U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

INSPECTION AND ENFORCEMENT MANUAL

TEMPORARY INSTRUCTION 2512/07

SUBJECT: TRIAL PROGRAM - CONSTRUCTION ASSESSMENT TEAM INSPECTIONS

A. PURPOSE

The purpose of this Temporary Instruction (TI) is to prescribe the requirements for a trial inspection program utilizing a team concept at nuclear power plants under construction.

B. OBJECTIVES

The objectives of the trial inspection program are to evaluate the effectiveness of multi-disciplined team inspections utilizing an integrated inspection approach, and to determine if the existing inspection program should be revised to incorporate the team concept.

C. BACKGROUND

Review of recent inspection and investigation experience as part of IE's ongoing evaluation of program effectiveness has indicated that use of multi-disciplined teams may represent potential improvement in the routine inspection program for facilities under construction (MC 2512). Additionally, manpower resource limitations necessitates revision to existing program requirements. Accordingly, the Director, IE, has directed that a Regional Task Group be formed to develop, implement and evaluate a trial program utilizing a team concept for that purpose. (Memo, Stello to Grier, Special Assignment to Develop a Trial Program for Team Inspection of Construction, dated October 6, 1980).

D. INSPECTION CONCEPT

The concept of team inspections at nuclear plants under construction is based on concurrent inspections of parallel ongoing functional areas by a multi-disciplinary inspection team. The functional areas that should be considered in the determination of licensee program effectiveness are quality assurance, design controls, project management, construction controls, and procurement controls. Each functional area should be inspected for effectiveness, or as an alternative a determination may be made from the inspection history that specific program areas are acceptable.

During the trial inspection program, the inspection of the licensee/contractor program will be restricted to those activities performed at the site unless problems arise which require resolution, as an additional inspection effort, at the corporate offices.

The determination of effectiveness of each functional area is made by the following process:

- Define the program applicable to the functional area as delineated in the appendices to this TI. Much of this effort is done during the planning and preparation phase.

- Compare the licensee program with the criteria for an effective program. The criteria to be utilized are regulatory requirements, licensee commitments, and/or recognized practices such as Regulatory Guides, NRC staff positions, consensus standards, and NRC interpretations. The recognized practices may or may not be committed to by the licensee. If a recognized practice is not committed to by the licensee and the licensee program is inferior to the recognized practice, this is identified as an observation of licensee program weakness.

- Verify that the program is implemented. This verification is performed during the site inspection by observation of work, interviews with site personnel and documentation review.

- Evaluate management involvement by interviews with management personnel and review of documentation.

The appendices to this TI provide specific guidance that must be considered in determining effectiveness.

E. TRIAL PROGRAM GUIDANCE AND REQUIREMENTS

1. PROGRAM SCOPE AND TIMETABLE

Each Region will conduct a team inspection in accordance with the provisions of this TI at each of two nuclear power plants under construction. Generally, two weeks are allotted for each of the three phases of each inspection -- planning and preparation, conduct, and documentation -- for a total of six consecutive weeks per inspection. The overall trial inspection program is to be completed by April 30, 1981.

2. RESPONSIBILITIES AND AUTHORITIES

a. REGIONAL OFFICE

The Regional Office is responsible for implementation of the trial program in accordance with the requirements of this TI and existing programatic requirements, including review, approval and issuance of inspection reports and related enforcement action, and followup and closeout of inspection findings and enforcement actions.

b. TEAM LEADER

The Team Leader is assigned full time for the duration of the inspection effort, and has the overall responsibility for the inspection including planning and preparation, coordination of the conduct, interpretation of requirements, integration of findings, re-direction of effort if required, chairing entrance and exit interviews, and preparation of the final report. He is responsible for informing appropriate Regional

management personnel of significant inspection findings which may warrant immediate action. The Team Leader approves or recommends approval of all leave requests, travel arrangements and overtime requests for assigned team members.

c. TEAM MEMBERS

Team members are assigned full time and report to the Team Leader for the duration of the inspection effort. Team member responsibilities include participation in inspection planning and preparation, conduct of inspection and evaluation of the findings in assigned inspection areas, preparation of inspection report and related enforcement sections for the areas inspected and providing these inputs to the Team Leader.

3. SITE SELECTION

The two construction sites to be inspected by each Region in accordance with this TI should be selected by the individual Region.

Factors to consider in the selection are:

- Inspector/supervisor impressions - subjective inputs should be solicited.
- Contractual arrangements - licensee does his own A/E, construction, use of separate A/E and constructor use of multiple contractors.
- Licensee involvement.
- Inspection history - number of noncompliances (as a function of inspection hours)
- Construction status - preferably has multi-discipline work in progress.
- Availability of specialist team members.

The trial program team inspections will divert a significant portion of the available manhours from the programmatic inspections. The Region should consider this impact in relation to past and future coverage and select sites to minimize impact. It is the individual Region's responsibility to select the sites for team inspection but it is desired that a cross section of construction management arrangements be represented in the total 10 sites. Therefore, site selection should be discussed and coordinated among the Regions.

4. TEAM COMPOSITION

a. GENERAL

The team nominally will be composed of five persons. It will consist of a Team Leader, a Resident or Project Inspector and a minimum of two Specialist Inspectors such that it will be interdisciplinary. All team members will be dedicated to the team inspection for the duration of the inspection cycle from planning through reporting.

b. TEAM LEADER

The Team Leader should be a Section Chief, preferably from the RC&ES Branch, from the Region in which the site to be inspected is located. There is the possibility, at the option of the Branch Chief, that an individual other than a Section Chief could be assigned as a Team Leader. For the trial program, this should be justified in writing.

c. ALTERNATE TEAM LEADER

An Alternate Team Leader shall be designated by the Team Leader. This should preferably be the project or resident inspector. The Alternate Team Leader will serve as the Team Leader in the event that the Team Leader must be absent or leaves the inspection effort.

d. TEAM MEMBERS

Team members may be specialist or project type inspectors depending on circumstances and availability of personnel. In general, specialties represented on the team should correspond to the on-going activities (discipline) at the site being inspected. Each team will have one member with a background in quality assurance.

5. TEAM INDOCTRINATION/ORIENTATION

Inspectors assigned to inspection teams shall attend a special orientation session to familiarize them with the specific inspection concept utilized in the trial program. As a minimum, the orientation shall provide an overview of the program and include:

- Objectives
- Concept of effectiveness
- Planning
- Inspection conduct
- Reporting

The orientation shall be conducted by the Team Leader and use this TI as the primary instrument for training.

Orientation should emphasize the difference between this team inspection concept and past inspection practices and focus on licensee program effectiveness. Primary differences, or departures from existing IE programs such as observations of licensee program strengths and weaknesses, integration of findings and interfacing with licensee management should be discussed. In addition, team member assignments, inspection schedules, and special interviewing techniques should be discussed. The need for a truly "dedicated team effort" to enhance the achievement of the trial program objectives should be emphasized.

6. INSPECTION PLANNING AND PREPARATION

A key element for a successful team inspection is detailed planning and preparation. Two weeks are programmed for in-office planning and preparation of the inspection. The objectives of planning and preparation are:

a. To identify those elements of the team concept that are applicable to the specific inspection.

b. To indoctrinate team members to the team concept.

c. Make specific functional assignments to each team member.

d. Define inspection schedules.

Two weeks before the start of the on-site inspection, all team members will meet. The Team Leader will conduct an indoctrination of the concept, discuss the broad schedule, inspection ground rules and broad areas of assignment. As the team refines the elements of the inspection by definition of priorities, inspector capabilities and site status, detailed inspection assignments are made and parallel activities are identified.

Each inspector will develop a detailed inspection plan to assure full coverage of the assigned areas of the appendices of this TI. The appendices requirements shall be supplemented as required by utilizing applicable modules of the existing IE Manual. The team members will utilize the following materials in planning the details of and preparing for the on-site inspection.

- Safety analysis report - defines requirements and commitments.

- Inspection history - inspection reports and docket file provide overview of IE activity and licensee performance and aids in developing priorities.

- Licensee reports - reports submitted by the licensee such as 10 CFR 21 and 50.55(e) reports provide indications of licensee program weakness.

- Licensee manuals - the inspection Team Leader should make arrangements to obtain the project manual, quality assurance manual, topical reports, and administrative control manuals as required. These documents provide the basis of management controls at the site and define responsibilities, authorities, interfaces and procedural aspects of project control.

- Organization charts - Organization charts provide the inspectors with an overview of the management interfaces, communicator channels, and the identification of management personnel. Each inspector must develop an understanding of the organization and identify those managers to be interviewed.

NRC staff positions/interpretations/Regulatory Guides (RGs) - Current NRC (NRR or IE) staff positions/interpretations/RGs define the most recent NRC concepts and should be considered in the detailed planning and acceptability of the licensee's program.

Consensus Standards - ANSI/ASME/IEEE standards shall be used as applicable.

The planning and preparation stage should result in a detailed inspection plan which will assure that the objectives of this TI are met. It is the responsibility of the Team Leader to integrate each team member's proposed plan/schedule/activities into an overall inspection plan and assure coordination of the inspection.

The inspection plan may need revision as the inspection progresses and if problems are identified. The Team Leader is responsible for arranging/directing changes to the initial inspection plan.

7. INSPECTION CONDUCT

The time allotted for direct inspection effort is two weeks. The Team Leader has the option of conducting these consecutively or separated by one week based on his inspection plan and possibly other considerations. In either case, it must be remembered that a total of six consecutive weeks have been allotted for the total inspection effort at each site and that the overall trial program should be completed by April 30, 1981. When the latter option is chosen, the in-between week must be devoted to preparation of the inspection report. The Team Leader should identify his choice early in the planning and make any necessary arrangements with the licensee and for travel.

All team members are dedicated for the duration of the inspection and travel arrangements should be coordinated so that all members are on location as required by the Team Leader.

Each day the Team Leader will conduct a coordination meeting of all team members to discuss the days activities and findings. Additional assignments or re-direction of effort may result from these meetings.

8. MANAGEMENT MEETINGS

a. ENTRANCE INTERVIEWS

The Region is requested to contact licensee management, possibly in a meeting by the Team Leader, prior to the start of the inspection and brief the licensee on the trial program and its purposes, and inform them of the impending inspection.

The Team Leader will conduct an entrance interview with licensee representatives at the beginning of the inspection to introduce the team, discuss the scope of the inspection, discuss the schedule of activities for the coming week including planned interviews, and identify any additional documents or records needed. Similar contact can be made at the beginning of the second week as deemed necessary.

b. EXIT INTERVIEWS

The Team Leader will conduct mini-exit interviews with licensee representatives as required. As a minimum, an exit interview will be conducted at the end of the first week during which the Team Leader will present the findings and observations to date.

The Team Leader will conduct an exit interview with licensee representatives at the site when the inspection is complete. Corporate level licensee management should be represented at this exit interview. A summary of the findings and significant observations from the entire inspection will be presented. The Team Leader may present all of the findings and observations, or he may elect to have the individual team members present the findings specific to the areas they inspected.

During the final exit interview, the Team Leader will also discuss the inspection documentation to be issued and the format under which the enforcement findings and the observations will appear.

c. SUBSEQUENT MANAGEMENT MEETINGS

If the inspection findings warrant, the Region will arrange and conduct any subsequent management meeting(s) deemed appropriate.

9. INSPECTION DOCUMENTATION

The inspection team will prepare for issuance by the Region an inspection report and related transmittal correspondence that documents inspection activities and findings identified during the inspection. The inspection documents will conform with existing policy including MC 1005 and the revised enforcement policy, and with the instructions of this TI.

Team members will prepare and submit feeder documents to the Team Leader as soon as possible following the inspection. The Team Leader is responsible for integrating the feeder documentation of each team member into a final report and transmittal documentation. He reviews and approves the report and submits the total package for issuance by the Region.

The team inspection concept employed in the trial program includes a determination of licensee program effectiveness which essentially means that in addition to using requirements and commitments as a basis of evaluation, the inspector will be using other criteria for which explicit regulatory requirements may not exist, such as Regulatory Guides, staff positions and interpretations. Therefore, in addition to inspection findings which are apparent noncompliances and deviations, the report will contain other observations which of and by themseleves, or in conjunction with enforcement type findings, add up to perceived strengths and weaknesses. If it is found that the licensee's program does not meet these criteria, the finding is considered as an observation of weakness or inadequacy. It is also possible that the licensee program exceeds requirements, commitments and these other criteria such that this program element is superior. In this situation, it would be considered as an observation of strength.

a. INSPECTION REPORT

The cover page to the report will conform to existing guidance with the exception that the "Results" section of the inspection summary will include a summary of perceived strengths and weaknesses.

The "Details" portion of the report will also conform to existing guidance except that in addition to apparent items of noncompliance, deviations and unresolved items which were identified, each major inspection topic area discussed will include the other observations of perceived strengths and weaknesses discussed above. The enforcement type findings together with these other observations provide the basis for evaluation of the effectiveness of the licensee's system of controls. The writeup should identify as clearly as possible the perceived reasons that caused the weakness (or strength) to exist, and should not just repeat the weakness, per se.

b. TRANSMITTAL LETTER

The transmittal letter will conform to existing guidance with the exception that it will, as appropriate, include additional paragraphs that will address any significant weaknesses to be identified and summarized in Appendix B. The wording of the additional paragraphs will be modeled after the following:

> In addition to the apparent items of noncompliance discussed above and in Appendix A, "Notice of Violation", findings of this inspection also indicate that several significant weaknesses exist in your management systems of control. These include .....
> (add general discussion)
> These areas are discussed in Appendix B, "Significant Inspection Findings."
>
> and
>
> "You are requested to inform this office within thirty (30) days of receipt of this letter of the results of actions you have taken or plan to take to improve your management controls in the areas of significant weakness identified in Appendix B."

c. APPENDIX A, "NOTICE OF VIOLATION"

Apparent items of noncompliance will be documented in Appendix A to the transmittal letter, and will be in accordance with existing policy guidance.

d. APPENDIX B, "SIGNIFICANT INSPECTION FINDINGS"

Significant observations of weakness will be documented in Appendix B to the transmitted letter. Appendix B will identify only the major areas requiring improvement. Examples shall be included to clarify the observations. Items of noncompliance contained in Appendix A should be referenced in the discussion when they directly contribute to the conclusion of weakness or inadequacy.

