ITS Conversion Process

ITS Conversion Process

Agenda

- Conversion Process Phases
- Conversion Schedule
- Conversion Project Organization

ITS Conversion Process

Conversion Process includes the following four phases:

- Phase 1 Project Startup Activities
- Phase 2 License Amendment Request (LAR) Development
- Phase 3 Support of NRC Review and Approval
- Phase 4 ITS Implementation

ITS Conversion Process
Phase 1 Project Startup Activities

Project Startup Activities include the following:

- Perform a CTS Conversion Assessment (Optional)
- Develop Project Processes, Project Procedures, and Perform Detailed Project Planning
- Establish Pilot Activities
- Project Team Training

ITS Conversion Process
Phase 1 Project Startup Activities

Perform a CTS Conversion Assessment (Optional)

- The CTS, including the most recent TS Amendment requests sent to the NRC, are compared to the latest version of the appropriate ISTS NUREG. The scope of this step includes a detailed review of all sections of the TS except the Bases, Design Features, and Administrative Controls which were looked at only for major changes.

ITS Conversion Process
Phase 1 Project Startup Activities

CTS Conversion Assessment (continued)

- The comparison of the CTS to the ISTS NUREG is performed in a manner thorough enough to identify and assess the operational advantages and disadvantages of a conversion to a specific vender ISTS NUREG.
- The CTS Conversion Assessment will also identify financial benefits associated with determining the return on investment and payback period.

ITS Conversion Process
Phase 1 Project Startup Activities

CTS Conversion Assessment (continued)

- The assessment will identify where potential integration with coincident core projects will provide some advantage, such as:
  - 24 Month Surveillance Interval Extension
  - Power Uprate
  - License Renewal
  - Reactor Vessel Head Replacement
  - Steam Generator Replacement

ITS Conversion Process
Phase 1 Project Startup Activities

Develop Project Processes, Project Procedures, and Perform Detailed Project Planning

- This project plan is the governing document for overall project control. It will establishes the general approach to work, division of responsibilities, overall project schedule, project controls, project deliverables, and performance tracking. It provides guidance to the individual project team members on individual project tasks where appropriate, and references approved plant procedures were appropriate.

ITS Conversion Process
Phase 1 Project Startup Activities

Pilot Activities

Pilots are performed prior to start of each major work activity associated with the ITS Conversion Process. The objectives of the pilot activities areas follows:

- To ascertain whether the individual processes can proceed smoothly
- To validate the scope of process changes identified as a part of the project
- To verify information can be transferred effectively and efficiently from one activity to the next
- Assess the organization and interfaces.

ITS Conversion Process
Phase 1 Project Startup Activities

Pilot Activities

As a minimum, the following ITS activities are piloted after the specific guidance is provided in project manual:

- Split report
- Review package preparation/review/approval
- LAR preparation
- Implementing procedure use
- Line organization training

ITS Conversion Process
Phase 1 Project Startup Activities

Project Team Training

- This initial training is for project personnel and other key personnel (Engineers, Procedure Writers, Licensing, QA, Training, Operations, and oversight committees) to cover the detailed specifics of the ITS Conversion.
- The ITS Conversion Team will need to know how to use the ITS conventions and ground rules, the philosophies and concepts incorporated in ITS and the major technical issues.
- The training focuses on the upgrade process, ITS basics, Writers Guide, License Requirements, and the process for both the ITS validation and documentation process.

ITS Conversion Process
Phase 1 Project Startup Activities

Conversion Process Phase 1- Deliverables

- ITS Conversion Assessment
- Program Plan
- Interface Agreements With Key Line Organizations
- Resource Loaded Schedule
- Communications Plan
- Project Performance Indicators
- Project Team Training

ITS Conversion Process
Phase 2 LAR Development

Phase 2, ITS LAR Development includes three basic elements:

- Split Report
- Individual and Integrated Review Package (s)
- TRM

ITS Conversion Process
Phase 2 LAR Development

Split Report

- The scoping effort for ITS is accomplished through the development of a document referred to as the Split Report. The Split Report categorizes the CTS LCOs using the Technical Specification Split Criteria of 50.36 (c)(2)(ii). It identifies those LCOs and portions of those LCOs which meet the criteria for being retained in the ITS and those LCOs which are candidates for relocation to licensee controlled documents.

