

# TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

5N 105B Lookout Place

December 27, 1985

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Mr. Denton:

In the Matter of the	)	Docket Nos. 50-259
Tennessee Valley Authority	)	50-260
		50-296
		50-327
		50-328
		50-390
		50-391
		50-438
		50-439

In response to the September 17, 1985 letter from W. J. Dircks to C. H. Dean, we provided Volumes I and II of TVA's Nuclear Performance Plan (NPP) to NRC on November 1, 1985 by letter from C. H. Dean to W. J. Dircks. As committed to in the November 1 letter, we submitted the Employee Concern Program to NRC by the November 20, 1985 letter from H. G. Parris to W. J. Dircks. This letter supplements our November 1 and November 20, 1985 responses to NRC's September 17, 1985 10 CFR 50.54(f) letter and provides information requested by Hugh Thompson's letters dated November 19 and December 6, 1985. Also please note that the November 20 submittal of our Employee Concern Program supersedes the information contained in the November 1 submittal in section 4.22 of Volume II of the Sequoyah NPP, regarding employee concerns.

Each employee concern received by QTC through the Special Employee Concern Program at Watts Bar is documented on an individual "K-form" and transmitted to NSRS. Before sending the K-form to NSRS, QTC makes a preliminary determination of the classification of each concern as safety related or not safety related and whether or not a concern potentially involves employee intimidation and harassment (I&H) or misconduct. When a concern potentially involves I&H or misconduct, two separate "K-forms" are generated. One "K-form" documents the safety-related issue. A second "K-form" is used to

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Add:

AD - J. KNIGHT (ltr only)  
EB (BALLARD)  
EICS (ROSA)  
PSB (GAMMILL)  
RSB (BERLINGER)  
FOB (BENAROYA)  
AD - D. CRUTCHFIELD (ltr only)  
EB (W. JOHNSTON)  
RSB (THOMAS)  
EICS (PARR)  
FOB (W. REGAN)  
EB (LIAN)  
PSB (L. HULMAN)  
EICS (SRINIVASAN)  
RSB (ACTING)  
FOB (VASSALLO)  
AD - G. LAINAS (ltr only)

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document the I&H or misconduct aspect of the concern. This ensures that safety-related issues will be investigated independent of I&H or misconduct issues and the identification and investigation of safety-related issues is not tied to completion of I&H and/or misconduct investigations.

When NSRS receives "K-forms" from QTC, NSRS reviews QTC's preliminary classification of the concerns. Concerns that NSRS determine to be potentially safety-related are assigned for investigation to either QTC or NSRS. Also as "K-forms" are received by NSRS, copies of those that are potentially safety related are sent to the site director of the appropriate nuclear plant.

Watts Bar, Browns Ferry, and Bellefonte Nuclear Plants evaluate the "K-forms" they receive to determine whether or not the concern identified could be considered generic and applicable to Sequoyah (SQN). These plants also review NSRS/QTC safety-related investigation reports and the plant's responses to those investigation reports for generic applicability to SQN as they are received. Forms similar to enclosures 1, 2, and 3 define the criteria used to perform each of these reviews.

Sequoyah Nuclear Plant evaluates all potentially safety-related employee concerns that have been identified as specifically applicable to Sequoyah and those that were initially identified to be applicable to other TVA nuclear plants, but which have been determined to be potentially generic to Sequoyah. Each of these concerns is evaluated to determine which issues have to be addressed before restart of a Sequoyah unit. Attachment 4 to Sequoyah's Standard Practice SQA-166, (enclosure 4) provides the form used for the preliminary evaluation. This evaluation is performed at Sequoyah by SQN trained personnel who were shift technical advisors and are knowledgeable in plant technical specifications, safety limits, operability, attendant equipment, transient and accident analysis, and the margin of safety as defined in the technical specification bases. Enclosure 5 provides the guidelines used in the evaluation for determining safety significant employee concerns.

Over 1300 safety-related "K-forms" applicable to Sequoyah, Watts Bar, Browns Ferry, or Bellefonte have been reviewed and evaluated to date and additional "K-forms" are being evaluated as they are received. Enclosure 6 is a current listing of potentially safety-related employee concerns that were identified as specifically applicable to Sequoyah which we have determined must be



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evaluated before restart of Sequoyah. The investigation of the NSRS/QTC concerns should be completed by January 17, 1986. Enclosure 7 is a current listing of potentially safety-related employee concerns that were identified as specifically applicable to Watts Bar, Browns Ferry, or Bellefonte but which we have determined could have generic implications for Sequoyah and which must be evaluated before restart of Sequoyah. These concerns have been grouped into one of six generic categories and then subdivided specific issues. A Management Review Group (MRG) with representatives from the Sequoyah plant staff and NSRS is responsible for determining which of these issues will require further investigation before Sequoyah restart. A task force has been established to investigate those issues that the MRG designates and will report the results to Sequoyah site management for disposition before restart.

