CEB 830819 005

CEB 830921 018 R1

TENNESSEE VALLEY AUTHORITY

Division of Engineering Design

SPECIAL

ENGINEERING PROCEDURE

EN DES- SEP 82-25

TITLE: Program for NRC-OIE Bulletin 79-14 Phase II

Inspections at Watts Bar Nuclear Plant Unit 1

ISSUE DATE: August 19, 1983

	REVISION RO	R1	R2	R3	R4	R5
	DATE 8/19/83	9/21/83				
PREPARED	JVH MGK EDM S.K. Sharma	EDM S.K. Sharma				
SPONSORED	L.M. Bennett					
REVIEWED	P.L. Duncan	P.L. D				
SUBMITTED	R.W. Cantrell	R.W. Cantrell				
APPROVED	C.J. Graves	C.J. Graves				

COORDINATION LOG

Document No.: SEP 82-25

Title: PROGRAM FOR NRC-OIE BULLETIN 79-14 PHASE II INSPECTIONS AT WATTS BAR NUCLEAR PLANT UNIT 1

Revision: R1

R–Denotes review

A–Denotes approval

ENGINEERING SUPPORT BRANCHES

CEB		EEB		MEB		NEB		QEB							
R	A	R	A	R	A	R	A	R	A	R	A	R	A	R	A
[illegible]															
[illegible]	[illegible]														
TCM	TCM														
	[illegible]														

NUCLEAR PROJECTS DESIGN

BLP		BWP		DNP		IRP		PWP		WBP					
R	A	R	A	R	A	R	A	R	A	R	A	R	A	R	A
										RGP	RGP				
										JCS	[illegible]				

FOSSIL, HYDRO, & SPECIAL PROJECTS DESIGN AND ARCHITECTURAL SUPPORT BRANCH

CBP		COP		FDP		HDP		SDP		ASB					
R	A	R	A	R	A	R	A	R	A	R	A	R	A	R	A

ESB		MEDS		PBB		OQA									
R	A	R	A	R	A	R	A	R	A	R	A	R	A	R	A
	[illegible]														

EN DES–5/83

EN DES SPECIAL ENGINEERING PROCEDURE (SEP) INDEX

EN DES SEP NO.	REV	DATE ISSUED	TITLE	SPONSOR ORGANIZATION AND PREPARER	AFFECTED ORGANIZATIONS	REMARKS
82-17	0		Control Room Design Reviews for All TVA Nuclear Plants	EEB J. R. Hennessy	ENS Branches NPD (except DNP and IRP)	
82-18	1		Program for Alternate Analysis Fix for Watts Bar Nuclear Plant - Coordinating, Documenting, and Verifying	WBP N. F. Consumo	CEB WBP	
82-19	0	4-26-83	Resolution of Piping Analysis Review Findings for Watts Bar Nuclear Plant	CEB J. H. Hoover	CEB ESB SWP	
82-20	0	3-15-83	Electrical Equipment Environmental Qualification Report for Bellefonte Units 1 and 2 - Preparation and Handling	EEB B. E. Reagan	BLP NEB EEB NUC PR MEB	
82-21	0	11-8-82	Independent Review of Watts Bar Nuclear Plant - Handling Findings	NEB H. L. Jones	CEB QAB EEB SWP MEB NEB	
82-22	0	1-14-83	Phase 1 of Alternate Analysis Design Review Sampling Program at Watts Bar Nuclear Plant, Unit 1	CEB J. D. Hansen	CEB SWP	
82-23	0	1-14-83	Documentation Control for Bellefonte Probabilistic Risk Assessment	NEB M. A. Linn	BLP NEB CEB EEB MEB	
82-24	1		Safe Shutdown Analysis for Postulated Fires at Bellefonte Nuclear Plant	MEB J. J. Pierce	EEB BLP MEB NEB	
82-25	1	9-21-83	Program for NRC-OIE Bulletin 79-14 Phase II Inspections at Watts Bar Nuclear Plant Unit 1	CEB S. K. Sherfey	CEB WBP	

TVA

Title: PROGRAM FOR NRC-OIE BULLETIN 79-14 PHASE II INSPECTIONS AT WATTS BAR NUCLEAR PLANT, UNIT 1

REVISION LOG

EN DES-SEP 82-25

Revision No.	DESCRIPTION OF REVISION	Date Approved
1	Revised Attachment 2, sections 2.0-a. and 2.0-c. for clarification of support inspection requirements.	9/21/83