ITS Conversion Process
Phase 2 LAR Development

Split Report (continued)

- The Split Report remains a draft until the end of Phase 2. This report is an annotated markup of the TS and a summary listing/matrix. This draft Split Report is utilized during ITS development to set the scope of individual ITS review packages. This task evaluates the likelihood of retaining current LCO requirements that may be more relaxed than the ISTS NUREG.

ITS Conversion Process
Phase 2 LAR Development

Review Package Preparation/Review/Approval

- On the basis of the split report, the scope of each of the ITS chapters will be set. These ITS chapters will be developed into plant specific Technical Specifications in an ITS format consistent with the applicable vender NUREG and the applicable NRC/Industry generic travelers.

- The individual ITS licensing packages will be assembled using the guidelines provided in the NEI Conversion Guidance Document, NEI 01-03 and the individual plant project plan. Individual ITS Chapter Packages for the TS will be developed.

ITS Conversion Process
Phase 2 LAR Development

Review Package Preparation/Review/Approval

Significant sections of the review packages include:

- Package Summary
- CTS Markup
- Discussion of Changes
- ISTS and ISTS Bases Markup
- Justification for Deviation from ISTS NUREG
- No Significant Hazards Consideration
- Supporting Information for the Review Package

ITS Conversion Process
Phase 2 LAR Development

Review Package Preparation/Review/Approval

- Package Summary-The Review Package for each Specification will contain a summary covering significant changes made to the CTS, differences between the ISTS and the plant specific ITS. The intent of the summary is to highlight the ways in which the station will be operated differently when ITS is implemented.

ITS Conversion Process
Phase 2 LAR Development

Review Package Preparation/Review/Approval

- ISTS and ISTS Bases Markup-All deviations from the ISTS will be shown on a marked up copy of ISTS. The plant-specific Bases will be modified as necessary to provide a comprehensive description of the requirements to clearly document the origin and intent of the ITS. Plant-specific information and experienced-based interpretations will be incorporated into the Bases where technically justified to ensure a complete and accurate description of the plant-specific design, analyses, and licensing basis.

ITS Conversion Process
Phase 2 LAR Development

Review Package Preparation/Review/Approval

- Justification for Deviation-The JFD will provide justification why each deviation from the ISTS NUREG is appropriate.
- CTS Markup-The CTS shall be marked to indicate the changes necessary to become the proposed ITS. The mark up will also include or identify any outstanding amendment requests that have been submitted to the NRC that are expected to be issued before ITS implementation.
- Discussion of Changes-The DOC will discuss each change in detail and will characterize each as either administrative, more restrictive, relocated, or less restrictive.

ITS Conversion Process
Phase 2 LAR Development

Review Package Preparation/Review/Approval

- No Significant Hazards Consideration-For all change categories from the CTS to the ITS, a No Significant Hazards Consideration (NSHC) discussion will be provided. The NSHC determinations will be developed using the guidance contained in 10 CFR 50.92 and applicable plant procedures as appropriate.

ITS Conversion Process
Phase 2 LAR Development

Review Package Preparation/Review/Approval

- Package Schedule Example

ITS Conversion Process
Phase 2 LAR Development

Technical Requirements Manual

A Technical Requirements Manual (TRM) will be prepared for those SSC/LCOs and associated details that are removed from the CTS. Those ATRs which remain in place after scoping but which do not screen into the new technical specifications as a part split report development, will also reside in the TRM. The TRM format will be similar to ITS and the individual TRM chapters will be created, reviewed and approved in a similar fashion as the ITS packages.

ITS Conversion Process
Phase 2 LAR Development

Phase 2 Deliverables

- Project Manual which takes this project plan to the working level (including project level instructions, and/or guidelines, as appropriate, to perform the work.)
- Split Report
- Plant specific ITS and Bases as defined in the Vendor ISTS NUREG latest revision and NEI 01-03.
- ITS LAR with all supporting documentation, including but not limited to: Technical Specification mark-ups, No Significant Hazards Consideration, Commitment list, full validation package, DOC, and JFD.
- Technical Requirements Manual

ITS Conversion Process

Phase 3 Support NRC Review Activities (Licensing)

Accelerated Licensing Review Process

Accelerated Licensing Review Process

Background

Based on discussions with the NRC and the Industry, an accelerated 6 to 8 month NRC review process should be employed for ITS submittals.

Accelerated Licensing Review Process

This accelerated NRC review process will:

1. Reduce Licensee costs,
2. Reduce the required NRC resources, and
3. Reduce the required amount of formal correspondence between the Licensee and the NRC from the initial ITS submittal to the final NRC issuance of the ITS Safety Evaluation Report (SER), including issuance of the approved ITS and Bases.