F. TRIAL PROGRAM EVALUATION AND RECOMMENDATIONS

Following completion of the inspections prescribed for the trial program, the Task Group will evaluate the inspection results in terms of the effectiveness of the inspection concept, and provide recommendations concerning adoption of the team approach as a permanent part of the IE inspection effort. These recommendations should be forwarded to the Director, Division of Program Development and Appraisal by May 22, 1981.

G. MANPOWER SYSTEM AND 766 DATA

Current routine requirements apply. No special codes have been assigned for the trial program. Credit should be taken, where appropriate, for MC 2512 program requirements or equivalent that are completed under the trial program.

H. IE HEADQUARTERS CONTACT

Questions regarding this TI should be addressed to J. C. Stone (492-8019).

I. EXPIRATION

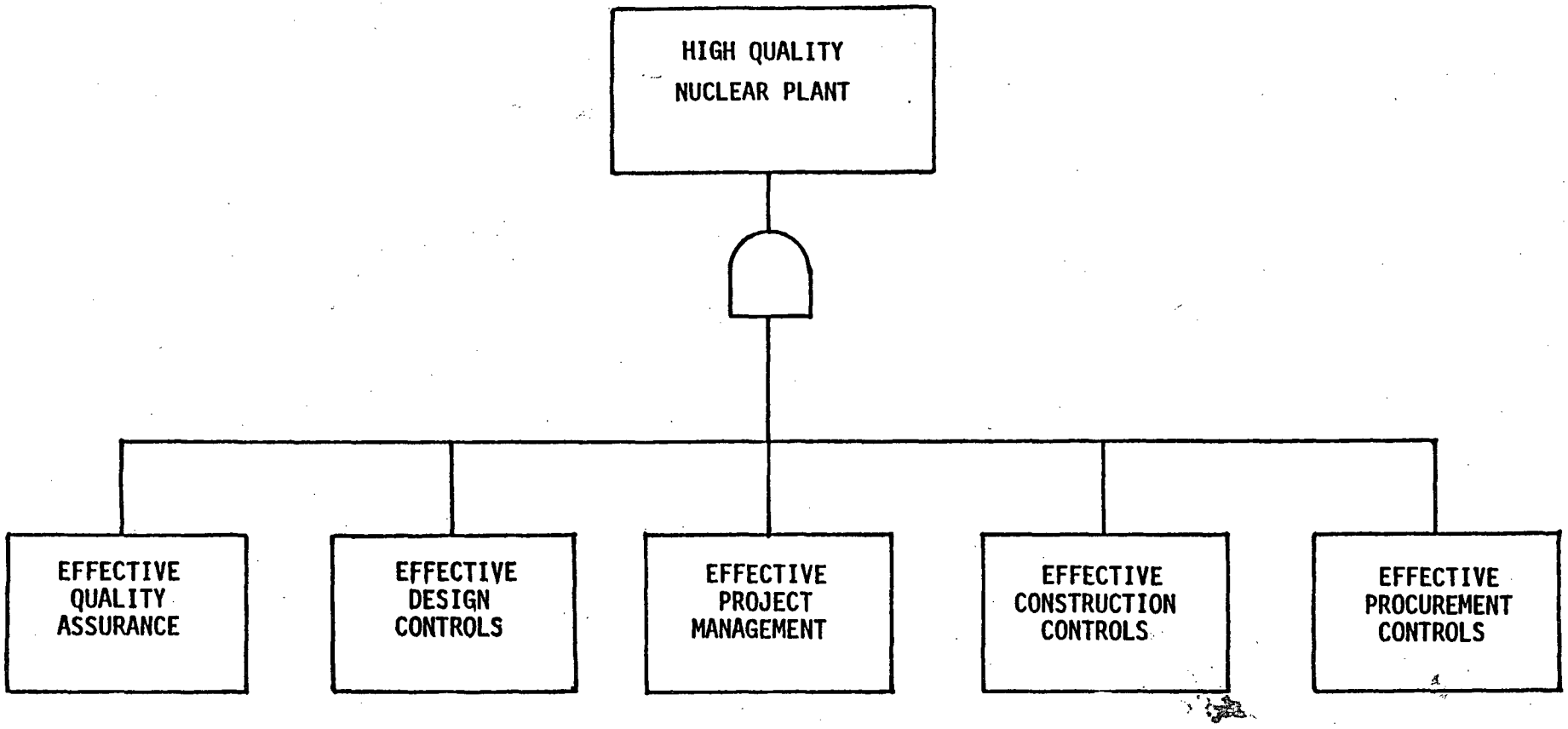
This TI will remain in effect until the inspection requirements are completed; however, for record purposes it will be terminated on July 1, 1981.

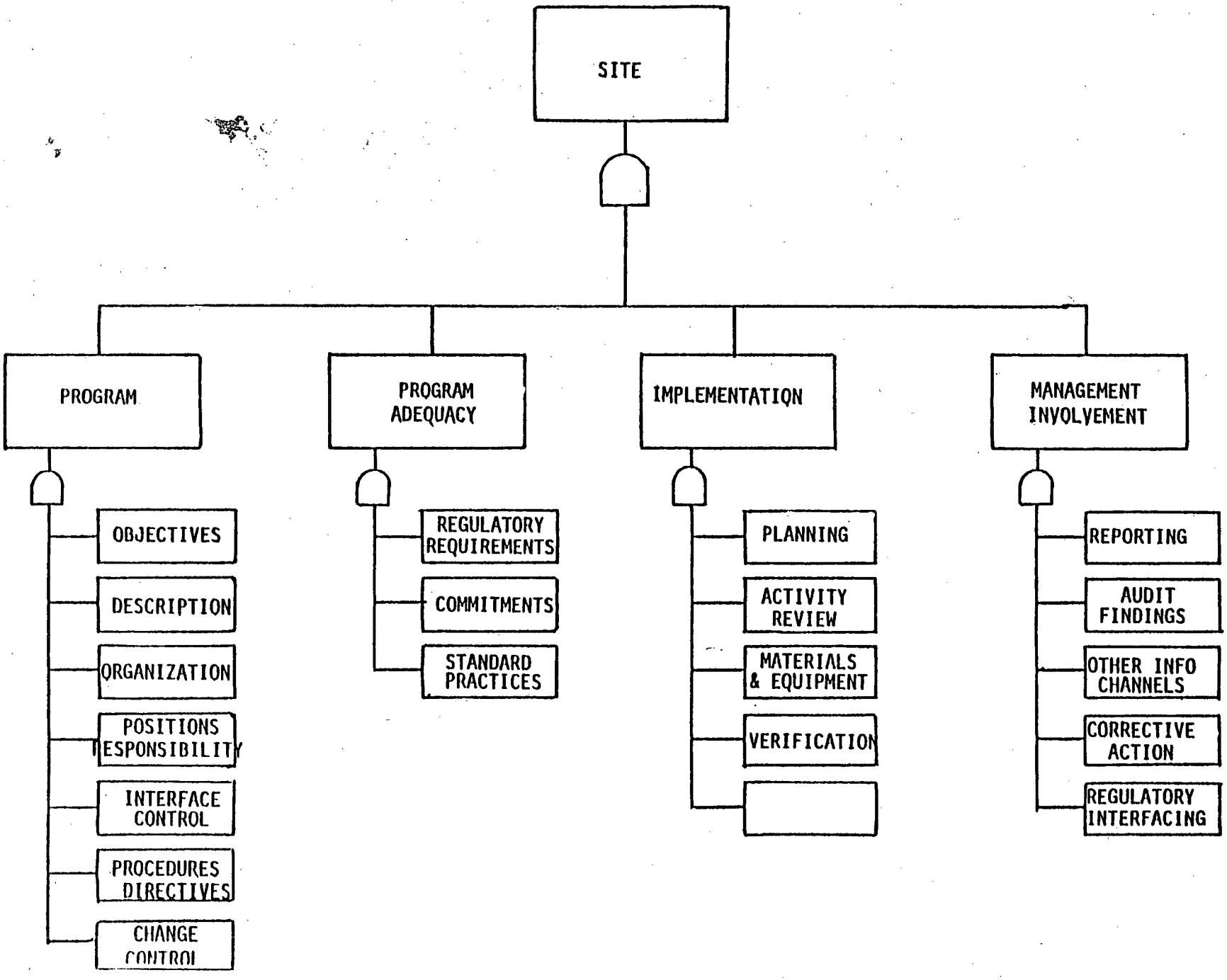
APPENDICES:

1. Inspection Planning Charts
2. Quality Assurance Program
3. Design Controls
4. Project Management
5. Construction Controls
6. Procurement Controls

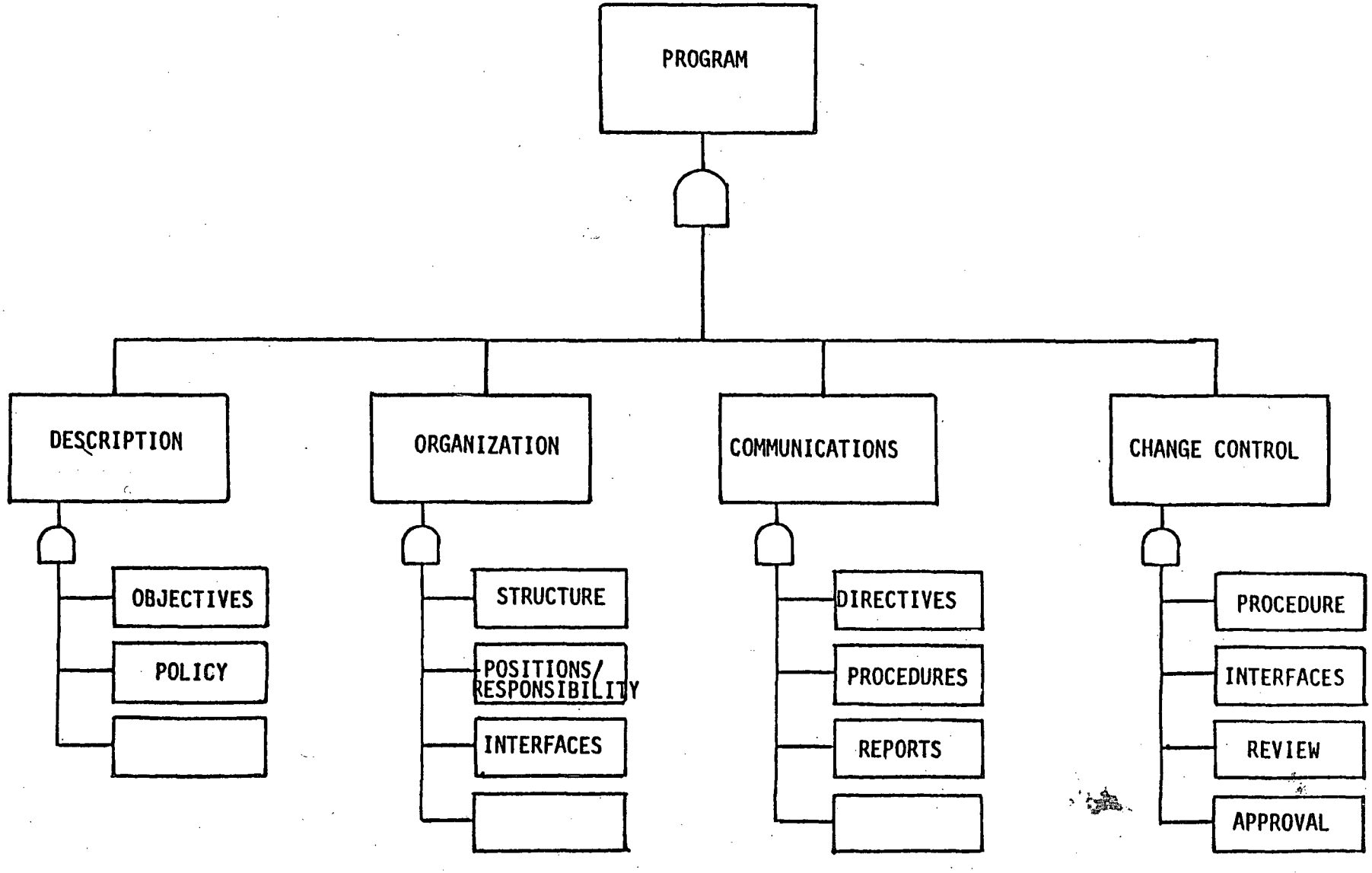
(Appendices 2 through 6 are Construction Team Inspection Checklists)