CONTENTS

Section	Title	Page
1.0	PURPOSE AND SCOPE	1
2.0	DEFINITIONS	1
3.0	PROCEDURE	1
4.0	REFERENCES	3
5.0	ATTACHMENTS	4

1.0 PURPOSE AND SCOPE

This special engineering procedure (SEP) describes the method by which inspections and evaluations will be performed on selected Watts Bar Nuclear Plant (WBN) piping isometrics to verify the effectiveness of TVA's Phase I inspection program and to demonstrate TVA's compliance with NRC-OIE Bulletin 79-14. These piping isometrics will include only rigorously analyzed Seismic Category I piping regardless of size.

The Phase II inspections will be conducted by an independent inspection team not involved in Phase I.

2.0 DEFINITIONS

2.1 Deviation - Any disagreement between as-analyzed and as-constructed piping and support configurations or requirements.

2.2 Discrepancy - Any deviation not identified under the 79-14 Phase I inspections or outside the tolerances of existing acceptance criteria.

2.3 Nonsignificant Discrepancy - A discrepancy which would not cause the affected piping to exceed its qualification level.

2.4 Significant Discrepancy - A discrepancy which could cause the affected piping to exceed its qualification level.

2.5 Definite Potential for Loss of Pressure Boundary - An engineering judgment by the evaluator which indicates that a pipe break is likely under design loading due to the discrepancy.

3.0 PROCEDURE

Civil Engineering Support Branch (CEB)

1. Selects nine isometrics from nine of the safety-related systems; totals the number of supports. All selected isometrics must have been subjected to the Phase I inspections (see reference 1, Attachment 11 for the complete isometric list) before Phase II begins.

2. Selects an inspection team of persons not involved in Phase I inspection as defined in EN DES-SEP 82-13; notifies the team members and receives formal acceptance that they will accept the task. (This team may be provided by a personal services contractor.)

3. Requests that the Division of Construction (CONST) provide the following personnel, services, and equipment during the onsite inspection:

   a. Field engineers to guide the team and to aid in locating the piping in the plant.

b. At least one Construction Engineer representative to aid in preparing the deviation evaluation forms.

c. Measuring devices, flashlights, ladders, lighting, scaffolding, etc., as required to perform the inspections.

d. Site office space for approximately 12 people.

e. Site conference room for training (approximately 200 feet square).

f. Removal of insulation for inspecting valves, supports, etc., as necessary. (Note: Insulation must be replaced after inspection.)

g. Inspection package for each of the selected isometrics.

All inspection packages must contain the following documents. (Each document must be the latest revision except for the color coded isometric revisions. They must be the same as were used in the Phase I inspections.)

(1) Two prints of the math model isometric drawing for the rigorously analyzed piping. (One print must be color coded to clearly and conservatively show predicted maximum pipe movements for all isometric piping.)

(2) Prints of the mechanical (physical) drawings which show the actual routing of the piping in the building.

(3) Prints of the manufacturers' drawings of all valves and/or special components within the piping system.

(4) Copies of the inspection/recording forms (Attachment 1).

(5) Prints of the pipe support design drawings as required to perform the inspections described in Attachment 2 and all related Field Change Requests (FCRs), including pending FCRs.

4. Conducts a training session for the inspection team in accordance with Attachment 3.

Inspection Team

5. Performs all detailed inspections in accordance with Attachment 2 using the 79-14 Phase II checklists (Attachment 1).

6. Consecutively numbers all support deviations on one set of isometrics and consecutively numbers all nonsupport deviations on another set of isometrics.

Site CEB and Watts Bar Project (WBP) EN DES Team

7. Reviews all 79-14 Phase II checklists to ensure clarity and completeness.

8. Evaluates every deviation identified by the inspection team using the Deviation Evaluation Form in Attachment 4.

9. Assigns to CEB the responsibility to resolve all discrepancies.

CEB

10. Reviews all discrepancies for evaluation and resolution.

11. Sends to WBP those support-related discrepancies needing resolution by WBP. (Transmittal is by the standard two-way memo.)

12. Evaluates discrepancies that require review by qualified pipe stress analysts who have access to the analysis packages.