Accelerated Licensing Review Process

Keys To Success

The success of the accelerated review process is dependent on a mutually aggressive, highly coordinated, and keenly focused approach by both the Licensee and the NRC associated with:

1. Issue Identification
2. Issue Tracking
3. Issue Disposition and Closure

Accelerated Licensing Review Process

Schedule

The following schedule is a baseline which includes public meetings, two sets of RAIs, associated responses and a single supplement prior to issuance of the SER. The steps of the process are as follows:

1. Licensee submits ITS LAR.
2. Licensee submits preliminary Discussion of Change (DOC) Table (Wks 1-2).

Accelerated Licensing Review Process

A-DOC Table Example

ITS/CTS No. and DOC No.	Description of Change	ITS Requirement	CTS Requirement
3.3.1 A.1	In the conversion of the CNP Current Technical Specifications (CTS) to the plant specific Improved Technical Specifications (ITS), certain changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to obtain consistency with NUREG-1431, Rev. 2, "Standard Technical Specifications-Westinghouse Plants" (ISTS).	3.3.1.1	3/4.3.3.1, 2.2.1

ITS/CTS No. and DOC No.	Description of Change	ITS Requirement	CTS Requirement
3.2.1 M.1	CTS 3.2.2 and CTS 3.2.6 do not contain an Action to follow if the provided Actions are not followed. Therefore, CTS 3.0.3 would be entered which would require the plant to be in MODE 2 within 7 hours. ITS 3.2.1 ACTION B states that when the Required Action and associated Completion Time is not met, the plant must be in MODE 2 within 6 hours. This changes the CTS by providing 6 hours instead of 7 hours to be in MODE 2.	3.2.1 ACTION B	3.2.2, 3.2.6, 3.0.3

Accelerated Licensing Review Process

L-DOC Table Example

ITS/CTS No. and DOC No.	Description of Change	ITS Requirement	CTS Requirement	Change Category
3.4.1 L.1	CTS 3.2.5 Action requires the unit to reduce THERMAL POWER to < 5% of RTP within the next 4 hours if the DNB parameters are not restored to within limit in 2 hours. ITS 3.4.1 ACTION B requires the power reduction to ≤ 5% RTP (MODE 2) within the next 6 hours if the DNB parameters are not restored to within limit in 2 hours. This changes the CTS by extending the time for the unit to be placed outside the MODE of Applicability. The change which allows the THERMAL POWER reduction to be only to 5% RTP is discussed in DOC A.2.	3.4.1 ACTION B	3.2.5 Action	3

Change Categories:
1 - Relaxation of LCO Requirements
2 - Relaxation of Applicability
3 - Relaxation of Completion Time
4 - Relaxation of Required Action
5 - Deletion of Surveillance Requirement
6 - Relaxation of Surveillance Requirement Acceptance Criteria
7 - Relaxation of Surveillance Frequency, Non-24 Month Type Change
8 - Deletion of Reporting Requirements
9 - Surveillance Frequency Change using GL 91-04 Guidelines, non-24 Month Type Change
10 -18 to 24 Month Surveillance Frequency Change, Non-Channel Calibration Type
11 - 18 to 24 Month Surveillance Frequency Change, Channel Calibration Type
12 - Deletion of Surveillance Requirement Shutdown Performance Requirements
13 - Addition of LCO 3.0.4 Exception
14 - Changing Instrumentation Allowable Values

Note 1 -Certain Less Restrictive Changes for Section 3.4 did not fall into any of the categories listed above. A Specific Determination of No Significant Hazards Consideration was written for each non-categorized Less Restrictive Change (annotated above by the use of "N/A") in Section 3.4.

Accelerated Licensing Review Process

LA-DOC Table Example

ITS/CTS No. and DOC No	CTS Requirement	Description of Relocated Requirement	Location	Change Control Process	Change Type
3.6.13 LA.1	Table 3.6-2	CTS Table 3.6-2 specifies the divider seal acceptable physical properties. The table includes the tensile strength and elongation property as well as the material type. The material must be Uniroyal 3807 or equal, defined as meeting at least the requirements discussed in Question 5.98 of the Plant's FSAR. ITS SR 3.6.13.4 only includes the tensile strength and elongation property requirements. This changes the CTS by moving the material type to the UFSAR.	UFSAR	10 CFR 50.59	1
3/4.6.5.2 R.1	3/4.6.5.2	CTS 3/4.6.5.2 provides requirements on the Ice Bed Temperature Monitoring System. The Ice Bed Temperature Monitoring System monitors the temperature of the ice bed to ensure that the ice bed temperature does not increase above the required limits undetected. However, the Ice Bed Temperature Monitoring System is not required to ensure the ice bed temperature is maintained within limits. Another Technical Specification (that is being retained) will continue to ensure that temperature is maintained within the required limits. This Specification does not meet the criteria for retention in the ITS; therefore, it will be retained in the Technical Requirements Manual (TRM).	TRM	10 CFR 50.59	N/A