For the safety-related generic employee concerns identified to date in enclosure 7, the evaluation will be performed in two stages. The first stage will involve identifying other efforts or studies that, if completed satisfactorily, will provide a satisfactory response for one or more of these generic concerns. The first stage should be completed by January 10, 1986. For the second stage, a detailed evaluation will have been scoped and begun before Sequoyah restart for those employee concerns which, if substantiated, could involve a technical specification or unreviewed safety question problem.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

*J. A. Domer*  
J. A. Domer, Chief  
Nuclear Licensing Branch

Sworn to and subscribed before me  
this 27<sup>th</sup> day of Dec. 1985

*Paulette H. White*  
Notary Public

My Commission Expires 8-24-88

Enclosures

cc: See page 4

Mr. Harold R. Denton

December 24, 1985

cc (Enclosures):

U.S. Nuclear Regulatory Commission  
Region II  
Attn: Dr. J. Nelson Grace, Regional Administrator  
101 Marietta Street, NW, Suite 2900  
Atlanta, Georgia 30323

Mr. James E. Taylor, Director  
Office of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Mr. R. J. Clark  
Browns Ferry Project Manager  
U.S. Nuclear Regulatory Commission  
7920 Norfolk Avenue  
Bethesda, Maryland 20814

Mr. Carl Stahle  
Sequoyah Project Manager  
U.S. Nuclear Regulatory Commission  
7920 Norfolk Avenue  
Bethesda, Maryland 20814



## FORM D

WATTS BAR SPECIAL PROGRAM ON EMPLOYEE CONCERNS  
"K-FORM" REPORT REVIEW FOR GENERIC APPLICABILITY

\_\_\_\_\_  
 Employee Concern Number

I. Preliminary Screening

Does the "K-Form" provide sufficient information to perform a meaningful preliminary evaluation of the generic applicability?

YES \_\_\_\_\_ NO \_\_\_\_\_

If "no," no further evaluation is required until investigation information is available. Proceed to Section IV.

II. Codes, Standards, Specifications, Procedures, and Processes Checklist

- A. An employee concern which states/implies that an approved code, standard, specification, procedure, process, etc., itself is deficient may have generic applicability to activities at the site for which the concern is identified, or may have generic applicability at other sites where the same code, standard, specification, procedure, or process is used. Complete the following:

o design criteria or specification	yes _____	no _____
o construction specification	yes _____	no _____
o construction process/procedure	yes _____	no _____
o material specification/qualification	yes _____	no _____
o maintenance, operation, or testing process/procedure	yes _____	no _____
o inspection process/procedure	yes _____	no _____
o other (specify) _____		
_____		
_____	yes _____	no _____

If the answer to any of the above questions is "yes," the concern has potential generic implications and should be further evaluated.

- B. An employee concern which states/implies that a code, standard, specification, procedure, process, etc., is not being properly implemented or followed may have generic applicability at the site for which the concern is identified, or may apply to other sites. Complete the following.

Does the concern appear to be an isolated matter or does it appear to have generic implications?

isolated \_\_\_\_\_ generic \_\_\_\_\_

If generic, the concern should be further evaluated.

III. Other Evaluation Factors

The checklist above may not adequately cover the particular employee concern. The evaluator should note below any other factors important to the generic applicability evaluation.

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generic implications YES \_\_\_\_\_ NO \_\_\_\_\_

IV. Evaluators Determination

generic implications YES \_\_\_\_\_ NO \_\_\_\_\_

Plants potentially effected:

WBN \_\_\_\_\_  
BLN \_\_\_\_\_  
BFN \_\_\_\_\_  
SQN \_\_\_\_\_

Evaluator notes indicating any clarifying comments, explanation of generic determination rationale, etc.