13. Sends to WBP, using the standard two-way memo, all nonsupport-related discrepancies for review.

WBP

14. Evaluates and resolves all pipe support structural discrepancies and other discrepancies as required.

15. Reviews all nonsupport-related discrepancies.

16. Sends to CEB, using the standard two-way memo, all completed discrepancy evaluation forms.

CEB

17. Reviews all support-related discrepancies.

18. Writes and issues a summary report according to Attachment 5 (coordinated with WBP).

19. Sends to CONST the inspection packages and summary report for storage during life of the plant.

20. Submits the summary report to the NRC.

Note: In all transmittals each inspection package will be kept intact.

4.0 REFERENCES

4.1 EN DES-SEP 82-13, Program for NRC-OIE Bulletin 79-14 Phase I Inspections at Watts Bar Nuclear Plant Unit 1.

4.2 NRC-OIE Bulletin 79-14.

4.3 WBN Program Plan for NRC-OIE Bulletin 79-14 (CEB 810713 019).

4.4 General Construction Specification G-43.

4.5 WBN Construction Specification N3C-912.

4.6 EN DES-EP 4.21, Revision and Voiding Engineering Drawings.

4.7 EN DES-EP 3.03, Design Calculations.

4.8 General Construction Specification G-29C.

5.0 ATTACHMENTS

5.1 Attachment 1, 79-14 Phase II Inspection Forms

5.2 Attachment 2, 79-14 Phase II Detailed Inspection Requirements

5.3 Attachment 3, 79-14 Phase II Instruction Agenda for Inspectors

5.4 Attachment 4, 79-14 Phase II Evaluation Criteria for Discrepancies

5.5 Attachment 5, 79-14 Phase II Summary Report Instructions

5.6 Attachment 6, Distribution for EN DES-SEP 82-25

79-14 PHASE II INSPECTION FORMS

DATA PACKAGE COVER SHEET Revision _____

WATTS BAR NUCLEAR PLANT UNIT 1

Package No.: _____

1. The attached package contains _____ data sheet(s) 1
   _____ data sheet(s) 2
   _____ data sheet(s) 3
   _____ data sheet(s) 4
   _____ data sheet(s) 5
   _____ data sheet(s) 6

2. No additional supports exist on piping other than those specified by the analysis isometric.

   Remarks:

_____ _____
Inspector No. 1 Date

_____ _____
Inspector No. 2 Date

3. Reviewed by: _____ _____
   EN DES Site Representative Date

79-14 PHASE II DATA SHEET 1 Revision ____

PIPE SUPPORT* CHECKLIST Page ___ of ___

WATTS BAR NUCLEAR PLANT UNIT 1

Package No.: _____

1. Pipe Support Drawing No. _____

2. Is support installed per support drawing(s)? (Yes or No) _____

   If no, indicate deviations on the support drawing and list them below.

   NOTE: See Attachment 2, section 2.0, for items to be checked and instructions.

3. Is there load carrying attachment(s) welded to pipe? (Yes or No) _____

   If yes, does the weld(s) conform to support drawing(s)? (Yes or No) ___

_____ _____
Inspector No. 1 Date

_____ _____
Inspector No. 2 Date

_____

EN DES Site Representative Comments:

_____ _____
EN DES Site Representative Date

*For springs use Data Sheet 5.

79-14 PHASE II DATA SHEET 2 Revision ____

VALVE CHECKLIST Page ___ of ___

WATTS BAR NUCLEAR PLANT UNIT 1

Package No.: _____

1. Valve Tag No. _____
   TVA Valve Mark No. _____
   Valve Size and Type (e.g., 4" BW Globe) _____
   Valve Drawing No. _____
   Valve Manufacturer and Model No. _____

   Note: See Attachment 2, section 3.0, for instructions.

2. Is valve location correct? (Yes or No) _____
   (If no, show location on drawing)

3. If the valve has an extended operator, is the orientation of the operator correct? (Yes or No) _____
   (If no, indicate orientation on drawing.)