CONSTRUCTION TEAM INSPECTION PLANNING CHARTS

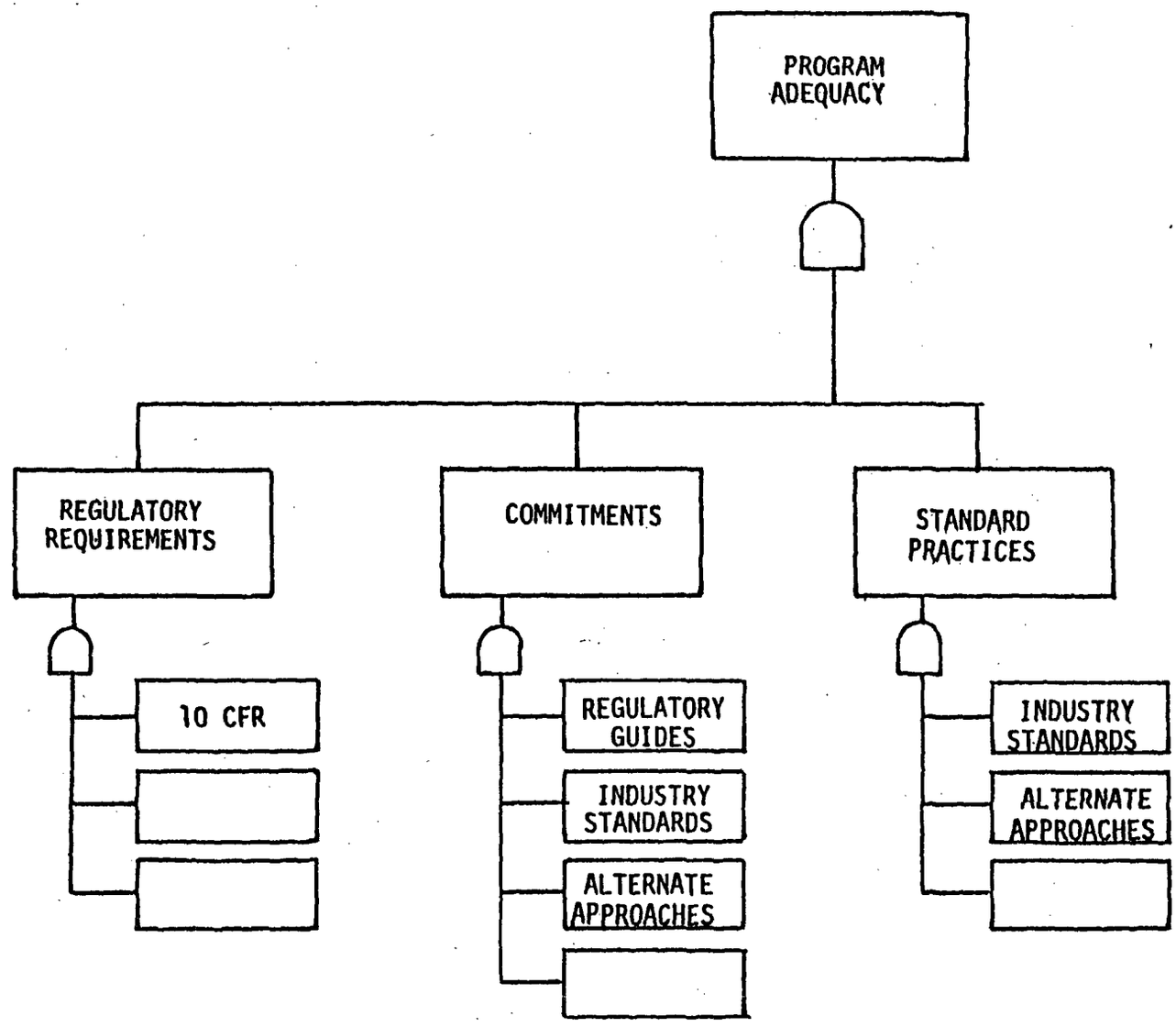



SITE
PROGRAM
PROGRAM ADEQUACY
IMPLEMENTATION
MANAGEMENT INVOLVEMENT
OBJECTIVES
DESCRIPTION
ORGANIZATION
POSITIONS RESPONSIBILITY
INTERFACE CONTROL
PROCEDURES DIRECTIVES
CHANGE CONTROL
REGULATORY REQUIREMENTS
COMMITMENTS
STANDARD PRACTICES
PLANNING
ACTIVITY REVIEW
MATERIALS & EQUIPMENT
VERIFICATION
REPORTING
AUDIT FINDINGS
OTHER INFO CHANNELS
CORRECTIVE ACTION
REGULATORY INTERFACING

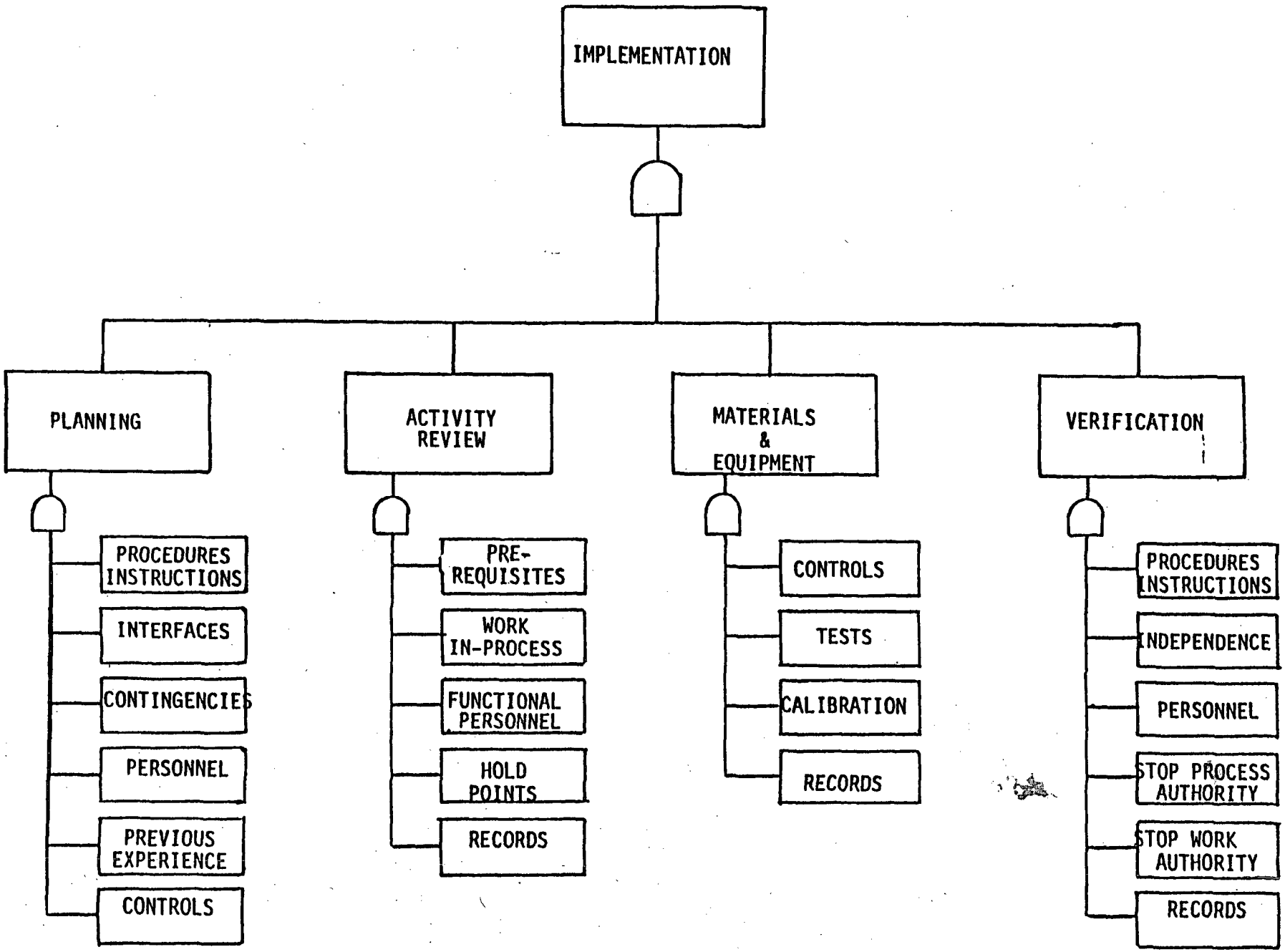
CONSTRUCTION TEAM INSPECTION PLANNING CHARTS



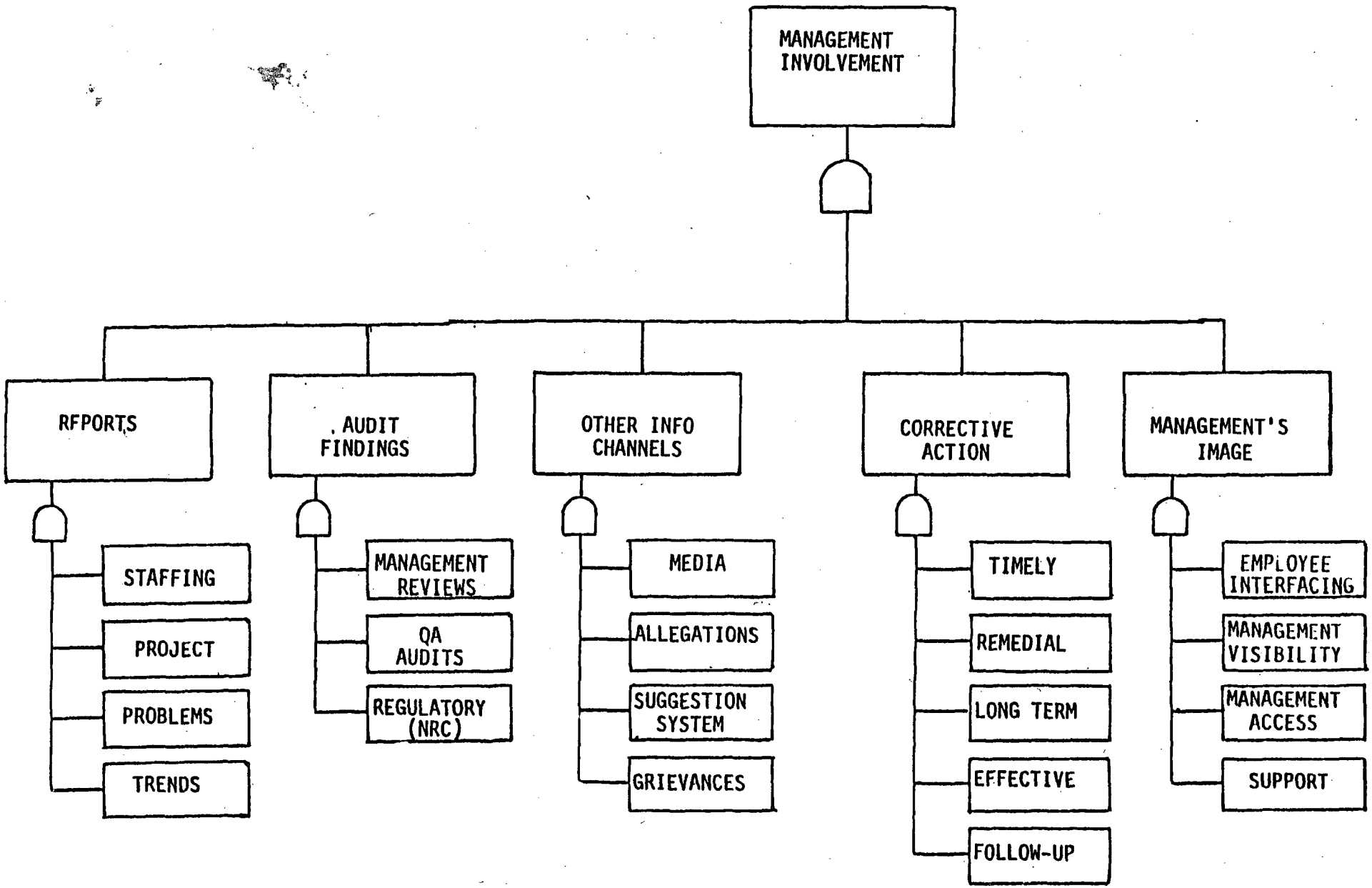
CONSTRUCTION TEAM INSPECTION PLANNING CHARTS



CONSTRUCTION TEAM INSPECTION PLANNING CHARTS



CONSTRUCTION TEAM INSPECTION PLANNING CHARTS



CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA: QUALITY ASSURANCE PROGRAM

SITE:_____ INSPECTORS:_____ DATES OF INSPECTION / / to / /

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
1.0 PROGRAM Review documentation which establishes and defines the Quality Assurance Program. References: SAR Chapter 17 QA Manual Topical Report 1.1 Program Objective/Description 1.1.1 Is there a policy statement from upper management supporting QA program and objectives? 1.1.2 Is the QA program adequately defined? Are all contractor and subcontractor roles identified? 1.1.3 Is there recognition of interface control for: QA to other QA (contractor, A/E, licensee) QA to other disciplines (design, procurement, project) Site/corporate		

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GENERAL INSPECTION AREA: QUALITY ASSURANCE PROGRAM

SITE: _____ INSPECTORS: _____ DATES OF INSPECTION / / to / /

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
1.1.4 Does the program description contain a listing of commitments to regulatory requirements?		
1.1.5 Does the program provide for management audits to determine QA effectiveness?		
1.2 Organization Review the organization chart and responsibilities matrix.		
1.2.1 Is the chart/matrix current? Does it match the existing organization?		
1.2.2 Are lines of authority and responsibility clear/defined and show the relationship between: staff line project administration		

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INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
1.2.3 Is the span of control for managers/supervisors adequate?		
1.2.4 Determine that the QA organization is independent from design and construction.		
1.2.5 Verify that QA has direct access to upper management.		
1.3 Position Descriptions		
1.3.1 Are there written position descriptions for managerial/supervisory personnel approved by upper management?		
1.3.2 Are job descriptions consistent with organization structure and program description?		
1.3.3 Do position descriptions define position authority, responsibility, and interfacing?		
1.3.4 Is there provision for acting QA manager in absence of manager?		
1.3.5 Determine if there are collateral assignments and the impact of these on regular duties.		

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GENERAL INSPECTION AREA: QUALITY ASSURANCE PROGRAM

SITE: _____ INSPECTORS: _____ DATES OF INSPECTION / / to / /

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
1.4 Change Control The program must include mechanisms to effect change due to: a. Feedback of Experiences b. Regulatory Requirements c. Codes and Standards d. Audits e. Reviews f. Changing Project Status 1.4.1 Verify that the mechanisms include: a. Notification of change to all affected organizations. b. Identification of all affected documentation. c. Adequate approval. d. Distribution of new and control of superseded material. 1.5 Procedures/Directives 1.5.1 Verify that there are adequate procedures/directives to implement the program.		

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INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
2.0 PROGRAM ADEQUACY Program adequacy is the determination that the QA program being evaluated meets the criteria established as necessary and sufficient for an effective QA program. The criteria include elements of: . Regulatory Requirements. . Commitments. . Recommended practices that may or may not be committed to by the program in question. 2.1 Regulatory Requirements 10 CFR 50, Appendix B 10 CFR 50.55a - Codes and Standards 2.2 Commitments PSAR - Particularly CH.17. FSAR - Particularly CH. 17. Questions and Answers to SAR. Responses to Bulletins and General Letters.		

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INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
2.3 Recommended Practices Recommended practices are those which have been endorsed by or are documented in: . NRC Regulatory Guides. . NRC Staff Positions. . Consensus Standards. These may or may not be committed to, or referenced in the QA program in question. There may be situations in which consensus standards are in conflict with NRC positions. In these cases, the NRC position of most recent date takes precedence.		

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INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
3.0 IMPLEMENTATION		
3.1 Planning		
The intent here is to verify that the QA planning, including budgets and staff level, are consistent with the project status and adequate to monitor the project activities in an effective manner.		
3.1.1 Budgeting/Staffing		
3.1.1.1 Is the QA budget and staff consistent with project status and extent of activities in progress - adequate to effectively accomplish QA functions?		
3.1.1.2 Are there provisions for temporary increase in QA manpower due to manpower loadings of other areas (design, construction)?		
3.1.1.3 Is the compensation, relative to other trades, adequate to attract and retain qualified personnel?		