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Evaluator \_\_\_\_\_ Date \_\_\_\_\_  
(Signature)



## FORM I

**WATTS BAR SPECIAL PROGRAM ON EMPLOYEE CONCERNS**  
**INVESTIGATION REPORT REVIEW FOR GENERIC APPLICABILITY**

Employee Concern Number(s)

Investigation Report Number

**I. Codes, Standards, Specifications, Procedures, and Processes Checklist**

- A. Employee concern investigation report findings which states that an approved code, standard, specification, procedure, process, etc., itself is deficient may have generic applicability to activities at the site for which the concern is identified, or may have generic applicability at other sites where the same code, standard, specification, procedure, or process is used. Complete the following:

<input type="radio"/> design criteria or specification	yes _____	no _____
<input type="radio"/> construction specification	yes _____	no _____
<input type="radio"/> construction process/procedure	yes _____	no _____
<input type="radio"/> material specification/qualification	yes _____	no _____
<input type="radio"/> maintenance, operation, or testing process/procedure	yes _____	no _____
<input type="radio"/> inspection process/procedure	yes _____	no _____
<input type="radio"/> other (specify) _____		
_____	yes _____	no _____

If the answer to any of the above questions is "yes," the investigation report findings have potential generic implications and should be further evaluated.

- B. Employee concern investigation report findings which states that a code, standard, specification, procedure, process, etc., is not being properly implemented or followed may have generic applicability at the site for which the concern is identified, or may apply to other sites. Complete the following.

Do the investigation report findings show that improper implementation is or has generic implications?

isolated \_\_\_\_\_ generic \_\_\_\_\_

If generic, the investigation report findings should be further evaluated.

II. Other Evaluation Factors

The checklist above may not adequately cover the particular employee concern investigation report findings. The evaluator should note below any other factors important to the generic applicability evaluation.

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generic implications YES \_\_\_\_\_ NO \_\_\_\_\_

III. Evaluator's Determination

generic implications YES \_\_\_\_\_ NO \_\_\_\_\_

Plants potentially effected:

WBN \_\_\_\_\_  
BLN \_\_\_\_\_  
BFN \_\_\_\_\_  
SQN \_\_\_\_\_

Evaluator notes indicating any clarifying comments, explanation of generic determination rational, etc.

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IV. "K-Form" Evaluation

When the "K-Form" was reviewed for potential generic implication, what was the evaluator's determination?

generic implications YES \_\_\_\_\_ NO \_\_\_\_\_

Determination by \_\_\_\_\_ Date \_\_\_\_\_  
Signature



ENCLOSURE 3

FORM N

REVIEW FOR GENERIC APPLICABILITY OF RESPONSE

1. Was the condition/concern determined to have generic applicability at the "K-Form" or investigation report stage?

"K-Form" stage? Yes \_\_\_\_ No \_\_\_\_

Investigation report stage? Yes \_\_\_\_ No \_\_\_\_

2. If the answer to item 1 is "no" for both determinations, does the response include significant additional information which appears to make the condition generic?

Yes \_\_\_\_ No \_\_\_\_

If "yes," note plants:

WBN \_\_\_\_  
BFN \_\_\_\_  
SQN \_\_\_\_  
BLN \_\_\_\_

3. Should generic applicability be further evaluated?

Yes \_\_\_\_ No \_\_\_\_

4. Evaluator's Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Evaluator \_\_\_\_\_  
Signature Date

ATTACHMENT 4  
SEQUOYAH NUCLEAR PLANT  
EMPLOYEE CONCERN PRELIMINARY EVALUATION

1. Concern No. \_\_\_\_\_
2. Is this concern potentially nuclear safety-related? \_\_\_\_\_  
If no, state justification: \_\_\_\_\_  
\_\_\_\_\_
3. Concern classified as: \_\_\_\_\_ Determinant \_\_\_\_\_ Indeterminant  
Justification for classification: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
4. Determinant Employee Concern
  - a. Assuming concern is substantiated, what impact would it have:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
  - b. Does any work need to be halted? \_\_\_\_\_
  - c. Does NSRS need to expedite evaluation? \_\_\_\_\_
  - d. Is there a technical specification problem? \_\_\_\_\_
  - e. Does it involve a potential USQ? \_\_\_\_\_
  - f. Does this concern need to be resolved before any particular plant milestone (if yes, list milestone)? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
5. Indeterminant Employee Concern
  - a. If possible, describe what additional information is needed to perform a preliminary evaluation: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
6. Additional Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
7. Completed by: \_\_\_\_\_ Date: \_\_\_\_\_
8. Approved by: \_\_\_\_\_ Date: \_\_\_\_\_
9. If 4b, c, d, e, or f is Yes, notify plant management: \_\_\_\_\_ / \_\_\_\_\_  
Individual Notified Date
10. If 4d or e is Yes initiate generic evaluation. Applicable to: \_\_\_\_\_



ENCLOSURE 5  
GUIDELINES FOR UNREVIEWED SAFETY QUESTION DETERMINATION

The following guidelines are utilized by personnel who have received the Shift Technical Advisor training to determine if a potential Unreviewed Safety Question exists.

