ICD Front-End Facilities/Integrated Control System
LANL/ALL	ICD Linac/Integrated Control System
BNL/ALL	ICD Ring/Integrated Control System
ORNL/ALL	ICD Target Systems/Integrated Control System
ANL/ALL	ICD Instrument Systems/Integrated Control System
ORNL	IDD Technical System to Technical System
LBNL/ORNL	ICD Front End Facilities-Linac Systems
LANL/BNL	ICD Linac/Ring
BNL/ORNL	ICD Ring/Target
LANL	ICD HEBT/Beam Dump
BNL	ICD Ring Injection/Beam Dump
BNL	ICD Ring Extraction/Beam Dump
ORNL	ICD Target Systems/Instrument Systems
ALL	IDD R&D <sup>h</sup> to Technical System
ALL	ICD R&D – Superconducting Cryogenic Facility
ORNL	SRD Testing & Operations
ORNL	ICD Testing & Operations – Conventional Facility
ORNL	ICD Testing & Operations – Front End
ORNL	ICD Testing & Operations – Linac
ORNL	ICD Testing & Operations – Ring
ORNL	ICD Testing & Operations – Target
ORNL	ICD Testing & Operations – Experiment Systems
ORNL	ICD Testing & Operations – Global Instrumentation & Controls
ORNL	ICD Testing & Operations – Superconducting
<sup><i>a</i></sup> RF—Radio frequency.	

<sup>a</sup>RF—Radio frequency.
<sup>b</sup>HV—High voltage.
<sup>c</sup>DTL—Drift tube linac.
<sup>d</sup>CCL—Coupled-cavity linac.
<sup>e</sup>MEBT—Medium-energy beam transport.
<sup>f</sup>HEBT—High-energy beam transport.
<sup>g</sup>RTBT—Ring-to-target beam transport.
<sup>h</sup>R&D—Research and development.



- Cost Status
- Schedule Status
- Cost Variance Analysis
  - Schedule Variance
    - Analysis
- Project Status Reporting
- SNS Management
- Reporting Review CSTA for
  - Completeness

- CCB Input/Output
- Reporting Change Control Status Reporting
- Change Control Data Base
- Contingency Status
  - Reporting Technical Baseline
    - Status

Control Center Document

- Document Security
- **Document Number** Allocation
  - Master Index
- Document Storage
- Document Distribution
  - Document Status Database

Fig. 2.1. Baseline change manager, Project Controls, and DCC responsibilities.

# **2.4 COST BASELINE**

The cost baseline for the SNS is contained in the Micro-Frame Program Manager (MPM).

### **2.5 SCHEDULE BASELINE**

The schedule baseline for the SNS is the detail integrated project schedule in Primavera.

#### 3. BASELINE CHANGE CONTROL MANAGEMENT

#### **3.1 CONFIGURATION MANAGEMENT PLAN**

The SNS CMP outlines the process and procedure for managing the approved project baselines for the technical design basis, cost, and schedule. Management and control of the technical requirements and design parameters for SNS involve critical issues and constitute the majority of coverage provided in the CMP. Management of the entire project technical baseline (CCB Level 3) is the responsibility of the deputy project director. The CMP also delineates how the SNS change control system will work to administer and record changes to all three project baselines.

#### **3.2 CHANGE CONTROL RESPONSIBILITY AND PROCESS**

The management information and project controls manager is responsible for administrative operation and coordination of the overall baseline change control system in support of all SNS project participants. Reporting to the management information and project controls manager, the baseline change manager provides administrative control and support for processing all SNS project change requests (PCRs). This Web-based electronic process begins upon submission of draft PCRs and continues through various reviews to the final approval of the PCRs. Baseline change proposals (BCPs), which require DOE review and approval, are processed outside the electronic system. Each subproject will have its own change process coordinator, who will interface with the Project Office's baseline change manager.

The project controls manager is responsible for implementing approved cost and schedule baseline changes to the official SNS project baseline documents and files.

The project director, his direct reports, and the senior team leaders (STLs) are responsible for implementing all approved baseline technical/design basis changes to the official SNS project technical baseline documents and supporting technical design documents and files at all locations.

Section 9 provides details concerning the processing, review, and approval of various classes of PCRs. Technical changes that affect other design authorities require a PCR for approval to change affected baseline documents, regardless of the cost threshold involved.

#### 4. DESIGN REVIEW PROCESS

Design reviews will be conducted for all major project systems, subsystems, and components. The reviews will provide for cross-discipline communication and will ensure that the designs are functional, feasible, and meet the cost and operational objectives of the facility. Three levels of review should be considered: during the conceptual, preliminary, and final design phases, with increasing level of detail incorporated in the review process as the design progresses through its completion cycle. A typical design review will consider the following elements:

- Purpose of the review
- Assumptions
- Design requirements
- Interface requirements
- Design criteria
- Description of the item
- · Engineering analysis
- Reliability and maintenance
- Hazards/safety analysis
- Cost
- Schedule
- Manufacturing/procurement plan
- Installation plan
- Documentation
- History
- Previous action items
- Quality Assurance (QA) plan
- Acceptance criteria (in the case of a final design review)
- Bid package (in the case of a final design review)

Results of the reviews will be documented and archived as part of the design basis for the facility.

Depending on the nature of the proposed change, the responsible technical lead may elect to use additional levels of design review to validate the change with the best available expertise. These additional levels of review could include interdisciplinary reviews, supervisory reviews, and management reviews.

#### 5. PEER REVIEW PROCESS

To allow for incorporation of developments and advancements in the scientific area of consideration, it is important to maintain an active program of interfacing with the scientific community. This will ensure that during the construction period of the project advancements in technologies used on the project will be incorporated into the design of the facility.

The peer review meeting process is the approach used to facilitate infusing the expertise of the scientific community to review, evaluate, and consider beneficial alternatives to the design and construction of the facility. Typically, major changes affecting the experimental elements of the facility would be subjected to a peer review evaluation. This process is an important aspect of the project's development and is essential to ensuring that the project's design is current to today's standards. This interaction further secures and establishes the integrity of the design and operation following completion of construction activities as a result of endorsement by the scientific community. A brief description of this process follows.

As deemed necessary by the project director, leaders of the scientific community representing research, industry, and academic fields are invited to participate in a peer review meeting to discuss and appropriately challenge the technical merits of a proposed change (PCR). A senior technical manager associated with the project chairs the meeting. A formal agenda is published and maintained throughout the review process. The STL from the area requesting the review presents the change proposal in sufficient detail to allow the reviewers to provide their input and feedback. All appropriate aspects of the proposal are discussed, including design feasibility, feasibility of construction, and functionality. At the conclusion of the presentation, the committee provides specific direction to the project team in terms of feasibility, cost effectiveness, and function. This direction is documented in the minutes of the meeting and is maintained in the records management system as part of the design basis documentation for the facility.

#### 6. SNS QUALITY ASSURANCE PLAN

The *SNS Quality Assurance Plan* (SNS 102040000-QA0001-R01) provides overall quality requirements for the design, construction, and operation of the facility. This plan implements the tenpoint criteria found in Title 10, Section 830.12 of the *Code of Federal Regulations* (10 CFR Pt. 830.12), covering the following aspects of the facility:

- QA program requirements
- Personnel training and qualification
- Quality improvement
- Procurements and records
- Work process
- Design
- Procurement
- Inspection and acceptance testing
- Management assessments
- Independent assessments

This CMP is established consistent with the *SNS Quality Assurance Plan*. The plan requires identification of nonconforming conditions and deviations and requires them to be dispositioned before operation of the facility.

#### 7. SYSTEM COMPLETION AND TURNOVER

The system completion and turnover milestone represents a significant aspect of the configuration management process. At this milestone, major aspects of operational integration and preoperational testing are complete and documents required for operation have been identified. Documentation packages, including test data, installation records, as-built drawings, quality control records, acceptance testing reports, and operation manuals, are provided to support commissioning of the system.

#### 8. DOCUMENTATION AND RECORDS CONTROL

#### 8.1 RECORDS MANAGEMENT PROCESS

The SNS Project Office is responsible for establishing the records management system, which will document configuration of the facility during construction and operational phases of the project. This documentation must reflect the actual configuration of the buildings, equipment, and software at the time of turnover for operation. Continued maintenance of a subset of this documentation is necessary to support the safe and reliable operation of the facility after commissioning.

The project will have the following requirements concerning maintenance of "as-built" documentation for the facility:

- Maintain integrity and consistency of design requirements, physical configuration, and project documentation throughout the life of the SNS project.
- Provide for reconstitution of the SNS project design capability at any stage in the life cycle of the project to meet environment, safety, and health (ES&H), maintenance, and operating requirements.
- Provide for material conditioning and aging management capabilities of SNS physical structures and other equipment throughout the life of the project to meet ES&H, maintenance, and operating requirements.

The SNS project has established a Document and Records Management Program to accomplish the preceding requirements. The SNS Records Management Program is similar to the ORNL Site Records Management Program and is documented in Procedure SNS-IO-P01, "Creating, Distribution and Management of SNS Records." Modeling the SNS Records Management Program after the ORNL site program saved costs associated with redundant records storage facilities and with training personnel involved with facility management.

Procedures associated with the SNS Records Management Facility provide instructions for unique numbering of drawings and documents and for handling controlled records.

#### 8.2 DOCUMENT REVIEW AND APPROVAL PROCESS

Closely related to the records management process described previously is the documentation review and approval process. This is an electronic distribution vehicle used to disseminate technical information to the reviewing parties, allowing return comments via e-mail. Application of this process has allowed for effective transmittal of complex technical information to a large group of people and accomplishes extensive reviews in a minimum amount of time.

The process uses standard reviewer action codes to allow reviewers to quickly and efficiently characterize what is needed from them and disposition the items in a minimum amount of time. These codes include the following:

- A Approved for use
- P-Procurement
- DC Design complete
- CC Certified for construction
- SA Approval or concurrence
- RV-Review and comment
- KR Key reviewer
- IO Information only

A final feature being effectively used to communicate reviews and facilitate the technical interfaces across the partnering laboratories is videoconferencing. This feature incorporates the latest tools and technologies to facilitate design and construction of the facility.

#### 9. BASELINE CHANGE CONTROL

#### 9.1 CHANGE CONTROL PROCESS

PCRs should be limited to those necessary to correct deficiencies, affect cost and/or schedule benefits, or significantly improve technical performance. A change request can be initiated by anyone associated with the project. The change process should begin only after the initiator has determined the impact of the change on all subprojects and discussed this with his or her next level of supervision. Two possible courses of action exist: (1) a PCR for the recommended change is prepared and forwarded to the Level 3 task leader, STL, division director, etc., for action, or (2) a request is prepared to perform a study to determine whether the baseline change is warranted. In the latter case, the process for approving the study resembles the change control process except that the authorizing person for the study is the sponsor. The sponsor will be the manager one level below the person authorized to approve the PCR. For example, if the project director would be the final signature is the division director, then the study can be authorized by the STL, and so on. Funding for the study will be obtained (1) from within existing annual funding package allocations or (2) a PCR will be prepared to obtain the funds. After the study is complete and it is determined that the change should be recommended, a PCR will be prepared and the CCB review process implemented.

The change control process begins with the initiation of a PCR form (Fig. 9.1) and a cost, schedule, technical assessment (CSTA) form (Fig. 9.2), and, when appropriate, a document change notice (DCN) (Fig. 9.3). On these forms, the initiator identifies the affected documentation; outlines the reasons for the change; quantifies the technical, cost, and schedule impacts; and describes the change in detail. The responsible manager(s) must agree to the PCR, CSTA, and DCN before submittal. To simplify the change control process, a Web-based application has been developed that is available to all partner laboratories and provides on-line capabilities for form completion, notifications when approvals are needed, and electronic approval capabilities. Instructions for using this system are included in Appendix A.

The PCR form allows for review of all changes by the full CCB or the board's chair, including "out of scope" technical changes as well as cost and schedule changes. Both positive and negative changes will be addressed in this same manner.

Figure 9.4 provides a summary diagram of the SNS project change control process. Figure 9.5 provides additional details concerning process steps, requirements, functions, and responsibilities.

#### 9.1.1 PCR/CSTA Processing

Numbers for PCRs will be electronically assigned by the Web-based configuration management system. PCR numbering is as follows:



Subproject IDs:

- PS Project Support
- FE Front End
- LI Linac
- RI Ring
- TG Target
- IS Instruments Systems
- CF Conventional Facilities
- CO Global Controls
- OP Preoperations (Operations)

#### Example:

PCR LI 00 001 This would be the first PCR for the linac subproject in FY 2000.

The status of PCRs is tracked by the change coordinator at the appropriate site. After approval by the appropriate manager, changes are incorporated in the project's baselines.

#### 9.1.2 Document Change Notice

The DCN form (Fig. 9.3) is used to change any existing baseline document for the SNS project (drawing, specification, statement of work, etc.) or to create new documentation that is needed because of the PCR. New documents that are created during the normal process of design, research, and development, etc., do not require a DCN. Instructions for filling out the DCN form are included in Appendix A.

Table 9.1 lists the SNS baseline documents. The SNS DCC retains the current copy.

# Table 9.1 Baseline Documents<sup>a</sup>PEP, Appendix $C^b$ SNS Parameters ListSNS WBS DescriptorsSNS Quality Assurance PlanPreliminary Safety Analysis ReportPreliminary Safety Assessment DocumentFinal Safety Analysis ReportFinal Safety Analysis ReportFinal Safety Assessment DocumentSystem requirements documentsInterface control documentsDesign criteria documentsDrawings and specifications $^a$ A document becomes a part of the SNS baselineonly after approval by the cognizant authority.

<sup>b</sup>All portions of the PEP except Appendix C are controlled by DOE.

Numbers for DCNs will be electronically assigned by the Web-based configuration management system and will be consistent with the PCR that necessitated the DCN. DCN numbering is as follows:



Subproject IDs:

- PS Project Support
- FE Front End
- LI Linac
- RI Ring
- TG Target
- IS Instruments Systems
- CF Conventional Facilities
- CO Global Controls
- **OP** Preoperations (Operations)

PROJECT CHANGE REQUEST (PCR)

Page 1

Date:	WBS NO :		PCR			
WBS DESCRIPTION: Spallation Neutron Source Project			PCR TITLE: test			
DESCRIPTION OF CHA	Reason for Change ( NGE TECHNICAL	Check Al	l That Apply HEDULE	/)	COST	
EXPLANATION OF CHANG (PROVIDE A BRIEF REASON	EXPLANATION OF CHANGE:       (PROVIDE A BRIEF REASON FOR THE CHANGE)       DIRECTED CHANGE       YES       NO					
DETAIL DESCRIPTION:         (USE ATTACHED CONTINUATION SHEET AND/OR ATTACH ADDITIONAL INFORMATION SKETCHES. ETC. , AS NEEDED)         URGENT:       YES       NO						
List Other WBS numbers & ES&H CONCURRENCE ORIGINATOR CONFIGURATION MANAGEMENT CONCURRENCE CONCURRENCE					CCB-5	
SIC	NATURE / DATE SIGNATURE / DA	TE SIG	NATURE / D	ATE	SIGNATURE / DATE	
DOE APPROVAL:				CCB-4		
I     I     REQUIRED     I     I     NOT REQUIRED       SIGNATURE / DATE						
CLASS OF CHANGE: CLASS 0 [ ] CLA CLASS 0 [ ] CLA	CLASS 3A SS 1A     CLASS 3B SS 1B     CLASS 4 SS 2     CLASS 5	   	   	CCB-3B SIGNATUI	RE / DATE	
PCR DISPOSITION       I     I     ACCEPTED       I     I     NOT ACCEPT	Implementation Date       ED     Rev Number			CCB-3A SIGNATUR	e / date	

Fig. 9.1. PCR form.

