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UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20555

February 12, 1987

Docket Nos. 50-327

50-328

MEMORANDUM FOR:

Distribution

FROM:

B. J. Youngblood, Director PWR Project Directorate #4 Division of PWR Licensing-A

SUBJECT:

TVA SEQUOYAH ISSUES, SCHEDULING CONFERENCE CALL

AND RESTART MEETING

ATTACHMENT:

(1) Revised Issues Summary for Sequoyah

The subject meetings were held via conference call on Friday, January 23, 1987, and in Chattanooga, TN, on Thursday and Friday, February 5 and 6, 1987 to discuss the scheduling of Sequoyah issues among the NRC staff and TVA Sequoyah licensing personnel.

During the meetings held in Chattanocga, TVA representatives stated that the target date for Sequoyah criticality was April 28, 1987, but that critical path items identified could change this date. The staff stated that they believed the TVA target date was optimistic and did not allow sufficient time for staff review.

The attachment incorporates the scheduling changes which resulted from the conference call and meetings.

B. Ø. Youngblood, Director PWR Project Directorate #4 Division of PWR Licensing-A

Attachment: As stated

Distribution: Docket File (2 NRC/PDR Local PDR PRC System PWR#4 Rdg. J. Holonich TAlexion BKSingh BJYoungblood HThompson, Jr. **HDenton** JTaylor BHayes LSpessard SConnelly. BGrimes KBarr, RII GZech, RII CUpright, RII KHooks BDLiaw EImbro JKnight GHubbard TDecker CJulian, RII BWilson JB1ake RShewmaker BCarroll LCrocker ABelisle, RII RWessman LKelly.

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County Judge Hamilton County Courthouse Chattanooga, TN 37402

ISSUES SUMMARY FOR SEQUOYAH

SEQUOYAH "PERT" CHART NOTES

- 1. The following pages provide a preliminary "PERT" chart for major regulatory activities at Sequoyah. The first page is an integrated schedule showing major issues and milestones. Subsequent pages provide subroutines, showing detailed steps for each major issue identified on the integrated schedule.
- 2. The key to individual items is shown below:

	Title of iss	ue	Indicates detailed subroutine for this item
	WELDING		
Lead responsiblity for issue (office or individual)	NRR	48	Workdays to complete task
	01-11-86	3-21-86	
	Start Date	Finish Date	

 Dark lines connecting individual items indicate the critical path.

Subject Area: TVA Employee Concerns

As a result of a lack of confidence by TVA employees in their supervisor/manager willingness to address perceived safety issues, numerous (greater than 5,000) employee concerns have been identified which encompass potentially safety related, non-safety related, and intimidation/harassment/wrongdoing issues. TVA has been requested via the 50.54(f) letter of 9/17/85 to address the root cause(s) of this problem, their actions to resolve the problem, their actions to monitor the effectiveness of these actions and their actions to deal with all of the individual concerns.

TVA described their approach to resolution of employee concerns in the Corporate and Sequoyah Nuclear Performance Plans (Volumes 1 and 2). TVA decided in June 1986 to address all employee concerns and allegations, under the Watts Bar Special Program. Under this program, all concerns are grouped in 9 categories. All Sequoyah safety-related issues have been grouped into 6 categories.

Lead Responsibility: NRR - B. K. Singh

TVA - M. Martin, F. Campbell

Majo	or Tasks:		Resources
	<u>Item</u>	Responsibility	(Man Weeks) NRR/IE/RII
1.	Evaluate Employee Concern Program submittals for new Watts Bar Special Program. Prepare SER input on program (TVA submittal of 9/2/86)	MRR/IE (Singh/Hooks)	Complete
2.	Start of Sequoyah management reviews of investigation re- ports and development of corrective actions (8/19/86)	TVA	
3.	Employee concerns Task Group concurrence with plant corrective action proposals begins. (10/15/86)	TVA	Complete, i.e., action commenced.
4.	Review/audit element reports approved by ECTG and inspect using staff guidelines. Review schedule is shown on Attachment 1	NRR/IE/RII (Technical Program Managers & NRR Project Managers)	145/90/114
	and is based on TVA dates for element report sub-mittals.	TVA needs to provide correlation of element reports to NRC issue areas.	

	Item	Responsibility	Resources (Man Weeks) NRR/IE/RII
5.	Sampling Review of management and personnel, industrial safety categories (2/06/87)	NRR (Singh)	4/0/0
6.	Review of QA aspects of ECTG Program Implementation and site visit ()	IE/RII (Peranich)	3/6/3
7.	Compl. QA Reviews of selected safety significant technical significant issues ()	IE (Peranich)	0/12/4
8.	TVA Submit cross-reference between Employee Concerns and "Stello Plan" Categories (2/6/87)	TVA	
9.	Issue SER for each Category by dates show on attached page.	NRR/IE/RII (Technical Program Managers & NRR Project Managers)	5/5/5
10.	Sampling Review of Watts Bar issues to assure Sequoyah issues covered - to be done as part of technical reviews under Item 4 (Examples: con- crete, material control, and control room design) (3/87 late)	Program Managers	3/5/5
11.	TVA submit Integrated Peport on Employee Concerns Program (3/15/86)	TVA	
12.	TVA feedback to concerned individuals (3/3)	TVA	
13.	Issue integrated SER for Sequoyah ECTG (4/30/87)	NRR (Singh)	4/1/1
14.	Reinspect new ECP implementation (4/6-10/87)	IE/RII (Hooks)	
15.	Survey of Employee Attitudes toward management ()	TVA	
13.	Commission Paper Input (4/30)	NRR (Reinhart)	