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GENERAL INSPECTION AREA: QUALITY ASSURANCE PROGRAM

SITE: _____ INSPECTORS: _____ DATES OF INSPECTION / / to / /

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
3.1.2 Procedures/Instructions		
3.1.2.1 Are there written procedures/ instructions which address applicable QA elements? Do they contain acceptance criteria?		
3.1.2.2 Do written procedures/instructions/ directives completely define tasks, interfaces, prerequisites?		
3.1.2.3 Are procedures current, up-to-date, latest revision with authorized approvals?		
3.1.3 Planning/Scheduling		
3.1.3.1 Project Activities		
Determine QA's role in project planning.		
Does QA receive project status reports?		
Does QA participate in project reviews and planning meetings?		

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INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
3.1.3.1 (continued) Are project changes conveyed to QA and used for QA budget/staff projections? Preplanning complex activities. Does QA/QC participate in preplanning of complex construction activities? Are QA/QC hold points identified? 3.1.3.2 Schedules Are audits, reviews and QA schedules consistent with project activities? Are schedules realistic - Does workload and staff level permit effective schedules?		

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INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
3.1.3.3 Audits Is there a comprehensive plan of audits spanning all applicable QA elements? Do audit plans provide for effective interfacing with the audited organ/function? Are audit plans tailored to a function or discipline? Or are they superficial checklists? 3.1.3.4 Management Audits Are there planned QA management self audit/analyses of the overall QA program to determine effectiveness?		

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INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
3.1.3.5 Feedback Planning provides for incorporating feedback, lessons learned from previous experience (internal, external).		
3.2 Organization		
3.2.1 Is the organization as implemented consistent with the description of charts? Structure Staff		
3.2.2 Has there been QA organization changes in the past year? Management - who, what position? Replacement Time - Interim Operation - Who Acting - Continuity - Effectiveness - Reported to NRC -		

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INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
3.2.3 Changes to QA Staff level. When? Increase/Decrease Why? Turnover Rate		
3.3 Activity Review The intent of this section is to have the inspector observe the actual performance of QA functions and tasks such as audits, design reviews, and surveillance.		
3.3.1 Reviews - Design/Procurement Documents Are these being performed? How often? When - before the fact, after-the-fact? If not, why not? Lack of QA reviewers? Budget limitations? Are the reviews coordinated with vendor audits?		

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INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
3.3.1 Reviews (continued) Are changes to design/procurement packages reviewed by QA? Timing of reviews - Are they consistent with project status and requirements? Is QA by-passed by design/proc?		
3.3.2 Audits 3.3.2.1 Are audit schedules being met? If not, why not? Consider lack of staff, travel budget, other priorities. Who approves schedule changes? Reasons documented? Provisions to re-do at a later date? 3.3.2.2 Are audits adequate, in depth and scope? Do auditors follow procedure/check-lists rigidly? Do they have authority and do they pursue potential problems?		

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INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
3.3.2.2 (continued) Are audits documented in timely manner? Conducted by qualified people? How is qualification determined? 3.3.2.3 Findings - Conduct exit interviews? Communicated promptly in writing to QA management, upper management and concerned organizations? 3.3.3 Surveillance Frequently QA, particularly site QA, performs a surveillance function. If this is the case: 3.3.3.1 Establish the purpose of surveillance and if there are written procedures (for different disciplines)?		

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INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
3.3.3.1 (continued) Interview surveillance auditors - verify knowledge and understanding of their function. 3.3.3.2 Are surveillance frequencies and schedules being met? Verify surveillance activities are documented. How are findings transmitted? Determine if followup is performed. Examinations, Inspections and Test - (EIT) 3.3.4.1 That they are specified by written procedures. If hold points are specified in instructions, procedures and plans? Are they being observed? If not, why not?		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA: QUALITY ASSURANCE PROGRAM

SITE: _____ INSPECTORS: _____ DATES OF INSPECTION / / to / /

INSPECTION AREA		ACCEPTANCE CRITERIA	FINDINGS
3.3.4.1	(continued) Who authorizes deviations to by-pass hold points?		
3.3.4.2	Are there provisions for interim action? (Repeat of test, requirements for authorization to approve deviations)		
3.3.4.3	Stop work requirements and approvals documented? Personnel aware of requirements? Are they being observed?		
3.3.4.4	Sampling plans must be based on sound statistics, define sample size, confidence level, provide for tightened test.		

CONSTRUCTION TEAM INSPECTION CHECKLIST

Revision No. 1

GENERAL INSPECTION AREA: QUALITY ASSURANCE PROGRAM

Date 2/13/81

SITE: _____ INSPECTORS: _____ DATES OF INSPECTION / / to / /

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
3.4 Personnel		
3.4.1 Are QA personnel qualified? To what criteria?		
3.4.2 Other auditors - If personnel are borrowed, is activity restricted to area of expertise? Are they briefed in audit function/concept?		
3.4.3 Do auditors understand their assignments?		
3.4.4 Are the number of auditors assigned to an audit sufficient to perform an effective audit?		
3.4.5 Is the QA staff level consistent with project status?		
3.5 Records		
Different types of records should be reviewed/verified: staffing levels, audits, design/procurement reviews, vendor surveillance, training.		
3.5.1 Do records support that QA functions are being performed adequately and on schedule over an extended period?		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA: QUALITY ASSURANCE PROGRAM

SITE: _____ INSPECTORS: _____ DATES OF INSPECTION / / to / /

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
3.5.2 Are records complete and accurate? Is supporting info available?		
3.5.3 Do the records contain feedback and follow-up info? Do they indicate effective corrective action or is there excessive "use as is"?		
3.5.4 How are records used by management?		
Trend Analysis		
Management Reports		
Feedback to Functional Organizations		
3.6 Materials and Equipment		
Equipment and materials used in the performance of QA audits, surveillance or QC inspections, examinations, and tests must be controlled.		

CONSTRUCTION TEAM INSPECTION CHECKLIST

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GENERAL INSPECTION AREA: QUALITY ASSURANCE PROGRAM

Date 2/13/81

SITE: _____ INSPECTORS: _____ DATES OF INSPECTION / / to / /

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
3.6.1 For inspection and independent measurements equipment verify: . Storage conditions and issue controls, shelf life. . Pre-use requirements. . Procurement controls - certs if required. . Fitness for use: Adequacy Calibration . "Or equivalent" approvals. 3.6.2 Calibration Program.		

CONSTRUCTION TEAM INSPECTION CHECKLIST

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GENERAL INSPECTION AREA: QUALITY ASSURANCE PROGRAM

Date 2/13/87

SITE:_____ INSPECTORS:_____ DATES OF INSPECTION / / to / /

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
4.0 MANAGEMENT INVOLVEMENT The intent of this section is to determine QA management involvement and understanding of the QA functions and findings. It involves reviewing reports prepared by QA, reports received by QA and if any action is taken by appropriate management. 4.1 Reports 4.1.1 Reports Received 4.1.1.1 Does QA management receive project reports? Periodically Special Project Status/Staffing Project Schedules Results of Significant Activities		

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Date 2/13/81

CONSTRUCTION TEAM INSPECTION CHECKLIST
GENERAL INSPECTION AREA: QUALITY ASSURANCE PROGRAM

SITE:_____ INSPECTORS:_____ DATES OF INSPECTION / / to / /

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
4.1.1.2 Does QA receive reports from contractors?		
What types?		
How often?		
4.1.1.3 What reports does corporate QA receive from site QA and vice versa?		
What is content?		
Frequency?		
4.1.1.4 Problem reports -		
Does project management send problem area reports of QA?		
Is QA consulted on problem areas?		
Does QA receive reports of resolution?		
4.1.1.5 Trend reports -		
Project Trends		
QC		

CONSTRUCTION TEAM INSPECTION CHECKLIST

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GENERAL INSPECTION AREA: QUALITY ASSURANCE PROGRAM

Date 2/13/81

SITE: _____ INSPECTORS: _____ DATES OF INSPECTION / / to / /

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
4.1.2 Reports Prepared		
4.1.2.1 What reports does QA prepare?		
Frequency		
Distribution - Persons Organizations		
4.1.22 What use is made of QA reports -		
By interfacing groups?		
By upper management? (See also Corrective Action.)		
4.2. Audit Findings - Audits on Site QA		
4.2.1 Audits		
4.2.1.1 What audits have been performed on QA during the last year?		

CONSTRUCTION TEAM INSPECTION CHECKLIST

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GENERAL INSPECTION AREA: QUALITY ASSURANCE PROGRAM

Date 2/13/81

SITE: _____ INSPECTORS: _____ DATES OF INSPECTION / / to / /

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
4.2.1.2 Internal		
When conducted?		
By whom?		
What findings?		
Follow up?		
4.2.1.3 External		
When conducted?		
By whom?		
What findings?		
4.2.1.4 NRC Audits/Inspections		
Who receives NRC inspection reports? QA QC Others Upper Management		
How are findings handled?		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA: QUALITY ASSURANCE PROGRAM

SITE:_____ INSPECTORS:_____ DATES OF INSPECTION / / to / /

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
4.3 Other Information Channels The preceding communication channels are involved primarily with the technical functions of QA and its interfaces with other groups. The intent of this section is to determine if QA management is listening to other personnel-oriented, or external, types of communication channels, which can provide early indication of low morale, trouble areas, or even positive suggestions. 4.3.1 Determine what other information channels are used by QA management. 4.3.2 Suggestion system - Is there a formal system? Has QA received any suggestions or comments through this system? How many? Did they use any?		

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CONSTRUCTION TEAM INSPECTION CHECKLIST
GENERAL INSPECTION AREA: QUALITY ASSURANCE PROGRAM

SITE:_____ INSPECTORS:_____ DATES OF INSPECTION / / to / /

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
4.3.3 Allegations - Has QA received any allegations of wrong-doing, improper activity, deficiencies, or unqualified people, falsification of records, etc? Were responsive actions taken?		
4.3.4 Grievance system - Any complaints filed against QA/QC operations, management, etc?		

CONSTRUCTION TEAM INSPECTION CHECKLIST

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GENERAL INSPECTION AREA: QUALITY ASSURANCE PROGRAM

Date 2/13/81

SITE: _____ INSPECTORS: _____ DATES OF INSPECTION / / to / /

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
4.4 Corrective Action Corrective action is a primary indicator of QA management involvement, effectiveness and influence in the organization. The ability of QA to stop work is particularly important and is evidence of upper management acknowledgement and support of QA's importance. Corrective action can be formal as in response to audits and management reviews, or it can be more informal in the case of allegations. Further, it applies to all facets of the program including hardware, personnel (replacement, retraining), and procedures (revision). 4.4.1 Is corrective action timely? Responses within reasonable time? Address concerns? Investigation as necessary? 4.4.2 Remedial fix to correct short term immediate concern?		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA: QUALITY ASSURANCE PROGRAM

SITE:_____ INSPECTORS:_____ DATES OF INSPECTION / / to / /

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
4.4.3 Stop work, or hold actions utilized to prevent further degradiation? Does management support QA/QC in findings? Or QA/QC findings overridden by other departments? If so, why and how often? 4.4.4 Long term corrective action - Is it adequate to prevent recurrence? Does it get to root causes of problems? Is it extensive in scope to assure all defectives are detected? 4.4.5 Effectiveness and follow-up - Are proposed corrective actions followed-up? By whom? Is effectiveness verified by trend analysis and/or data review?		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA: QUALITY ASSURANCE PROGRAM

Revision No. 1

Date 2/13/81

SITE:_____ INSPECTORS:_____ DATES OF INSPECTION / / to / /

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
4.5 Management/Employee Interaction During interviews with management, site project personnel, QA/QC, and crafts determine: 4.5.1 Employee Interfacing How often does QA management (corp.) visit the site? What is QA management's involvement at the site (audits, reviews, staff meetings)? What feedback is used to convey information to employees? 4.5.2 Management Support Does upper management support QA/QC? How is this evidenced? Do they visit QA/QC areas on site visits? Does management provide incentives/recognition to QA/QC personnel consistent with other trades?		

CONSTRUCTION TEAM INSPECTION CHECKLIST
GENERAL INSPECTION AREA: QUALITY ASSURANCE PROGRAM

SITE:_____ INSPECTORS:_____ DATES OF INSPECTION / / to / /

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
4.5.3 Management Access Are management personnel readily available to QA/QC people? Are QA/QC concerns adequately addressed? 4.6 Regulatory Interfacing 4.6.1 Is QA management aware of NRC findings? 4.6.2 Are they responsive to NRC findings and concerns? 4.6.3 Does QA management attend NRC exit interviews?		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA: Design Controls - Site

INSPECTION SITE: _____ INSPECTOR: _____ DATES OF INSPECTION __/__/__ to __/__/__

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS (Use reverse if necessary)
1. Program 1.1 Review applicable SAR sections with define responsibilities for on-site design activities. 1.1.1 Licensee review/control 1.1.2 NSSS 1.1.3 BOP A/E 1.1.4 Constructor 1.1.5 Contractors 1.2 Identify specific controls applicable to design interfaces between identified groups having design responsibility. 1.3 Identify organizations on-site performing design activities.		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA: Design Controls - Site

INSPECTION SITE: _____ INSPECTOR: _____ DATES OF INSPECTION / / to / /

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS (Use reverse if necessary)
2. Program Adequacy		
2.1 Compare project design program manuals (or descriptions) with requirements applicable to the site established by regulations.	10 CFR 50.55a 10 CFR 50, App. A 10 CFR 50, App. B Crit. III	
2.2 Compare project design program manuals with commitments expressed in the SAR or other docket material.	SAR, Section 17 License correspondence Standard review plan	
2.3 Compare project design manuals with recognized good practices based on inspector experience, Regulatory Guides, and NRR position statements.		
2.4 Assess the adequacy of the interface control system between the NSSS, the A/E, the contractor and the subcontractors by reviewing documentation controlling these interfaces.		
2.5 Verify that a listing of structures, systems and components which can affect the safety-related aspects of plant operation are identified and listed.		
2.6 Verify that a program has been established to assure design involvement in the review and analysis of potentially reportable construction deficiencies.		
2.7 Verify that the design program includes requirements for:		
2.7.1 Design review		
2.7.2 Independent design checks		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA: Design Controls - Site