Change Types (only applicable to LA DOCs):
1 - Removing Details of System Design and System Description, including Design Limits
2 - Removing Descriptions of System Operation
3 - Removing Procedural Details for Meeting TS Requirements or Reporting Requirements
4 - Removing Performance Requirements for Indication-Only Instrumentation and Alarms
5 - Removal of Cycle-Specific Parameter Limits from the Technical Specifications to the COLR
6 - Removal of LCO, SR, or other TS Requirement to the TRM, UFSAR, ODCM, QAPD, or IIP

Accelerated Licensing Review Process

3. NRC completes acceptance review and concurs with accelerated NRC review process (Weeks 1-2).
4. Two day preliminary public meeting held at NRC Headquarters (Week 3).
5. NRC completes initial review and informally provides initial RAIs to Licensee (may be performed by ISTS Section) (Weeks 1-7).
6. Licensee completes review of informal RAIs, and submits informal responses (may be by ISTS Section) (Weeks 4-7).
7. Five day initial RAI public meeting held at NRC Headquarters (Week 8).

Accelerated Licensing Review Process

8. NRC reviews RAI response, identifies remaining issues, and issues final formal RAI(s) (not anticipated) (Weeks 9-10).
9. Licensee completes review of formal RAIs, and submits formal response(s) (not anticipated) (Weeks 9-12).
10. Three day final RAI public meeting held at NRC Headquarters (not anticipated) (Week 13).
11. NRC reviews RAI response, and issues meeting summary (Weeks 14-16).
12. NRC begins draft SER (Weeks 9-18).

Accelerated Licensing Review Process

13. Licensee submits ITS LAR supplement, final DOC Table, and clean ITS and Bases pages (Weeks 14-18).
14. NRC completes review of ITS LAR supplement, DOC Table, and ITS and Bases pages (Weeks 19-21).
15. NRC issues draft SER (Weeks 22-24).
16. Licensee completes review of draft SER (Weeks 25-26).
17. NRC completes preparation, review, and issuance of SER with final ITS and Bases (Weeks 27-31).

Accelerated Licensing Review Process

Open Item Database

- All formal or informal issues will be tracked in an open item database. This database will be maintained by the Licensee from the start of the Licensing process through the issuance of the SER.

- The purpose of this database is to positively track issues to closure. Establishment of ownership and schedule expectations with respect to open items will support both timely issue resolution/closure and the accelerated review process.

Accelerated Licensing Review Process

Lessons Learned

- Review Time for RAI's
- BSI Definition
- BSI Schedule Impact
- BSI Reviewers
- BSI Communication/Expectations
- BSI Reviewer Question

Accelerated Licensing Review Process

Lessons Learned (continued)

- More Restrictive Changes
- Removal of Brackets
- Weekly management Calls
- Communications

Accelerated Licensing Review Process

Summary

- In order to reduce Licensee costs, reduce NRC resources, and reduce the required amount of formal correspondence between the utility and the NRC associated with ITS Submittals, an accelerated licensing process should be used.
- However, to be successful, the Licensee and the NRC must be both engaged in a well coordinated, focused approach.

ITS Conversion Process

Phase 4 ITS Implementation

ITS Conversion Process
Phase 4 ITS Implementation

The Implementation Phase consists of the Scoping Stage and the Execution Stage.

ITS Conversion Process
Phase 4 ITS Implementation

Scoping Stage

Scope development activities fall into five primary elements. These are:

- Defining the processes
- Establishing control mechanisms
- Site documentation impact
- Establishing training requirements
- Establishing the schedule

ITS Conversion Process
Phase 4 ITS Implementation

Scoping Stage

- Defining the processes- Existing processes governing impacted procedures and documentation will be assessed. Changes will be initiated to these processes which ensure adequacy and quality while streamlining implementation.
- Establishing control mechanisms- The project database will track changes resulting from ITS. After implementation, data from this tool will be loaded into the plant's tracking program to prevent inadvertent changes. The completeness of the end product is ensured by this element.