Attachment 1

Employee Concerns Element Reviews

Category	NRC Program Manager	Element Reports Required	Element Report Submit 01/28/	s ted	Date TVA 50% of Submittal w/corr Action	Date TVA Last Submittal w/corr Action	Dates Site Visit	Date Element Reports SER Complete
Engineering	Ballard, NRR	96	Initial 75	Final 75	01/15/87	01/31/87	02/87	04/17/87
Construction	Hooks, IE	32	32	28	11/24/86	03/01/87	02/17-20/87	04/17/87
Material Control	Julian, RII	12	11	9	11/24/86	03/01/87	03/2-6/87 02/17-20/87 03/2-6/87	04/17/87
OA	Peranich, IE	15	9	8	01/15/87	03/01/87	03/87	04/17/87
Operations	Barr, RII	59	59	59	12/04/86	01/31/87	02/17-20, 03/2-6, 03/16-20	04/17/87
Welding	Liaw, NRR	41	38	38	12/10/86	03/01/87	С	03/13/87
SWEC Issues	Barr, RII	57	56	56	12/04/86	03/01/87		03/13/87
NSRS Issues	Singh, NRR	2	2	1	01/15/87	03/01/87	02/87	04/17/87

Subject Area: Allegations

Allegations which may have safety significance have been made directly to the NRC concerning the Sequoyah Nuclear Plant.

Lead Responsibility: NRR - T. Alexion

TVA - M. Martin, F. Campbell

Major Tasks:

	<u>Item</u>	Responsibility	Resources (Man Weeks) NRR/IE/RII
1.	TVA resolve Dallas Hicks issues (1/15/87)	TVA	
*2.	TVA resolution of identified allegations and responses to NRC letters dated 3/19/86, 5/1/86, 5/13/86, 8/1/86, 10/16/86 and 12/12/86 (1/15/87)	TVA	[complete for restart items 10/7/86]
3.	Verify Dallas Hicks, HP allegations, and other issues applicable to Sequoyah are correlated to ECTG element reports. (2/87)	NRR (Alexion)	1/0/0
4.	Identification of items that must be resolved prior to startup (3/20/87)	NRR (Alexion)	1/0/0
5.	Verify technical reviews are complete and draft SER input prepared by technical reviewers (3/20/87)	NRR (Alexion)	1/0/0
6.	Prepare integrated allegations SER Input (3/27/87)	NRR (Alexion)	1/0/0
7.	Prepare responses to allegers - NRR repsonse to D. Hicks (4/10/87) - RII response to other allegers (4/10/87)	NRR (Alexion - coord.)	2/0/1

^{8.} Commission Paper Input (4/30/87) NRR (Reinhart)

^{*} TVA letters of 11/26/86 and 12/22/86 provide correlation to old and new employee concerns programs. Will be future correlation updates. Items in letters of 5/1/86, 5/13/86, 8/1/86, 10/16/86, 12/12/86 and 1/15/87 included in new ECP.

Subject Area: Welding

- 1. As a result of an investigation of employees' concerns conducted by a TVA contractor at Watts Bar, more than 500 issues were identified that are related to welding of safety related steel structures at TVA facilities. There were also some allegations by employees made directly to the NRC. The issues concerning welding at Watts Bar can be categorized as follows:
 - improper or falsified inspections;
 - inspectors and welders qualification;
 - welding filler materials (weld rod) control; and
 - regulatory commitments to certain industry codes governing structural steel welding.
- 2. Approximately 136 concerns were identified to be applicable to Sequoyah Units 1 and 2 and, therefore, need to be resolved for the restart of Sequoyah units.

Lead Responsibility: NRR - B. D. Liaw TVA - R. Shell

The NRC Task Group on Welding at TVA (under NRR lead) will have the overall lead responsibility. The Task Group consists of the following:

- B. D. Liaw NRR representative and the overall manager;
- R. L. Spessard I & E representative
- A. R. Herdt Region II representative
- D. E. Smith is responsible for internal NRR review for Sequoyah.

Major Tasks:

Item

Responsibility

Resources (Man Weeks) NRR/IE/RII

 NRC staff review (incl. TVA actions resulting from NDE Van inspection) complete (9/19/86). NRR

Complete

	<u>Item</u>	Responsibility	Resources (Man Weeks NRR/IE/RII
2.	Review a sample of employee concerns related to welding at Sequoyah to insure that they have been properly accounted for in TVA's program, including disposition. (3/13/87)	NRR (Liaw)	Complete
3.	Welding SER input completed and circulated for comment (9/19/86).	NRR (Liaw)	Complete
4.	Resolve comments and issue draft welding SER (11/14/86).	NRR (Youngblood)	Complete
5.	TVA response to Welding SER and commitment to implement staff requirements (1/30/87).	AVT	
6.	Staff evaluation of TVA commitments and issue Final SER (3/13/87).	NRR (Liaw)	
7.	Followup inspection of remaining open issues (3/13/87).	IE/RII/NRR	1/1/1
8.	Commission Paper Input	NRR (Reinhart)	

Subject Area: Design Control

Questions have been raised regarding the adequacy of the existing design control process as well as the adequacy of the previously implemented design process and plant configuration control.*

The staff must evaluate the TVA design control process described in the Nuclear Performance Plans (Vol. 1 and 2).

Lead Responsibility: E. Imbro, Technical Lead, IE TVA - M. Burzynski

Major Tasks:

	<u>Item</u>	Responsibility	Resources (Man Weeks) NRR/IE/RII
1.	NRC site visit and evaluation of TVA alternate analysis approach and evaluation of interim acceptance criteria (Compl. 10/10/86)	NRR/IE	4/0/0
2.	TVA responds to NRC questions of 9/9/86, and 9/29/86 including alternate analysis.	TVA	
	 a. Design Baseline Overview (12/31/86) b. Anchor Point Movement (10/31/86) c. Revised criteria for small bore piping and pipe supports (11/7/86) d. Cable tray supports, interim acceptance criteria (11/14/86) e. Calculations Review Program (f. Schedule for implementation of final acceptance criteria, Phase two of the program. (2/28/87) 	1/20/87)	Complete Complete Complete Complete Complete
3.	Inspect implementation of DBVP and associated Engineering Assurance Independent Oversight and issue related inspection reports (to be done when TVA is 2/3 complete)	NRR/IE/RII	4/20/4

^{*}Completion of Design Control effort dependent on TVA submittal and staff evaluation of TVA investigation of related employee concerns.