# PROJECT CHANGE REQUEST CONTINUATION SHEET

Date:	WBS Description:			
WBS NO. (One Number Only	PCR NO.			
List Other PCR's Affected:				
Description of Change (CON	ITINUE)			
Explanation				
Description				

Fig. 9.1. (continued).

Page 1

# COST, SCHEDULE, TECHNICAL ASSESSMENT (CSTA)

DATE:	WBS NO.(O	ne Number Only)	PCR NO.:			
WBS DESCRIPTION:			ASSOCIATED PCR NUMBER			
ANALYSIS OF CHA	NGE:					
TECHNICAL (Include	Interfaces with (	Other Elements)				
DETAILED COST E	STIMATE OF CI	IANGE:				
Total Cost Change in	Kilodollars:		Type of Cos			
	Funding Spr	ead (BA) by FY				
FY01: FY0	2: FY03:	FY04:	FY05:	FY06:		
0.00 0.00	, 0.00	0.00	0.00	0.00		
ANALYSIS OF SCHE	DULE IMPACT	OF CHANGE				
(INCLUDE IMPACT	ON MILESTON	ES)				
(ADD ADDITIONAL SHEETS AND OTHER INFORMATION AS REQUIRED)						
IMPACT IF NOT AP	IMPACT IF NOT APPROVED					
ODICINATOD			C CONCERNS	ENICE		
ORIGINATOR		FROJECT CONTROL	5 CONCURR	ENCE	SENIOR IEANI LEADER APPROVAL	
SIGNATURE / DATE		SIGNATURE / DATE	Ξ		SIGNATURE / DATE	

Fig. 9.2. CSTA form.

Page 2

# COST, SCHEDULE, TECHNICAL ASSESSMENT CONTINUATION SHEET

DATE:	PCR No.:
TECHNICAL (Include Interfaces with Other Elements)	
DETAILED COST ESTIMATE OF CHANGE:	
ANALYSIS OF SCHEDULE IMPACT OF CHANGE (INCLUDE IMPACT ON MILESTONES)	
()	
IMPACT IF NOT APPROVED	

Fig. 9.2. (continued).

Page 1

# DOCUMENT CHANGE NOTICE (DCN)

<b>DCN:</b> Assigned by Docume	NT CONTROL CEN	ΓER	D te	ATE st		
DOCUMENT TITL	E TYPE	NEW DRAWING(S)	NEW DOC REVIS	UMENT(S) ION(S)	COMPLETE DOCUMENT NUMBER (ASSIGNED BY DCC)	ASSIGND BY DCC
TYPE CODES: SOW - Statement of Work Drawings A - Architectu		A - Architectural	L - Interface (s)			
Spe	cification			P- Piping I - Instrumentation	P - Parts Listing SIZE: A - E	
Designer Engineer		neer		Backup Location		
REASON(S) FOR	CHANGE(S)	(Provide as mar	ny details as poss	ible):		
ASSOCIATED PCR NUMBER (When Applicable)		ASS	ASSOCIATED BCP NUMBER (When Applicable)		ORIGINATOR	
					SIGNATURE/DATE	
	NOTE: All re	equired signatur	es must be obtair	ed prior to requesting I	Document Numbers.	
COMPLETE ONLY FOR REVISED I DOCUMENT(S)/DRAWING(S)		REVISED DOCUMENTS(S) CLASS 0 - 4		REQUIRED FOR CLASS 0 -3		
GROUP LEADER		DIVIS	DIVISION DIRECTOR APPROVAL		PROJECT DIRECTOR APPROVAL	
SIGNATURE/DATE		SIGN	ATURE/DATE		SIGNATURE/DATE	

Fig. 9.3. DCN form.

Page 2

	DOCUMENT	CHANGE NOTICE	CONTINUATION SHEET
--	----------	---------------	--------------------

DCN:				DATE		
ASSIGNED BY DOCUMENT C	ONTROL CEN	TER				
DOCUMENT TITLE	TYPE	NEW DRAWING(S)	NEW DOCUMENT(S) REVISION(S)		COMPLETE DOCUMENT ASSIG NUMBER BY DO (ASSIGNED BY DCC)	
TYPE CODES:	SOW - S	Statement of Wor	Drawings	A - Architectural	L - Interface (s)	
	TS - Tec	hnical		E- Electrical	M - Mechanical	
	Specifica	ation		P- Piping I - Instrumentation	P - Parts Listing SIZE: A - E	
REASON(S) FOR CH	ANGE(S)	(Provide as man	y details as possi	ble):		

Fig. 9.3. (continued).



Figure 9.4. Change control process.


#### 9.1.3 Change Control Boards

The SNS configuration management and control processes use a graded approach, employing change criteria for cost, schedule, and technical baseline information. Changes with greater potential for impact require higher approval authority or CCB action. The CSTA form described previously is used by the appropriate CCB to assist in the evaluation of the worthiness of the PCR.

CCB members individually and collectively assist and advise the chair and meet at the chair's request to review and approve or disapprove PCRs. The process involves using the change control criteria of Table 9.2 to determine which CCB is most applicable. The change control thresholds for the DOE CCBs 0, 1, and 2 were established in the PEP. CCBs will be chaired as follows:

- The SNS deputy project director will chair CCB-3B. Members of the board will be the associate project directors, ES&H manager, QA manager, and others as deemed appropriate.
- The division directors will chair CCB-4 boards. Members of the boards will be the responsible STLs and support staff deemed appropriate by the division director.
- CCB-5 boards will exist for WBS elements 1.3 through 1.9 and will be chaired by their responsible STL. Membership will be responsible WBS Level 3 task leaders and others that the STL names as appropriate.

Each CCB will have a secretariat who does the following:

- 1. Ensures that the PCR package is completed.
- 2. Distributes copies of the PCR and supporting documentation to the CCB members for premeeting review and comment.
- 3. Schedules the CCB meeting.
- 4. Prepares and distributes meeting minutes.
- 5. Submits records of all CCB actions, including the original PCR packages with financial and/or schedule impacts and CCB meeting minutes to the baseline change manager. These records are then maintained by the SNS DCC.

The baseline change manager also serves as the CCB-3B secretariat, documents and tracks all project changes, and publishes project-wide change control and contingency status reports.

#### 9.1.4 Classes of Change

Changes are classified according to the CCB that must act to approve the requested change. Table 9.2 includes the change thresholds for the change classes described subsequently. The highest change control class that applies to any of the three categories (cost, schedule, and technical) is to be applied for a requested change. That is, if the proposed change causes the Class 3 cost threshold to be exceeded, a Class 4 technical threshold to be exceeded, and a Class 5 schedule threshold to be exceeded, the change is a Class 3 change.

#### 9.1.4.1 Class 0 Change

Class 0 changes require approval of the SNS acquisition executive, the secretary of energy. Cost, schedule, and technical thresholds for this class of change are defined in the PEP baseline document.

#### 9.1.4.2 Class 1A Change

Class 1A changes require approval of the director of the DOE Office of Science. Cost, schedule, and technical thresholds for this class of change are defined in the PEP, Appendix A.

#### 9.1.4.3 Class 1B Change

Class 1B changes require approval of the associate director of the DOE Office for Basic Energy Sciences (BES). Cost, schedule, and technical thresholds for this class of change are defined in the PEP, Appendix A.

#### 9.1.4.4 Class 2 Change

Class 2 changes require approval of the DOE-Oak Ridge Operations (ORO) SNS project manager. Cost, schedule, and technical thresholds for this class of change are defined in the PEP, Appendix B.

#### 9.1.4.5 Class 3A Change

Class 3A changes require approval of the SNS project director (CCB-3A). The cost threshold for this class of change is contained in Table 9.2. Class 0, 1A, 1B, and 2 changes must have approval/ concurrence of the SNS executive director before being submitted to DOE.

#### 9.1.4.6 Class 3B Change

Class 3B changes require approval of the SNS deputy project director (CCB-3B). The cost threshold for this class of change is contained in Table 9.2. Class 0, 1A, 1B, and 2 changes must have the approval/concurrence of the SNS project director before being submitted to DOE.

#### 9.1.4.7 Class 4 Change

Class 4 changes require approval of an SNS division director (CCB-4). Cost, schedule, and technical thresholds for this class of change are contained in Table 9.1.

#### 9.1.4.8 Class 5 Change

Class 5 changes require approval of an SNS STL (CCB-5). Cost, schedule, and technical thresholds for this class of change are contained in Table 9.2.

#### 9.2 CHANGES THAT REQUIRE DOE APPROVAL

If a change requires DOE approval, a BCP form (Fig. 9.6) will be prepared by the baseline change manager and be submitted to DOE.

#### 9.3 TECHNICAL CHANGES NOT IMPACTING COST AND SCHEDULE BASELINES

Minor technical changes may be implemented under the authority of the STL if they do not impact the *SNS WBS Descriptors*, do not impact the cost and schedule baselines, and have no impact beyond the boundaries of the respective laboratory design authority making the change. These changes are intended to be minor in scope and are usually document "change only" changes that have no impact on the operation of the facility.

		Table 9.2. Configuration	management change thresholds	
Change Class	Responsibility for Approval	Technical Baseline/Impact	Cost Baseline/Impact	Schedule Baseline/Impact
0	Secretary of energy	Accelerator-based neutron-scattering facility providing: 21MW proton beam power on target Site: Oak Ridge, Tennessee	Total project cost \$1,411.7M	<ol> <li>Critical Decision 1 Mission need. (8/96A)</li> <li>Critical Decision 2 Baseline approval (12/97A)</li> <li>EIS record of decision (6/99A)</li> <li>Critical Decision 4 Acceptance/completion (6/06)</li> </ol>
		Threshold: -Any change to Class 0 scope -Siting change requiring a supplemental environmental impact statement (EIS)	Threshold: changes to the total project cost (TPC)	Threshold: changes <u>&gt;</u> 6 months
1A	Director, DOE Office of Science	Approximately 5-10 research instruments for research applications	TEC = \$1,192.7M TPC = \$1,411.7M	Schedule milestones as contained in the PEP, Appendix A, Section 8
		Threshold: any change to Class 0, or 1A scope	Threshold: changes to total estimated cost (TEC) or TPC	Threshold: ≥3 months to level 0 and 1A or 1B milestones

		Table 9.2. Configuration	management change thresholds	
Change Class	Responsibility for Approval	Technical Baseline/Impact	Cost Baseline/Impact	Schedule Baseline/Impact
IB	Associate director, BES	<ol> <li>1 × 10<sup>13</sup> protons per pulse</li> <li>5 × 10<sup>-3</sup> neutrons per steradian solid angle per incident proton measured viewing ambient moderator face</li> </ol>	Cost baseline data as specified in the PEP, Appendix A, Section 8	Schedule milestones as contained in the PEP, Appendix A, Section 8
		Threshold: Changes impacting Level 0 or 1A and B scope	Threshold: the smaller cumulative change of ≥\$50M or 50% to each WBS Level 2 cost	Threshold: $\geq 3$ months to level 0 and 1A and 1B milestones
7	DOE-ORO project manager	<ol> <li>Preliminary and final safety documents</li> <li>QA plan</li> </ol>	Cost baseline data as specified in the PEP, Appendix B, Section 8	Schedule milestones as specified in the PEP, Appendix B, Section 8.3
		Threshold: any change to these documents	Threshold: the smaller of $\geq$ \$10M or 50% cumulative change at WBS Level 2	Threshold: >3 months to milestones

		Table 9.2. Configuration	management change thresholds	
Change Class	Responsibility for Approval	Technical Baseline/Impact	Cost Baseline/Impact	Schedule Baseline/Impact
3A	Project director		MAM	
			Threshold: Any change requiring contingency allocation of >\$5M	
3B	Deputy project director (CCB-3)	<ol> <li>Parameters List</li> <li>WBS Descriptors</li> <li>PEP, Appendix C</li> <li>Changes that would affect the EIS</li> <li>WBS Level 3 structure</li> <li>Master Site Plan</li> </ol>	MAM	IPS Detailed IPS
		Threshold: any change	Threshold: Any change requiring contingency allocation up to \$5M	Threshold: Changes to any activities or milestones
			Cumulative unrecoverable cost increases >\$500K	
			Cumulative cost savings >\$500K	
			Any transfer of scope and budget from one WBS Level 2 to another	

	Schedule Baseline/Impact		
management change thresholds	Cost Baseline/Impact		MPM Threshold: Changes not affecting cost such as changes in resource type or phase code
Table 9.2. Configuration	Technical Baseline/Impact	<ol> <li>Selected drawings that impact WBS Level</li> <li>2 interfaces</li> <li>2. ICDs</li> <li>3. DCDs</li> <li>4. SRDs</li> <li>4. SRDs</li> </ol>	<ol> <li>WBS structure below WBS Level 4</li> <li>Threshold: any change</li> </ol>
	Responsibility for Approval	Division director (CCB-4)	STL (CCB-5)
	Change Class	4	Ś

Baseline Cha	nge Proposal (BCP)
1. Processing Designation:	2. Baseline Type:
Urgent	Cost:
Routine	Schedule
	Scope:
<b>3. BCP Approval Authority</b> Level 0 Level 1 Level 2 Level 3	Point of Contact: HQ: J. C. Hoy ORO: L. K. Price Contr.: T. E. Mason
4. ORO BCP #:	5. Date Initiated
BCP Title:	
WBS#:	
6. Description of Change and Affected Areas:	
7 Institution for Changes Directed: Ver	
7. Justification for Change: Directed: Yes	L] NO L]
8. Amount of Time Required for Implementation	1:
Impact of Non-Approval:	

## BCP#:

9a. Impact on Cost Baseline	<b>9b. Describe Cost Impact</b> (for additional information
Change in Total Estimated Cost (TEC)	see Table I )
(including Contingency):	
Revised Total Project Cost (TPC) (including Contingency):	
Contingency used:	
10. Funding Source and Impacts on Funding and Co	ntracts
11. Impact on Schedule (Baseline Milestones) [for add	litional information see Block 13a (page 4)]
12 Impact on Scone (e.g. WRS Project Execution Pla	n OA Plan Project Management Plan Design Manual)
12. Impact on Scope (c.g., wDS, 110jeet Execution 11a	in, QA I ian, I lojeet Management I ian, Design Manuar)
13. Programmatic/Other Impacts (including mitigating	ng or corrective action as appropriate)
Affected Decuments:	
Anecteu Documents:	

Fig. 9.6. (continued).

## BCP#:

14. ORO SNS CCB (Level 2) Action:		
Approved (Level 2 BCP Only) Disapproved Endorsed		
	Level 2 CCB Chairman	Date
15. DOE/SC CCB Action (Level 1B)		
Approved (Level 1B BCP Only Disapproved Endorsed (Level 1A)	)	
	Level 1B CCB Chairperson	Date
16. DOE/SC CCB Action (Level 1A)		
Approved (Level 1A BCP Only) Disapproved Endorsed		
	Level IA CCB Chairperson	Date
17. DOE ESAAB CCB Action (Level -0-)		
Approved (Level 0 BCP Only) Disapproved		
	Level 0 CCB Chairperson	Date

Fig. 9.6. (continued).