ITS Conversion Process
Phase 4 ITS Implementation

Scoping Stage

- Site documentation impact -This element establishes the process to identify all site impacts (i.e. procedures, UFSAR, training, commitments, ODCM, etc...). This process will be defined and controlled by project level instructions contained in the project manual. This element is the true determination of project scope.

ITS Conversion Process
Phase 4 ITS Implementation

Scoping Stage

- Establishing training requirements and methodology-The amount of training required to ensure event free implementation will be determined during scoping for Phase 4 by the ITS implementation team. The personnel identified to be on the implementation team will represent all the impacted organizations.
- Establishing the schedule- The level 3 Project Schedule will be revised based on this scoping effort.

ITS Conversion Process
Phase 4 ITS Implementation

Execution Stage

The Execution Stage consists of three elements:

- Writing and revising
- Training
- New and more restrictive procedure conformance

ITS Conversion Process
Phase 4 ITS Implementation

Execution Stage

- Writing and revising documents- Working from the scope determination this element includes making all required changes to site documentation, writing all new procedures and programs, and updating the project database. This will bring station documents into compliance with the ITS and provide locations and controls for the requirements removed from CTS.

ITS Conversion Process
Phase 4 ITS Implementation

Execution Stage

- Training- This element trains all necessary personnel to be knowledgeable of ITS to a level required by their position. This element also includes the Operations Department performing parallel operations. The intent of parallel operations is to check the impact of ITS on daily plant situations (and vice versa) while the CTS are still the governing documents. This will serve as training, and will help the operators gain familiarity with the ITS.

ITS Conversion Process
Phase 4 ITS Implementation

Execution Stage

- New and more restrictive procedure conformance- Prior to implementation, the site must be in conformance with the ITS. Therefore, all new and more restrictive requirements must be identified and the site brought into compliance. This includes making all required changes to documentation and verifying that all new or more restrictive surveillances “can be met” prior to the effective date.

ITS Conversion Process
Phase 4 ITS Implementation

Phase 4 Deliverables

1. Detailed implementation plan-Documented in the Project Manual
2. Database providing details of:
   - Project scope
   - Impacted documents
   - Relocated items and their new location
   - ITS requirement number and the implementing procedure/program number
3. Work flow assessment

ITS Conversion Process
Phase 4 ITS Implementation

Phase 4 Deliverables (continued)

4. Approved procedures for any new or revised process identified by the work flow assessment.
5. ITS training provided to all necessary personnel based on the requirements of their current position. Specific training deliverables include:
   - Support organization and SRO requal lesson plans
   - Training of station instructors and other personnel.
   - Revised exam bank questions and simulator scenarios
   - Training material for the programs and procedure revisions resulting from the ITS.

ITS Conversion Process
Phase 4 ITS Implementation

Phase 4 Deliverables (continued)

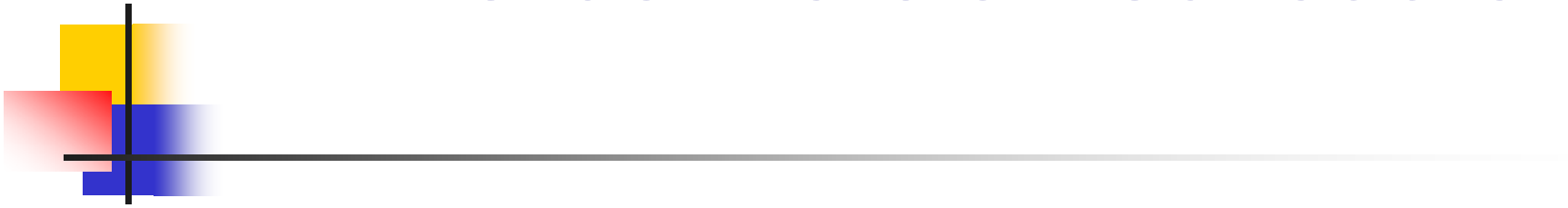
6. Project level procedures, instructions, and/or guidelines, as appropriate, to perform the work.
7. Revisions to existing program documents as required to support implementation.
8. Revision to existing procedures as necessary to support implementation.
9. Revision to the ODCM as required to support implementation.
10. Commitment tracking annotations/dispositions as a result of the ITS.
11. UFSAR changes necessary to support implementation.