	Item Thom	act Duagnam Dlane	Responsibility	Resources (Man Weeks) NRR/IE/RII
		ect Program Plans Walkdowns		Complete
	Requ	ection of Commitment/ irement and Revising/ ting of Design Criteria		Complete
	Noti	ection of Engrg. Change ce and Electrical Test lts Evaluation		Complete
	Revi	ection of Calculation ew Program to Support (wks of 2/2/87 and 2/9/87)	0/16/0
	and tive	ection of System Evaluation TVA Design Control Correc- Actions (wks of and 3/2/8 3/9/87)		0/16/0
4.		aft SER on DBVP - IE input	NRR	Complete 1/20/87
5.	Issue dra analysis	aft SE on alternate	NRR	Complete 12/86
6.	Issue dra Tray Supp	aft SE on Cable	NRR	Complete
7.	Issue dra	aft SE on Calculations (2/27/87)	IE	
8.	SERs on I	onse on staff draft OBVP, alternate (1/22/87) and Cable entricity (2/20/87)	TVA	
9.		aluate TVA response and update for draft SER	IE	Complete
10.		t DBVP Phase One Report Two Description (3/21/87)	TVA	
11.	concerns control a control a NRR Techr Manager t properly	a sample of employee related to design and configuration is identified by sical Program to assure they are accounted for and (4/10/87)	NRR/IE/RII	1/1/0

Resources (Man-weeks) NRR/IE/RII

Major Tasks:

Responsibility

12. Final staff evaluation of TVA Response and Phase Two description and issue Final SER (4/17/87)

IE/NRR

13. Prepare Commission Paper NRR (Reinhart) input (4/87)

Subject Area: Electrical Design

Evaluate the electrical design issues raised at Sequoyah and described in the Nuclear Performance Plan (Vol. 2). These are summarized below:

- The licensee has not maintained adequate documentation of many electrical calculations which were performed to support plant design changes. Involves most AC and DC power systems.
- Question as to the adequacy of station onsite electrical distribution system design and the safety implication as a result of unconfirmed design changes.
- The present onsite distribution system configuration meet all the requirements for safe startup/operation and accident mitigation.
- 4. Concerns have been raised regarding cable ampacity.
- Other concerns include diesel generator overloading, instrument accuracy, containment penetrations, and short circuits.

Lead Responsibility: NRR/EICSB - J. Knight TVA - M. Burzynski

Major Tasks:

	<u>Item</u>	Responsibility	Resources (Man Weeks) NRR/IE/RII
1.	TVA address NRC SER on PSB-1 Testing (12/3/86)	TVA	Complete
2.	NRR Evaluate PSB-1 submittal (12/9/86)	NRR (Knight)	Complete
3.	Staff SER on PSB-1 Response (12/13/86)	NRR (Holonich)	Complete
4.	TVA evaluate ampacity problems and provide Program Plan for sampling. (12/23/86)	TVA	Complete
5.	TVA evaluate ampacity issue and provide program summary and results to NRC (2/20/87)	TVA	

	<u>Item</u>	Responsibility	Resources (Man Weeks) NRR/IE/RII
6.	NRR evaluate ampacity issue, TVA Sample Program and TVA Results, Frepare SER input (2/27/87)	NRR (Knight)	
7.	TVA submits information on other electrical design issues in 95 sets (12/29/86)	TVA	Complete
8.	TVA development of corrective actions from electrical calculatio issues (12/29/86)	TVA	Complete
9.	Complete draft SER regarding adequacy of licensee's reanalysis program for all electrical design areas (3/13/87)	NRR (Knight)	8/0/0
10.	Issue draft SER to TVA (3/20/87)	NRR (Holonich)	
11.	TVA response to draft SER open items (4/10/87)	TVA	
12.	Staff evaluation to TVA response and final SER ()	NRR	
13.	Complete ampacity modifications and other electrical design corrective actions (4/87)	TVA	
14.	Staff inspection of ampacity mods and post modification testing (RII	
15.	Commission Paper input ()	NRR (Reinhart)	

Subject Area: Equipment Qualification

As described in the Nuclear Performance Plan, TVA's implementation of the Equipment Qualification Rule, 10 CFR 50.49, at Sequoyah 1 and 2 does not comply with the regulations.

Lead Responsibility: IE - Hubbard TVA - G. Kirk

Majo	r Tasks:		Resources (Man Weeks)
1.	Item Evaluate a sample of employee concerns related to EQ to assure they are properly accounted for and resolved by TVA ()	Responsibility IE/NRR/RII	NRR/IE/RII 0/1/0
2.	Ray chem heat shrinkable splices		
	- TVA evaluation - Staff Inspection - TVA complete splices () - Staff review (3/87)	TVA IE TVA IE (Hubbard)	Complete Complete
3.	Perform additional EQ inspection concerning maintenance concerns (12/8/86)	IE (Hubbard)/RII	Complete
4.	Complete EQ SER, subject to final EQ inspection and pre- vious SER input effort (Complete)	IE (Hubbard)	Complete
5.	Issue SER (12/5/86)	NRR (Holonich)	Complete
6.	TVA Submit 50.49 certification and response to draft SER confirmatory items (2/20/87)	TVA	
	 a. Field work complete (3/27/87) b. Binders complete (4/10/87) c. Confirmatory items (3/27/87) 		
7.	Final SER ()		
8.	Staff evaluation of TVA response (3/20/87)	IE	
9.	Perform followup inspection to confirm corrective actions and completion of outstanding items (4/10/87)	IE	1/2/2

10.	Issue final inspection report followup inspections. (4/87)	for	IE/NRR/RII	2/4/2
11.	Commission Paper Input ()	NRR (Reinhart)	
12.	TVA EQ certification letter		TVA	

Subject Area: Operational Readiness

To assess TVA's management and implementation of programs, corrective actions, and commitments described in the Sequoyah Nuclear Performance Plan to assure the plant is ready to resume operations. In particular, the areas of regulatory improvement, management involvement, operating experience, maintenance, pipe supports, training, and plant readiness for startup will be assessed and acceptability verified.

