



Implementation of NCS Controls

Larry L. Wetzel, P. E.
Senior Advisory Engineer

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Change Pathways

- Two implementation paths
 - Change Request (CHG)
 - Used for all changes from administrative on up
 - If Items Relied on for Safety (IROFS) are involved, CHG feeds into the SER process
 - Safety Evaluation Request (SER)
 - Formal review by all safety disciplines
 - Requirements and controls are presented to a Change Review Board (CRB) for approval

SER Process for NCS Controls

- NCS analysis including IROFS and accident sequences are approved by a NCS peer reviewer, SER originator, an area representative and NCS management
- All safety requirements are presented to the CRB for approval
- Requirements are grouped by phase of implementation
 - Design/Construction
 - Pre-Operational – equipment testing, but no SNM
 - During Operation – production allowed with SNM
- Provided to the originator as the person responsible for the implementation

SER Process

- All safety groups that have requirements in a phase must verify the proper implementation prior the next phase beginning
- Area management and Licensing group must also signoff

N-100 Rev. 05 SER RELEASE RECORD
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To: Area Manager Area Manager Area Manager Area Manager Area Manager Area Manager

The request originator is responsible for satisfactory compliance with the requirements placed on this request and for obtaining required signatures. See Form N-104 associated with this SER for a list of requirements.

SER No./Title: _____

A. Release to Preparational Testing (Design/Installation/Construction Phase)

The following groups have requirements that must be satisfied prior to preparational testing. Documentation to support requirement satisfaction OR a statement as to where that documentation is located must be provided with this form by the group.

	SER Originator Signature & Date	Evaluator Signature & Date	Document/Statement Attached (Check)
_____ Licensing	_____	_____	_____
_____ Nuclear Criticality Safety	_____	_____	_____
_____ Radiation Protection	_____	_____	_____
_____ Industrial Health & Safety	_____	_____	_____
_____ Safeguards & Security	_____	_____	_____
_____ Nuclear Materials Control	_____	_____	_____
_____ Environmental Engineering	_____	_____	_____
_____ Change Review Board	_____	_____	_____

SER Originator and Evaluator signatures indicate that the requirements have been or are being met.

Release to: Area Manager Area Manager Area Manager Area Manager Area Manager Area Manager

B. Release to Operation (Preparational Testing Requirements)

The following groups have requirements that must be satisfied prior to preparational testing. Documentation to support requirement satisfaction OR a statement as to where that documentation is located must be provided with this form by the group.

	SER Originator Signature & Date	Evaluator Signature & Date	Document/Statement Attached (Check)
_____ Licensing	_____	_____	_____
_____ Nuclear Criticality Safety	_____	_____	_____
_____ Radiation Protection	_____	_____	_____
_____ Industrial Health & Safety	_____	_____	_____
_____ Safeguards & Security	_____	_____	_____
_____ Nuclear Materials Control	_____	_____	_____
_____ Environmental Engineering	_____	_____	_____
_____ Change Review Board	_____	_____	_____

SER Originator and Evaluator signatures indicate that the requirements have been or are being met.

Release to: Area Manager Area Manager Area Manager Area Manager Area Manager Area Manager

C. SER Closure (Operational Requirements)

The following groups have requirements that must be satisfied prior to preparational testing. Documentation to support requirement satisfaction OR a statement as to where that documentation is located must be provided with this form by the group.

	SER Originator Signature & Date	Evaluator Signature & Date	Document/Statement Attached (Check)
_____ Licensing	_____	_____	_____
_____ Nuclear Criticality Safety	_____	_____	_____
_____ Radiation Protection	_____	_____	_____
_____ Industrial Health & Safety	_____	_____	_____
_____ Safeguards & Security	_____	_____	_____
_____ Nuclear Materials Control	_____	_____	_____
_____ Environmental Engineering	_____	_____	_____
_____ Change Review Board	_____	_____	_____

SER Originator and Evaluator signatures indicate that the requirements have been or are being met.

Release to: Area Manager Area Manager Area Manager Area Manager Area Manager Area Manager

* When no requirements are indicated in Section C, the signatures in Section B indicate completion of the SER.

SER Process

- SER Originator is the person responsible for ensuring all requirements are met
- NCS Actions:
 - Review any procedure changes
 - Review any drawing changes
 - Inspect passive and active engineered controls (2 engineers)
 - Inspect area for proper NCS postings
 - Review revisions to the Safety Analysis Report (SAR)
 - Issue a Nuclear Safety Release (NSR) documenting proper implementation of the NCS requirements

Issues in the SER Process

- Communications!
- Must be implemented as approved
 - Changes or improvements must be resubmitted and approved
 - No job is complete until the paperwork is done
- Production schedules and pressures

Response to NCS Violations

- Operators are told if they see a NCS Violation:
 - Stop work
 - Do not correct the situation
 - Report it to their supervisor immediately
- Supervisors are to contact NCS immediately (24/7)
- NCS will respond and assess the situation
 - May authorize operators to correct the situation
 - May require activation of the Emergency Operation Center if severe enough
- Notification of the NRC Operations Center may be required depending on the severity of the upset