## BCP#:

		Bas	seline Char	T 1ge Pro	Fable oposa	1 Il Suppleme	ental Shee	t		
9b. Descrip	otion of Cost In	npact:								
Cost Baseli	ne (BCWS): (\$	in millions	s)							
Dessling	Prior Years	FY 2001	FY 2002	FY 20	003	FY 2004	FY2005	FY 2006		Total
Baseline										
Proposed										
Change					_				l	
Budget Sou	rce (\$ in million	ns):		<u> </u>		<u> </u>	<u> </u>			
	Prior Years	FY 2001	FY 2002	FY 20	003	FY 2004	FY2005	FY 2006		Total
Mgmt. Res.									ĺ	
Contingency	¥								ĺ	
Total Proje	ct Cost (TPC) (	(\$ in millio	ns)	·	B	aseline DOE		Change	Propose	ed Baseline
WBS					E	(xx/yy)			BCr-	-01-0AC ld/zz)
1.2 Pi	roject Support					(			<b>X</b>	(u/ <u>22</u> )
1.3 Fi	ront End									
1.4 Li	inac									
1.5 R	ing and Transfer S	System								
1.6 Ta	arget Systems									
1.7 In	strument Systems									
1.8 C	onventional Facili	ities								
1.9 In	tegrated Control S	Systems								
TEC	w/o Contingency									
Contr	ngency									
	Estimated Cost	<b>4</b> .								
	esearch & Develo	pment								
Prior	Years Cost									
Other	Project Costs									
Total	Project Cost, TP(	C								
11a. Imp	oact on Schedul	e Baseline:	: Iı	mpact o	on Sc	hedule Mil	lestones?	Yes [	]	No [ ]

#### **10. CONTINGENCY**

#### 10.1 GENERAL

In July 1999 the SNS baseline was established. The basis of the estimate is documented in the SNS cost estimate database and includes actual costs through April 1999, estimated cost to complete, and a recommended contingency allowance (%) for each WBS Level 4 element of the project.

The contingency allowance considered cost, schedule, and technical risks and uncertainties that existed in the project elements. After the application of the recommended contingency allowances to the WBS Level 4 estimated costs, an additional management contingency was added by the SNS project director to arrive at the final contingency amount for the project.

The DOE-ORO project manager makes funds available to the SNS project by issuing a directive. The annual directive request will include a request for all available funds to be dispersed to the project.

#### **10.2 CONTINGENCY MANAGEMENT PROCESS**

Requirements:

- 1. Directives will be issued by DOE at WBS Level 1 and will include line item, operating expense, and capital equipment funds.
- 2. The initial directive modification each year will transfer all available funds in a given year to SNS.
- 3. Contingency is managed as a central fund at the Project Office. All changes to baseline costs, both increases and decreases, must be traceable through the PCR process so that the history of contingency applications can be fully ascertained (Fig. 10.1). The baseline change manager is responsible for maintaining these records.
- 4. Contingency estimates are included within the project's TEC and are considered part of that cost.
- 5. Contingency funds are intended to cover the existing scope of the project's technical baseline.

Figure 10.2 provides an overview of this process.

	SNS Co Statu	ontingen s Recore	cy L		ased on As-spe	ent, \$K	TEC CONTI	NGENCY BALANC :ual Year \$K	ü
					Baseline Ch	ange	ŏ	ontingency Cha	ange
ntry o.	PCR NUMBER	WBS NUMBER	DESCRIPTION	PRESENT ESTIMATE	REVISED ESTIMATE	CHANGE IN ESTIMATE	PRESENT CONTINGENCY	CONTINGENCY CHANGE	REVISED CONTINGENCY
~									
2									
3									
4									
10									
0									
2									
m									
6									
0									
1									
2									

Fig. 10.1 SNS contingency status record.





## APPENDIX A

## USER INSTRUCTIONS FOR THE SNS WEB-BASED CONFIGURATION MANAGEMENT SOFTWARE SYSTEM



## Spallation Neutron Source Configuration Mgmt Software System

### USER INSTRUCTIONS FOR THE SNS WEB-BASED CONFIGURATION MANAGEMENT SOFTWARE SYSTEM

Date: November 2001

Prepared by the Oak Ridge National Laboratory Oak Ridge, TN 37831-6307 Managed by UT-Battelle, LLC for the U.S. DEPARTMENT OF ENERGY under contract DE-AC05-00OR22725

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## **1.0 Introduction**

The Spallation Neutron Source (SNS) Configuration Management Software System provides the SNS project with an automated system to control, track, document, and verify changes to the technical, cost, and scheduled baselines. This system is based on and implements the business rules stated in the SNS Configuration Management Plan that can be viewed from the application.

## 2.0 System Access

The system is a web-based application and requires a browser such as Netscape or Explorer to execute. The recommended browser is Netscape Communicator version 4.5 or higher. Clicking on the following url will bring up the system.

http://shawnee.sns.ornl.gov/snsprod/mainmenu.asp

## Note: This application will not run properly if you do not have cookies enabled in your browser. See Help in your browser's menu.

This system has three levels of user access, General User, Approver, and Configuration Manager.

The general user does not require secure access to the system. These users are restricted to entering, editing, and searching change records. To upload files to the server (as attachments), a user must have UCAMS or FACEBASE access. Approval and Configuration Management options are not available to these users.

Approver access requires that the user have UCAMS or FACEBASE access and be designated by the SNS Configuration Manager as approvers. The UCAMS and FACEBASE systems provide the user with a password that is required to display the approver screens and access the commands. Approvers have general user access as well as the capability to approve existing change records. They do not have access to the Configuration Management screens and commands.

In order to access the Configuration Manager screens and commands the user must have a UCAMS password and be designated by the SNS Configuration Manager as a configuration manager. In addition to the general user and approver options, these users have the capability to access the configuration management option screens and commands.

The SNS Configuration manager has the authority and responsibility to control access to this system. Any requests for approver or configuration manager access should be made to the SNS Baseline Change Manager or alternative contact.

## 3.0 Main Menu

To access the system simply click on the url and the following screen is displayed.

**Spallation Neutron Source Configuration Mgmt Software** System Project Change Request (PCR) Cost, Schedule, Technical Assessment (CSTA) Document Change Notice (DCN) Track Submitted Documents PCR Status Report Approvals Reports **Configuration Manager Options** Implementation Date/Rev. Number WBS Descriptors **Configuration Management Plan** Configuration Management Plan - Printable PDF (Face Base login) Configuration Management Plan User Guide How to use NetMeeting **SNS HomePage Disclaimers** The SNS Configuration Management System will be down for maintenance every Friday after 3 pm.

This screen provides the following commands.

Project Change Request (PCR) – Allows users to create, copy, search, or edit project change request records.

Cost, Schedule, Technical Assessment (CSTA) – Allows users to search cost, schedule, technical assessment records.

Document Change Notice (DNC) – Allows users to search document change notice records.

Track Submitted Documents – Allows users to view all PCRs with a status of "PENDING".

PCR Status Report- Allows users to view all PCRs with all dates associated with the PCR.

Approvals – Allows users to view and approve PCR records that require their approval.

Reports – Allows users to view and print reports.

Configuration Manager Options – Allows users with configuration manager level access to execute system maintenance commands and to approve PCR records.

WBS Descriptors – Allows users to view, create, or edit WBS Descriptor records.

Implementation Date/Rev. Number – Allows approved users to update PCRs with Implementation Date and Revision Number data.

Configuration Management Plan – Allows the user to view the SNS Configuration Management Plan.

Configuration Management Plan - Printable PDF (Face Base login) – Allows users with Face Base access to view the Adobe Portable Document Format (pdf) version of the Configuration Management Plan.

Configuration Management Plan User Guide- Allows users to view this document online.

SNS HomePage – Returns the user to the SNS Home page.

The sections that follow describe each of these commands in greater detail.

## 4.0 Project Change Request (PCR) Menu

 Project Change Request
Create New Copy Existing
Main Menu

Selecting Project Change Request from the main menu displays the following screen.

This screen allows the user to Create New PCRs, Copy Existing PCRs, or Search/Edit PCRs that have been created.

### 4.1 Create New

The Create New screen allows the user to select a level 3 or 4 Work Break Down Structure (WBS) number for the PCR that is created. This WBS number should be the main number that will be affected by the PCR. A list of WBS numbers is provided from a drop-down menu when the down arrow of the field is clicked. The originator's initials and last name is entered. Then a title is entered for the PCR. A descriptive title will enable the user to identify the record later from a search list. Clicking the Continue button alerts the SNS Configuration Manager with an e-mail, creates a PCR record in the database, and displays the PCR input screen.

<b>Project Change R</b> Create PCR	equest
Work Breakdown Structure Select the WBS Number for the PCR Originator Name	×
Warning! If you proceed with the creation of a	PCR, a mail
Identification and the new PCR No.	nager with your
Main Menu	

## 4.1.1 PCR Screen

The next screen displays the WBS number and description, a unique computer generated PCR number, and the version time and date for this new PCR. The initial status is "DRAFT" and Cost, Schedule, Time Assessment (CSTA), Document Change Notice (DCN), and attachment records have not yet been created.

<b>Project Change Request</b>
View     Reset     Save     Status Defs     Report       Attachments     PCR Menu     Main Menu
WBS No.: 1.04 WBS Description: Linac Systems
PCR No.:         PCR LI 01 015         ACCEPTED         Version DT:         1/24/01 4:39:27 PM
This PCR has CSTA Doc - Y DCN Doc - Y Attachments - Y
PCR Title: SpellCheck
Electropolishing Upgrade
Description of Change: (Check All That Apply) TECHNICAL SCHEDULE COST P3 Required
Directed Change: O Yes O No Urgent: O Yes O No
DOE Approval Required: O Yes O No
Class of Change:
Class 3B - Deputy Project Director
Select Affected WBS Nos         Select Affected DCN Nos
Explanation Of Change
SpellCheck
Recent proposed reductions in technical scope (deletion of 3 cryomodules and reduction of linac output energy from 970 MeV to 840 MeV) could create a situation in which higher accelerating gradients in the Superconducting Linac could be vital in minimizing the reduction of neutron flux. The reduction of energy leads to a much
Detailed Description
SpellCheck
This component involves procurement of an electropolishing system and supporting equipment, installation of the system into the Test Facility at Jlab, commissioning the system, and operating it to establish electropolishing procedures that are effective in improving the performance of superconducting niobium cavities.
without losing more than 20% in Q0. The scope of this item includes 8 experiments
Implementation Date 4/6/01 Rev. Number 146
Save

The user enters the following information describing the PCR in the remaining fields.

PCR Title – Enter or edit the PCR title. The spellcheck button allows the user to correct misspelled words.

Description of Change – Click each item that applies.

Directed Change – Was this change directed by DOE?

DOE Approval Required - See the Table 9.2 in the Configuration Management Plan for help in determining approvals.

Class of Change – Click on the Display Class Definition button to view the classes. Then select the class by clicking on the field's down-arrow. Refer to the Configuration Management Plan for help in determining the class of change.

Select Affected WBS Nos, Select Affected PCR Nos, and Select Affected DCNs buttons – Allows the user to associate this PCR with other Level 2 WBS elements, PCRs, and Document Change Notices that are affected by it.

Explanation of Change – Textual information explaining the change. The spellcheck button allows the user to correct misspelled words.

Detailed Description – Textual information describing the change in detail.

The buttons on this screen provide the user with the following functions.

View – Displays the PCR Display screen

Reset – Clears any input values on the screen or restores the initial values displayed for the PCR.

Status Defs – This button displays the PCR status definitions. The definitions are:

**Draft** - A PCR and its associated documents are being defined and completed before submission to the SNS Configuration Manager. You can only make changes to the documents/attachments while it is in this status.

**Submitted** -A PCR and its associated documents have been submitted to the SNS Configuration Manager for review.

**Pending** - A PCR and its associated documents has been accepted by the SNS Configuration Manager and the approval process for the PCR and its associated documents has begun.

Accepted - A PCR and its associated documents have been accepted and adopted by the SNS project.

**Rejected** - A PCR and its associated documents have been rejected. A reason for the rejection will be stated in the signature history for the PCR.

PCR Menu – Displays the PCR Document Menu screen.

Main Menu – Displays the Main Menu screen.

Attachments – Allows the user to view the attachment list.

Clicking on the Save button saves the PCR record with a status of "DRAFT" and with all data that was entered and displays the PCR Document Menu screen.

	PCR Document Menu
PCR No.: Pi	CR LI 01 015 Version DT: 1/24/01 4:39:27 P CR WBS No.: 1.04 Status: ACCEPTED
dit Project Chang	e Request (PCR)
Create/Edit Cost, S	Schedule, Technical Assessment (CSTA)
Create/Edit Docum	nent Change Notice (DCN)
Attachment List	
Select WBS Descrip	otor to edit and associate with PCR
Add New WBS Des	criptor and associate with PCR
view WBS Descript	or associated with PCR
	Main Menu PCR Search

From this screen the user can select from the following commands.

Edit Project Change Request (PCR) – Edit the current PCR.

Create/Edit Cost, Schedule, Technical Assessment (CSTA) – Create/edit the CSTA record associated with the current PCR.

Create/Edit Document Change Notice (DCN) – Create/edit the DCN record associated with the current PCR.

Attachment List – Add/Delete attachments to the current PCR.

Select WBS Descriptor to edit and associated with PCR – Select an existing WBS Descriptor to edit and associate with this PCR.

Add New WBS Descriptor and associate with PCR – Create a new WBS Descriptor and associate with this PCR.

View WBS Descriptor associated with PCR – View the WBS Descriptor(s) associated with this PCR.

Submit Project Change Request (PCR) for Approval – Submit the current PCR to the Configuration Manager for approval.

The PCR Search button at the bottom of the page allows the user to query and display PCRs. The Main Menu button displays the main menu screen.

## 4.1.2 CSTA Screen

Clicking on Create/Edit Cost, Schedule, and Technical Assessment (CSTA) initiates the next step in creating a PCR package by displaying the following screen:

SNS	C	Cost, Sc A	chedu ssess	le, To men	ech t	nica	
View R	eset Save	Status Defs	PCR Menu	ı Main	Menu	Attachr	nents
'BS No.: 1	.04.09.02		WBS Descr	iption:			
CR No.: P	CR LI 00 05	3 DRAFT	Version	DT: 7/1	2/00	10:51:08	٩M
CR Title: I	Estimate for	the warm sec	ction of the	Super Co	nducti Eleme	ng Linac	
	rechnic		SpellCheck		Licifici	1(3)	
None.							<u></u>
Tatal Cha	ngo in Cost		072		T	£C.4	
Total Cha	inge in Cost	(In K dollars) Funding	Spread (BA)	hv FV	Iype o	I Cost	
FY 2001	FY 2002	FY 2003 F	Y 2004	FY 2005	FY 20	06	
O	0			0	O		
		Cost Cha S	ange Descr pellCheck	iption			
A detailed burdened,	estimate has be unescalated doll	en prepared for th lars.	is PCR. The ad	ditional cost	is \$872 i	in FYOO,	×
							7
Total Ch	ange in Sche	edule (in Mont	hs) 🛛				
		Schedule	Change De SpellCheck				
None.							4
							7
		Impact	If Not App SpellCheck	roved			
None.							<u></u>

This screen displays information from the current PCR and allows the user to enter/edit the following fields:

Technical (Include Interfaces with Other Elements) – Discuss the impact on the technical baseline and clarify the interfaces with the other areas of the project, including WBS numbers. Attach additional information as applicable.

Total Change in Cost (in K dollars)

Type of Cost – Select either Burdened or Escalated.

Funding Spread (BA) by FY – The total dollar amount entered into the "Total Change in Cost" must be allocated by FY.