Lead Responsibility: Region II - Barr

TVA - M. Burzynski, G. Kirk

Major Tasks:

riagi	Item	Responsibility	Resources (Man Weeks) NRR/IE/RII
1.	TVA perform necessary modification for SCR 84-09	TVA	Complete
2.	Inspection of FCR 84-09. (3/9-13/87)	RII (Herdt)	
3.	Containment isolation valve design to meet GDC 55		
	a. TVA develop CIV Design position (5/30/86 RLG to BJY)	TVA	
	(complete) b. NRC meeting (8/15/86)	NRR	2/0/0
	c. Resubmit 5/30/86 letter (12/31/86)	TVA	Complete
	d. TVA exemption requests (2/6/87)	TVA	
	e. NRC review (3/5/87)	NRR	2/0/0
4.	TVA resolve CCS Inleakage (1/30/87)	TVA	
5.	RII confirm CCS Inleakage corrective action adequate (2/27/87)	RII	0/0/1
6.	Fuse Replacement Program (Replace KAZ with MIS5 fuses); replace MIS-S with Littel Fuse Company Fuses	5	
	a. TVA 50% complete (3/6/87) b. Region Inspection (3/13/87) c. TVA complete program (3/17/87) d. Followup inspection (4/87)	TVA RII TVA RII	

Resou	rces
(Man	Weeks
NRR/I	E/RII

Item	Responsibility	(Man Weeks) NRR/IE/RII
7. TVA submit Site Operational Readiness Program and Interim Ops Readiness Report ()	TVA	
8. Evaluate TVA Program and Inter Report	im RII (Barr)	
9. Intergrate draft SER on Operation Readiness ()	NRR (Holonich)	
10. Issue draft SER on operation readiness ()	NRR (Holonich)	
11. TVA response to draft SER	TVA	
12. Staff evaluation of TVA response and Final SER ()	RII	
13. Commission Paper Input () NRR (Reinhart)	

Subject Area: Regulatory Improvement

TVA committed in their response to the 50.54(f) letter to implement various actions to improve their regulatory performance and monitor future performance, as described in their Nuclear Performance Plan.

Docourence

Lead Responsibility: Region II - Barr TVA - G. Kirk

Major Tasks		Responsibility	(Man-Weeks) NRR/IE/RII
1.	TVA review Post Modification Testing on 37 systems and make submittal to RII (incl 119 retests) (2/28/87)	TVA	
2.	Complete inspections and Update SER input in following areas:	RII (McCoy)	
	 Post-modification testing inspection (3/31/87) 	Resident	
	- Security degradations (12/15/86)	RII	Complete
3.	Team conduct modified Safety System Outage Modification Inspection (SSOMI).	IE (Konklin)	0/32/0 \$150,000
	 Review installation of selected modifications (1/12-23/87) 		Complete

*- Review testing of selected modifications (3/16-27/87)

119 Retests Cable pulling Raythem splicing

*Note: Requires TVA to make appropriate work packages available

Subject Area: Radiological Emergency Preparedness (REP)

Evaluate the effectiveness of the emergency preparedness items described or committed to in the Sequoyah Nuclear Performance Plan including implementation of the revised Sequoyah Nuclear Plant Radiological Emergency Plan and an evaluation of the program enhancements included in the areas of emergency organization and emergency facilities and equipment.

Lead Responsibility:

Region II - T. Decker TVA - D. Lambert, G. Kirk

Major Tasks:

	Ite	m		Responsibility	(Man Weeks)
1.	Nuc enh	ms ide lear F	egulatory significant entified in the Sequoyah Performance Plans as ents to the REP program vs:		
	a)	Acci soli ment	rgency Organization/ ident Assessment Con- idation of Dose Assess- t Staff into the Central rgency Control Center		
		(1)	Inspect revision to the emergency plan (See I above) (Complete 2/3/86)	RII	Complete
		(2)	Review the effective- ness of the new dose assessment staff during the annual emergency exercise - (November 19, 1986 - Not required for restart)	RII	7 (Total exercise) (2 - RII) (4 - Contractor Support) (1 - IE)
	b)		gency Facilities and pment:		
		(1)	Review modifications made to satisfy criteria of NRC bulletin 79-18,	RII	75% complete; remainder following plant

restart

"Audibility Problems

Encountered on Evacuation of Personnel from Highnoise Areas" - following plant restart (6/87)

Majo	or Tas	ks		Res	ponsibility	Resources (Man-Weeks) NRR/IE/RII
		(2)	Review of the SPDS description. Documentation via SER (3/13/87)	RII	(EICSB)	Complete
		(3)	site visit for control room employee concerns			
	c)	Nove	al emergency exercise mber 1986. (Not required restart)	RII		Resources identified in 2.a(2) above
2.	emer	gency	pre-appraisal of response facilities Following restart	RII		3
3.	dete Supp the	rmine lemen draft	n appraisal of ERFs to acceptability using t 1 to NUREG-0737 and TI - Following restart II/NRR satisfied.	RII		6 (1 - RII) (1 - IE) (2 - NRR) (2 - Contractor Support)
4.	docum of a	ment a	R input to acceptability s required for 1/30/87)	RII		

Subject Area: Operating Experience Improvements

Evaluate TVA management controls and programs associated with

Responsibility

feedback of operational experience information.

Lead Responsibility: Region II - Barr

TVA - R. Shell, M. Burzynski

Resources (Man-Weeks) NRR/IE/RII

Major Tasks

1.

Conduct a followup inspection of various functional areas including operations, maintenance, training, engineering, and TVA Corporate offices. Assess the effectiveness of TVA dissemination and use of operational experience

2. Provide updated SFR input.

RII

Confirm complete.

information.