4. Operator Manufacturer and Model No. _____

_____ _____
Inspector No. 1 Date

_____ _____
Inspector No. 2 Date

EN DES Site Representative Comments:

_____ _____
EN DES Site Representative Date

79-14 PHASE II DATA SHEET 3 Revision ____

ISOMETRIC CHECKLIST Page ___ of ___

WATTS BAR NUCLEAR PLANT UNIT 1

Package No.: _____

1. Does the general configuration of the piping system, including support location, match the isometric? (Yes or No) _____

2. List deviations below and submit marked drawings. See Attachment 2, section 4.0, for instructions.

_____ _____
Inspector No. 1 Date

_____ _____
Inspector No. 2 Date

EN DES Site Representative Comments:

_____ _____
EN DES Site Representative Date

79-14 PHASE II DATA SHEET 4 Revision _____

PENETRATION CLEARANCE CHECKLIST Page ___ of ___

WATTS BAR NUCLEAR PLANT UNIT 1

Package No.: _____

1. Does the pipe have proper clearance through all penetrations (see Attachment 2, section 5.0, for instructions)? (Yes or No): _____
If no, indicate interferences below and mark them on the isometric. Initial and date beside each penetration of the design drawing as it is checked.

_____ _____
Inspector No. 1 Date

_____ _____
Inspector No. 2 Date

EN DES Site Representative Comments:

_____ _____
EN DES Site Representative Date

79-14 PHASE II DATA SHEET 5 Revision _____

SPRING HANGER CHECKLIST Page ___ of ___

WATTS BAR NUCLEAR PLANT UNIT 1

Package No.: _____

Hanger Dwg. No.: _____

Note: See Attachment 2, section 6.0, for instructions.

1. Vendor _____
2. Size and Type of Canister _____
3. Travel Limits (inches) _____
4. Load Setting and Condition (lb) _____
   (i.e., hot or cold, full or empty)
5. Dynamic Travel Limit (inches) _____

_____ _____
Inspector No. 1 Date

_____ _____
Inspector No. 2 Date

EN DES Site Representative Comments:

_____ _____
EN DES Site Representative Date

79-14 PHASE II DATA SHEET 6 Revision ____

GENERAL CLEARANCE CHECKLIST Page ___ of ___

WATTS BAR NUCLEAR PLANT UNIT 1

Package No.: ______________________________

Identify interferences below per Attachment 2, section 5.0.

INTERFERENCE IS ______ IN THE _______ DIRECTION FROM PIPE TO __________
______________________________________, LOCATION: ____________

INTERFERENCE IS ______ IN THE _______ DIRECTION FROM PIPE TO __________
______________________________________, LOCATION: ____________

INTERFERENCE IS ______ IN THE _______ DIRECTION FROM PIPE TO __________
______________________________________, LOCATION: ____________

INTERFERENCE IS ______ IN THE _______ DIRECTION FROM PIPE TO __________
______________________________________, LOCATION: ____________

INTERFERENCE IS ______ IN THE _______ DIRECTION FROM PIPE TO __________
______________________________________, LOCATION: ____________

INTERFERENCE IS ______ IN THE _______ DIRECTION FROM PIPE TO __________
______________________________________, LOCATION: ____________

INTERFERENCE IS ______ IN THE _______ DIRECTION FROM PIPE TO __________
______________________________________, LOCATION: ____________

______________________ ____________
Inspector No. 1 Date

______________________ ____________
Inspector No. 2 Date

______________________ ____________
EN DES Site Representative Date

79-14 PHASE II

DETAILED INSPECTION REQUIREMENTS

WATTS BAR NUCLEAR PLANT UNIT 1

1.0 General

The inspectors must not use acceptance criteria or judgment to dismiss any disagreement between the design document and the as-constructed condition. (See Atachment 3 for measurement tolerances.) Two isometric sets are recommended to be used in performing the inspections. One set can be used in recording support deviation locations and the other set in recording nonsupport deviation locations.

Data sheets 1 through 6 must be used to record all deviations. Each set of data sheets will be preceded by a data package cover sheet.*

Additional checklists and/or worksheets may be used by the inspectors; however, they must be approved by EN DES and signed and dated by the inspector. All inspection documents must be signed and dated by two inspectors.