Cost Change Description - Clarify the cost impact of the change including the cost impact on all affected subprojects. State burdened and escalated to current year dollars.

Total Change in Schedule (In Months)

Schedule Change Description - Clarify the schedule impact of the change on all affected subprojects. Include a discussion of baseline milestone changes and the effect on the subproject critical path. Include revised activity durations plus current FY detail schedule changes.

Impact if not Approved – Discuss the impact to the project if the requested change is not approved.

Clicking on the Save button saves the CSTA record with all data that was entered and returns the user to the PCR Document Menu.

### 4.1.3 DCN Screen

From the PCR Document Menu screen click on Create/Edit Document Change Notice (DCN) to continue the process of creating a PCR package. This command displays the following screen:

View Reset Sav	e Status Defs PCR	Menu Main Me	nu Attachments
DCN No.: DCN LI 00 (	017		
WBS No.: 1.01.02.06	V F	VBS Description F Systems	
Associated PCR No.:	PCR LI 00 017 DRAFT	Version DT:	4/24/00 7:45:37 AM
Associated PCR Title:	RF Systems Transfer		
	Affected Do	cuments	
Type Doc. No	Document Title		New Document No. or Revision No.
	Select Update	Delete	
Designer Name:			
Engineer Name: 🛛 🗌			
Backup Location:			
Associated BCP No.:			
	Reason(s) For Change	(S) SpellChec	k
			X

This screen displays information from the current PCR and allows the user to enter the following fields:

Affected Documents – This section is used to display any documents that are affected by the PCR. Clicking the Select button under this banner displays the Select Document Types to Display screen shown below. The user can select the document type of interest by clicking the box to the left of the Document Type.

	CN - Se	lect Document Ty Display	/pes To
PC Reset	R RI 00 008 V Sea	Version: 4/19/00 7:35:06 AM YBS No.: 1.01.03 rch Document Titles Bac	ck
Add Other (Nor	1-DCC) Docu	ment Display DC	C Documents
	DOCUMENT TYPE	TYPE DESCRIPTION	
	ALL	All DCC Documents	
	AP	Approval Letters	
	BL	Baseline Document	
	СМ	Configuration Mgmt.	
	CR	Change Request	
	ST	Standards	
	SW	Statement of Work	
	TR	Technical Reports	
	TS	Technical Specs	
	WG	Work Group	
Reset Add Other (No	: Sea n-DCC) Docu	rch Document Titles Bar ment Display DC	ck C Documents

The following buttons are available from this screen.

Search Document Titles – This screen allows the user to search documents by title.

	Searc	h Document Tit	es
Reset	PCR RI 00 008 Ver WBS M Select By Type	rsion: 4/19/00 7:35:06 AM No.: 1.01.03 Display Documents	Back
Ent	e <mark>r the text to sea</mark> r	ch the document titles b	y:

Add Other (Non-DCC) Document – This screen allows the user to add Non-DCC documents.

	SNS	Docun Affe	nent C cted D	hange )ocum	Notice ents	
	Help View Re	eset Save DCN	Approvals	PCR Menu	Main Menu	
DCN	No.: DCN RI 00	008				
WBS	No.: 1.01.03		WBS Desc Ring Syste	cription: ems Develop	ment	
Asso	iated PCR No.:	PCR RI 00 008	DRAFT Ve	ersion DT: 4/	19/00 7:35:06 AM	
Assoc	ciated PCR Title:	Ring System Te	sts			
Document	Number:		F	evision Code	:	
Document	Title:					
New Docur	ment/Drawing N	umber:	r F	lew Revision	Code:	
Complete [	Oocument No.:		A	ssigned by D	CC:	

Display DCC Documents – Selecting a document type and then clicking on the Display DCC Documents button will display this screen. The user can add a document or drawing by checking the box to the left of the document title and clicking the Save button.

		De	DCN - Select Affected ocuments/Drawings to Add
		PCR R	I 00 008 Version: 4/19/00 7:35:06 AM WBS No.: 1.01.03 Reset Save Back DCN
DOC. Type	DOCUMENT NO.	REV. CODE	DOCUMENT TITLE
BL	100000000BL0001	R02	IPS PEP MILESTONE ADJUSTMENT
BL	100000000BL0002	ROO	SPALLATION NEUTRON SOURCE WORK BREAKDOWN STRUCTURE DESCRIPTORS
BL	100000000BL0003	R01	COST ESTIMATE LISTING (CORRECTIONS FROM JULY REVIEW AND PEP)

After selecting and saving DCC or other documents the user returns to the Document Change Notice screen where he can update the document by selecting Update or delete the document from the PCR by selecting the Delete button.

Other fields on the Document Change Notice screen used to describe the affected documents are:

Designer Name - The initials and last name of the designer.

Engineer Name - The initials and last name of the engineer.

Backup Location – The backup location of the design documents.

Associated BCP No. – The associated BCP number.

Reason (s) for Change (s) – Textual information describing the reasons for the changes to the documents. The spellcheck button allows the user to find and correct misspelled words

Clicking on the Save button saves the DCN record and returns the user to the PCR Document Menu screen.

### 4.1.4 Attachment List

Attachments can be added to or deleted from the PCR package by clicking Attachment List on the PCR Document Menu Screen. The Attachment List screen is displayed.

	Attachment List
	PCR No.: PCR LI 00 017 Version DT: 4/24/00 3:55:21 PM PCR WBS No.: 1.04.01.02 Status: ACCEPTED
	There are no Attachments for this PCR
	Add Attachments
You	nust have UCAMS or SNS Face_Base access to view, delete, or add files
	Main Menu PCR Menu

In order to add attachments the user must have a UCAMS (OAKRIDGE Domain) or FACEBASE (SNS Directory) account. Clicking on the Add Attachment button displays the screen below. The user must Logon by entering a valid user id and password.

	Station Neutron Source Restrictions
	To VIEW/ADD/DELETE attachments or access the APPROVAL function, you must be a valid user of the SNS Configuration
	Management System. You can use the restricted functions by logging on with:
	your UCAMS Userid and Password
	or with the SNS Face Base Username and Password.
	UCAMS C Face Base
	Login
_	Main Menu

After login the Add Attachment screen is displayed allowing the user to select documents to attach to the PCR package. The browse button enables the user to search for a document. Up to ten documents may be attached from this screen at one time. After selecting the document click the Upload Attachment button to initiate the upload and attachment process.

	Add Attachments
PCR No.:	PCR LI 01 015 Version DT: 5/1/01 12:46:27 PM PCR WBS No.: 1.01.02.06 Browse
	Browse
	Final P3 included?
	Upload Attachment(s)
	Main Menu PCR Menu

Checking the 'Final P3 included' checkbox indicates required P3 data is uploaded as an attachment. The PCR Menu button at the bottom of the screen returns the user to the PCR Document Menu screen. The Main Menu button displays the main menu screen.

### 4.1.5 Submit Project Change Request (PCR) for Approval

The last step in creating a PCR package is submitting it to the SNS Configuration Manager for approval. This is done by selecting Submit Project Change Request (PCR) for Approval option from the PCR Document screen. The following screen is displayed if the PCR and its associated documents have the required entries.

Configuration Manager         Submit       PCR Menu       Main Menu         VBS No.: 1.01.05       WBS Description: Target Systems Development         PCR No.: PCR TG 00 002       DRAFT       Date: 2/17/00 10:02:09 AM         Description of Change:       TECHNICAL       Y       SCHEDULE       N       COST       N         Directed Change:       No       Urgent:       No       OE       Class of Change:       Class 4         This document will be submitted to the SNS Configuration Manager for initial review. The document can not be changed once it has been submitted for approval.       Submit       Back	Configuration Manager         Submit       PCR Menu       Main Menu         WBS No.: 1.01.05       WBS Description: Target Systems Development         PCR No.: PCR TG 00 002       DRAFT       Date: 2/17/00 10:02:09 AM         Description of Change:       TECHNICAL       Y       SCHEDULE       N       COST       N         Directed Change:       No       Urgent:       No       DOE Approval Required:       No       Class of Change:       Class 4         This document will be submitted to the SNS Configuration Manager for initial review. The document can not be changed once it has been submitted for approval.         Submit       Back	Configuration Manager         Submit       PCR Menu       Main Menu         ZBS No.: 1.01.05       WBS Description: Target Systems Development         CR No.: PCR TG 00 002       DRAFT       Date: 2/17/00 10:02:09 AM         escription of Change:       TECHNICAL       Y       SCHEDULE       N       COST       N         irected Change:       No       Urgent:       No       OE Approval Required:       No       Class of Change:       Class 4         This document will be submitted to the SNS Configuration Manager for initial review. The document can not be changed once it has been submitted for approval.         Submit       Back	Submit	PCR to SNS
Submit         PCR Menu         Main Menu           VBS No.: 1.01.05         WBS Description: Target Systems Development           VCR No.: PCR TG 00 002         DRAFT         Date: 2/17/00 10:02:09 AM           Description of Change:         TECHNICAL         Y         SCHEDULE         N         COST         N           Directed Change:         No         Urgent:         No         OES of Change:         Class 4           DOE Approval Required:         No         Class of Change:         Class 4           This document will be submitted to the SNS Configuration Manager for initial review. The document can not be changed once it has been submitted for approval.         Submit         Back	Submit         PCR Menu         Main Menu           VBS No.: 1.01.05         WBS Description: Target Systems Development           VCR No.: PCR TG 00 002         DRAFT         Date: 2/17/00 10:02:09 AM           Description of Change:         TECHNICAL Y         SCHEDULE N         COST N           Directed Change:         No         Urgent:         No         OOE Approval Required:         No         Class of Change:         Class 4           This document will be submitted to the SNS Configuration Manager for initial review. The document can not be changed once it has been submitted for approval.         Submit         Back	Submit     PCR Menu     Main Menu       /BS No.: 1.01.05     WBS Description: Target Systems Development       CR No.: PCR TG 00 002     DRAFT     Date: 2/17/00 10:02:09 AM       escription of Change:     TECHNICAL Y     SCHEDULE N       COST N     Urgent:     No       OE Approval Required:     No     Class of Change:       This document will be submitted to the SNS Configuration Manager for initial review. The document can not be changed once it has been submitted for approval.       Submit     Back	Configura	ation Manager
WBS No.: 1.01.05       WBS Description: Target Systems Development         PCR No.: PCR TG 00 002       DRAFT       Date: 2/17/00 10:02:09 AM         Description of Change:       TECHNICAL       Y       SCHEDULE N       COST N         Directed Change:       No       Urgent:       No         DOE Approval Required:       No       Class of Change:       Class 4         This document will be submitted to the SNS Configuration Manager for initial review. The document can not be changed once it has been submitted for approval.         Submit       Back	WBS No.: 1.01.05       WBS Description: Target Systems Development         PCR No.: PCR TG 00 002 DRAFT       Date: 2/17/00 10:02:09 AM         Description of Change: TECHNICAL Y       SCHEDULE N         Directed Change: No       Urgent: No         DOE Approval Required: No       Class of Change: Class 4         This document will be submitted to the SNS Configuration Manager for initial review. The document can not be changed once it has been submitted for approval.         Submit       Back	//BS No.: 1.01.05       WBS Description: Target Systems Development         CR No.: PCR TG 00 002       DRAFT       Date: 2/17/00 10:02:09 AM         escription of Change:       TECHNICAL       Y       SCHEDULE       N       COST       N         irected Change:       No       Urgent:       No       O	Submit PCR Mer	nu Main Menu
PCR No.: PCR TG 00 002       DRAFT       Date: 2/17/00 10:02:09 AM         Description of Change:       TECHNICAL Y       SCHEDULE N       COST N         Directed Change:       No       Urgent:       No         DOE Approval Required:       No       Class of Change:       Class 4         This document will be submitted to the SNS Configuration Manager for initial review. The document can not be changed once it has been submitted for approval.         Submit	PCR No.: PCR TG 00 002       DRAFT       Date: 2/17/00 10:02:09 AM         Description of Change:       TECHNICAL       Y       SCHEDULE       N       COST       N         Directed Change:       No       Urgent:       No       Class of Change:       Class 4         DOE Approval Required:       No       Class of Change:       Class 4         This document will be submitted to the SNS Configuration Manager for initial review. The document can not be changed once it has been submitted for approval.       Submit       Back	CR No.: PCR TG 00 002       DRAFT       Date: 2/17/00 10:02:09 AM         escription of Change:       TECHNICAL Y       SCHEDULE N       COST N         irected Change:       No       Urgent:       No         OE Approval Required:       No       Class of Change:       Class 4         This document will be submitted to the SNS Configuration Manager for initial review. The document can not be changed once it has been submitted for approval.         Submit       Back	WBS No.: 1.01.05	WBS Description: Target Systems Development
Description of Change: TECHNICAL Y SCHEDULE N COST N Directed Change: No Urgent: No DOE Approval Required: No Class of Change: Class 4 This document will be submitted to the SNS Configuration Manager for initial review. The document can not be changed once it has been submitted for approval.	Description of Change:       TECHNICAL Y       SCHEDULE N       COST N         Directed Change:       No       Urgent:       No         DOE Approval Required:       No       Class of Change:       Class 4         This document will be submitted to the SNS Configuration Manager for initial review.         The document can not be changed once it has been submitted for approval.         Submit	escription of Change: TECHNICAL Y SCHEDULE N COST N irected Change: No Urgent: No OE Approval Required: No Class of Change: Class 4 This document will be submitted to the SNS Configuration Manager for initial review. The document can not be changed once it has been submitted for approval. Submit Back	PCR No.: PCR TG 00 002 DRAFT	Date: 2/17/00 10:02:09 AM
irected Change: No Urgent: No OE Approval Required: No Class of Change: Class 4 This document will be submitted to the SNS Configuration Manager for initial review. The document can not be changed once it has been submitted for approval. Submit Back	irected Change: No Urgent: No OE Approval Required: No Class of Change: Class 4 This document will be submitted to the SNS Configuration Manager for initial review. The document can not be changed once it has been submitted for approval. Submit Back	irected Change: No Urgent: No OE Approval Required: No Class of Change: Class 4 This document will be submitted to the SNS Configuration Manager for initial review. The document can not be changed once it has been submitted for approval. Submit Back	escription of Change: TECHNICAL	SCHEDULE N COST N
DOE Approval Required: No Class of Change: Class 4 This document will be submitted to the SNS Configuration Manager for initial review. The document can not be changed once it has been submitted for approval. Submit Back	DOE Approval Required:       No       Class of Change:       Class 4         This document will be submitted to the SNS Configuration Manager for initial review.       The document can not be changed once it has been submitted for approval.         Submit       Back	OE Approval Required: No Class of Change: Class 4 This document will be submitted to the SNS Configuration Manager for initial review. The document can not be changed once it has been submitted for approval. Submit Back	Directed Change: No	Urgent: No
This document will be submitted to the SNS Configuration Manager for initial review. The document can not be changed once it has been submitted for approval. Submit Back	This document will be submitted to the SNS Configuration Manager for initial review. The document can not be changed once it has been submitted for approval. Submit Back	This document will be submitted to the SNS Configuration Manager for initial review. The document can not be changed once it has been submitted for approval. Submit Back	OOE Approval Required: No	Class of Change: Class 4
			This document will be submitted to the SNS The document can not be changed one Submit	Configuration Manager for initial review. ce it has been submitted for approval.
			This document will be submitted to the SNS The document can not be changed one Submit	Configuration Manager for initial review. ce it has been submitted for approval.
			This document will be submitted to the SNS The document can not be changed one Submit	Configuration Manager for initial review. ce it has been submitted for approval.
			This document will be submitted to the SNS The document can not be changed on Submit	Configuration Manager for initial review. e it has been submitted for approval.