RII/NRR

Complete

Subject Area: Pipe Supports

As a result of Region II Inspection on December 16 - 20, 1985, Report No. 50-327, 328/85-49, a violation concerning pipe support inspection and installation was identified.

Evaluate TVA approach, as described in the Nuclear Performance Plan (Voi. 2).

Lead Responsibility: Region II - Blake TVA - M. Burzynski

Majo	or Tasks:	Responsibility	Resources (Man-Weeks) NRR/IE/RII
1.	Inspect licensee's corrective actions and evaluate generic considerations as it relates to hardware installation (11/17-21/86)	RII (W. Liu)	Complete
2.	Revise SER input previously provided to NRR (12/12/86)	RII	Complete
3.	Issue inspection report (1/23/87)	RII	Complete

Subject Area: Management Involvement

TVA must increase management involvement to enhance operational performance, as described in the Nuclear Performance Plan (Vol. 2).

Lead Responsibility: Region II - Barr TVA - G. Kirk, D. William

	IVA - G. Kirk, D	. William	Resources (Man-Weeks)
Maj	or Tasks	Responsibility	NRR/IE/RII
1.	Supplemental response to PORC-IE report 86-46 dated (1/23/87)	TVA	
2.	Review corrective actions to improve the effectiveness of the Plant Operations Review Committee	RII (McCoy)	
	 Follow-up on PORC corrective actions (2/27/87) SER Update (3/13/87) Inspection Report (3/31/87) 		0/0/3
3.	TVA implement ALARA improvements (IFI 86-36-02) (1/20/87)	TVA	Complete
4.	TVA implement HP Organization changes (IFI 86-36-03) (1/20/87)	TVA	Complete
5.	Review management control of the radiation protection program including contamination control and ALARA activities	RII (Hosey)	0/0/6
	 Conduct followup inspection (1/23/87) Provide final SER input (Including evaluation of employee handbook)(2/87) Issue final inspection report (2/87) 		
6.	NRC Order EA 85-49 and Contain- ment Pressure Transmitters		
	a. TVA response to 5/5/86 letter from Taylor (7/2/86) RLG to J. Taylor (complete)	TVA	
	 Implement DNQA upper tier document changes into site/ DNE SCR procedures (2/27/87) 	TVA	

Major Tasks		Responsibility	(Man-Weeks) NRR/IE/RII
(NRC inspection of NCR/SCR processing (3/13/87)	IE (McKee)	2/3/2
d	. NRC completion of Task 13 (OIA Tech Referals) (1/31/87)	IE (Shewmaker)	Complete
е	. NRC close ORDER (3/31/87)	IE (McKee)	

Subject Area: Training

Assess the overall adequacy of qualifications and training of the plant operating staff.

Lead Responsibility: Region II - Julian TVA - G. Kirk

Major Tasks:		Responsibility	(Man-Weeks)
1.	Recheck Operator requalif. as part of regular cycle (12/86)	Region II	Complete
2.	Revise final SER to NPR on training activities (2/27/87)	Region II (Julian)	

Subject Areas: Cable Tray Supports

Followup on cable tray seismic support issues identified in Inspection Report No. 50-327, 328/85-29, and evaluate TVA program described in Nuclear Performance Plan (Vol. 2).

Lead Responsibility: Region II (Blake)
TVA - M. Burzynski

Maj	or Tasks:	Responsibility	Resources (Man-weeks) NRR/IE/RII
1.	Prepare SER Inputs (3/31/86) (complete 3/20/86)	RII	complete
2.	Issue draft SER (1/30/86)	NRR (Holonich)	
3.	(TVA response not required)		
4.	Commission Paper Input (NRR (Reinhart)	

Subject Area: Technical Specification Revisions

Technical Specification Revisions are in process. One is related to the proposed organizational changes at TVA and Sequoyah facility. The remaining are routine in nature.

Lead Responsibility: NRR - J. Holonich TVA - M. Burzynski

Majo	or Tasks:		Resources
	<u>Item</u>	Responsibility	(Man Weeks) NRR/IE/RII
1.	Organizational Revisions	NRR/FOB	1/0/0
	 (a) TVA revise TS (5/9/86) (comp (b) Review offsite organization for facility management and technical support (12/10/86) (c) Review facility organization (d) Prepare SER for the issuance of TS () (e) Issue amendment package (depends on Corp SER) (3/31/87) 	NRR (Holonich)	
2.	Deletion of Diesel Generator Start on SI Coincident with Blackout		1/0/0
	 a. TVA submit T.S. change proposal (complete) b. NRC review (9/10/86) c. NRC prepare SER (9/18/86) d. Issue amendment package (1/31/87) 	NRR NRR NRR (Holonich)	
3.	Reactor Trip Breaker Testing (NOTE: Approval not required for restart)		2/0/0
	 a. TVA submit T.S. change proposal (complete) b. NRC review (complete) c. Questions to TVA (complete) d. Submitt T.S. change (1/16/87) e. NRC prepare SER (2/1/87) f. Issue amendment package (3/1/87) 	NRR NRR TVA NRR NRR (Holonich)	Complete

Majo	or Tasks:	Responsibility	Resources (Man-weeks) NRR/IE/RII
4.	Centrifugal Charging/Safety Injection Flow Requirements		1/0/0
	 a. TVA submit T.S. change proposal (complete) b. NRC review (9/15/86) c. TVA supple, response (12/15/86) d. NRC prepare SER e. Issue amendment package 	TVA NRR TVA NRR NRR (Holonich)	Complete Complete
5	Changes Resulting from Surveillance Instruction Adequacy. TVA adequacy review (9/12/86)		1/0/0
	a. TVA submit T.S. change proposal on electrical calculations. (1) spray pump times (12/17/86) (2) Electrical brakes on MOVs (changes in travel time)	TVA	Complete
	TS #75 (12/86) b. NRC review (2/14/87) c. NRC prepare SER (2/14/87) d. Issue amendment package (3/13/87)	NRR NRR NRR	Complete