2.0 Detail Support Inspection

a. Verify that each support specified on the selected analysis isometric is installed in the proper location and provide the intended support as specified on the analysis isometric drawing. Also, verify that there are no additional supports, damaged supports, or missing supports. R1

b. Verify that all pipe supports shown on the selected isometrics constructed per the detailed support design drawings. Inspection should include all components of the supports (including support gaps) and all attachment welds. If support gaps are inaccessible due to insulation, then the gaps should be designated inaccessible. However, insulation must be removed, if necessary, to guarantee that at least 50 percent of all supports with gaps are inspected. Exempt from the detailed support inspection are spring hangers and supports with pending FCRs. Spring hangers must be verified to be functional. (See data sheet 5*.) Approved FCRs must be used to supplement the design shown on the support design drawings.

*All data sheets are included in Attachment 1.

c. Any deviation to the support design drawing must be noted on the drawing and turned in with data sheet 1*. The deviation description should provide all new information needed to perform a support structural analysis, if necessary. All support deviations must be numbered on both the support design drawing and the isometric used for recording support deviations.

The following items must be inspected:

**1) Support location
**2) Restraint direction
**3) Restraint type
4) Structural member dimensions
5) Welds
6) Anchor bolts
7) Bolted connections
8) Snubber size and setting
9) Spring can size
10) Cotter pins
11) Component standard support sizes
12) Lug sizes
13) Gaps
14) Support damage
15) Additional attachments to the support

R1

3.0 Valve Inspection

a. Verify that all valves are installed as specified by the isometrics and the mechanical piping drawings and inspect each valve using data sheet 2*. The following will be documented:

1) Valve tag number
2) TVA valve mark number
3) Valve size and type (specify B.W., F.W., S.O., etc.)
4) Valve drawing number
5) Valve manufacturer and model
6) Valve location
7) Operator orientation
8) Operator manufacturer and model

Any deviations in valve location and/or orientation must be marked and numbered on the isometric drawing and submitted as part of the inspection package.

*All data sheets are included in Attachment 1.

**Note: These checks are also required in section 4.0.a under isometric inspection, and it is intended that the isometric check will satisfy this requirement.

R1

b. In most cases, the required information can be obtained from the valve itself and the inspection package valve drawing. If a model number, figure number, or some other positive identification number is not available on the valve, record all information that can be obtained from the valve. This may require removing insulation from the valve body.

4.0 Isometric Configuration Inspection

a. Isometric configuration inspection must include verifying:

1) Pipe diameter
2) Routing
3) Support location and type
4) Restraint direction
5) Fitting type and location
6) Insulation type and thickness
7) Equipment connections
8) Pipe wall thickness

This will entail taking actual measurements to verify correct:

1) Pipe segment lengths
2) Branch line locations
3) Support locations
4) Fitting locations
5) Insulation thickness (three places per isometric)
6) Pipe diameter (three places per isometric)
7) Pipe wall thickness (three places per isometric)

Those measurements corresponding to the dimensions on the analysis isometric must be circled in ink on the isometric drawing and/or piping physical drawing with any discrepancies marked and numbered on the isometric.

b. Data sheet 3* should be included with the marked isometrics. In cases where the isometric is congested, it may be necessary to mark up more than one copy. Areas which are not inspected or that are inaccessible must be marked on the drawing. Piping physical drawings may be used to supplement isometrics where dimensions on the isometrics are missing.

5.0 Clearance Inspection

Note: Prior to the Phase II inspections, CONST will have color coded the isometrics to clearly and conservatively show predicted maximum pipe movements for all isometric piping.

*All data sheets are included in Attachment 1.

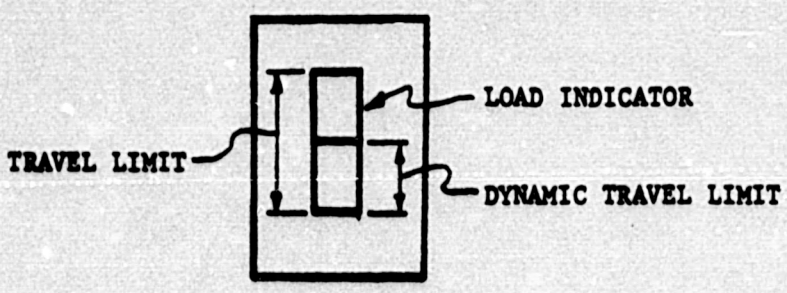
a. Inspect whether the piping which penetrates walls or floors has clearance with the sleeve to accommodate maximum pipe movements specified on the isometric; record the inspection results on data sheet 4*. Any problem in penetration clearance must be marked on the isometric drawing and submitted as part of the inspection package. Sleeves sealed with foam are to be treated the same as sleeves without foam.

b. Inspect whether the piping has clearance with adjacent piping, supports and other fixed items to accommodate maximum pipe movements as noted on the isometrics; record the inspection results on data sheet 6*. Each clearance problem must be marked on the isometric drawing and submitted as part of the inspection package. Any insulation damaged during the hot functional testing due to lack of clearance must be identified. Maximum pipe movements must be doubled for checking clearance with adjacent piping (instrument lines and conduit are not considered adjacent piping).