INSPECTION SITE: _____ INSPECTOR: _____ DATES OF INSPECTION __/__/__ to __/__/__

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS (Use reverse if necessary)
2. Program Adequacy (con't) 2.7.3 Alternate calculations where appropriate. 2.7.4 Application of pre-established design calculations for field design. 2.7.5 Audits of on-site design activities. 2.7.6 Field verification by on-site design engineers of installation/erection of field design changes. 2.7.7 Field observation by design engineers of construction activities in the various engineering disciplines. 2.8 Assure that the program includes requirements for review of all redesign by the originating design organization.		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA: Design Controls - Site

INSPECTION SITE: _____ INSPECTOR: _____ DATES OF INSPECTION / / to / /

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS (Use reverse if necessary)
3. Implementation 3.1 Procedures Determine whether procedures are available for each design activity being conducted by the on-site design groups (licensee, architect-engineer, constructor, and/or subcontractors) for such items as: 3.1.1 Control of design input (i.e., design criteria and specifications prepared by appropriate "home office" original, or related, design input) 3.1.2 Control of design process relative to: (a) Drawings and revisions (b) Specifications and revisions (c) Calculations and recalculations (d) Codes, standards, Regulatory Guides, IE Bulletins (e) Interface with home office and licensee (g) Document and drawing control (h) Corrective actions on deficiencies 3.1.3 Verify that instructions, procedures, drawings and specifications satisfy requirements and confrom to good engineering practice. 3.2 Design Activities Examine the on-site design process for two design groups relating to the following areas:	For guidance refer to Section III of IP 37055B References: a. NRC Regulations/ SAR (1) 10 CFR Part 50 (2) 10 CFR Part 21 (3) Chapter 17 of SAR (QA) (4) Technical Chapters of SAR, as appropriate b. NRC Guidance (1) RG1.28/ANSI N45.2 (QA Program) (2) RG1.64/ANSI N45.2.11 (Design) (3) RG1.114/ANSI N45.2.12 (Auditing) (4) RG1.123/ANSI N45.213 (Procurement) (5) NUREG 0302, Rev. 1 (10 CFR Part 21)	

CONSTRUCTION TEAM INSPECT N CHECKLIST

GENERAL INSPECTION AREA: Design Controls - Site

INSPECTION SITE: _____ INSPECTOR: _____ DATES OF INSPECTION / / to / /

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS (Use reverse if necessary)
3. Implementation (Con't) 3.2.1 New Design/Field Fabrication (a) Detemine whether the design groups selected understand the applicable design control procedures. (b) For work just completed, by requesting the designer to discuss the scope of the design relative to the following activities, determine whether such activities are subject to adequate design controls. (1) Design input (2) Design review (3) Design approval (4) Interface with home office (c) For work selected in (b) above, have designer verify for several design parameters selected by the inspector whether they are within the criteria and/or specifications established by the home office. (d) Determine whether the person doing the design review was independent from the individual who did the design. (e) Determine whether the design verification records are adequate.		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA: Design Controls - Site

INSPECTION SITE: _____ INSPECTOR: _____ DATES OF INSPECTION / / to / /

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS (Use reverse if necessary)
3. Implementation (Con't) 3.3 Design Changes For at least two design changes, determine whether the following aspects are adequate: 3.3.1 Reason/need for the change 3.3.2 Change does not appear to compromise original design intent. Change was reviewed by originating design organization. 3.3.3 Change was reviewed and approved by "other than originator" and review did consider impact on overall design 3.3.4 Design drawings are updated/revised to reflect new design changes In addition, from the drawing control listing, select five drawings with current revisions in each of the three areas of installation relating to containment, mechanical piping, and electrical cable and: (a) Verify whether site-retained master-reproducible drawings (vellum, brownline or microfilm), or where reproducibles are not available, the master "stick set", include revisions consistent with that recorded by the drawing control list.		

CONSTRUCTION TEAM INSPECT N CHECKLIST

GENERAL INSPECTION AREA: Design Controls - Site

INSPECTION SITE: _____ INSPECTOR: _____ DATES OF INSPECTION / / to / /

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS (Use reverse if necessary)
3. Implementation (Con't) (b) Review the documentation related to the review and approval of the latest revision and the authorization (or controls) leading to issuance of the revised drawing for construction or for as-built records and determine whether documentation is adequate. (c) Examine whether the latest drawing and specifications have been released to all constructors (and contractors) and how the issuance is routinely verified. 3.3.5 Whether document control (procedures and implementation) provides timely distribution of the latest revision. 3.3.6 Whether design changes (items 3.3.1 through 3.3.5 above) are processed as required by the QA program for design conducted on-site by the appropriate design group. 3.3.7 Where design change is released for work without a "design review", determine whether controls are in effect to assure a review prior to the installation becoming "irreversible without extensive demolition and rework" (NRR/QAB Position #10). 3.4 Document Control The following inspections are required for the Architect Engineer's on-site facilities and for at least two contractor facilities unless the facilities are common:		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA: Design Controls - Site

INSPECTION SITE: _____ INSPECTOR: _____ DATES OF INSPECTION __/__/__ to __/__/__

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS (Use reverse if necessary)
3. Implementation (Con't) 3.4.1 Physically examine the facilities utilized for permanent storage of drawings, specifications and procedures. 3.4.2 From discussions with document control personnel, ascertain practices are in conformance with facility procedures and licensee commitments. 3.4.3 Inspect the practices and procedures used to maintain controlled copies of procedures, specifications and drawings in the field. 3.4.4 Select a sample of at least ten drawings and two controlled manuals used in the design process and verify that field issued controlled copies have been maintained current. 3.4.5 Review appropriate documentation using Appendix Delta 2. 3.5 Installation of On-Site Design 3.5.1 Select at least four recent on-site design activities; include two items undergoing installation if possible. 3.5.2 By discussion with those individuals who performed the activity, determine whether the installation conforms to the drawings and/or other design documents.		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA: Design Controls - Site

INSPECTION SITE: _____ INSPECTOR: _____ DATES OF INSPECTION __/__/__ to __/__/__

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS (Use reverse if necessary)
3. Implementation (Con't) 3.5.3 If practical observe the work for items 3.5.1 and 3.5.2 above and determine adequacy. 3.6 Nonconformances Determine the procedures and practices involved in processing a field generated NCR into a design change to assure that: 3.6.1 Reportability is determined and effected. 3.6.2 Design review is directed towards maintenance of original design conservation and not to an "accept as is" disposition reducing design margins. 3.6.3 Design changes or rework design reflect original design criteria and calculational assumptions. 3.6.4 All dispositions having an impact on drawings and specifications are reflected into those drawings and specifications. 3.6.5 Review appropriate records/NCRs using Appendix Delta 3.		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA: Design Controls - Site

INSPECTION SITE: _____ INSPECTOR: _____ DATES OF INSPECTION __/__/__ to __/__/__

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS (Use reverse if necessary)
4. Management Involvement 4.1 Licensee Review the licensee's organizational structural and procedures to determine what organization is primarily responsible for design assurance - QA or design engineering. The review should establish: 4.1.1 Compliance with NRC positions in relation to design verification - particularly independence. 4.1.2 The interface between QA, project design, and design disciplines. 4.1.3 Policy and responsibilities for review of site originated designs or changes. 4.1.4 That substantial changes in design assurance responsibilities if any occurred, that independence of design verification has not been compromised. 4.2 Management Review 4.2.1 Determine whether engineering design management has conducted regularly a review of the status and adequacy of those quality assurance functions that their organization is performing, i.e., the design assurance and/or design verification function in accordance with the requirement of Criterion II of Appendix B.	For guidance refer to Section III of IP 35060B Reference: a. Regulations/SAR 1. 10 CFR Part 50 (General) 2. 10 CFR Part 50, Appendix B 3. SAR, Chapter 17 4. SAR, other Chapters, as appropriate b. NRC Guidance 1. WASH 1283, Rev. 1 (Gray QA Book) 2. WASH 1390 (Green QA Book) 3. Regulatory Guide (1.28, 1.64, 1.44, 1.123 and others as appropriate) which endorse ASME/ANSI N45.2 series QA standards 4. Quality Assurance Branch Position 10 (Timeliness of Design Review)	

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA: Design Controls - Site

INSPECTION SITE: _____ INSPECTOR: _____ DATES OF INSPECTION __/__/__ to __/__/__

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS (Use reverse if necessary)
4. Management Involvement (Con't) 4.2.2 Review the two most recent management reviews. 4.2.3 Ascertain that applicable corrective actions have been initiated. 4.3 Site Design Interface Review the site design interface. Corodinate this with the inspection of field changes. 4.3.1 Verify that an effective system of reviewing site design changes has been implemented. 4.3.2 Audit several site initiated design change records. Verify that the change was documented, reviewed by corporate design, in an adequate and timely fashion, and that impact on other interfaces was considered. 4.3.3 Review the design drawings to establish that affected drawings have been revised, or are adequately controlled such that the site change will be incorporated. 4.3.4 Verify that a means has been established to assure as-built drawings are controlled and updated to assure final design is correct. Determine if this is effective in assessing effect of design chagnes in overall design.		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA: Design Controls - Site

INSPECTION SITE: _____ INSPECTOR: _____ DATES OF INSPECTION __/__/__ to __/__/__

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS (Use reverse if necessary)
4. Management Involvement (Con't) 4.4 Design Home Office For the NSSS and the A/E: 4.4.1 Determine the interface between the home office-design engineers and the field engineers. 4.4.2 Evaluate threshold levels for field and home office design changes. 4.4.3 Evaluate the responsiveness of home office design groups to field originated problems. 4.5 Licensee Engineering Qualifications Select a representative sample of licensee engineers involved in oversight or control of on-site design activities and review their qualifications using Appendix Delta 1.		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA: *On-site Design - Personnel Appendix Delta 1*

INSPECTION SITE: _____ INSPECTOR: _____ DATES OF INSPECTION / / to / /

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS (Use reverse if necessary)
Delta 1		
PERSONNEL		
1. Manpower		
For the work activity in progress verify:		
1.1 Sufficiency in numbers of personnel.		
1.2 Proper assigned disciplines.		
1.3 Acceptable personnel turn-over rates.		
2. Qualifications		
2.1 Review personnel selection practices for adequacy.		
2.1.1 Hiring practices and procedures.		
2.1.2 Reference checks including education and work experience.		
2.1.3 Verification of qualification in assigned work area.		
2.2 Review the training program		
2.2.1 For new hires assure that the training program includes:		
2.2.1.1 Orientation including specific QA/QC policy and philosophy.		
2.2.1.2 Craft or discipline training.		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA: On-site Design - Personnel Appendix Delta 1

INSPECTION SITE: _____ INSPECTOR: _____ DATES OF INSPECTION / / to / /

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS (Use reverse if necessary)
Delta 1 (Con't) 2.2.2 For employed personnel, verify that there is a periodic retraining program which includes: 2.2.2.1 Periodic reminders of QA/QC policy and procedures. 2.2.2.2 Refresher training in specific work area. 2.2.2.3 Cross training if appropriate. 2.3 Performance Monitoring 2.3.1 Verify that procedures exist to periodically evaluate and document performance in specific work activity. 2.3.2 Confirm through review of personnel records that procedures to maintain certification of personnel requiring qualification certification are being followed. 2.4 Audits of Personnel Qualification Procedures and Practices 2.4.1 Verify that an audit program is in effect. 2.4.2 Review the scope and findings of past audits in the area of interest.		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA: On-site Design - Personnel Appendix Delta 1

INSPECTION SITE: _____ INSPECTOR: _____ DATES OF INSPECTION / / to / /

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS (Use reverse if necessary)
Delta 1 (Con't) 3. Motivation 3.1 Supervision From discussions with selected individuals, verify that they receive adequate supervisory support and that supervisors are qualified in the areas they supervise. 3.2 Compensation Determine that the relative compensation level of involved personnel provide adequate motivation to perform the job well. 3.2.1 Base pay. 3.2.2 Incentive pay. 3.3 Schedule Pressure From personnel interviews, assure that job schedule pressures are not compromising work quality or requiring procedural shortcuts. 3.4 Morale From interviews with selected invididuals, evaluate the impact on morale of: 3.4.1 Specific interest in assigned job. 3.4.2 Perceived involvement and awareness of supervision and management.		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA: On-site Design - Documentation Delta 2

INSPECTION SITE: _____ INSPECTOR: _____ DATES OF INSPECTION / / to / /

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS (Use reverse if necessary)
Delta 2 INSTRUCTIONS, PROCEDURES, DRAWINGS AND SPECIFICATIONS 1. Content Assure that documentation includes the following as appropriate: 1.1 Prerequisites 1.2 Material and equipment requirements 1.3 Accept/reject criteria 1.4 Procedure and personnel qualifications 1.5 Review and approval including applicable hold-points 2. Clarity Assure that documentation is in a form understandable to the using individuals. 3. Applicability Confirm that documentation is applicable to the defined work activity. 4. Comprehensiveness Verify that documentation is consistent with references: 4.1 Applicable codes and standards		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA: On-site Design - Personnel Appendix Delta 1

INSPECTION SITE: _____ INSPECTOR: _____ DATES OF INSPECTION / / to / /

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS (Use reverse if necessary)
Delta (Con't)		
3.5 Working Environment Assess work environment and conditions on employee motivation.		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA: On-site Design - Documentation Delta 2

INSPECTION SITE: _____ INSPECTOR: _____ DATES OF INSPECTION / / to / /

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS (Use reverse if necessary)
Delta 2 (Con't) 4.2 Specification requirements 4.3 SAR commitments 4.4 Applicable regulatory guides 5. Utilization Verify that documentation is in use at the work activity. 6. Change Control 6.1 Verify that documentation being used is of the proper revision. 6.2 Review change control practices relative to field-use documentation 6.3 Discuss method of initiating documentation changes required by field experience.		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA: On-site Design - Records/NCRs - Delta 3

INSPECTION SITE: _____ INSPECTOR: _____ DATES OF INSPECTION / / to / /

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS (Use reverse if necessary)
Delta 3 RECORDS/NCRs 1. Generation 1.1 Assess the veracity of documents of concern including: 1.1.1 Field use of quality records. 1.1.2 Duplication or copying-over of original records. 1.1.3 Control of changes to field recorded information or data. 1.2 Determine the continuity of records. 1.3 Verify that entries are traceable to permanent records which identify the individual making or changing records. 1.4 Assess the permanence of field generated records in the storage environment. 2. Control 2.1 Review the records flow path to assure that records (especially NCRs) once originated become a part of permanent facility records regardless of disposition. 2.2 Evaluate the controls to assure in-process review is accomplished without potential for destruction or loss of records.		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA: On-site Design - Records/NCRs - Delta 3

INSPECTION SITE: _____ INSPECTOR: _____ DATES OF INSPECTION / / to / /

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS (Use reverse if necessary)
Delta 3 (Con't)		
2.3 For records being evaluated assure the adequacy of the final reviewer.		
3. Maintenance		
3.1 Review the process for processing records into permanent storage.		
3.2 Review procedures for control of permanent record copies to avoid their subsequent removal from records storage. (Unauthorized removal in particular)		
3.3 For selected records, evaluate accessibility and retrievability.		
3.4 Assess the storage facility for adequacy.	ANSI N45.2.9	
3.4.1 Fire protection		
3.4.2 Flooding		
3.4.3 Permanence		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA: PROJECT MANAGEMENT - SITE

SITE: _____ INSPECTOR: _____ DATES OF INSPECTION __/__/__ to __/__/__

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS (Use reverse if necessary)
The Project Management portion of this inspection is directed toward verification that management is exercising control in a manner that will assure a quality product. It is not intended that this portion will be done in its entirety for the licensee and every contractor at every site. During the planning phase of the inspection, judgement must be used to determine what portions will be used. This judgement will be based on site history and organization. Also, inspection findings at the site may determine that adjustments should be made in the inspection plan. Changes will be made at the discretion of the team leader. It is anticipated that much of the program section can be accomplished during the planning phase through review of licensee documents and IE reports. 1. PROGRAM 1.1 Organization 1.1.1 Structure Are organizational charts for licensee and contractors available and current? Are there clearly defined lines of authority and communication between licensee and contractor organizations?		