Clicking the Submit button on this screen alerts the SNS Configuration Manager that the PCR package is complete. The status is changed from "DRAFT" to "SUMITTED". Although the PCR can no longer be edited, it can be copied.

If errors exist in the PCR record it can not be submitted for approval. The following screen is displayed if this is the case.



## 4.2 Copy Existing

Selecting this option from the PCR Menu screen lists all PCRs that are available for copying. The user indicates which PCR to copy by clicking on the circle to the left of the PCR number and then pressing the Copy PCR button. The Back button returns the user to the PCR Menu screen. The Main Menu button displays the Main Menu screen.

	DCP No.	Worsion Data	Title	Status
0	PCR CF 00	3/10/00 10:57:17 AM	Additional funding to cover sales tax for Bear Creek Access Rd constr	REJECTED
0	PCR CF 00 002	3/8/00 3:06:17 PM	Extension of Ring Crane Coverage into HEBT and RTBT Tunnels	ACCEPTED
0	PCR CF 00 003	3/9/00 8:23:33 AM	withdrawn PCR	REJECTED
0	PCR TG 00 006	3/9/00 2:45:23 PM	Guide Inserts	ACCEPTED
0	PCR TG 00 007	3/9/00 4:32:35 PM	Mockup Test Stand	ACCEPTED
0	PCR TG 00 008	3/9/00 4:38:21 PM	Shielding Margin	ACCEPTED

Pressing the Copy PCR button displays the Copy Project Change Request screen with the selected PCR information displayed. From this screen the user can select to create a new PCR, or create a new version of the current PCR. The user can also select specific parts of the PCR to be copied.

	Copy Project Change Request				
View Reset Copy Main Menu					
PCR No.: PCR CF 00 002       ACCEPTED       Version DT: 12/1/99 3:06:17 PM         PCR Title:       Extension of Ring Crane Coverage into HEBT and RTBT Tunnels         WBS No.: 1.08       WBS Description:       Conventional Eacilities					
This PCR has CSTA Doc - Y DCN Doc - Y Attachments - Y					
Create New PCR No Create New Version of PCR CF 00 002 Please select the parts of the PCR that you want to copy:					
COPY ALL Documents/Attachments of the PCR					
	Copy Project Change Request (PCR)				
	Copy Cost, Schedule, Technical Assessment (CSTA)				
	Copy Document Change Notice (DCN)				
	Copy Attachments				
	Сору				

Pressing the copy button from this screen will allow the user to select a Work Breakdown Structure, and enter the Originator and Title and then view the new PCR.

## 4.3 Search PCR

Clicking on the Search option from the PCR Menu screen displays the screen below which allows the user to search for PCR records based on a WBS number, a specific PCR number, the Originator's Last Name, Version Date, Status, Class of Change, Change Type, Subproject Code, or Responsible Lab. The search can be on any field or combination of fields. Each field has a drop-down list of available choices. Blank fields will be ignored.

	Project	Change Request Search
WBS No:		PCR No:
Originator Last Na	ame:	Status:
Class of Change:		Change Type:
Subproject Code:		Responsible Lab:
Version Date:	mm/dd/yyyy	
To S	elect ALL PCRs, pres	ss the SEARCH button.
	SEARCH	RESET
	Main Menu Back	<u>Status Defs</u>

For example, the following screen resulted from a search for all PCR records on or after January 1, 2000 that are of change type "Technical" and that have a status of "DRAFT".

	_ <del>K</del> SNS		
	Ма	in Menu Back Status Defs	
PCR No	Version Date	Title	Status
PCR CF 00 009	4/3/00 4:35:13 PM	Add Stainless Rebar to Linac Tunnel	DRAFT
PCR CF 00 012	4/13/00 4:40:16 PM	Increase Linac Tunnel Length	DRAFT
PCR LI 00 003	3/9/00 10:36:51 AM	Extend Drift Tube Structure of SNS Linac	DRAFT
PCR LI 00 013	4/18/00 3:20:32 PM	Diagnostics Work	DRAFT
PCR LI 00 015	4/19/00 9:46:03 AM	Title	DRAFT
PCR LI 00 016	4/19/00 9:50:26 AM	Сору	DRAFT
DOD DI 00 000	4/19/00 7:35:06 AM	Ring System Tests	DRAFT
To view a specific PCR record, click on the PCR number. This will display the screen below, which allows the user to view the PCR record. From this screen the user can search for other PCRs, display the associated CSTA, display the associated DCN, or edit the PCR if the status is "DRAFT".

		SNS	F	Proj	ject C	hange	e Reques	t Disp	olay
	P	CR No	D.: PCR PCI	PS 0 R WB	1 015 S No.: 1	Version .02 Sta	DT: 6/12/03 atus: ACCEPT	1 10:18:2 ED	24 AM
	<u>Main</u> <u>Menu</u>	<u>Back</u>	Displa CSTA Edit CSTA		SDIAY DCN Edit DCN	<u>Display</u> ttachmer	nts <u>View</u> <u>Descr</u> associat <u>PC</u>	<u>WBS</u> iptor ed with R	<u>Edit</u>
				Pro	ject Cha	ange Req	uest (PCR)		
	PCR No.:	PCR I	PS 01 0	15			Version DT:	6/12/01	10:18:24 AM
	PCR Title:	Corr	ect det	ailed	baseline	e for 1.5			
	WBS No.: 1.02	WB Proj	S Desc ject Sup	riptic oport	on:				
	Descriptio	n of C	Change	: [	TECHNI	CAL 🗖 S		COST	
	Explanatio	on of l	Change son for th	e: Ne Cha	Dire	cted Cha	nge: No		
l	Jpdate dei	tailed	baselir	ne sch	nedule w	ith correc	t Ring dates.		
	Detailed D	escri	ption: inuation §	Sheet	and/or Atta	ach Additior	nal Information, S	Sketches, e	tc. as Needed)
/ 	All subproj alignment PS-01-005. the baselir	iects v with t . The ne wa:	were to the acce ring sch s never	ident elerat nedule upda	tify activ ed IPS in e was ch ated beca	ities in th January anged to ause the a	neir detailed s 01. This was reflect the co activities were	chedules covered rrect date tagged.	that reflected under es. However, This PCR
0	schedule ar	ueran nd the	eu'su'ie IPS.	eulite	to de qu	ulateu' to	de consistem	2 พราชีปา ชีปาต	e workning
	ist Other	ES&+	1 Concurr	ence	Originator		Configuration	CCE	3-5
N N	VBS Jumbers &	FRA KOF	NK RNEGAY		B M THIBAD	EAU	Management Concurrence	RA	Y L JOHNSON
	ffected:	6/26	5/01		6/26/01		RAY L JOHNSO 6/26/01	DN KA	THLYN J UDWIN
					Signature,	/Date	Signature/Date	6/2 sig	27/01 nature/Date
C	OE Approval						ССВ-4		
	[ ]REQ [ X ]NOT	UIRED F REQU	IRED				Signature/Date		
C	lass of Chan	ge:					ссв-зв		
c	LASS 0 CLASS		ASS 1B CL	ASS 2					
C	LASS BA CLAS	553B (	LASS 4	LASS S	5		Signature/Date		
P	CR Dispositio	in:			Implement	tation	ССВ-ЗА		
	[ X ] ACC [ ] NOT	ACCE	) PTED		7/11/01		Signature/Date		
					Rev Numb 231	er			
	<u>Main Me</u>	<u>:nu</u>	Back		STA	Display DCN	Display		Edit
				Edit	CSTA	Edit DCN			

To edit the PCR record, click on the Edit button. The Project Change Request screen will be displayed.

	Project	Chang	e Request
	View Reset Save Attachments	Status Defs PCR Menu	Report 1ain Menu
WBS No.: 1.07	WBS Instr	Description: ument System	IS
PCR No.: PCR IS 02 0	11 DRAFT	Version DT:	10/22/01 1:20:45 PM
This PCR has CSTA Do	oc - N DCN Doc - I	Attachmen	ts - N
PCR Title:	SpellCheck		
Instrument systems WBS d	escriptors		×
Description of Change:	(Check All That Apply)	HEDULE 🗖 CO	ST
Directed Change: O	Yes ONo	Urgent:	O Yes O No
DOE Approval Require	d: OYes ONo		
Class of Change:	- (1 ) · · ·		
Display Clas			Select Affected PCR Nos
Select Affect	ted WBS Nos		Select Affected DCN Nos
	Explanat Sp	ion Of Change ellCheck	
	Detaile	d Description	
	Sp	ellCheck	
(*		Save	_

The fields in the PCR record can be edited and saved from this screen. The button bar at the top of the screen allows the user to view, reset, or save this record, display attachments, view status definitions, and return to the PCR Document or Main menus.

# 5.0 Cost, Schedule, and Technical Assessment (CSTA)

Selecting Cost, Schedule, and Technical Assessment (CSTA) from the Main Menu displays the following screen which allows the user to search for CSTA records based on a specific PCR number, Version Date, or Status. The search can be on any field or combination of fields. Each field has a drop-down list of available choices. Blank fields will be ignored.

SNS Cost, Schedu	le, Technical Assessment Search
PCR No:	Status:
Version Date:	mm/dd/yyyy
To Select ALL CSTA	s, press the SEARCH button.
SEAL	RCH RESET
Main Menu	Back Status Defs

For example, the following screen resulted from a search where the Status field was "DRAFT" all other fields were blank.

	Ma	nin Menu Back Status Defs	
PCR No	Version Dt	Title	Status
PCR CF 00 009	4/3/00 4:35:13 PM	Add Stainless Rebar to Linac Tunnel	DRAFT
PCR FE 00 003	4/20/00 7:09:33 AM	Beam Dynamics Transport Testing	DRAFT
<u>PCR LI 00</u> 004	3/10/00 11:25:23 AM	Change linac to eliminate the CCDTL section by extending the DTL section test of	DRAFT
<u>PCR LI 00</u> 008	3/10/00 11:33:54 AM	Linac cost savings	DRAFT
PCR LI 00 015	4/19/00 9:46:03 AM	Title	DRAFT
<u>PCR LI 00</u> 016	4/19/00 9:50:26 AM	Сору	DRAFT
<u>PCR RI 00</u> 004	3/10/00 11:41:55 AM	Machine study/code benchmarking	DRAFT
<u>PCR RI 00</u> 005	3/10/00 11:42:51 AM	Collimation R&D	DRAFT
PCR RI 00 008	4/19/00 7:35:06 AM	Ring System Tests	DRAFT

To view a specific CSTA record click on the PCR number. This will display the following screen in read only mode. From this screen the user can view the CSTA information, display the associated PCR record, or return to the search screen or main menu.

	SNS Cos	st, Schedı	ule, Techni Display	cal Asses	sment
	PCR No.: PCF PCR	R LI 00 053 WBS No.: 1.04	Version DT: 7/3 4.09.02 Status	12/00 10:51:0 : ACCEPTED	8 AM
	Main	Menu	Back	<u>Display PCR</u>	
	Cost, Sc	hedule, Teo	hnical Assess	ment (CSTA	.)
PCR No.: PCR	R LI 00 053		Version DT:	7/12/00 10:51	:08 AM
PCR Title: Est	imate for the w	arm section of	the Super Conduct	ting Linac	
WBS No.: 1.04	1.09.02	WBS Descrip	ition:		
Analysis of Cha	ange:	Inagriceriare	ware		
Technical: (Ind	clude Interfaces \	with Other Elemer	its)		
lone					
Norie.					
)etailed Cost E	stimate of Cha	nge:			
otal Cost Cha	inge in Kilodollar	rs: 872 Type	of Cost: Burden	ed	
		Funding	Spread (BA) by I	=Y	
					Dr. poor
TY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FT 2006
Y 2001 72	FY 2002	FY 2003	FY 2004	FY 2005	0
TY 2001 372 A detailed estin inescalated do	FY 2002 0 nate has been p	FY 2003 0 orepared for this Docu	PCR. The addition	PY 2005	n FY00, burdened,
FY 2001 872 A detailed estin unescalated do CR No: CR No:	FY 2002 0 mate has been p illars.	PY 2003 0 orepared for this Docu	FY 2004 0 PCR. The addition <b>ment Cl</b> Sea Designer La Engineer La	FY 2005 0 al cost is \$872 i nange f rch ast Name:	n FY00, burdened,
FY 2001 B72 A detailed estin unescalated do CR No: CN No:	FY 2002 0 nate has been p ollars.	PY 2003 0 orepared for this Docu	FY 2004 0 PCR. The addition <b>ment Cl</b> Sea Designer La Engineer La	FY 2005 0 nal cost is \$872 i nange f rch ost Name: ost Name:	Notice
TY 2001 372 A detailed estin unescalated do CR No: CR No: CP No:	FY 2002 0 mate has been p illars.	PY 2003	FY 2004 0 PCR. The addition <b>ment Cl</b> Sea Designer La Engineer La Status:	FY 2005 0 al cost is \$872 i nange f rch ast Name:	Notice
TY 2001 372 A detailed estin unescalated do CR No: CR No: CR No: CP No:	FY 2002 0 nate has been p illars.	FY 2003       0       orepared for this       Docu	FY 2004 0 PCR. The addition <b>ment Cl</b> Sea Designer La Engineer La Status:	FY 2005 0 al cost is \$872 i nange f rch ast Name: ast Name:	Notice
FY 2001 872 A detailed estin unescalated do CR No: CR No: CN No: CP No: CP No: CP No:	FY 2002 0 mate has been p llars.	FY 2003       0       orepared for this       Docu	FY 2004 0 PCR. The addition <b>ment Cl</b> Sea Designer La Engineer La Status:	FY 2005 0 al cost is \$872 i nange f rch ast Name: ast Name:	Notice
TY 2001 B72 A detailed estinuescalated do CR No: CN No: CP NO: C	FY 2002 0 nate has been p llars.	FY 2003 0 orepared for this Docu	FY 2004 0 PCR. The addition <b>ment Cl</b> Sea Designer La Engineer La Status: mm/dd/yyy s, press the SE	FY 2005   0     nange   nange   rch     ast Name:     ast Name:     ARCH button	Notice

The Search screen allows the user to search for DCN records based on a specific PCR number, DCN number, BCP number, Status, Designer Last Name, Engineer Last Name,

Version Date, or Status. The search can be on any field or combination of fields. Some fields have drop-down lists of available choices. A blank field will not be included in the search.

For example the following screen resulted from a search for all DCN records after January 1, 2000 and that have a status of "SUBMITTED".

	SNS	Docume Se	ent Change Notice arch Results	
		Main Menu Bao	ck Status Defs	
DCN NO	D PCR No	Version Date	Title	Status
DCN CO 00	001 PCR CO 00 001	2/22/00 2:47:05 PM	New WBS Element for Cabling Integration Plan - Revision	SUBMITTED
DCN LI 00 0	06 PCR LI 00 006	1/26/00 8:46:55 AM	Linac System - Test Web PCR System	SUBMITTED
DCN LI 00 0	07 PCR LI 00 007	2/4/00 10:04:42 AM	test 7 amplifier redesign engineering change	SUBMITTED
DCN LI 00 0	11 PCR LI 00 011	2/21/00 3:07:32 PM	Establish Project Specific Dvision at LANL	SUBMITTED
DCN TG 88 0	DO2 PCR TG 00 002	2/17/00 10:02:09 AM	Target tests for system CMT	SUBMITTED

To view a specific record, click on the DCN number. This will display the following screen in read only mode. From this screen the user can view the DCN information, display the associated PCR record, or return to the search screen or Main Menu.