6.0 Spring Hanger Data

The following information will be required on all spring hangers and must be recorded on data sheet 5*.

a. Vendor
b. Size and type of canister
c. Travel limit
d. Load setting and condition (i.e., hot or cold, full or empty)
e. Dynamic travel limit



SPRING CANISTER

*All data sheets are included in Attachment 1.

79-14 PHASE II

INSTRUCTION AGENDA FOR INSPECTORS

I. Briefing by CEB

A. Introduction
B. Scope of Inspection
C. Procedures and Documentation

II. Question Period

Note: The inspectors will be instructed not to use acceptance criteria or judgment in order to dismiss any variance between the design document and the as-constructed conditions. However, no measured dimensional variance will be recorded unless it exceeds 1 inch for a piping design dimension or 1/4 inch for a support design dimension. Recorded dimensional variances are to be rounded to the nearest 1/4 inch for piping design dimensions and 1/8 inch for support design dimensions. Support gaps, weld sizes, pipe thicknesses, pipe diameters, and insulation thicknesses are to be recorded as measured.

79-14 PHASE II

EVALUATION CRITERIA FOR DEVIATIONS

WATTS BAR NUCLEAR PLANT UNIT 1

1.0 Purpose

The purpose of this criteria is to provide guidelines for evaluating the deviations found in the Phase II inspections.

2.0 Scope

This criteria will be used for Watts Bar Nuclear Plant Unit 1 and will be used for evaluating the results of the NRC-OIE Bulletin 79-14 Phase II inspections.

3.0 Evaluation Procedure

During the Phase II inspection, the packages will be marked by the inspectors to indicate all deviations. The deviations are to be evaluated in accordance with section 4.0 to determine their significance.

3.1 The EN DES site team, with aid from CONST, must review the inspection packages immediately following the inspection in order to determine their clarity and completeness. The team must then evaluate all deviations using the "Deviation Evaluation Form" with help from CONST. Finally, the team will give all inspection packages to CEB in order to resolve the discrepancies.

3.2 CEB will evaluate all discrepancies transmitted to them by the EN DES site team, paying particular attention to the piping configuration, including additional or missing supports. Those discrepancies which involve WBP will be transmitted to them and will later be reviewed by CEB.

3.3 WBP will review, evaluate, and resolve all structural discrepancies against individual supports and other support-related discrepancies as required. WBP will also review all nonsupport discrepancies.

3.4 A summary of the significant and nonsignificant discrepancies will be prepared by CEB with input from WBP and/or the CEB Engineering Mechanics Group (EMG).

3.5 Any significant discrepancies which have a definite potential to cause a loss of pressure boundary must be identified by CEB immediately. If one condition is found which was not identified in Phase I and which could result in a pressure boundary failure, endangering the safety of the plant or the health and safety of the public, the entire program will be stopped and reevaluated.

3.6 For deviations common to both the Phase I and Phase II programs, a comparison review will be conducted under the direction of CEB to determine the effectiveness of the Phase I inspection program.

4.0 Evaluation Forms

"Deviation Evaluation Form" (page 6 of 7) will be used to address all deviations. If the evaluator finds that a deviation is actually a discrepancy, he will assign a discrepancy number to the deviation and describe it on a "Discrepancy Evaluation Form" (page 7 of 7). Each discrepancy will be reviewed to determine whether it is significant or nonsignificant. (Refer to section 2.0 of this SEP for applicable definitions.) Support-related discrepancy evaluation forms will be prepared and checked by WBP; nonsupport by CEB. Support-related discrepancy evaluation forms will be concurred and reviewed by CEB; nonsupport by WBP.