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Are lines of authority clearly defined for: Management Staff Line Administration?		
Is there overlapping or duplication of function?		
Is there a proper balance of work load assigned to key personnel?		
Is the span of control satisfactory for managers and supervisors? Too broad? Too much detail?		
1.1.2 Position Descriptions		
(Note: Written position descriptions are not a requirement on construction sites. Job responsibilities are covered later in this section.)		
Are there written position descriptions for managers and supervisors?		
Are position descriptions consistent with organizational structure and program description?		
Are position descriptions in sufficient detail to clearly define responsibilities, authorities and interfaces?		
Do position descriptions provide for assumption of authority in absence of superiors?		

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Do position descriptions reflect responsibilities in other areas which might produce conflict?		
1.1.3 Interface Controls Are there clearly defined lines of authority and communication within and between licensee and contractor organizations at all appropriate levels for the following: Changes Notifications Reports Approvals Stop Work?		
1.1.4 Review Are there provisions for regular reviews of organizational structure and position descriptions based on performance and site experiences?		
1.2 Communications		
1.2.1 Directives - Procedures Does the program clearly define channels of communication and the responsibilities for communications? Are responsibilities and methods for dissemination of directives, procedures and instructions clearly defined?		

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Do lower levels of licensee and contractor organizations receive information regarding the following: Changes in regulations, codes, standards and guides; findings identified in NRC inspection reports; audits and other surveillance activities; experiences at this facility and at other sites?		
1.2.2 Reports		
Does the program specify the types of information and reports to be communicated to management?		
Are methods of communication specified?		
Does the information provided allow management to identify problems adequately?		
Are indications of trends communicated to management?		
Are there procedures requiring different levels of management to analyze reports for trends?		
1.2.3 Review		
Are there requirements for review of the communications system to determine its adequacy?		
1.3 Change Controls		
1.3.1 Does the program include mechanisms to effect changes due to the following:		
Site and industry experiences?		

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Changes in regulatory requirements?		
Changes in Codes and standards?		
Audits		
Changes in project status?		
1.3.2 Do the mechanisms include the following:		
Notification of change to all affected organizations?		
Identification of all affected documentation?		
Distribution of new documents and removalof superseded material?		
1.3.3 Has an individual or position been assigned specific responsibility of keeping abreast of changes and initiating the required action?		

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INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS (Use reverse if necessary)
2. Implementation The intent of this section is to determine whether the licensee's system is effectively implemented to assure a quality product. Therefore, the efforts should be toward examining performance rather than stated intent. If performance is inadequate, it may be necessary for the inspector to examine the system more thoroughly in order to locate the source of failure. The area to be covered in this inspection if the functioning of management controls.		
2.1 Planning		
2.1.1 Procedures/Instructions Are special procedures, instructions or check lists prepared for unusual or troublesome activities? Are additional management reviews and controls initiated when trouble spots appear? Are there instructions which indicate when additional controls should be implemented? These could be triggered by the following: Excessive Rework Excessive CDRs Allegations Poor QA Audit Findings		
2.1.2 Interfaces Are interfaces between various licensee organizations and contractors clearly understood?		

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In discussions with the staff, determine if there is room for safety items to drop through the crack due to poorly described or understood interfaces. Are interfaces adversely affected by the conduct of individuals?		
2.1.3 Staffing/Personnel		
Are there instructions for handling unusual demands placed upon the staff by unforeseen events? Are there provisions for covering vital areas when the normal staff is heavily involved elsewhere?		
Does the management staff appear to be adequate to meet the demands placed upon it?		
Does the staff have time to review adequately the various reports and to detect trouble spots?		
Does the staff have time to review previous site experiences when planning and preparing procedures for new issues?		
What opinions on the above are expressed by individual staff members?		
Is the staff adequate to followup on its own plans and procedures to determine adequacy?		
2.1.4 Personnel		
Are management staff personnel sufficiently educated and experienced to carry out their responsibilities?		
Do staff personnel have a very good understanding of their responsibilities and authorities? Do they		

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By interviews with staff and, separately, with their supervision, determine if there is agreement on the understanding of individual's responsibilities and authorities. The primary purpose in these interviews is to detect areas which management considers to be covered but which, in fact, are not completely covered. During interviews, look for indications of improper treatment of QC personnel. Attempt to determine the prevailing attitude toward QC and whether subtle or direct pressures are brought to bear on QC. 2.1.5 Controls Are there any management controls by which the project manager determines that all areas he considers to be covered are indeed fully under control? 2.2 Activity Review Review several recent activities performed by the staff and determine if its actions were adequate, if they met procedural requirements, and if the procedures were adequate.		

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2.2.1 Construction Deficiency Reports (CDRs) Review several recent CDRs. Through record examination, interviews, and inspection, determine the following: Actions taken determined the cause of the deficiency; considered reportability to NRC; instituted effective action to prevent recurrence in the affected and similar areas; provided proper corrective action for the deficiency; followed up to see that all corrective action was taken; was entered into a system to check trends; was reported to all applicable areas; and was tracked throughout. Determine if the final decisions on adequacy of corrective action and on reportability were made at the proper level.		
2.2.2 Activity Planning Examine one or more recent activities which required special planning. Determine if the following were considered and planned adequately: Prerequisites Activities met regulatory requirements Procedures and instructions were complete and clear		

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INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS (Use reverse if necessary)
Adequate manpower was provided:		
Craft, QC, Engineer		
Interfaces		
Materials and Equipment		
Communications		
Documentation		
2.2.3 Record Accessibility		
Are records needed for research or planning readily available?		
Drawings Prints Specifications Reports		
2.2.4 Work in Progress		
Examine at least one job in progress for evidence of staff planning in the following areas:		
Prerequisites were met		
Regulatory requirements were identified		
Procedures, instructions and drawings are complete, current, clear, approved		

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Adequate manpower is available Materials and equipment are on hand Proper documentation is prescribed and is being recorded. Determine if adequate engineering coverage is provided. Examine reports, observe work, and have discussions to determine if planning appears to have been adequate. Is there evidence of other work being torn out in order to perform this work? If so, why? 2.3 Inspection The purpose of this section is to determine the frequency and quality of field inspections and performance reviews conducted by department heads, discipline engineers, and other management staff who have an impact on utility or contractor performance. 2.3.1 Requirements Are there requirements which specify that persons in the positions listed above will make field appraisals of work performance and/or reviews of their section's performance at prescribed frequencies or that a certain amount of their time will be spent in this effort? Are there procedures which address this effort? Do the procedures describe action to be taken on findings?		

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2.3.2 Performance Determine through record reviews and interviews whether the above requirements are being met. If requirements are not being met, why not? Are their superiors aware that the requirements are not being met? (Note: There may be no requirement for written reports.)		
2.3.3 Conduct of Inspections Through discussions, review of inspection reports (if any), and review of findings, determine if the inspections are productive. Do they appear to be conducted as genuine appraisals or simply as tours of the area?		
2.3.4 Findings For adverse findings on these inspections, determine the following: Were reports distributed to all required individuals? Were persons assigned to take corrective action? Was appropriate corrective action taken? Was the item placed on a tickler list and tracked through to correction?		

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2.3.5 Interfaces If the item found was of a field performance nature, was it determined whether it should have been found by QA/QC? Had the item been accepted by QA/QC? Was action taken in any organization as a result of this finding?		
2.3.6 Review Was the item reviewed for generic implications? Did the item receive proper review of reportability to NRC? Was the item considered for trending aspects?		
2.3.7 Value of Staff Site Appraisals Does it appear that deficiencies found by management are simple corrected on the spot, or is an effort made to improve performance? Are performance reviews of sections, made by its head, meaningful? Do changes result? Are they simply to complete a requirement by higher management? How do subordinates view these reviews?		

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3. Management Involvement		
3.1 Reports The purpose of this section is to determine how the manager reacts to the various operational reports reaching his office. The inspector should determine, after review of selected reports, what actions were taken. He should determine what actions were taken - upward and downward - to resolve the issues. He should determine by interviews, record review, and inspection whether actions were adequate and communications were complete.		
3.1.1 Staffing Management reports and requests to superiors for additional staff. Reports and requests from subordinates. Requests for temporary increases due to special projects. If people were borrowed from other groups onsite, what provisions were made in those groups? What is project managers' view of staff adequacy? What are subordinates views of staff adequacy? Are there problems with maintaining adequate staff? What support is recieved from corporate?		

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INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS (Use reverse if necessary)
3.1.3 Problems		
3.1.3.1 Determine at what level Construction Deficiency Reports (CDRs) are handled. Are they sorted out, with some being handled at lower levels and some being sent upward? It is not satisfactory that the immediate supervisor of the person who found the problem be allowed to make final disposition. To what degree is project management involved in CDRs?		
3.1.3.2 Where is the initial determination made as to whether or not a CDR is reportable under 50.55(e) or Part 21? Can review stop there if a negative finding is made on reportability?		
3.1.3.3 What method has management used to make it clear to all employees that every employee is responsible for reporting deficiencies? Do employee responses indicate that this responsibility is generally accepted?		
3.1.3.4 Is there a method by which employees who report CDRs are fed back information on the resolution? Does project management verify that information is fed back to the originator?		
3.1.3.5 What level of management verifies that all CDRs are tracked and satisfactorily resolved?		

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3.1.4 Trends Are management reviews made of reports received to determine if unwanted trends are developing? Are the different departments reporting perceived trends in their areas? Are there documents which demonstrate that trending reviews have been made? A statement that information is reviewed for trends is not adequate to prove that reviews have been made. 3.1.5 Rework 3.1.5.1 Determine management awareness of the amount of rework required. Are records or charts kept in a manner that reveals the amount of rework? Can the amount of rework attributed to specific causes be determined easily? Regulation Changes Design Changes Poor Instructions Poor Workmanship Could it have been reduced by better craft training? Better QC Training? More people? 3.1.5.2 Determine by field observation, interviews, record reviews, etc., whether management's opinion of the amount of rework appears to be reasonable.		

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Determine if the cause to which large amounts of rework is attributed appears to be fairly accurate. (Note) Though rework in certain areas may not be safety-related, it is indicative of the quality of management control.		
3.1.5.3 What steps is management taking to reduce the need for rework?		
3.2 Management Review		
3.2.1 Does management periodically review performance in different departments? Are there records of these reviews and of the corrective action taken? Do reviews include performance evaluations of personnel? Do reviews include evaluations of whether or not equipment in use is adequate for the job?		
3.2.2 QA Audits and Field Engineer Reports Does management routinely examine QA audit findings and field engineer reports? Does the manager have a system by which he follows up on corrective action? Does he verify that corrective action is not merely cosmetic but looks for root causes of failure?		

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	Is there evidence of any fairly basic changes in organization, function, or method of operation as a result of findings?		
	Does management compare field engineer reports and QA findings in the same area to determine if there are basic differences in their evaluation of a given area?		
	Have any actions been taken as a result of different evaluations?		
	Does management cause any extensive examinations of other work areas as a result of findings in one area?		
3.2.3	Regulatory, IE		
	Does the project manager attend all IE exit interviews?		
	Does the manager personally review all IE negative findings?		
	Is there evidence he has personally taken any actions affecting organization or operations as a result of findings?		
	Does the manager have a system to verify that all answers to the questions asked by IE concerning violations are answered?		
	Does he verify that answers are meaningful and reflect true corrective action?		

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3.3 Other Information Channels		
3.3.1 Allegations		
Does management have a system which encourages employees to bring complaints of improper workmanship to their supervisors or to management?		
Does management guarantee protection to workers who bring in such complaints?		
Does management fulfill its obligations under the guarantee?		
Does management impress on supervision that complaints are to be honored and workers protected?		
Do workers agree with management's statements about how they will be received and protected?		
Attempt to determine management's real opinion of such complaints. Are they just a bother?		
Does management make a very real effort to determine if allegations are correct?		
Is corrective action taken?		
Are findings always fed back to the alleger?		
3.3.2 Suggestion System		
Is there a suggestion system by which workers may suggest methods of improving quality or performance?		

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Are suggestions evaluated and taken seriously? Is proper credit given for suggestions? Are there incentives? Are findings always fed back to the suggestor? 3.3.3 Worker Complaints Is there a procedure for handling complaints? Are complaints taken seriously? Does management get personally involved? Does management evaluate carefully to look for underlying causes? Complaints, though it may not be obvious, can be caused by the following: Intimidation of workers to produce more at the cost of quality. Intimidation of inspectors by craft or craft managers. The NRC inspector should be alert for evidence of intimidation throughout his inspection. He should determine whether management and supervision also are alert to this.		