PCR No.: PCR CO 00 001     Version DT: 9/27/99 2:12:21 PM PCR WBS No.: 1.09.01       Main Menu     Back     Display PCR       Main Menu     Back     Display PCR       NOTE:     Use this form to initiate a new bocument or change an existing Document     DCN: DCN CO 00 001 New WBS Element for Cabing Integration Plan existing Document No.       Type     Document No.     Title     New Document No/Revision       0     SNS PROJECT: WBS LEVEL + DESCRIPTOR FORM FOR WBS 1.9.1.2     New Document No/Revision       0     SNS PROJECT: WBS LEVEL + DESCRIPTOR FORM FOR WBS 1.9.1.1     L - E Electrical       1     Itele     New Document No/Revision       0     SNS PROJECT: WBS LEVEL + DESCRIPTOR FORM FOR WBS 1.9.1.1     Description       0     SNS PROJECT: WBS LEVEL + DESCRIPTOR FORM FOR WBS 1.9.1.1     Description       1     C - Interface Control C - Interface Control C - Other PORM FOR WBS 1.9.1.1     Description       DR: Orectives C - Edglement Sector     C - Interface Control C - Other PORM FOR WBS 1.9.1     Description Magn: Orecton C - Other C - Porty       1     Interface(S) P - Pping C - Detroitives C - Configuration Magn: Orecton C - Other C - Detroitives C - Edglement Form For WBS 1.9.1.1     Description Form More Singlement Site C - Edglement Form For WBS 1.9.1.1       2     Declassing C - Change Proposal SW - Statement of Wack S Descriptor Form for WBS 1.9.1.1     Declass Or 3       Descriptor Form for WBS 1.9.1.1     A - Architectural C -		->	SNS	Do	cum	ent	t Cha	inge	e Not	ice Di	splay	/	
Main Menu         Back         Display PCR           NOTE:         Use this form to initiate a new Document or change an existing document         DCN::         DCN CO 00 001 New WBS Element for Cabing Integration Plan           List Affected Documents:         (Use continuation Pages, if needed)         Type         Document No.           Type         Document No.         Title         New WBS Element for Cabing Integration Plan           0         SNS PROJECT: WBS ELVEL 4 DESCRIPTOR FORM FOR WBS 1.9.1.2         Image: Complexity of the Complexity of th			PCR N	lo.: PCR C PCR W	O 00 BS No	001 5.: 1.(	Vers 09.01	ion D Stati	T: 9/27 us: ACC	799 2:12 EPTED	2:21 PM		
Document Change Notice (DCN)           NOTE:         Use this form to initiate a new Document or change an existing Document         DCN:: DCN CO 00 001 New WBS Element for Cabling Integration Plan           List Affected Documents:         (Use continuation Pages, if needed)         New Document No/Revision           Type         Document No.         Title         New Document No/Revision           0         SNS PROJECT: WBS LEVEL 4 DESCRIPTOR FORM FOR WBS 1.9.11         New Document No/Revision           0         SNS PROJECT: WBS LEVEL 3 DESCRIPTOR FORM FOR WBS 1.9.11         L-           0         SNS PROJECT: WBS LEVEL 3 DESCRIPTOR FORM FOR WBS 1.9.1         L-           0         SNS PROJECT: WBS LEVEL 3 DESCRIPTOR FORM FOR WBS 1.9.1         L-           0         C - Interface Control FORM FOR WBS 1.9.1         A - Architectural Interface(s) Descriptor Forms FOR WBS 1.9.1         L-           0         Design Drawing PC - Policy         P - Parameters For Header         L - E - Enderical Interface(s)         L-           0         Design Drawing PC - Policy         P - Parameters For Header         L - E - Enderical Interface(s)         L - E - Enderical Interface(s)           0         Design Drawing PC - Policy         P - Parameters For Header         L - E - Enderical Interface(s)         L - E - Enderical Interface(s)           0         Desingn Drawing PC - Policy         D - CLEAVES Eng				<u>Main Me</u>	<u>enu</u>		<u>Back</u>		<u>Displ</u>	ay PCR			
NOTE:     Use this form to initiate a new Document or change an existing Document No.     DCN:     DCN CO 00 001 New WBS Element for Cabling Integration Plan       List Affected Documents:     (Use Continuation Pages, if needed)     New Document No.     New Document No.       Type     Document No.     Title     New Document No.       0     SNS PROJECT: WBS LEVEL 4 DESCRIPTOR FORM FOR WBS 1.9.1.2     New Document No/Revision       0     SNS PROJECT: WBS LEVEL 4 DESCRIPTOR FORM FOR WBS 1.9.1.1     Descriptor       0     SNS PROJECT: WBS LEVEL 3 DESCRIPTOR FORM FOR WBS 1.9.1     A - Architectural E - Electrical Distribution     L - Interface(s)       Type Codes:     EQ - Equipment Specs (Drawings)     A - Architectural E - Electrical Distribution     L - New Mechanical P - Piping M - Docingination Might D - Osign Drawing P - Parameters List E D - Datestines     D - Clear E - Electrical D - Design M - Docinger     L - Nethechanical P - Parts Size: A - E       De Obesigner     J CLEAVES Engineer     D - CLEAVES Engineer     Backup Location       Reason(s) for Change(s):     (Provide as many details as possible)     WBS Descriptor Form for WBS 1.9.1 needs to be expanded to include the cabling plan scope. New WBS Descriptor forms for WBS 1.9.1 and 1.9.1.2 will include cabling activities. Proposed new descriptor forms are attached.       Associated PCR Number (When Applicable)     Associated BCP Number (When Applicable)     Originator J E CLEAVES 1/31/00 Signature/Date       Descriptor forms wide Document(s)/Drawing(s)     Rexised					Docun	nent (	Change	Notic	e (DCN)	<u></u>			
List Affected DocumentS:       (Use Continuation Pages, if needed)       New Document No,         Type       Document No.       Title       New Document No/Revision         0       SNS PROJECT: WBS LEVEL 4 DESCRIPTOR FORM FOR WBS 1.9.1.1       New Document No/Revision         0       SNS PROJECT: WBS LEVEL 4 DESCRIPTOR FORM FOR WBS 1.9.1.1       -         0       SNS PROJECT: WBS LEVEL 3 DESCRIPTOR FORM FOR WBS 1.9.1       -         Type Codes:       EQ - Equipment Specs (D - Onlight and Mgmt 0 - Other PO - Design Drawing PC - Policy DO - Design Drawing PC - Policy SN - State Statement of Work       A - Architectural E - Electrical Interface(s) P - Piping M - OD Do - Design Drawing PC - Policy SN - Data Sheet Specs SN - System Requirements EC - Eng. Change Proposal SW - Statement of Work       Backup Location         Reason(s) for Change(s):       (Provide as many details as possible)       Backup Location         WBS Descriptor Form for WBS 1.9.1 needs to be expanded to Include the cabling plan scope. New WBS Descriptor Forms for WBS 1.9.1.2 will include cabling activities. Proposed new descriptor forms are attached.         Associated PCR Number (When Applicable) PCR C 0 00 001       Associated BCP Number (When Applicable) PCR C 0 00 001       Originator J E CLEAVES 1/31/00       Signature/Date         Note: All required signatures must be obtained prior to requesting Document Numbers.       Complete only for Revised Document(s)/Drawing(s)       Revised Document(s) Class 0 - 3       Project Director Approval       Project Director Approval	NOTE:		Use this Docu ex	form to initi- ument or cha kisting Docum	ate a n nge an ient	ew		DCN: New W	DCN ( BS Eleme	CO OO OO1 nt for Cablin	l ng Integra	ation Plan	
Type         Document No.         Title         New Document No/Revision           0         SNS PROJECT: WBS LEVEL 4 DESCRIPTOR FORM FOR WBS 1.9.1.2         Image: Comparison of the compa	List Affec	ted D	ocume	nts: (Us	e Conti	nuatior	n Pages,	if need	∋d)				
0       ISNS PROJECT: WBS 19:12:1         0       ISNS PROJECT: WBS LEVEL 4 DESCRIPTOR FORM FOR WBS 1.9.1.1         0       ISNS PROJECT: WBS LEVEL 3 DESCRIPTOR FORM FOR WBS 1.9.1         0       ISNS PROJECT: WBS LEVEL 3 DESCRIPTOR FORM FOR WBS 1.9.1         0       ISNS PROJECT: WBS LEVEL 3 DESCRIPTOR FORM FOR WBS 1.9.1         0       ISNS PROJECT: WBS LEVEL 3 DESCRIPTOR FORM FOR WBS 1.9.1         0       Interface Control C - Interface Control D - Design Drawing P - Peiping P - P	Туре	D	ocument	No.			DO IDOT.	Title		CORTAGO	New Doc	ument No/	Revision
0       SNS PROJECT: WBS LEVEL 4 DESCRIPTOR FORM FOR WBS 1.9.1.1         0       SNS PROJECT: WBS LEVEL 3 DESCRIPTOR FORM FOR WBS 1.9.1         Type Codes:       EQ - Equipment Specs IC - Interface Control Configuration Mgmt 0 - Other DD - Design Drawing PC - Policy DB - Design Drawing DB - Design Drawing Signature/Date       A - Architectural L - Electrical Drestife Design Drawing DC - Defice Design Drawing DC - Defice Drest Drawing DC - Defice Drest Drest Policable Deciment(s)/Drawing(s)       A - Architectural Division Director Approval R L KUSTOM 2/1/00       Display PCR         Main Meru       Back       Display PCR	0					FORM	FOR WB	VVBS Li З 1.9.1.	EVEL 4 DE 2	SCRIPTOR			
O         SNS PROJECT: WBS LEVEL 3 DESCRIPTOR FORM FOR WBS 1.9.1           Type Codes:         EQ - Equipment Specs BL - Baseline CC - Interface Control CM - Configuration Mgmt OD - Design Drawing DD - Design Drawing DD - Design Drawing DC - Policy DD - Design Drawing DC - Policy DC - Design Drawing DC - Policy DC - Design PC - P	0					SNS P FORM	ROJECT: FOR WB	WBS LE 3 1.9.1.	EVEL 4 DE 1	SCRIPTOR			
Type Codes:       EQ - Equipment Specs       (Drawings)       A - Architectural       L -         BL - Baseline       IC - Interface Control       O - Other       Interface(s)       M -         DD - Design Drawing       PC - Policy       I - Instrumentation       M -         DS - Data Sheet Specs       SR - System Requirements       I - Instrumentation       M -         EC - Eng. Change Proposal SW - Statement of Work       Size: A - E       Size: A - E         Designer       J CLEAVES       Backup Location       Size: A - E         Designer       J CLEAVES       Backup Location       Size: A - E         Pesigner       J CLEAVES       Backup Location       Size: A - E         New WBS Descriptor Form for WBS 1.9.1 needs to be expanded to include the cabling plan scope.       New WBS Descriptor forms for WBS 1.9.1.1 and 1.9.1.2 need to be generated. WBS 1.9.1.1 will include cabling activities. Proposed new descriptor forms are attached.         Associated PCR Number (When Applicable)       Associated BCP Number (When Applicable)       Originator         PCR CO 00 001       Associated BCP Number (When Applicable)       Required for Class 0 - 3         Group Leader       Division Director Approval       Project Director Approval         D GURD       R L KUSTOM       Z/1/00       Signature/Date         Signature/Date       Signature/Dat	0					SNS PI FORM	ROJECT: FOR WB	WBS LE 3 1.9.1	EVEL 3 DE	SCRIPTOR			
Designer         J CLEAVES Engineer         Backup Location           Reason(s) for Change(s):         (Provide as many details as possible)         Backup Location           WBS Descriptor Form for WBS 1.9.1 needs to be expanded to include the cabling plan scope. New WBS Descriptor forms for WBS 1.9.1.1 and 1.9.1.2 need to be generated. WBS 1.9.1.1 will include management activities and WBS 1.9.1.2 will include cabling activities. Proposed new descriptor forms are attached.         Originator           Associated PCR Number (When Applicable) PCR CO 00 001         Associated BCP Number (When Applicable)         Originator           J E CLEAVES 1/31/00         J E CLEAVES 1/31/00         J E CLEAVES 1/31/00           Signature/Date         Revised Document(s) Class 0 - 4         Required for Class 0 - 3           Group Leader         Division Director Approval         Project Director Approval           D GURD 2/1/00         R L KUSTOM 2/1/00         Project Director Approval           Signature/Date         Signature/Date         Signature/Date	Type Codes BL - Baselin CM - Config DD - Desigr DR - Directi DS - Data S EC - Eng. C	s: juratio n Draw ives Sheet Change	on Mgmt ring Specs e Proposa	EQ - Equipn IC - Interfa O - Other PC - Policy PL - Parame SR - Syster I SW - State	nent Sp ce Con eters Li n Requi ment o	ecs trol st rement f Work	(Dra :s	awings)	A E P I	- Architect - Electrical - Piping - Instrumer	ural	L - Interf M - Mech P - Pa Lists Size:	ace(s) anical arts A - E
Reason(s) for Change(s): (Provide as many details as possible)         WBS Descriptor Form for WBS 1.9.1 needs to be expanded to include the cabling plan scope.         New WBS Descriptor forms for WBS 1.9.1.1 and 1.9.1.2 need to be generated. WBS 1.9.1.1 will include management activities and WBS 1.9.1.2 will include cabling activities. Proposed new descriptor forms are attached.         Associated PCR Number (When Applicable)       Associated BCP Number (When Applicable)       Originator         PCR CO 00 001       Associated BCP Number (When Applicable)       Display EQUIPMENT         Note: All required signatures must be obtained prior to requesting Document Numbers.       Complete only for Revised Revised Document(s)       Required for Class 0 - 4         Group Leader       Division Director Approval       Project Director Approval         D GURD 2/1/00       Signature/Date       Signature/Date	Designer				J CL Engine	EAVE er	S			Backup Lo	cation		
WBS Descriptor Form for WBS 1.9.1 needs to be expanded to include the cabling plan scope.         New WBS Descriptor forms for WBS 1.9.1.1 and 1.9.1.2 need to be generated. WBS 1.9.1.1 will include management activities and WBS 1.9.1.2 will include cabling activities. Proposed new descriptor forms are attached.         Associated PCR Number (When Applicable)       Associated BCP Number (When Applicable)       Originator J E CLEAVES 1/31/00         PCR CO 00 001       Associated prior to requesting Document Numbers.       J E CLEAVES 1/31/00         Signature/Date       Revised Document(s)       Required for Class 0 - 3         Group Leader       Division Director Approval       Project Director Approval         D GURD 2/1/00       R L KUSTOM 2/1/00       Signature/Date         Signature/Date       Signature/Date       Signature/Date	Reason(s)	) for (	Change	(S): (Pro	vide as	s many	details a	as possi	ble)				
Associated PCR Number (When Applicable) PCR CO 00 001       Associated BCP Number (When Applicable)       Originator         J E CLEAVES 1/31/00       J E CLEAVES 1/31/00       J E CLEAVES 1/31/00         Note: All required signatures must be obtained prior to requesting Document Numbers.       Signature/Date         Complete only for Revised Document(s)/Drawing(s)       Revised Document(s) Class 0 - 4       Required for Class 0 - 3         Group Leader       Division Director Approval       Project Director Approval         D GURD 2/1/00       R L KUSTOM 2/1/00       Signature/Date         Signature/Date       Signature/Date       Signature/Date	WBS Desc New WBS include m descriptor	cripto Deso anag form	or Form criptor f lement ns are a	for WBS 1 forms for V activities a attached.	.9.1 n VBS 1 and W	eeds .9.1.1 'BS 1.	to be e and 1 9.1.2 v	expanc .9.1.2 vill inc	led to ir need to lude cat	nclude the be gene pling activ	e cablinq rated. V vities. P	g plan sc VBS 1.9. Yroposed	ope. 1.1 will new
Note: All required signatures must be obtained prior to requesting Document Numbers.         Complete only for Revised Document(s)       Required for Class 0 - 4         Document(s)/Drawing(s)       Division Director Approval       Project Director Approval         Group Leader       Division Director Approval       Project Director Approval         D GURD 2/1/00       R L KUSTOM 2/1/00       Signature/Date       Signature/Date         Main Menu       Back       Display PCR	Asso (V	ciatec Vhen / PCR C	l PCR Nur Applicable O 00 001	nber ))		Assoc (WI	iated BC hen Appl	P Numb icable)	er	Originator J E CLE4 1/31/00 Signature,	VES /Date		
Complete only for Revised Document(s)       Required for Class 0 - 3         Document(s)/Drawing(s)       Division Director Approval       Project Director Approval         Group Leader       Division Director Approval       Project Director Approval         D GURD 2/1/00       R L KUSTOM 2/1/00       Signature/Date         Signature/Date       Signature/Date       Signature/Date		No	ote: All re	quired signat	ures m	ust be	obtained	l prior t	o request	ing Docume	nt Numbe	rs.	
Group Leader     Division Director Approval     Project Director Approval       D GURD 2/1/00     R L KUSTOM 2/1/00     Signature/Date     Signature/Date       Signature/Date     Signature/Date     Signature/Date	Compl Docu	lete or ment(	nly for Re s)/Drawir	vised ig(s)		Revis	ed Docu Class O	ment(s) - 4	)		Require Class	ed for 0 - 3	
D GURD     R L KUSTOM       2/1/00     2/1/00       Signature/Date     Signature/Date       Main Menu     Back     Display PCR	Group Leade	er			Divisio	n Direc	tor Appr	oval		Project Di	rector App	proval	
Signature/Date Signature/Date Signature/Date	D GURD 2/1/00				R L K 2/1/0	USTO 10	M						
Main Menu Back Display PCR	Signature/D	ate			Signat	ure/Da	te			Signature,	/Date		
				Main Me	:nu		Back		Displ	av PCR			