5.0 Evaluation Considerations

The evaluators must take into consideration, as a minimum, the following items when reviewing inspection packages:

1) Analysis requirements
2) Pipe configuration and routing
3) Locations of all pipe fittings and special components
4) Pipe wall thickness and diameter
5) Valve locations
6) Support locations
7) Valve weights and center of gravity locations
8) Valve operator orientations
9) Insulation weights
10) Clearances around supports
11) Clearances around piping
12) Support type and function
13) Structural adequacy of all supports

6.0 Documentation:

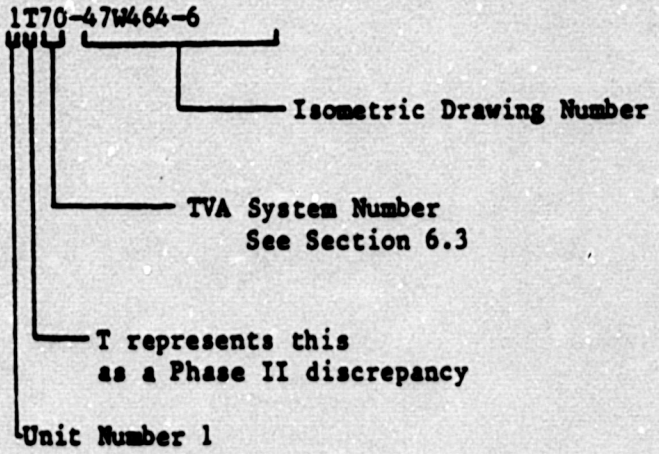
NOTE

All revisions, deletions, or additions to quality assurance records must be made with black ink and must be initialed and dated by the author. Deletions or revisions must be lined out. No correction fluid, correction tape, or erasures are permitted.

6.1 Inspection Package Number - Each inspection package will be assigned an identification number. The number will include the designations as shown below:

EDS Example 1T70-0600200-04-04

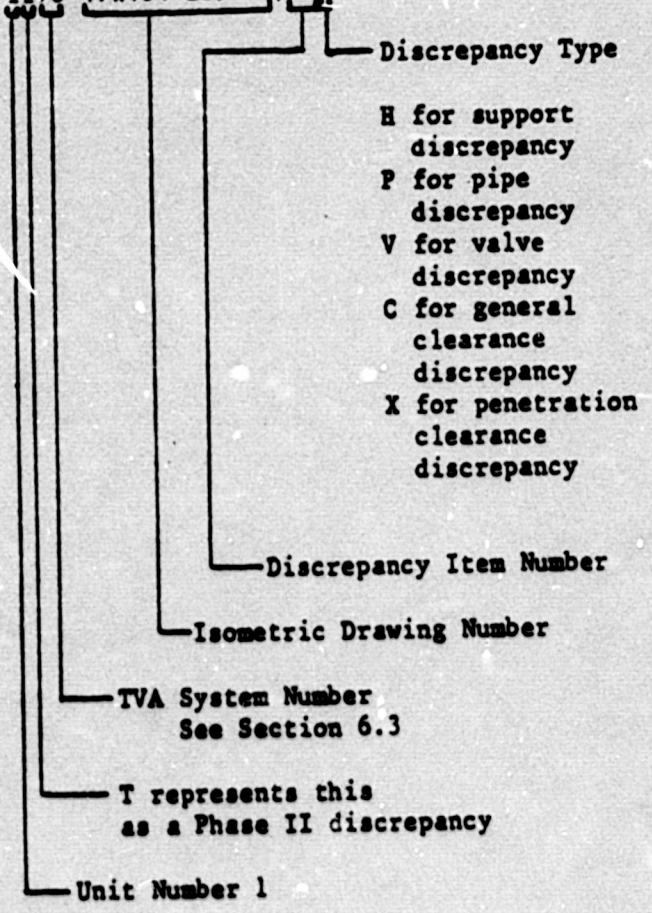
TVA Example 1T70-47W464-6



6.2 Discrepancy Number - Each discrepancy will be assigned an identification number. The number will include the designations as shown below:

EDS Example 1T70-0600200-04-04/01H

TVA Example 1T70-47W464-219 /02P



6.3 WBN Piping System Identifications

System Abbreviation	TVA Drawing Series	System	EDS System No.	TVA System No.
MS	400	Main Steam	06	1
FW, AFW	401, 427	Main & Aux. Feedwater	02, 05	3
BD	400	Blowdown	07	1
IM		Incore Monitoring	10	
AB	431	Aux. Boiler System		12
RC	465	Reactor Coolant System	13	68
HC	915	Hydrogen Collector		30
HPFP	491, 206	High Pressure Fire Protection		26
HVAC	915	Heating, Vent, and Air Conditioning		30
CA	600	Control Air System		32
SA	492	Service Air System		33, 81
SD	476	Station Drainage		40
DW	492	Demineralized Water		59
CVCS	406, 555	Chemical & Volume Control	08	62
SIS	435	Safety Inspection	09	63
ICCS	462	Ice Condenser Contain. System		61
ERCW	450, 206	Essential Raw Cooling Water		67
CCS	464	Component Cooling Water	04	70
CS	437	Containment Spray		72
RHR	432	Residual Heat Removal System	03	74
WD	560	Waste Disposal System		77
SFPC	454	Spent Fuel Pit Cooling		78
UHI	435	Upper Head Injection	15	87
RMS	600	Radiation Monitoring		90

6.4 WBN Drawing Revisions - All drawings which are to be revised to resolve any discrepancies must be revised according to EN DES-EP 4.21 with the applicable discrepancy number(s) noted in the revision description block.

6.5 Calculation Package Updating - Discrepancy reports including any hand calculations which affect analysis are to be added to the analysis packages in accordance with EP 3.03.

79-14 PHASE II
DEVIATION EVALUATION FORM
WATTS BAR NUCLEAR PLANT UNIT 1

Revision ____
Page ___ of ___

Package No.: _____ Inspection Drawing:(1) _____

(2) Deviation No.	(3) Phase I Discrepancy No.	(4) Acceptance Criteria	(5) Phase II Discrepancy No.	(6) Comments

NOTES:

(1) This is an analysis isometric drawing number.

(2) All deviations are to be listed consecutively.

(3) If this deviation was previously assigned a Phase I discrepancy number, identify the number and do not address columns (4) and (5).

(4) If this deviation is acceptable per existing acceptance criteria, identify the acceptance criteria and page number and do not address column (5).

(5) If this deviation was not assigned a Phase I discrepancy number or is not acceptable per existing acceptance crieria, then this deviation must be assigned a Phase II discrepancy number per EN DES-SEP 82-25, Attachment 4, page 4.

(6) Any related comments of interest should be recorded.

Prepared by _____ _____
CONST/EN DES Date

Reviewed by _____ _____
EN DES Date

79-14 PHASE II
DISCREPANCY EVALUATION FORM
WATTS BAR NUCLEAR PLANT UNIT 1

Revision _____
Page ___ of ___

Discrepancy No.: _____

Support No.: _____

Description of Discrepancy: _____

_____

_____

Significant: _____ Nonsignificant: _____

Definite potential for loss of pressure boundary: _____

Basis for judgment: _____

_____

_____

Resolution: _____

_____

_____

_____

_____ Preparer	_____ Date	_____ Checker	_____ Date
		_____ Supervisor	_____ Date
_____ Concurrer	_____ Date	_____ Reviewer	_____ Date
		_____ Supervisor	_____ Date

79-14 PHASE II

SUMMARY REPORT INSTRUCTIONS

Summary Report

Significant differences between this data and that used in the analysis will be recorded and compared with that obtained in the Phase I inspection. This report will be sent to the NRC.

Outline of Summary Report

Final Response for NRC-OIE Bulletin 79-14 Phase II:

1. Inspection Description

   a. Training
   b. Attendance
   c. Procedure

2. The selected isometrics, including drawing number, system, and number of supports

3. The purpose of Phase II

4. Deviation numbers assigned to all deviations made by the inspection team

5. The results of the deviation evaluation (All deviations must show resolution and/or rationale for acceptance.)

6. The rationale for the success of the program, or if not successful, the corrective action

7. Backup Data: comparison of Phase I and Phase II parameters for deviations with possible importance to seismic analysis

DISTRIBUTION

FOR

EN DES-SEP 82-25

		Number of Copies
R. O. Barnett	W9D224 C-K	2
J. C. Standifer	204 GB-K	7
ESB Procedures Control Section	S70 C-K	1
MEDS	W5B63 C-K	1
R. M. Pierce	104 ESTA-K	1
E. G. Beasley	W12B21 C-K	1