Subject Area: Wrongdoing, Intimidation, and Harassment Issues

Investigate alleged or suspected instances of wrongdoing, intimidation, or harassment of TVA employees or contractors by TVA managers or supervisors

Lead Responsibility: Office of Investigation (OI)
TVA - M. Martin

Maj	or Tasks:	Responsibility	(Man-Weeks)
I.	OI Tasks		
1.	Start (1/11/86)	01	
N.	Finish (3/31/87)	01	
II.	Other I&H Tasks		
1.	Response to TVA Letter of 8/15 on I&H (10/14/86)	TVAPS Co	omplete
2.	TVA implement changes	TVA	
3.	Inspect TVA management of I&H concerns (2/28/87)	TVAPS	
4.	SER Input on Intimidation and Harassment (3/13/87)	TVAPS (Richardson)	

Subject Area: Corporate Activities

Certain corporate issues must be resolved prior to the restart of Sequoyah. These issues include: establishment of a commitment tracking system, increased involvement of the TVA Board, management changes, and changes to the program of QA audits.

Note: Reviews in this area delayed, pending TVA submittal of revision to Corporate Programs.

I. Board Actions

The TVA Board of Directors and Board members are not sufficiently informed and involved in nuclear plant performance to provide corporate oversight, direction and support of nuclear activities.

Lead Responsibility: NRR - L. Crocker TVA - R. Alsup

Major Tasks:

	<u>Item</u>	Responsibility	Resources (Man Weeks) NRR/IE/RII
1.	Review Revision 2 to Corporate Plan and Revise SER based on 7/17/86 submittal (8/29/86 - Complete)	NRR (Crocker)	Complete
2.	TVA organizational changes and submittal in response to OGE concerns (12/4/86)	TVA	Complete
3.	Review changes (1/30/87)	NRR	
4.	Review applicable employee concerns and prepare SER input. (2/13/87)	NRR	1/0/0

II. Management Changes

Management changes are needed to strengthen TVA regulatory performance, including retaining additional experienced personnel to upgrade TVA's corporate performance.

Lead Responsibility: NRR - L. Crocker

Major Tasks:			Resources (Man Weeks)
	Item	Responsibility	NRR/IE/RII
1.	Review Revision 2 to Corporate Plan and Revise SER based on 7/17/86 submittal (8/29/86 - Complete)	NRR (Crocker)	Complete
		00	

	<u>Item</u>	Responsibility	Resources (Man Weeks) NRR/IE/RII
2.	TVA respond to 6/27/86 NRC request for INPO and contractor evaluations (files to be set up by 9/11/86)	TVA	complete
3.	Evaluate TVA response of 9/24/86 to ACRS letter of 8/12/86 (11/24/86)	NRR	complete
4.	Evaluate INPO Report (11/24/86)	NRR	complete
5.	TVA Revise Vol. 1 to reflect contract manager changes. (12/4/86)	TVA	complete
6.	TVA Submit Revision 4 (2/28/87)	TVA	
7.	Review Manager changes (3/13/87)	NRR (Crocker)	
8.	TVA provide information on sub-tiers of organization (2/28/87)	TVA	
9.	Complete Review of TVA submittals and applicable employee concerns. Revise draft SER (3/20/87)	NRR	

III. Commitment Tracking System

TVA lacks a integrated commitment tracking system that provides assurance that NRC commitments are tracked and responded to. Plant operational offices and sites have individual tracking systems but they do not assure integration of <u>all</u> regulatory commitments.

Lead Responsibility: RII - Barr

Major Tasks: Complete

	Resources	
	(Man Weeks	
Responsibility	NRR/IE/RII	

Item

IV. QA Audits

TVA lacks a program for escalating QA Audit findings to the appropriate levels of management to assure timely resolution of those findings.

Lead Responsibility: RII - A. Belisle

Major Tasks:

	<u>Item</u>	Responsibility	Resources (Man Weeks) NRR/IE/RII
1.	Sequoyah implementation reinspected 7/9-11/86. Additional inspections: 9/29-10/3/86 - (complete)	RII	0/0/6
2.	Inspection Report and questions to TVA (11/24/86)		Complete
3.	TVA response on corrective actions (2/16/87)	TVA	
4.	RII Followup inspection and evaluation on TVA management of CA Qs (3/7/87)	RII	
5.	Update SER input (3/20/87)	RII	0/0/1
٧.	Completion Tasks		Resources (Man Weeks)
٧.	Item	Responsibility	
1.		Responsibility NRR (Holonich)	(Man Weeks)
	Item Revise and circulate Draft		(Man Weeks)
1.	Item Revise and circulate Draft Corporate SER (3/20-3/31/87)	NRR (Holonich)	(Man Weeks) NRR/IE/RII
1.	Item Revise and circulate Draft Corporate SER (3/20-3/31/87) Issue Draft Corp SER (3/31/87) TVA Corp. Assessment of Corp. &	NRR (Holonich)	(Man Weeks) NRR/IE/RII
1. 2. 3.	Revise and circulate Draft Corporate SER (3/20-3/31/87) Issue Draft Corp SER (3/31/87) TVA Corp. Assessment of Corp. & Site Readiness () TVA Response to draft Corp. SER	NRR (Holonich) NRR TVA	(Man Weeks) NRR/IE/RII

Subject Area: Quality Assurance Program

Evaluate TVA's Quality Assurance program enhancements at Sequoyah and TVA corporate offices, and assess program described in Nuclear Performance Plan (Vols. 1 and 2).