Would the employee concern, if substantiated, adversely affect the following items:

- a. Directly affects safety-related equipment:
  - 1. Function
  - 2. Performance
  - 3. Reliability
  - 4. Response Time
- b. Indirectly affects safety-related equipment:
  - 1. Power Supply
  - 2. Air Supply
  - 3. Cooling or Lubrication or Ventilation
- c. Affects primary containment integrity
- d. Affects secondary containment integrity
- e. Affects seismic analysis
- f. Affects assumptions or values used in the FSAR
- g. Affects single failure criteria
- h. Affects separation criteria
- i. Affects high energy line break
- j. Affects control room habitability
- k. Affects systems used to process radioactive wastes
- l. Affects fire protection or fire loads
- m. Affects security systems
- n. Affects systems, procedures, or features described in the FSAR either in tests or drawings
- o. Affects equipment qualification

If the concern could affect any of the above items, the concern is reviewed for (1) increasing the probability or consequences of an accident previously evaluated in Chapter 15 of the FSAR, (2) creating a new type of accident or malfunction, and (3) reducing the margin of safety defined in the basis of any technical specification. If any of the above three are yes--a potential Unreviewed Safety Question exists.

ENCLOSURE 6  
EMPLOYEE CONCERNS SPECIFICALLY APPLICABLE  
TO SEQUOYAH TO BE EVALUATED BEFORE RESTART

EMPLOYEE  
CONCERN NO.

SUBJECT

A. Welding

XX-85-041-001	Improper Weld Tests
XX-85-049-001	Falsified Welder Certifications
XX-85-065-001	ISI Inspectors Remove Inspections Performed Poorly
XX-85-100-001	Improper Weld Repairs
XX-85-101-006	Welding Performed Without Certifications
XX-85-108-001	Welding Inspections in Unit 1 Acc. Rooms
XX-85-108-002	Welding Inspection Program Background

B. Configuration Control

XX-85-070-001	Drawing and Document Errors
XX-85-070-005	Workplan Not Authorized by Office of Engineering
XX-85-077-002	Inaccurate Design Drawings Do Not Reflect As-Built Condition

C. Operational Readiness

XX-85-033-006	Electrical General Foreman Used No-"G" Materials In A "G" System
XX-85-046-001	Instrument Sensing Line Slope Deficiencies
XX-85-068-007	TVA Manufactured Spool Piece Replaced A DRAVO-ASME Class Spool Piece
XX-85-069-001	Improper Certification Due to Lack of OJT
XX-85-087-001	Containment Coatings Unqualified

D. Supports/Anchors

XX-85-010-001	Nuts Welded to Base Plates
XX-85-023-001	Pull Tests On Hangers/Anchors in the Annulus
XX-85-070-007	Snubbers Installed Not Per Design

E. Miscellaneous

XX-85-001-001	Diesel Generator Batteries Replaced Without Initial Testing
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ENCLOSURE 6  
EMPLOYEE CONCERNS SPECIFICALLY APPLICABLE  
TO SEQUOYAH TO BE EVALUATED BEFORE RESTART

EMPLOYEE  
CONCERN NO.

SUBJECT

E. Miscellaneous (continued)

XX-85-027-X07	Sign Off Data Sheets on Defective Equipment or Face Insubordination Charges
XX-85-070-002	Quality Problems Intentionally Closed to Prevent Attracting NRC Attention
XX-85-070-006	Falsified Document Errors

NOTE: The below listed employee concerns, which were listed in our November 20, 1985 submittal, are related to the investigation of misconduct and not the safety-related aspect of the issue. They have, therefore, been deleted from the above history.