# 6.0 Tracked Submitted Documents

Selecting this option displays a screen listing all PCRs with a status of "PENDING" for the user to review. This table displays where the PCR is in the approval process, the change class, and the responsible lab. The user can select a PCR in the list and click the view button to view it.

		Submitte	d Docum	ents		
		View				
	PCR NO	Version DT	WBS NO	Next Role	Resp Lab	Change Class
0	PCR CF 01 008	2/5/01 8:26:34 AM	1.08.02.03	DD	СМ	3B
0	PCR CO 01 006	4/6/01 3:44:07 PM	1.09.10.03	DD	OR	3B
0	PCR LI 00 068	9/15/00 5:08:08 PM	1.04.10.01	DD	JL	3B
0	PCR LI 01 016	1/24/01 5:12:41 PM	1.04.15	DD	JL	3B
0	PCR LI 01 017	1/24/01 5:30:47 PM	1.04.15	DD	JL	3B
0	PCR LI 01 018	1/24/01 5:42:40 PM	1.04.15	DD	JL	3B
0	PCR LI 01 035	2/13/01 5:03:03 PM	1.04.01	DD	LA	4
0	PCR LI 01 053	4/24/01 8:20:06 AM	1.04.16.05	STL	OR	3B
0	PCR PS 01 011	4/12/01 1:16:52 PM	1.02	ED	OR	3A
0	PCR RI 01 020	3/19/01 1:23:21 PM	1.05	DD	BN	3B
0	PCR TG 01 010	4/23/01 3:33:29 PM	1.01.05	СМ	OR	4
		View				
		<u>Main Menu</u>	1			

# 7.0 PCR Status Report

Clicking on the PCR Status Report option from the Main Menu screen displays the screen below which allows the user to search for PCR records based on a WBS number, a specific PCR number, the Originator's Last Name, Version Date, Status, Class of Change, Change Type, Subproject Code, Responsible Lab, Implementation Date, or Revision Number. The search can be on any field or combination of fields. Each field has a drop-down list of available choices. Blank fields will be ignored.

SNS Project Character Status	ange Request s Search
WBS No: Originator Last Name:	PCR No:  Status:
Class of Change:	Change Type:
Subproject Code:	Responsible Lab:
Version Date:   mm/dd/yyyy     on or after	Rev No:
Implementation Date: mm/dd/yyyy	
To Report on ALL PCRs, press t	he SEARCH button.
SEARCH RES	ET
Main Menu Back St	atus Defs

For example the following screen resulted from a search for all PCR records on or after March 1, 2001 that are of change type "Technical".

				SNS			P	CR S	tatu	s Rej	port						
								View									
	PCR NO	Version Date	Title	Status	Class	Originator	Orig Date	CM Date	ESH Date	PCC Date	STL Date Class 5	DD Date Class 4	DPD Date Class 3B	PD Date Class 3A	Impl Date	Rev Number	P3 Date
0	PCR LI 01 017	1/24/01 5:30:47 PM	Test Medium Beta Cryomodules #3-11 at JLab	PENDING	3B	FUNK	4/6/01	4/9/01	4/9/01	4/10/01	4/11/01						
0	PCR LI 01 018	1/24/01 5:42:40 PM	Cryomodule assembly procedure upgrade	PENDING	зв	FUNK	4/6/01	4/9/01	4/9/01	4/10/01	4/11/01						
0	PCR LI 01 085	7/5/01 2:33:57 PM	RATS Building Lease, and Utilities, Extension	PENDING	3B	MUSICK	7/18/01	7/18/01	7/19/01	7/19/01	7/27/01						7/18/01
								View								3.5	
							Mai	n Menu									
							Export	file to Exc	el								

This table shows the PCR Number, Version Date, Title, Status, Class of Change, Originator, Originator Submitted Date, Configuration Manager Sign Date, ES&H Concurrence Sign Date, Project Controls Concurrence Sign Date, Senior Team Leader Sign Date, Division Director Sign Date, Deputy Project Director Sign Date, Project Director Sign Date, Implementation Date, Revision Number, and Date P3 data was attached to PCR.

The user can elect to save this data to an Excel spreadsheet by clicking on the "Export file to Excel" link. The user can also view a PCR, by selecting it and clicking on the "View" button.

# 8.0 Approvals

Clicking on the Approvals command from the Main Menu displays the screen below. A user must have a UCAMS or FACEBASE account and approval level access to successfully login and view the approval screens. (See section 2.0 System Access).

SPALLATION NEUTRON SOURCE	
To UPLOAD/DELETE attachments or access the APPROVAL function, you must be a valid user of the SNS Configuration Management System. You can use the restricted functions by logging on with your UCAMS Userial and Password or with the SNS FACEBASE Username and Password.	
© UCAMS © FACEBASE	
Main Menu	

After successfully logging in, the user's In Box is displayed listing all records that are waiting approval by the user.

		A	ccept R	eject Vie	ew PCR		
			1				
	PCR NO	Version DT	WBS NO	Status	PCR Title	Role	Class
0	PCR TG 01	4/23/01 3:33:29 PM	1.01.05		Additional Mercury Target Development	СМ	4

The user can then accept or reject the selected record, or view the PCR.

When the user selects the Accept button the screen below is displayed to allow the user to confirm the acceptance.

	Confirm Acceptan	ce of PCR
PCR No.: PCF Title: Rep Con	CF 01 008 Version: 2, lication of the NOAA Mon firm Acceptance by: JUD	/5/01 8:26:34 AM nitoring Tower Y ZAGER
	ACCEPT PCR	
	Main Menu Ba	<u>ck</u>

When the user selects the Reject button the screen below is displayed to allow the user to enter the reason for the rejection.

<b>K</b> SNS	Confirm Rejection of PCR
PCR No.: PCR C Title: Replic	F 01 008 Version: 2/5/01 8:26:34 AM ation of the NOAA Monitoring Tower
	Reason for rejection:
	REJECT PCR
	Main Menu Back

# 9.0 Reports

Selecting Reports from the Main Menu displays the following screen.

<b>Configuration Management Reports</b>
Project Change Request Report Cost, Schedule, Technical Assessment Report Document Change Notice Report SNS Change Log Report
Main Menu All reports will be previewed in a Crystal Reports Web Viewer. The viewer has to be downloaded to your PC. If you have any concerns about granting privileges for the download, contact the SNS Configuration Manager.
When you have finished with the report, press the BACK button on your browser menu to return to the SNS Configuration Management System.

Selecting one of the following reports from this screen will display the Select Report Basis screen.

From the Select Report Basis screen the user can select which PCRs for the report based on a WBS number, a specific PCR number, the Originator's Last Name, Version Date, Status, Class of Change, Change Type, Subproject Code, Responsible Lab, Implementation Date, or Revision Number. The search can be on any field or combination of fields. Each field has a drop-down list of available choices. Blank fields will be ignored.

	Select R	eport Basis
WBS No:		PCR No:
Originator Last Nar	ne:	Status:
Class of Change:		Change Type:
Subproject Code:		Responsible Lab:
Version Date:	mm/dd/yyyy	Rev No:
Implementation Da	ate: mm/dd/yyyy	
	Continue	
	Back	

Clicking the Continue button from the Select Report Basis screen will display the requested list. An example is shown below. The user can preview the report by clicking on the circle to the left of the PCR No. The report is displayed using Crystal Report Viewer.

		Display PCR Form	Display All Forms for PCR	
	PCR No.	Version DT	Title	Status
0	PCR CF 00 009	4/3/00 4:35:13 PM	Add Stainless Rebar to Linac Tunnel	DRAFT
0	PCR CF 00 012	4/13/00 4:40:16 PM	Increase Linac Tunnel Length	DRAFT
0	PCR FE 00 002	4/18/00 8:21:09 AM	Test of the Chopper System	DRAFT
0	PCR FE 00 003	4/20/00 7:09:33 AM	Beam Dynamics Transport Testing	DRAFT
0	PCR FE 00 005	4/20/00 1:14:25 PM	test	DRAFT
0	PCR LI 00 003	3/9/00 10:36:51 AM	Extend Drift Tube Structure of SNS Linac	DRAFT
0	PCR LI 00 004	3/10/00 11:25:23 AM	Change linac to eliminate the CCDTL section by extending the DTL section test of	DRAFT
0	PCR LI 00 007	3/10/00 11:32:54 AM	SCRF	DRAFT
0	PCR LI 00 008	3/10/00 11:33:54 AM	Linac cost savings	DRAFT
0	PCR LI 00 012	4/18/00 2:56:02 PM	Test Diagnostics	DRAFT
0	PCR LI 00 013	4/18/00 3:20:32 PM	Diagnostics Work	DRAFT
0	PCR LI 00 014	4/19/00 9:43:36 AM	Copied from PCR CF 00 002	DRAFT
0	PCR LI 00 015	4/19/00 9:46:03 AM	Title	DRAFT
0	PCR LI 00 016	4/19/00 9:50:26 AM	Сору	DRAFT
0	PCR LI 00 017	4/24/00 7:45:37 AM	RF Systems Transfer	DRAFT
0	PCR RI 00 009	4/25/00 8:54:01 AM	testing 123	DRAFT
0	PCR RI 00 010	4/25/00 8:55:36 AM	testing 123	DRAFT

All reports will be previewed in a Crystal Report Viewer. The viewer has to be downloaded to your PC. If you have any concerns about grating privileges for the download, contract the SNS Configuration Manager.

When you have finished with the report, press the BACK button on your browser menu to return to the SNS Configuration Management System.

See Appendix A for examples of each report.

# **10.0 Configuration Manager Options**

Selecting Configuration Manager Options from the Main Menu displays the screen below. A user must have a UCAMS (OAKRIDGE Domain) account and Configuration Manager level access to successfully login and access this screen.

<b>Configuration Manager Options</b>
Manage Submitted PCRs Send Email
Maintain User Information Review Status on Pending PCRs View Signature History for PCRs
Record Signatures for Others Change Class for a PCR Review Comments on a Rejected PCR
Software Change Request <u>Main Menu</u>

## **10.1 Manage Submitted PCRs**

Selecting this option displays the screen below. The user can view all documents that have been submitted for acceptance. By selecting a document from the list the user can accept, reject, view, or distribute it. The user can also view all pending PCRs.

	Accent	Reject View	View Pr	endina PCRs	Distribute		
	Hoope	- Noject	Henry	inung rons	Distributo		
	PCR NO	Version DT	WBS NO	Status	PCR Title	Role	Class
0	PCR OP 00 001	3/9/00 1:45:47 PM	1.10.04	SUBMITTED	SBIR/STTR Allocation	СМ	3

#### 10.2 Send Email

Selecting Send Email from the Configuration Manager Options screen allows the user to send e-mail from the following screen.

Configuration Manager Send Email
From email address/name: zks@y12.doe.gov KATHERINE A. STEWART
To: Select recipient
Subject:
Message:
CC to mailing list: Select group  View mailing lists
CC to individuals: Select recipient
Email address/name:
Attach file(s)     Send Mail       Main     Configuration       Menu     Manager Menu

#### **10.3 Maintain User Information**

Selecting Maintain User Information from the Configuration Manager Option screen allows the user to add, modify, or delete users from the system as well as create and edit user groups and e-mail mailing lists.

Add User Modify/Delete User Create/Edit User Groups Create/Edit EMail Mailing Lists Main Configuration Menu Manager Menu	 Configuration Manager Maintain User Information
	Add User Modify/Delete User Create/Edit User Groups Create/Edit EMail Mailing Lists Main Menu Manager Menu

Selecting the following options from the Maintain User Information screen displays the corresponding screens.

Add User

	Configuration Man Add User	ager
* Last Name: * Lab: Phone <i>include area code:</i>	* - indicates required field * First Name: User ID: Mailing Address:	Middle Init: Email Address: Mail Stop:
	Save User Groups Main Menu Back	]

Modify or Delete User

	Configuration Ma Modify or Delete	anager e User
Last Name: STEWART Lab:	First Name: KATHERINE User ID:	Middle Init:
OR Phone <i>include area code:</i> (865) 574-1312	ZKS Mailing Address:	zks@y12.doe.c Mail Stop:
Save	Delete User Gro	ups
_		

# Create/Edit User Groups

 Configuration Manager User Groups	
Select an existing group from the picklist	
or enter a new group name press the enter/return key:	
Main Menu Back	

Create/Edit EMail Mailing Lists

	Configuration Manager EMail Mailing Lists	
	Select existing e-mail list	
	or add new e-mail list:	
	Main Menu Back	

# **10.4 Review Status on Pending PCRs**

Selecting this option displays a screen listing all PCRs with status of "PENDING" for the user's review.

Configuration Manager Pending PCRs							
These	PCRs are awaiting the	signature of	the ROLE	displayed for the LAB displa	yed.		
PCR NO	Version DT	WBS NO	Status	PCR Title	Role	Lab	Class
PCR LI 00 001	12/14/99 5:14:11 PM	1.01.02.01	PENDING	Linac	PD	LA	3

#### **10.5 View Signature History for PCRs**

The Configuration Manager can review the signature history of any PCR by selecting this command from the Configuration Manager Option Menu. The following screen is displayed.