Lead Responsibility: Region II - Belisle TVA - G. Kirk

Major Tasks		Responsibility	Resources (Man Weeks) NRR/IE/RII	
1.	TVA Response to staff questions and revision to QA Topical (12/87)	TVA	Complete	
2.	TVA submit additional details on assurance program. (1/23/87)	TVA		
3.	Review QA Topical, QA portion of Vol. II and revise SER input (1/30/87)	IE/RII (Imbro)	Complete	
4.	TVA develop interim NQAM implementing procedures (1/21/87)	TVA	Complete	
5.	Inspect interim procedures (1/16/87)	RII/IE	Complete	
6.	TVA ready for implementation inspection (early April 87)	TVA		
7.	Conduct a team inspection to assess the implementation of the Corporate and Sequoyah Nuclear Plant QA Programs. (late April 87)	RII/IF (Belisle)	0/6/6	
8.	Prepare Commission Paper Input ()	NRR (Reinhart)		
9.	Complete final inspection report ()	RII	0/2/2	

Subject Area: OIA Technical Referrals

Follow-up on items referred from OIA in a January 22, 1986 transmittal.

Lead Responsibility: IE (Shewmaker)
TVA - D. Williams

Major Tasks:

	Item	Responsibility	Resources (Man Weeks or \$) IE
1.	Start (01/27/86)	IE	
2.	Finish Inspection	IE (Shewmaker)	Complete
3.	Issue Inspection Report and Notice of Violation (1/31/87)	IE	Complete
4.	TVA Response (2/27/87)	TVA	
5.	Inspect TVA Action (3/31/87)	IE	

Subject Area: Superheat Transient Following High Energy Line Break

Evaluate Sequoyah program (and modifications in equipment and procedures) for withstanding a superheat transient following a high energy line break.

Lead Responsibility: NRR - J. Holonich TVA - M. Burzynski

Maj	or Tasks	Responsibility	Resources (Man Weeks) NRR/IE/RII
1.	Contractor evaluates, prepares draft report on COBRA Validation Program (8/29/86)		Complete
2.	Staff issues RAI on TVA Heat Transfer Model and critical component selection (11/15/86)	NRR	Complete
3.	NRC issue Draft SER (11/25/86)		Complete
4.	TVA submit information on critical components selection (12/23/86)	TVA	Complete
5.	Staff questions to TVA (1/20/87)	NRR	Complete
6.	Conduct additional transient analysis (compact code) of heat transfer characteristics for certain equipments in harsh environment (1/31/87) Meeting week of 1/2'	NRR	
7.	TVA response to staff questions (2/17/87)	TVA	
8.	Contractor analyzes critical components and complete final TER (3/13/87)	NRR	(\$10,000)
9.	NRC issues SER on Heat Transfer and Thermal lag portion of Transient (3/31/87)	NRR (Holonich)	1/0/0
10.	Commission Paper Input	NRR (Reinhart)	

Subject Area: Cable Pulling

Evaluate adequacy of cable pulling program at Sequoyah.

Lead Responsibility: NRR (Alexion) TVA - M. Burzynski

Maj	or Tasks	Responsibility	Resources (Man Weeks) NRR/IE/RII
1.	NRC site audit at Sequoyah (9/22-26/86) (Complete 9/24)	NRR (Knight, Conlon)	3/0/3 (\$20,000)
2.	Cable Bend Issues		
	- Cable Bend Questions to TVA (Complete 8/29/86)	NRR	
	- TVA partial response to Cable Bend Questions (10/31/86); Rest of response (12/8/86)	TVA	Complete
	- Review Cable Bend Responses (2/13/87)	NRR	
3.	Sidewall Pressure Issues		
	- Sidewall Pressure Questions to TVA (8/29/86)	NRR	
	- TVA partial response to sidewall pressure questions (10/31/86); Rest of response (12/8/86)	TVA	Complete
	- Review sidewall pressure responses (2/13/87)	NRR	
4.	Issue staff position regarding cable inspections and modification (1/16/87)		Complete
5.	TVA provide proposed inspection/ test program to Sequoyah 2 restart and identify modifications schedule ()	TVA	
6.	Issue contractor report (2/27/87)	NRR	1/0/0
7.	Issue draft staff SER (3/13/87)	NRR (Holonich)	2/0/0
8.	TVA conduct testing (3/87)	TVA	

Major Tasks	Responsibility	(Man Weeks)
 TVA submit test report and response to draft SER (4/87) 	TVA	
10. Final SER	NRR	
11. TVA restart modifications complete ()	TVA	
12 Commission Paper Input ()	NRR (Reinhart)	

Subject Area: QTC Employee Concerns

Dissolution of contract between QTC and TVA resulted in NRC copying and implementing program for evaluation of QTC employee concerns from Watts Bar that may be safety-related or of interest to the staff.

Several hundred of these concerns are expected to be applicable to Sequoyah. Resolution of many of these concerns will be required prior to Seqoyah restart.

Lead Responsibility: NRR - S. Richardson TVA - M. Martin

Maj	or Tasks	Responsibility	Resources (Man Weeks) NRR/IE/RII
1.	Staff evaluation of Sequoyah packages that cannot be sanitized and sent to TVA. These will be integrated with employee concerns, allegations, and NSRS concerns reveffort insofar as possible.		
2.	Commission paper on sanitization effort (Complete)	IE (Peranich)	0/3/0

Subject Area: Surveillance Activities

As a result of NRC identified deficiencies in Sequoyah's Technical Specifications (TS) surveillance testing in March 1986 (Inspection Reports 50-327,328/86-20 and 86-26), TVA is undergoing a program to review the technical adequacy of Sequoyah's surveillance instructions.