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3.4 Management/Employee Interface The intent of this section is to determine how well management maintains contact with actual construction of the site and with the people who are performing the work. Also, it is to determine employees' perception of management's interest in the job, dedication to quality, interest in employees, availability to employees, and general knowledge of what is going on.		
3.4.1 Employee Interfacing Does manager attend employee meetings; i.e., gang box, safety, training, etc. How often? Is manager responsive to questions or problems put to him at meetings? Does he follow up? Feed back?		
3.4.2 Management Interest Does manager tour work areas? How often? Does he talk to people? Does he listen to what they have to say? Does he feed back information to them? Does he appear knowledgable of the work areas? Of special problems in the areas? Does he promote quality?		

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4.4.3 Management Availability Is higher management available to workers with problems? In what manner are they available? Do workers feel they can talk to management about job or job quality problems without repercussions? What is managers' view of availability to workers? Does it coincide with workers' perception?		
4.4.4 Management Support Do all levels of employees believe they are supported by their supervision and managers? Do they feel they are supported in interfaces with other organizations? Does management back them when they stop work or refuse to accept work which they believe to be non-standard? Do they feel they are on the outside when they sacrifice schedule for quality? Does management opinion of its own support differ from the perception of subordinates?		
4.4.5 Dedication to Quality What is worker and lower tier supervisions perception of their supervisor's, mangement's, and corporate management's dedication to quality?		

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Do they feel that substandard work will not be permitted?		

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SITE _____ INSPECTOR _____ DATES OF INSPECTION _____

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
1. Implementation - Contractor/Licensee 1.1. Construction/Fabrication/Installation Adequacy Select the appropriate IE Modules regarding: (1) observation of work and (2) records review for the subject inspection area. Follow the instruction and guidance only to the extent necessary to establish confidence that the activity is adequately controlled or to an extent that will support indicated enforcement actions by NRC. The specific instructions of the Modules may be abandoned and replaced with independent pursuits that are determined to be more germane to the subject inspection area, with concurrence of the team leader. Specific paragraphs of the applicable IE modules shall be added to this checklist in the space provided with concurrence of the team leader.		

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INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
1.2 Is the mission or task for each organization involved clearly documented?		
1.3 Has the support required for the mission or task been clearly documented and planned for?		
1.4 Do involved personnel regardless of extent of responsibility understand the overall task or mission? Do they clearly understand how their responsibility supports the mission?		
1.5 Is the identified mission or task appropriate?	Subjective evaluation	
1.6 QA/QC organization	Subjective evaluation	
- Is the location of housing conveniently near the location of the work activitiy?		
- Are work areas, supplies, and records maintenance facilities adequate?		
- Are special tools and equipment immendiately available and sufficient in number?		

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GENERAL INSPECTION AREA Construction Controls

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INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
- Are the provisions for all the above commensurate with other site organizations? - Are there any identifiable conditions which adversely affect functions of the QA/QC organization? 1.7 Manpower Resources - Are there documented work projections showing QA/QC manpower requirements over the course of construction? - Is the current manpower adequate to sufficiently support the level of activity? - Is the current manpower (management and staff) clearly qualified? - Have documented QA/QC manpower requests and justifications been expediously handled by management? Have they been handled in accordance with documented administrative procedures?		

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- Are the administrative procedures clearly responsibe to the unique conditions at the construction site? (i.e., rapid changes in needs) - Do manpower requests clearly identify the level of qualifications (education and experience) needed? - Is the monetary compensation, relative to other trades, such that clearly qualified and capable candidates will be attracted to these positions?		
1.8 Personnel Qualifications - Is there a documented system for the training and indoctrination of personnel? - Is there a documented system to assure that personnel qualifications are maintained and changed as needed? - Is there a system to easily verify the status of personnel qualifications?		

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INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
- Is there a mechanism which clearly informs personnel of the status of their qualifications? - Are qualifications responsive to and in accordance with requirements? - Do the contacted personnel perceive any problems with current qualifications system and associated records? NOTE: Confirm the implementation and evaluate the adequacy of each of the elements above.		
1.9 Craftsmen - Is there an adequate supply of qualified craftsmen? - When fully qualified (journeyman) craftsmen are not available, what provisions have been established to assure quality production? - Are there training and indoctrination programs for craftsmen? - Are records of such training maintained?	Regulatory Guide 1.28 Regulatory Guide 1.74 ANSI N45.2 ANSI N45.2.10 ANSI N45.2.23 10 CFR Part 50, Apx B, Criterion II	

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- Is such training periodicly updated? - Elicit the opinions of such training and indoctrination from craftsmen contacted.		
1.10 Employee Morale During the conduct of any portion of these checklists, elicit from the persons contacted their opinions relative to the adequacy of: - construction management; - concern for a quality product; - working conditions; - harmony between construction and QA/QC organizations; - harmony between the various design, engineering and construction personnel; and procurement organizations; - personnel management practices; - compensation and work loading (i.e., overtime) practices;	Subjective evaluation	

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	INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
	- personal safety and related issues. Based on an assessment of the above, make a subjective determination of employee morale. This consideration is for management, staff, and craftsmen.		
1.11	Construction/QA/QC Organization Interface Control	Regulatory Guide 1.28 Regulatory Guide 1.74 Regulatory Guide 1.123 ANSI N45.2 ANSI N45.2.10 ANSI N45.2.13	
1.11.1	Are documented administrative procedures defining organizational interfaces in use?		
1.11.2	Do forms and records used to communicate across such interfaces conform to the requirements of the QA program and administrative procedures?		
1.11.3	Is there a functional flow chart demonstrating how information flows across the interfaces? If not, is there an adequate documented description of information flow?		
1.11.4	Examine interface documents used in this area and determine the following:		

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INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
- Documents and records clearly identify the subject, its specified criteria, the authority of the signature(s), date, the action accomplished, and the unique identity of the document. - Is the document traceable and is the scope of addressees appropriate?		
1.11.5 Examine any deficiency noted above to the extent that a clear corrective action can be established.		
1.11.6 Are the contacted personnel clearly knowledgeable of the interface control system?		
1.11.7 Elicit employee opinions relative to the adequacy of the system examined.		
1.12 Document Control In this inspection area determine if documents are being issued, revised, handled, stored, and discarded in accordance with QA program, administrative procedures and other designated requirements.		

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	INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
1.12.1	Has a central document control facility been established? - Are the facilities and control systems adequate? - Are the document receipients aware of the interfaces control between their organizations and central document control? - Are material/fabrication qualification and inspection records adequately controlled by the documentation control center?		
1.12.2	Are there clearly defined indications of the status of each document (i.e., controlled or not) on the document?		
1.12.3	Do personnel clearly understand that uncontrolled documents are not to be used for construction or decisions relative to constructions?		
1.12.4	Determine through review if personnel have, to extent necessary, access to controlled documents; - Are such documents available at the work location?		

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INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
1.12.5 Do recipients of controlled documents clearly understand their responsibilities relative to handling and following these documents? - Do personnel using these documents know how to initiate a change to these documents? - Is there a system which directly informs the document receipt of changes? - Is the document recipient knowledgeable of this sytem?		
1.12.6 Examine a variety of controlled documents in use at any field location to determine if they are in fact controlled in accordance with the requirements. - Determine if issued documents are maintained in a legible condition free of personal notes and/or comments. - Is a clear record maintained for "voided" controlled documents such as NCRs, inspection reports, FCRs, etc.		

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SITE _____ INSPECTOR _____ DATES OF INSPECTION _____

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
- Are uncontrolled documents such as memoranda, "notes", etc. used to supplant or circumvent controlled documents used to to report problems and other adverse issues.		
1.12.7 Elicit opinions from contacted personnel relative to the adequacy of document control.		

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GENERAL INSPECTION AREA Construction Controls

SITE _____ INSPECTOR _____ DATES OF INSPECTION _____

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
1.13 Audits/Surveillance	Regulatory Guide 1.28 Regulatory Guide 1.74 ANSI N45.2 ANSI N45.2.10 ANSI N45.2.12 ANSI N45.2.23	
1.13.1 Has a comprehensive schedule and audit plan been established? - Is the plan regularly reviewed and updated in response to construction progress of identification of adverse conditions? - What is the implementation status of this plan? (behind schedule or not) - If planned audits/surveillance were missed determine why they were missed.		
1.13.2 Review audit and surveillance reports, associated checklists and not the basis (planned or problem initiated). Determine if: - The scope of the activity was appropriate. - If personnel conducting the audit were appropriately qualified. - If audit checklist appropriately addressed the specified requirements.		

CONSTRUCTION TEAM INSPECTION CHECKLIST

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SITE _____ INSPECTOR _____ DATES OF INSPECTION _____

	INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
	- If the audit basis and findings are clearly documented. - If the QA auditors were adequately supported by technically qualified personnel (i.e., metallurgist, discipline engineers and appropriate). - If the audit surveillance results are appropriately distributed to affected organizations. - If management effectively evaluates audit/findings, as shown by documented involvement. - Does management regularly use this information to effectively evaluate the quality of the construction effort?		
1.14	Audit/Surveillance Follow-up Determine through review, if follow-up and corrective actions for adverse surveillance and sudit findings are appropriate, including: - notificiation of affected organizations;		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA Construction Controls

SITE _____ INSPECTOR _____ DATES OF INSPECTION _____

	INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
	- notification of effective levels of management; - identification and control of the nonconforming item of service; - identification of specific time limits for corrective actions; - determination of adverse trends; - consideration for additional management actions to effect resolution of problems.		
1.14.1	Discuss the audit and surveillance reports with the managers whose organizations were audited. Determine if: - management is knowledgeable of findings and their significance; - management has taken other actions to resolve problems; - management attitude regarding quality issues is appropriate.		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA Construction Controls

SITE _____ INSPECTOR _____ DATES OF INSPECTION _____

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
1.15 Hold Points Frequently QA/QC systems and associated administrative procedures established hold-points to limit the progress of an activity until confirmation of adequacy has been established by properly qualified persons or organizations. Identify hold-points for activities in this inspection area and determine if: - personnel understand the hold-point system; - established hold-points are appropriate; - QA/QC regularly audits the performance of personnel relative to hold-points; - QA/QC has identified any organizations who abuse the hold-point system by not stopping the activity until required confirmations are in place;	Regulatory Guide 1.28 Regulatory Guide 1.74 ANSI N45.2 ANSI N45.2.10	

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA Construction Controls

SITE _____ INSPECTOR _____ DATES OF INSPECTION _____

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
- corrective actions taken or specified for any abuse of hold-points was appropriate.		
1.16 Stop-Work/Stop-Process		
- Determine through conversation if QA/QC personnel clearly understand and exercise their stop-work/stop process authority and responsibility.		
- Determine through discussion if the QA/QC organization management and staff have any reservations about exercising this authority.		
- Determine through discussion if the practices at the site compromise QA/QC exercise of this authroity.		
1.16.1 Examine the functional implementation of stop-work/stop-process authority established by the QA/QC programs and administrative procedures to determine if:		
- QA/QC can act unilateraly in this regard or to what extent;		
- management adequately supports QA/QC actions in this regard;		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA Construction Controls

SITE _____ INSPECTOR _____ DATES OF INSPECTION _____

	INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
	- that this authority had been sufficiently delegated down to the lowest practical level of the QA/QC organization.		
1.16.2	Review any records demonstrating QA/QC Stop-work/stop-process implementation and determine if: - management adequately supported the action; - affected organization took effective corrective action; - corrective actions were timely and effective; - actions to preclude re-occurrence were taken.		
1.17	Records System and Facilities - Determine if all QA/QC and construction management personnel have received training and indoctrination regarding the principal records maintenance system.	Regulatory Guide 1.28 Regulatory Guide 1.74 Regulatory Guide 1.88 ANSI N45.2 ANSI N45.2.10 ANSI N45.2.9 10 CFR 50, Apx B, Crit XVII	

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA Construction Controls

SITE _____ INSPECTOR _____ DATES OF INSPECTION _____

	INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
	- Determine if any involved individual can adequately access the record system. - Determine if records are identifiable and retrievable with ease and facility. - Determine if records and properly stored and safe guarded. - Determine if record interface control between individuals and organizations is in accordance with QA/QC and administrative procedures. - Determine how record or documentation deficiencies are identified and controlled until resolved.		
1.17.1	Determine if records contain the minimum required information. - Determine if information is clear and legible. - If initials are used to sign records, determine if cross reference to full names are available.		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA Construction Controls

SITE _____ INSPECTOR _____ DATES OF INSPECTION _____

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
1.18 Nonconformance and Trending - Determine if nonconforming items or services are being routinely identified and documented. (Discuss and record review.) - Determine how many types or categories of nonconformance documentation is used. (i.e., "Deficiency Reports", "Corrective Action Requests", "Deviation Reports", and "Audit Findings", etc. - Determine if proposed corrective actions are appropriate and timely. - Determine if prescribed levels of authority and independence concurred in resolution of issue. - Determine if nonconformance and corrective action documentation is properly identified and controlled.	Regulatory Guide 1.28 Regulatory Guide 1.74 ANSI N45.2 ANSI N45.10	

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA Construction Controls

SITE _____ INSPECTOR _____ DATES OF INSPECTION _____

	INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
	- Is a central log identifying nonconformance documentation maintained? Is it adequate? - By record review, determine if procedures controlling nonconformance documentation are adhered to.		
1.18.1	Determine if there is a systematic and regularly reviewed "Trending" of repeat nonconformances.		
1.18.2	Determine if the trending program includes all types or categories of nonconformances. (i.e., "Deficiency Reports", "Nonconformance Reports", "Deviation Reports", and "Audit Findings", etc. - If it does not, establish the reason. - Determine if the "Trending" system used by contractors and licensee are compatable or interface adequately. - Review corrective action caused by the identification of adverse trends.		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA Construction Controls

SITE _____ INSPECTOR _____ DATES OF INSPECTION _____

	INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
1.18.3	Determine if the subject organizations' management regularly reviews nonconformance summary reports and trend evaluations. - Determine if the subject organizations' management took any actions or wrote any directives as a result of this information.		
1.18.4	Determine if involved personnel understand the system for identification and control of nonconformances. - Did they receive adequate training?		
1.19	Construction Controls Determine how the site construction organizations are organized to control the subject construction activity and evaluate the adequacy of QA/QC interfaces with these construction organizations. The specific elements to consider are: - Is the organization arrangement functionally responsive to QA/QC and Administrative procedures? - Adequate QA/QC participation in specific construction activities.	Regulatory Guide 1.28 Regulatory Guide 1.74 ANSI N45.2.4 ANSI N45.2.23 ANSI N45.2.12 ANSI N45.2.13 ANSI N45.2 ANSI N45.10	