	Signature History Select PCR					
		View Signa	ture History			
	PCR No	Version Date	Title	Status		
0	PCR CF 00 001	12/10/99 12:08:34 PM	Test Title 2	ACCEPTED		
0	PCR CO 00 001	12/13/99 2:12:21 PM	New WBS Element for Cabling Integration Plan	REJECTED		
0	PCR LI 00 001	12/14/99 5:14:11 PM	New WBS Element for SNS Linac	PENDING		
0	PCR LI 00 006	1/26/00 8:46:55 AM	Linac System - Test Web PCR System	SUBMITTED		
0	PCR LI 00 007	2/4/00 10:04:42 AM	test 7 amplifier redesign engineering change	SUBMITTED		
0	PCR TG 00 002	2/17/00 10:02:09 AM	Target tests for system CMT	SUBMITTED		
0	PCRCF99007	12/3/99 9:27:59 AM	Test Title 1	REJECTED		
		Main ( Menu M	Configuration anager Menu			

By selecting a specific PCR and clicking the View Signature History button the signature history of the PCR is displayed.

PCR No.: PCR CF 00 001       Version DT: 12/10/99 12:08:34 PM         PCR WBS No.: 1.08.02.07       Status: ACCEPTED         SIGN TYPE       SIGN DATE       SIGNEE       ROLE OF SIGNEE       ACCEPT/REJECT         ORIG       01/08/2000       W WOLFE       ACCEPT       ACCEPT         CCB-5       02/04/2000       SUSAN PATTY       ACCEPT       ACCEPT         Main       Configuration Manager Menu       Back       Back		Project Cha Signatur	nge F re His	Reques tory	it
SIGN TYPE     SIGN DATE     SIGNEE     SIGNEE     SIGNED     ROLE OF SIGNED     ROLE OF SIGNED     ACCEPT/REJECT       ORIG     01/08/2000     W WOLFE     ACCEPT     ACCEPT       CM     01/10/2000     W WOLFE     ACCEPT       CCB-5     02/04/2000     SUSAN PATTY     ACCEPT	PCR No.: PCR CF 00 PCR WBS N	001 Version o.: 1.08.02.07	DT: 12/1 Status: /	LO/99 12: ACCEPTEI	08:34 PM D
ORIG       01/08/2000       W WOLFE       ACCEPT         CM       01/10/2000       W WOLFE       ACCEPT         CCB-5       02/04/2000       SUSAN PATTY       ACCEPT         Main       Configuration       Back	SIGN TYPE SIGN DATE	SIGNEE	SIGNED FOR SIGNEE	ROLE OF SIGNED	ACCEPT/REJECT
CM     01/10/2000     W WOLFE     ACCEPT       CCB-5     02/04/2000     SUSAN PATTY     ACCEPT       Main     Configuration     Maccept	ORIG 01/08/2000	W WOLFE			ACCEPT
CCB-5     02/04/2000     SUSAN PATTY     ACCEPT       Main     Configuration     Manager Menu     Back	CM 01/10/2000	W WOLFE			ACCEPT
Main     Configuration       Menu     Manager Menu   Back	CCB-5 02/04/2000	SUSAN PATTY			ACCEPT
	Ma	nu <u>Configura</u> <u>Manager M</u>	tion lenu Ba	ack	

#### **10.6 Record Signatures for Others**

This command allows the configuration manager to record approval signatures for others. From the screen shown below the configuration manager selects a PCR from the list and clicks the Record Signature button.

	PCP NO	R Version DT	ecord Signa	Status	DCP Title	Role	Class
0	PCR LI 00 001	12/14/99 5:14:11 PM	1.01.02.01	PENDING	New WBS Element for SNS	PD	3

The Record Signature of PCR screen is displayed allowing the configuration manager to accept or reject the signature. If a PCR is rejected, the user must provide a reason for the rejection.

	ord Signature for PCR
PCR No.: PCR LI 00 001 WBS No: 1.01.02.01 Title: New WBS Element for SN Class of Change: 3	Version DT: 12/14/99 5:14:11 PM Status: PENDING S Linac Responsible Lab: LA
Record Date of Main Menu	rd Signature for: PD Signature 02/21/2000 Accept Reject Configuration Manager Menu

#### 10.7 Change Class of PCR

The class of a PCR determines the approval needed for acceptance. The Configuration Managers can change the class of any "PENDING" PCRs. All "PENDING" PCRs are displayed when this option is selected.

	Change PCR Class						
	Change Class						
	PCR NO	Version DT	WBS NO	Next Role	Resp Lab	Change Class	
0	PCR CF 01 008	2/5/01 8:26:34 AM	1.08.02.03	DD	СМ	ЗВ	
0	PCR CO 01 006	4/6/01 3:44:07 PM	1.09.10.03	DD	OR	ЗВ	
0	PCR LI 00 068	9/15/00 5:08:08 PM	1.04.10.01	DD	JL	ЗВ	
0	PCR LI 01 016	1/24/01 5:12:41 PM	1.04.15	DD	JL	3B	
0	PCR LI 01 017	1/24/01 5:30:47 PM	1.04.15	DD	JL	ЗВ	
0	PCR LI 01 018	1/24/01 5:42:40 PM	1.04.15	DD	JL	3B	
0	PCR LI 01 035	2/13/01 5:03:03 PM	1.04.01	DD	LA	4	
0	PCR LI 01 053	4/24/01 8:20:06 AM	1.04.16.05	STL	OR	ЗВ	
0	PCR PS 01 011	4/12/01 1:16:52 PM	1.02	ED	OR	3A	
0	PCR RI 01 020	3/19/01 1:23:21 PM	1.05	DD	BN	3B	
0	PCR TG 01 010	4/23/01 3:33:29 PM	1.01.05	СМ	OR	4	
		ChangeClass					
		<u>Main Menu</u>	L				

The Configuration Manager selects the PCR to change, and the following screen is displayed:

SN	Change PCR Class						
	PCR NO	Version DT	WBS NO	Next Role	Resp Lab	Change Class	NEW Change Class
	PCR CF 01 008	2/5/01 8:26:34 AM	1.08.02.03	DD	СМ	зв	
Update							
		This proces:	s will not updat	e status	s of the i	PCR.	

To update the PCR with the new class the user clicks the update button. Changing the class of a PCR will not change the status of the PCR. For example if the PCR originally has a class of 4, and is changed to a class of 5, and the Senior Team Leader has approved the document. The PCR will still be "PENDING". The developer must manually change the status of the PCR.

#### 10.8 Review Comments on a Rejected PCR

Any PCR that has been rejected is displayed when this option is selected. The Configuration Manager may also click on the PCR Number to view the entire PCR with the Rejected Comments included.

PCR NO	Version DT	WBS NO	Title	Rejection Comments
<u>PCR RI 00</u> 003	3/9/00 11:41:02 AM	1.01	Injection Foil R&D	This PCR was withdrawn.
<u>PCR CF 00</u> 003	12/15/99 8:23:33 AM	1.08	Reconfiguration of Central Lab and Office Building Title I Design	This PCR was withdrawn.
PCR CF 00 007	3/9/00 11:05:22 AM	1.08	Increased Linac Cooling Loads	This PCR was withdrawn.
<u>PCR CF 00</u> 001	3/10/00 10:57:17 AM	1.08.02.03	Additional funding to cover sales tax for Bear Creek Access Rd construction	This PCR was withdrawn.

### **10.9 Software Change Request**

When a Configuration Manager has encountered a bug in the software or has an enhancement for the software, they can enter a Software Change Request for the system. The developer tracks the progress of the Software Change Requests for configuration control of the system.

Software Change Request Form
Requestor
Last Name:     First Name:     Middle Initial:       ZAGER     JUDY     R
Email address: zagerjc@ornl.gov
Location:
Phone (include area code if not 865):
Requested change
Change pertains to (Check all that apply):
Change is: © URGENT © ROUTINE © LOW-PRIORITY
Date desired by:
Describe desired change as completely as possible:

# **11.0 Implementation Date/Revision Number**

This option allows approved users to update "APPROVED" PCRs with Implementation Date and Revision Number data. All "APPROVED" PCRs without Implementation Date and Revision Numbers are displayed. The PCRs are split between PCRs that require P3 data, and PCRs with Cost, Technical, or Other Change Types.

-	PCR Implementation Dat Number Update		
	Update P3 PCRs No records found matching desired criteria Cost/Technical/Other PCRs		
PCR NO	Title	Impl Date	Rev Number
PCR CO 01 004	Scope Change for linac RF controls (Orphans 1)		
PCR CO 01 007	Correction of BCWS for 1.9.9		
PCR L1 00 085	Additional cost of the DTI Tank Formings procurement		
PCR LI 01 056	Separate Labor and Procurements on Activities in MPM & P3		
PCR OP 01 006	- High Gradient 1.0-Ge¥ SRF Linac		
PCR TG 01 008	Design Validation Test Stand		
PCR TG 01 009	Cooling Loop Drain Tanks, Procurement		0
	Update Main Menu	1	

The user can update multiple PCRs at one time, by entering the Implementation Date and Revision Code for each PCR. Then selecting the Update button. Once the PCRs are updated the user is returned to the Main Menu.

# **12.0 WBS Descriptors**

Clicking on the WBS Descriptors option from the Main Menu displays the screen below which allows the user to search for WBS descriptor records or create new records.

 WBS Descriptor
<u>Create New</u> <u>Search</u>
Main Menu

#### 12.1 Create New WBS Descriptor

Clicking on the "Create New" option displays the screen below. On this screen the user must enter the new WBS number in the required format, enter the title, the lab identifier, and the subproject code, and enter the description of the work to be accomplished in this WBS element. A PCR may be selected to associate with this new descriptor or the system will hold the descriptor in DRAFT until a PCR is created for it. The user must click on "Continue" to save the work done.

WBS Descriptor	
View         Reset         Save         Save and Edit Another WBS           Save and Add Another WBS         Main Menu	
WBS No.: (format 1.XX.XX.XX) PCR: Select the PCR Number for the Descriptor 💌	Revision: 0 Date:
WBS Title:	
Description (Scope, Number of Items, Method of Accomplishment, and Special Requirements)	
	X
Responsible Lab:	Subproject Code:
Continue	

# **12.2 Search for WBS Descriptor**

Clicking on the "Search" option displays the screen below. On this screen the user may search for descriptors by WBS Number, Status, Revision Date, Subproject Code, or Responsible Lab, or combinations of parameters.

	WBS Descriptor Search
WBS N	No: PCR No:
Status	
Revisio on or a Subpro	on Date: mm/dd/yyyy after  After  Responsible Lab:
To Sele	ect ALL WBSs, press the SEARCH button.
	Main Menu Back

The screen below is an example of the display using the parameters of PCR No equal PCR LI 00 001 and Status equal "Accepted".

	WBS Descriptor Search Results					
Main Menu Back Status Defs						
WBS No	Revision	i Dt PCI	RNo	Status		
1.04.06.01	10/16/00	PCR LI 00 001	4	ACCEPTED		
1.04.06.02	10/16/00	PCR LI 00 001	4	ACCEPTED		
1.04.06.07	10/16/00	PCR LI 00 001	1	ACCEPTED		

Clicking on the WBS number of one of the descriptors results in the WBS Descriptor View screen shown below.

	~				
	M	ain Menu	Back	Edit	1
	W	BS Descriptor	Form - ACCEP	TED	
WBS No.:	1.04.06.01	PCR: PCR LI 0	0 001 Revision	n: 0 Date:	10/16/00
WBS Title:	Project Ma	nagement			
Descriptior (Scope, Nu Requireme Provides for	n I <b>mber of It</b> e In <b>ts)</b> I overall proje	e <b>ms, Method of A</b> d	ccomplishment, a	and Special	

Clicking on "Edit" results in the display below where the WBS Title, Description, Responsible Lab, and Subproject Code can be modified. A PCR may be selected from a drop-down list to associate this new descriptor or the system will hold the descriptor in DRAFT until a PCR is created for it. The user must click "Save" to save the draft revision.

WBS Descriptor					
View	Reset Save	Save and Edit	Another WBS		
	Save and Add A	Another WBS	Main Menu		
WBS No.: 1.04.06.01 P	CR: Select the PCR N	Number for the Descripto	r 🔽 Revision: 0	Date: 10/16/00	
WBS Title: Project Ma	nagement				
Description (Scope, Number of Items, Method of Accomplishment, and Special Requirements)					
Provides for overall	project managemen	t (STL)			
Responsible Lab: LA			Subproject Co	de: LI	
		Continue			

# **13.0** Configuration Management Plan

Selecting Configuration Management Plan from the Main Menu will display the SNS Configuration Management Plan. This plan is the basis for the business rules, forms, and terminology used in this system. Refer to this plan for any questions regarding the SNS configuration control procedures.

# 14.0 Configuration Management Plan - Printable PDF (Face Base login)

Selecting this option will display the SNS Configuration Management Plan in Adobe Portable Document Format. The user must have a valid SNS Face Base account to view this document.

# 15.0 Configuration Management Plan User Guide

Selecting Configuration Management Plan User Guide from the Main Menu will display the SNS Configuration Management Plan User Guide. This guide explains the use of the system, and show examples of the screens.

# 16.0 How to use NetMeeting

This option gives the user general instruction on how to initiate Microsoft's NetMeeting. NetMeeting can be used when a user is having difficulty with the system. NetMeeting allows a technician to view a user's use of a program, to facilitate troubleshooting it.

#### **APPENDIX B**

## DEFINITIONS

**Baseline Change Control Board (CCB)**—multidisciplined body of representatives, appointed by the appropriate management level, responsible for ensuring the proper definition, coordination, evaluation, and disposition of all changes to project baselines within their chartered jurisdiction.

**Baseline change proposal (BCP)**—form prepared to provide a complete analysis of a proposed baseline change requiring DOE approval and its resulting impact to the current approved technical, cost, and/or schedule baseline. The BCP form provides justification for a proposed change, supporting documentation, possible alternatives or work-arounds to minimize the change, negative impacts of not implementing the specific change, and historical documentation of BCP disposition.

**Contingency**—amount budgeted to cover costs that may result from incomplete design, unforeseen or unpredictable conditions, and uncertainties. The amount of the contingency will depend on the status of design, procurement, and construction and the complexity and uncertainty of the component parts of the project. Contingency is not to be used to avoid making an accurate assessment of expected cost.

**Directed changes**—technical, cost, and schedule baselines may be subject to change because of DOE Headquarter's decisions or annual funding restraints. In the event that an external driver results in a change to the project's planned approach, DOE will direct that a *PRIORITY BCP* be generated that defines requirements and impacts on cost, schedule, or technical parameters. The changes are mandatory and are generally processed by the Level 2 CCB within ten working days.

**Document change notice (DCN)**—form used to list which existing baseline documents should be changed or to list new documentation required as a result of the change request.

**Emergency changes**—changes that have potentially immediate impacts and are *URGENT PCRs*. These PCRs are generally processed within one day. The SNS project director determines the applicability of an urgent PCR and alerts the DOE project manager that an urgent change is necessary to prevent a catastrophic situation from developing.

**Project change request (PCR)**—form prepared to request a technical, cost, or schedule change at threshold levels for approval by CCB-3A, CCB-3B, CCB-4, and CCB-5.

**Scope**—incorporates performance and design requirements, criteria, and characteristics derived from mission needs that provide the basis for project direction and execution.

**Cost, Schedule, Technical assessment (CSTA)**—form used to quantify the cost, schedule, and technical impacts to the current baseline resulting from the change request.

**Thresholds**—limits of authority at each respective change control level for approval of proposed baseline changes and controls.