Lead Responsibility: Region II - Barr TVA - G. Kirk

Majo	or Tasks:	Responsibility	Resources (Man-Weeks)	
1.	Issue Inspection Reports and enforcement conference results (Completed 10/3/86)	RII (Carroll)	0/1/1	
2.	ASME Section XI pump and valve program review			
	a. TVA submittal of Section XI changes to NRC (previous submittals 8/1/85 RHR to Adensam, 8/16/85 JAD to Adensam, 6/6/85 RLG to BJY) (8/2/86)	TVA	complete	
	b. TVA identify restart items (complete)	TVA	complete	
	c. NRC review (9/11/86)	NRR		
	d. Meeting with NRC to resolve differences (9/12/86)	NRR		
	e. RAI to TVA (9/18/86) f. TVA Response to RAI	NRR	complete complete	
	g. NRC review and approval (13 issues important to restart) (12/14/86)	NRR		
	h. TVA requests relief for additional issues (12/31/86)	TVA	complete	
	i. NRC review and approve (3/13/87)	NRR		
3.	Snubbers review			
	 a. NRC inspection (11/12-14/86) b. TVA informs NRC of completion of snubber evaluation () 	RII (Blake) TVA	0/0/3	
	c. Followup inspection ()	RII (Blake)		

Majo	or Ta	sks:	Responsibility	Resources (Man-Weeks)
4.	Inspect/evaluate Phase II of Sequoyah's TS Surveillance Review Program, Operability "Look Back" Review, and Molded Case Circuit Breaker Testing.		Region II (Shymlock)	
	a.	Surveillance Review		
		-TVA Submit program (2/27/87) - TVA 35 to 50% complete (2/27/87)	RII TVA	
		- RII Inspection (3/8-15/87) - Issue SER (3/31/87) - TVA 100% Complete (4/4/87)	RII RII TVA	
	b.	- RII Final Inspection (4/87) Operability "Look Back" Review	RII	
		- TVA Perform Review (2/87) - RII Inspect/Evaluate (3/8-15/87) - Issue SER (3/31/87)	TVA RII RII	
	c.	Molded Case Circuit Breaker Testing		
		- TVA Perform Testing (2/87) - RII Review/Inspect (3/8-15/87)	TVA	
	d.	Issue Report (4/87)	RII	
5.	Con (mmission Paper Input	NRR (Reinhart)	

SEOUYAH

Subject Area: NSRS Concerns and Stone Webster (SWEC) Issues

The NSRS reports contain information germaine to issues raised by the ERT program, allegations and H. Myers' concerns. Therefore, these reports are being reviewed to provide additional information for the review of the issues raised on TVA facilities.

SWEC raised issues as part of their review of TVA.

Lead Responsibility: NRR - B. K. Singh TVA - M. Martin

Ma;	jor Tasks	Responsibility	Resources (Man-Weeks) NRR/IE/RII
1.	TVA provide study of generic applicability to Sequoyah and evaluate against NPP, Vol. 2 (Sequoyah). (11/26/86)	TVA	Complete
2.	TVA provide element reports:	TVA	
	- NSRS, 2 reports (12/23/87) - SWEC, 57 reports (1/31/87)		
3.	Conduct Corp. and site audits to evaluate NSRS/TVA resolutio of selected items that are cloin NSRS reports.	n	3/8/0
	a. Procurement	IE	Complete
	b. Other (2/3/87)	NRR/IE/RII	
4.	NSRS issues contained in Draft reports or not completed at til NMRG was created		
	- TVA provide summary - Staff evaluate (2/20/87)	TVA NRR	Complete
5.	SWEC Issues Review (2/27/87)	NRR/RII	
6.	TVA provide correlation of NSRS and SWEC reports to each issue area ()	TVA	
7.	Prepare SER input (4/17/87)	NRR (Singh)	3/2/0
8.	Prepare Commission Paper Input	NRR (Youngblood)	

Subject Area: Other Technical Issues

Technical issues have been raised by the staff or TVA and, in some cases, are addressed in the Nuclear Performance Plan. These issues have not been specifically identified in other areas and are listed below.

Lead Responsibility: NRR - Joe Holonich TVA - M. Martin

Maj	or Tasks:	Responsibility	Resources NRR/IE/RII (Man-Weeks)
1.	Sensing Line Slope	NRR (Singh)	
	a. Element Report Submitted by TVA (Complete) Review element report, TVA resp. to RAI, NPP Section 7.1, and prepare draft SER (2/27/87) b. RAI to TVA (1/16/87) c. TVA resp. to RAI (2/13/87)	NRR (Holonich) TVA (Martin)	
2.	Compression Fittings #17304	RII (McCoy)	
	a. TVA submit results of	TVA (Martin)	Complete
	evaluation b. Review NPP Section 7.2 and prepare draft SER (1/31/87) c. Provide revised SER ()		Complete
3.	Teflon Tape #30901		
	a. TVA submit results of evaluation (11/24/86)	TVA (Martin)	Complete
	b. Prepare draft SER input on NPP Section 7.3. (12/1/86)	RII (McCoy)	Complete
	c. Prepare final SER on Teflon Tape element report (IE (Hooks)	
4.	Fire Protection/Appendix R	RII (Conlon)	
	a. Review NPP Section 8.0 and prepare SER (11/21/86)		
	b. TVA letter	TVA (Kirk)	Complete
	c. Staff evaluate and revise SER (12/86)	RII	Complete
5.	Materials Traceability	RII (Julian)	
	 a. Final Element report No. 40-703 submitted by TVA b. Review element report, site inspection, and 		

prepare SER (

Majo	or Tasks:	Responsibility	Resources (Man-weeks) NRR/IE/RII
6.	Air Return Fan Design Problem		
	a. TVA proposes design change	TVA (Burzynski)	
	b. Complete modification	TVA	
	c. Inspect ()	RII	
7.	Piece Parts Procurement	IE (Baker)	
	a. Staff Inspectionb. Meet with TVA to discuss	IE TVA	Complete
	corrective actions c. TVA submit corrective action plan ()	TVA	
	<pre>d. Staff review of corrective action ()</pre>	NRR	
8	Raychem Cable Splices In Cable Trays	NRR	
	a. TVA Submittal () b. NRR Evaluate () c. Region Inspect ()	TVA (Burzynski) NRR RII	
	d. Complete rework (3/24/87)e. Close CAR (4/17/87)	TVA (Kirk) TVA	
9.	Hydrogen Analyzer Operability	NRR (Tinker)	Complete
	- Review Issue and Determine Operability Requirements RTA 12/31/86 (1/27/87)		