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GENERAL INSPECTION AREA Construction Controls

SITE _____ INSPECTOR _____ DATES OF INSPECTION _____

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
- Assignment of QA/QC management and staff to specific areas of contractor responsibility. - Is information flow for hold-point notification clearly provided for and do involved personnel understand the system?		
1.19.1 Does the QA/QC organization participate in work planning and scheduling meetings? Determine the existance and adequacy of the following: - Does QA/QC management forecast it's staffing requirements and assignments based on particpation in scheduling and planning meetings? - Examine records attesting to this participation and evaluate the extent of participation.		
1.19.2 Is there adequate coverage of activities by the QA/QC organization? Determine by: - discussions with QA/QC inspectors; - discussion with craftsmen, shop stewarts, and third party inspectors;		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA Construction Controls

SITE _____ INSPECTOR _____ DATES OF INSPECTION _____

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
- discussion with craft supervision personnel. 1.19.3 Determine to the extent possible: - if there are any instances wherein a work activity was stopped because of the unavailability of QA/QC participation and why they were unavilable by: - discussion with production managers; - concurrently determine the production managers attitude regarding the adequacy and availability of QA/QC staff; - review and discussion of procedures written to preclude ongoing activities without QA/QC participation; - determine extent of licensee management notification, and participation in the resolution of the problem associated with these considerations;		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA Construction Controls

SITE _____ INSPECTOR _____ DATES OF INSPECTION _____

	INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
1.20	Equipment Qualification and Calibration Confirm through records review that the QA/QC and administrative procedural requirements for equipment and materials qualification/ calibration are adhered to by the following: - verify that responsible personnel are qualified to make determinations as to adequacy; - verify that such items are labeled to show status; - verify that adequate documentation is available to support acceptability; - verify adequacy of item by comparison and evaluation of purchase order specification, receipt inspection records, and other pertinent records; - verify the traceability of qualification/calibration records to items is maintained. - elicit comments and opinions from contacted personnel regarding adequacy of system and controls;	Regulatory Guide 1.28 Regulatory Guide 1.74 Regulatory Guide 1.23 ANSI N45.2 ANSI N45.2.10 ANSI N45.2.13	

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA Construction Controls

SITE _____ INSPECTOR _____ DATES OF INSPECTION _____

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
- review outstanding nonconformances and open items involving the subject inspection area.		
1.21 Handling and Storage of Materials Determine if the implementation of material and equipment handling, storage, shipping, cleaning, and preservation is in accordance with QA/QC and administrative procedures and instructions by the following: - observe all storage areas for subject items; - verify the adequacy of storage of selected items; - review QA/QC surveillance records for frequency and comprehensiveness of inspection; - determine awareness and qualification of store-keepers; - determine the adequacy of issue control; - are conditional releases used and are the appropriately controlled;	Regulatory Guide 1.28 Regulatory Guide 1.37 Regulatory Guide 1.74 ANSI N45.2 ANSI N45.2.1. ANSI N45.2.2 ANSI N45.2.10	

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA Construction Controls

SITE _____ INSPECTOR _____ DATES OF INSPECTION _____

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
- observe material handling and handling equipment; determine adequacy; - evaluate housekeeping conditions; - evaluate fire and other hazard protection; - evaluate adequacy of storage areas; - determine if there are controlled areas for nonconforming items; - are there adequate measures to preclude use of nonconforming items; - are nonconforming items adequately identified; - are manufacturer's recommendations appropriately addressed; - are material control personnel adequately trained and indoctrinated regarding QA/QC requirements?		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA Construction Controls

SITE _____ INSPECTOR _____ DATES OF INSPECTION _____

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
2. Management Involvement QA/QC Organization Corporate/Site 2.1 Does the documented policy statement include a concise definition of the management mission or task objectives? 2.2 Determine through discussion if principal management personnel clearly understand and support quality assurance commitments and requirements. 2.3 Do principal corporate individuals assigned responsibility for QA/QC direction, have responsibilities for other areas: Does multiple responsibility adversely affect QA/QC? 2.4 Does corporate management have clearly defined administrative procedures controlling the delegation of authority? - Does the assigned individual have clearly defined responsibilities and authority?	Regulatory Guide 1.28 Regulatory Guide 1.74 ANSI N45.2 ANSI N45.2.10 ANSI N45.2.3 SAR Chapter 17	

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA Construction Controls

SITE _____ INSPECTOR _____ DATES OF INSPECTION _____

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
2.5 Does corporate management regularly review the performance of individuals with delegated responsibilities? - How frequently does corporate management visit the site? Does it appear adequate? - Does corporate management routinely review audit and nonconformance trending reports from the site? From vendors and suppliers? - Is there documented evidence that corporate management positively responds to adverse routine site audits? Surveillance and nonconformance report summaries and trends? From vendors and suppliers? - Does corporate management routinely follow-up on the effectiveness of their corrective action directives? Is follow-up comprehensive and effective?		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA Construction Controls

SITE _____ INSPECTOR _____ DATES OF INSPECTION _____

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
2.6 Does corporate management have a documented plan and schedule for independent management audits of all site activities? - How frequently do these audits occur? - Have previous audits been comprehensive and substantive in their implementation? - What is the implementation status of this independent audit function? (On schedule or not?) - If not on schedule, examine the cause. Note any indication of corporate management attitude problems. - Is there documented evidence that management took comprehensive corrective actions for all noted nonconformances and further examined and evaluated all concerns and observations? - Was corrective action followed up in a timely and effective manner, and its implementation verified by corporate management? Were additional follow-up audits directed by corporate management?		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA Construction Controls

SITE _____ INSPECTOR _____ DATES OF INSPECTION _____

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
- Determine through meeting record review, and discussions with corporate management personnel if the QA/QC organization is provided support and consideration commensurate with that provided other construction organizations?		
2.7 Examine the organization and operation of the corporate management individuals or groups responsible for evaluation and approval of QA/QC manpower request.		
- Were assessment and approvals responsive to demonstrated needs?		
- Was adequate compensation, relative to other trades, established to attract fully qualified candidates?		
- Were the evaluations and approvals reasonable in the context of justified need?		
- Is unjustified rigor imposed on the justification for such requisitions?		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA Construction Controls

SITE _____ INSPECTOR _____ DATES OF INSPECTION _____

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
2.8 Examine the organization and operation of corporate management individuals or groups responsible for evaluating and approving QA/QC housing equipment and facility requisitions. - Were assessments and approvals/ denials adequately responsive to justified needs? - Corroborate opinions of site based QA/QC management by discussion with QA/QC auditors and inspectors and document conclusions.		
2.9 Has the licensee established a QA review committee? - What is the composition of the committee (i.e., job descriptions of individuals)? - Are the responsibilities and interfaces clearly documented? - Does the review committee meet frequently enough to be effective?		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA Construction Controls

SITE _____ INSPECTOR _____ DATES OF INSPECTION _____

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
- Does the review committee followup on its directives? - Does corporate management take initiative regarding safety issues or wait for expression of NRC concern? (Verify through inspection experience and any indication of unaddressed prior knowledge of nonconforming conditions). - Is corporate management adequately responsive to NRC concerns and noncompliance items?		
2.10 Management Effectiveness (Through records review and discussion with personnel, evaluate the following):		
2.10.1 Are responsibilities of management and subordinates clearly defined?		
2.10.2 Do corporate management and subordinates appear to completely understand their responsibilities?		
2.10.3 Are subordinates held accountable for assigned responsibilities?		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA Construction Controls

SITE _____ INSPECTOR _____ DATES OF INSPECTION _____

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
2.10.4 Are interfacing management activities between different organizations clearly defined?		
2.10.5 Is the management attitude regarding safety related construction such that adequate attention and support can be expected in all areas of safety significance?		
2.10.6 Does corporate management provide adequate support and compensation, relative to other trades, to assure that the requisite quality of personnel, materials, and services is available?		
2.10.7 Does management require timely and thorough reporting of 50.55(e) and part 21 occurrences?		
2.10.8 Is management kept adequately informed by subordinates?		
2.10.9 Is management aware of current issues and problems?		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA Construction Controls

SITE _____ INSPECTOR _____ DATES OF INSPECTION _____

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
2.10.10 Are subordinates informed by management? - What is the routine procedure? - What special procedures are implemented?		
2.10.11 Does corporate management support the delegation of stop/work-stop process authority to lowest level practical (QA/QC inspector)?		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA: PROCUREMENT CONTROLS - SITE

INSPECTION SITE:_____ INSPECTOR:_____ DATES OF INSPECTION__/__/__ to__/__/__

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
1. Program Implementation		
1.1 Procurement Activity (Major Contractors/ Disciplines/Subcontractors)		
Selectively examine several procurement documents for major contractors, disciplines and/or subcontractors at the site.		
1.1.1 Are the specified design parameters in accordance with those listed in the SAR or other AE/Licensee specifications applicable to the preparation of site procurement documents? Is the AE/licensee monitoring site issued procurement documents for inclusion of these requirements		
1.1.2 Do procurement specifications identify the applicable technical requirements (i.e., applicable codes and standards)?		
1.1.3 Do the purchasing documents impose the requirements of 10 CFR 21 when "basic components" are purchased? (Basic components are discussed in NUREG 0302.)		
1.1.4 Is the supplier on the approved list of suppliers?		
1.1.5 Have the vendor's Quality Assurance Programs been audited by the purchaser organization?		
1.1.6 Do procurement specifications identify appropriate QA requirements including requirements to protect the item against environmental conditions for periods of long-term storage (i.e., hot and humid, subject to ocean atmosphere, cold and damp, etc.).		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA: PROCUREMENT CONTROLS - SITE

INSPECTION SITE:_____ INSPECTOR:_____ DATES OF INSPECTION__/__/__to__/__/__

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
1.1.7 Where a Certificate of Conformance (COC) is to be used for acceptance in lieu of some or all final conformance records, do the specifications for the COC document require the following information to be included in the COC:		
1.1.7.1 Identification of the purchased material or item (reference to PO or procurement document is acceptable)?		
1.1.7.2 Identification of specific requirements met (via list or reference to procurement document)?		
1.1.7.3 Identification of procurement requirements not met, if any?		
1.1.7.4 Signature of an appropriate member of supplier's QA function?		
1.1.7.5 Identification of procedures or QA program to be followed for filling out, review and approval of certificates?		
1.1.7.6 Receiving inspection as the means to determine that purchaser/agent has verified by audit (or source verification) the validity/ effectiveness of the suppliers COC system?		
1.1.8 When required (e.g, for complex engineered components) in addition to the COC, was any source verification relative to acceptance of the item specified and/or performed?		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA: PROCUREMENT CONTROLS - SITE

INSPECTION SITE:_____ INSPECTOR:_____ DATES OF INSPECTION__/__/__to__/__/__

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
1.1.9 Was implementation for the protection, handling, control of procurement specifications and purchasing documents adequate?		
1.2 Receiving Inspection		
1.1.1 Are receiving inspection records available? Are identified discrepancies reviewed by QA and/or engineering, as appropriate, to assure proper disposition?		
1.2.2 Are procurement document requirements for accceptance of the item by receiving inspection adequate? (Factors such as safety significance and whether the procurement relates to an engineered item or one of standard design (off the shelf) should be considered.)		
1.2.3 Is the documentation for certificates of conformance adequate? Where procurement documents do not require a COC from the supplier, do they include the following:		
1.2.3.1 Identification of the purchased material or item (reference to PO or procurement document, if on-hand, is acceptable)?		
1.2.3.2 Identification of specified requirements to be met (via list or reference to procurement document)?		
1.2.3.3 Identification procurements not met, if any?		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA: PROCUREMENT CONTROLS - SITE

INSPECTION SITE:_____ INSPECTOR:_____ DATES OF INSPECTION__/__/__to__/__/__

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
1.2.3.4 Signature of an appropriate member of suppliers QA function?		
1.2.3.5 Identification of procedures or QA program to be followed for filling out review and approval of COCs?		
1.2.3.6 Receiving inspection as the means to determine that purchaser/agent has verified by audit (or source verification) the validity/ effectiveness of the supplier's COC system?		
1.2.4 When source verification is specified for acceptance of an item in addition to a COC, is the appropriate receiving inspection organization aware of the source verification results?		
1.2.5 Do material receiving inspection records indicate compliance with acceptance requirements?		
1.2.6 Are nonconforming items properly tagged and segregated?		
1.2.7 Does the procurement documentation show that the specific procurement requirements such as codes, standards, and other specifications, have been met for the purchased material or equipment? Also, have selected material and physical requirements in the procurement document been met?		
1.2.8 Has other documentation (e.g., test, material and inspection data) presented with certificates of compliance been reviewed by technical personnel who are capable (through experience, education or training) to assure that components meet all specified safety-related requirements? Do other vendor documentation (material, test, inspection, etc.) include required data?		

CONSTRUCTION TEAM INSPECTION CHECKLIST
GENERAL INSPECTION AREA: PROCUREMENT CONTROLS - SITE

INSPECTION SITE:_____ INSPECTOR:_____ DATES OF INSPECTION__/__/__to__/__/__

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
1.2.9 In cases where the receiving inspection function has identified a nonconformance which relates to a deviation from specified requirements not previously identified on the COC or other vendor supplied documentation, does the corrective action proposed include a need to re-audit the vendors system for preparation and issuance of a COC? Also, was the "deviation" subject to a Part 21 evaluation?		
1.3 Storage	ANSI N45.2.2	
1.3.1 Are the work and QA/QC procedures established to conduct activities of storage for safety-related items in Class A, B, C and D levels of storage adequate?		
1.3.2 Do the facilities for storage of Class A equipment have an environmentally controlled atmosphere and provisions to prevent animals (especially rodents) and birds from entering?		
1.3.3 Are the facilities for Class B, C and D equipment storage satisfactory?		
1.3.4 Is protection from damage during storage adequate?		
1.3.5 Is testing equipment available and suitable for intended use?		
1.3.6 Are records of storage conditions being maintained as specified and are they current? Do the records reflect that the specified storage conditions are being met?		

CONSTRUCTION TEAM INSPECTION CHECKLIST

GENERAL INSPECTION AREA: PROCUREMENT CONTROLS - SITE

INSPECTION SITE:_____ INSPECTOR:_____ DATES OF INSPECTION__/__/__ to__/__/__

INSPECTION AREA	ACCEPTANCE CRITERIA	FINDINGS
1.3.7 Have appropriate controls been imposed on access to storage areas?		