ITS Conversion Process
Phase 4 ITS Implementation

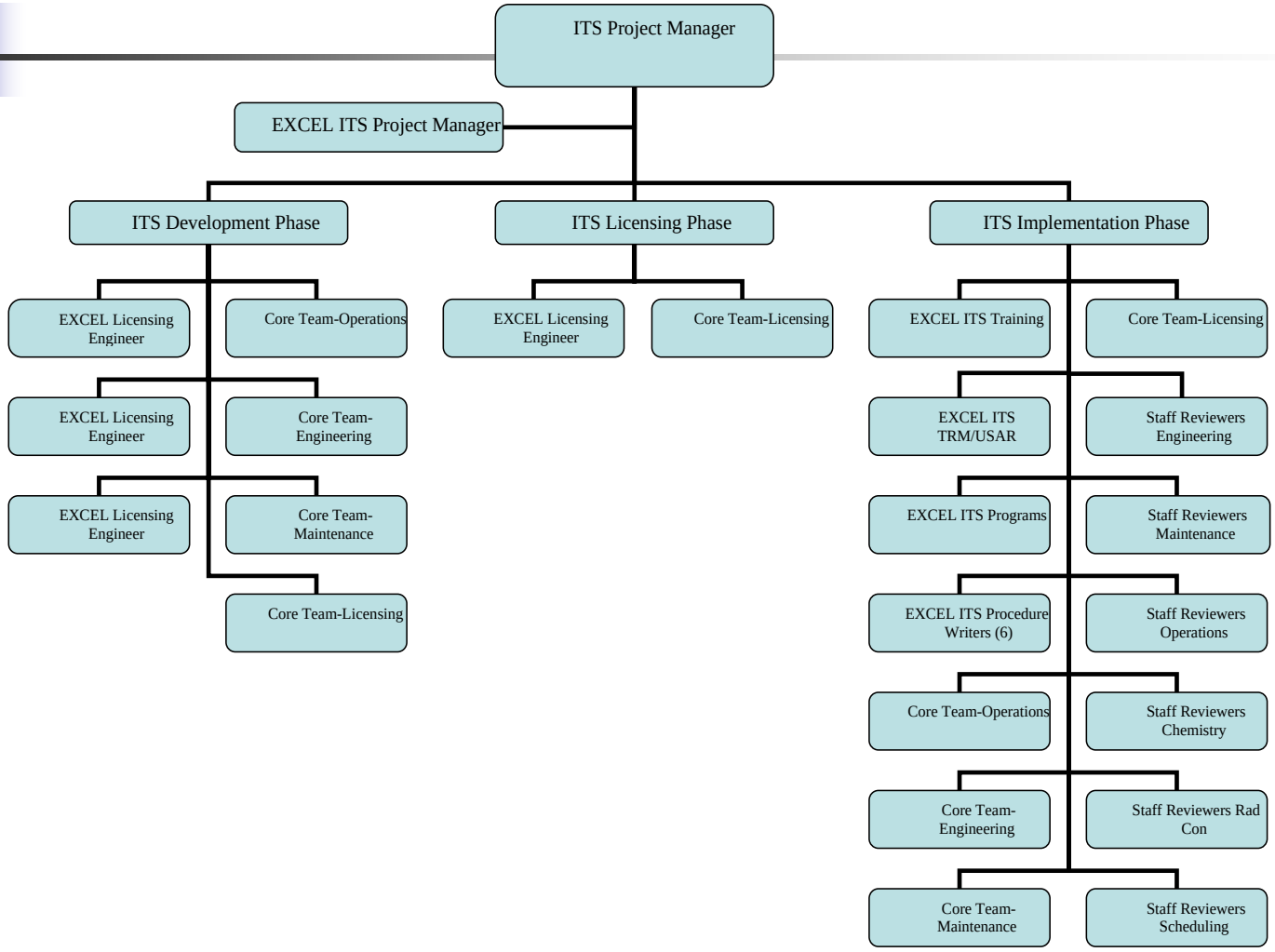
Phase 4 Deliverables (continued)

12. Project control documentation including:
    - Detailed project schedule
    - Performance indicators
    - Monthly progress reports
    - Project closeout checklist

ITS Conversion Schedule



ITS Conversion Organization



ITS Conversion Summary

- ITS Conversion Completed in 4 Phases which lasts 24-28 months
- ITS Conversion Process requires support of many individuals from both the Licensee and NRC
- ITS Conversion Implementation will touch over 75% of the Licensee documents