XX-85-049-X03	Welder Certification Card Falsified
XX-85-023-X02	Falsification of Anchor Pull Tests
XX-85-077-X04	Drawings have been Falsified

ENCLOSURE 7

EMPLOYEE CONCERNS WITH POTENTIAL GENERIC  
APPLICABILITY TO SEQUOYAH TO BE EVALUATED BEFORE RESTART

A. Welding

1. Weld Rod Control

XX-85-068-006  
WI-85-053-004

2. Inspection Criteria - Inspection through  
Paint

IN-85-458-001  
WI-85-013-003  
WI-85-041-008

3. Weld Inspection Tools Available

IN-85-406-003  
IN-85-007-001  
IN-85-134-002

4. Vendor Welds Inadequate

IN-85-007-003  
IN-85-127-001

5. Inspection Criteria

IN-85-406-002

6. Welder/Inspector Training/Certification

WI-85-041-002  
WI-85-041-006

7. Improper Welds on Hangers

IN-85-405-001  
EX-85-039-003

8. Unpainted Welds

IN-85-273-001

B. Configuration Control

1. Relocation of Equipment

IN-85-463-007  
IN-85-964-003

2. Vendor Manuals

IN-86-073-001

3. Installation of Equipment

IN-85-463-006



ENCLOSURE 7

EMPLOYEE CONCERNS WITH POTENTIAL GENERIC  
APPLICABILITY TO SEQUOYAH TO BE EVALUATED BEFORE RESTART

C. Environmental Qualification

1. Instrument (Pressure) Transmitters Sent to Sequoyah  
From Watts Bar Without Adequate Documentation IN-85-463-008

D. Operational Readiness

1. Operator Training/Qualification  
IN-85-289-001  
IN-85-894-001
2. QA Program Restricted, Violated, Or Hampered  
by Management  
XX-85-102-010  
IN-85-767-001  
XX-85-069-009
3. Orifice Plates Causing Inaccurate Flow  
Measurements Due to Incorrect Hole Sizes  
NS-85-004-001  
IN-85-293-0C1  
PH-85-022-001
4. Electrical Penetrations Inadequate  
IN-85-346-002
5. Collusion Between Hartford Steam Boiler & TVA  
Causes Nonconforming Items  
WI-85-053-001
6. Incorrect Instrument Sensing Lines Slopes  
Cause Incorrect Readings  
IN-86-222-001  
IN-85-197-001
7. Use of Jack Hammers to Compact Ice in Ice  
Condenser  
IN-86-110-001
8. Power Block Restricting/Slowing Access  
to Equipment  
IN-86-291-007

ENCLOSURE 7

EMPLOYEE CONCERNS WITH POTENTIAL GENERIC  
APPLICABILITY TO SEQUOYAH TO BE EVALUATED BEFORE RESTART

E. Cables

1. Overfill of Cable Trays/Conduit

PH-85-003-023  
IN-86-310-001  
IN-85-506-001  
IN-85-186-003  
IN-85-432-001  
IN-86-238-003  
IN-85-622-001  
IN-85-685-001  
IN-86-028-002  
IN-85-743-008

2. Overtensioning of Cables Due to Improper  
Cable Pull Methods

IN-85-255-001  
IN-86-199-001  
IN-85-213-001  
IN-85-367-001  
IN-86-259-004  
IN-85-433-002  
IN-85-856-005  
IN-86-201-001  
XX-85-094-005  
IN-85-531-001  
IN-95-325-005  
IN-85-295-003  
IN-85-112-001  
XX-85-094-004  
IN-86-259-001  
IN-86-028-001  
XX-85-008-001

F. Cable Tray and Conduit Hangers

1. Insufficient Support for Triax Cable From  
Neutron Flux Detectors

IN-85-120-001

2. Embedded Plates on Cable Tray Supports

IN-85-107-001



ENCLOSURE 7

EMPLOYEE CONCERNS WITH POTENTIAL GENERIC  
APPLICABILITY TO SEQUOYAH TO BE EVALUATED BEFORE RESTART

G. Pipe Hangers and Anchor Bolts

- |   |               |
|---|---------------|
| 1. Incorrect Installation of Anchors (redheads) | WI-85-011-001 |
| Inspection practices associated with            | IN-85-285-002 |
| anchors   | PH-85-002-006 |
|   | IN-85-285-001 |
|   | IN-86-294-002 |
|   | IN-86-140-002 |
|   | IN-85-190-003 |
|   | PH-85-002-009 |
| 2. Improper Handling of Snubbers                | IN-85-288-001 |
| 3. Qualification of Person Making Design Check  | IN-85-148-001 |
| 4. Duct Supports Inadequately Designed          | IN-85-821-003 |
| 5. Inspection/Design Criteria Inadequate        | IN-85-033-001 |
| on Imbedded Plates                              | IN-85-039-003 |
| Lapped region definition not clear              |               |
| for establishing design criteria (additional    |               |
| support)  |               |