

WATTS BAR NUCLEAR PLANT

TECHNICAL INSTRUCTION

TI-31.13

WALL THICKNESS MEASUREMENT OF
PIPING, TANKS, AND VESSELS

CURRENT REVISION LEVEL: 1

Prepared By S. L. Lingenfelter

Revised By Brian Cooper

Submitted By *P. Cantaga*
Supervisor

FORC Review Date 2/20/85

Approved By *[Signature]*
Plant Manager

Date Approved 2/20/85

Last page of this instruction: 5

- 1C Doc Control Unit, 1520 CST2-C
- 1C NRC
- 1C NSRS, 249 A HBB-K
- 1C Plant Master File
- Plant Manager
- Supv (O&E)
- Supt (Maint)
- Plant Adm Svs Supv
- ASE Duty Station
- Bldg Services Supv
- Chem Lab
- Chem Unit Supv
- Chief, Nuclear Safety Staff
- 1C Chief, Nuclear Training Branch
- Chief, Operations QA Branch, 401 UBB-C
- Compliance Unit
- Component Engg & Svs Group
- DPSO-WBN
- Dwg & Vendor Manual Supv
- Elect Maint Supv
- Engg Group Supv
- 1C Engg Section Supv
- 1C Health Physicist
- Health Physics Lab
- 1C Instr Maint Supv
- 1C Instr Shop
- Materials Unit Supv
- 1C Mech Maint Supv
- 1C Mech Unit Supv
- 1C Modifications Manager
- Operating Instruction Coordinator
- 1C Operations Supv
- Operator Training Classroom
- P&S Supv
- 1C Plant QA Supv
- Plant Training Officer
- 1U Plant Training Shift Engr
- 1C Power Stores Unit Supv
- Preop Test Supv
- Public Safety
- Reactor Unit Supv
- Safety Engr
- 1C Shift Engr's Office
- Support Svs Supv
- Tech Support Center
- 1C Unit 1 Control Rm
- 1C Unit 2 Control Rm
- 1C John Raulston, NEB, W10A63 C-K
- Site Director
- Site Svs Manager
- Design Svs Manager
- 1U Regulatory Engineer
- 1U Metallurgy & Codes Section, 1410 CST2
- 1C Mech. Maint. Shop/Office
- 1C Insurer Inspection

WEM
TI-31.13
Page 1 of 1

HISTORY OF REVISION/REVIEW

<u>REV. NO.</u>	<u>DATE</u>	<u>REVISED PAGES</u>	<u>REASON FOR CURRENT REVISION (INCLUDE ALL TEMPORARY CHANGE NUMBERS)</u>
0	07/06/84	N/A	New Procedure
1	2-20-85	All	General revision

WALL THICKNESS MEASUREMENT OF PIPING, TANKS AND VESSELS

1.0 SCOPE

This instruction is for ultrasonic examination of piping, tanks, and vessels for wall thinning conditions, such as pitting, erosion and corrosion. This procedure is for thicknesses up and including 1/2 inch.

2.0 REFERENCES

2.1 Source Document

2.1.1 DPM N80E3, procedure N-UT-26

2.2 Other Document

2.2.1 Inspection program TS 09.01.01.14.02

3.0 TEST EQUIPMENT

3.1 Krautkramer-Branson Model USL-38 with dual element 3/8" diameter search unit.

3.2 Couplant material (petroleum jelly or ultra gel), TI-35 approved.

3.3 Calibration standards (standard step wedge .1" - .5" thick in .1" graduations).

3.4 Form TVA 7931 for ultrasonic test inspection. (See attachment 1.)

4.0 PRECAUTIONS AND PREREQUISITES

4.1 Use proper ear and eye protection.

4.2 Prior to working in any suspected radiation or contaminated areas notify HP for assistance.

4.3 Personnel must be qualified Level II or III for reading scope.

5.0 RESPONSIBILITIES

5.1 The Mechanical Engineering Unit shall be responsible for proper location, marking, and identification of grids.

5.2 The Mechanical Engineering Unit shall complete sections 1 through 5 on page 1 of attachment 1 and furnish drawings/sketches showing identification and location of each grid to be examined.

5.3 The NDE Inspection Section shall be responsible for performance of wall thickness measurements. They shall complete sections 6 through 8 on page 1 of attachment 1 and shall complete page 2 of attachment 1. The completed attachment 1 shall be forwarded to the Mechanical Engineering Unit.

WAW
TI-31.13
Page 2 of 2
Revision 1

5.4 The Welding and Metallurgy Section shall be responsible for reviewing and evaluating wall thickness measurements.

6.0 INSTRUCTIONS

6.1 Wall thickness measurements shall be performed in accordance with DPM N80E3, procedure N-UT-26.

WBN
TI-31.13
Page 1 of 2
Revision 1

ATTACHMENT 1

DATA FORM FOR ULTRASONIC TEST INSPECTION
OF CARBON STEEL PIPING

1. Unit and System: _____
2. Location: _____
3. Grid No.: _____
4. Pipe Diameter: _____
5. Schedule or Nominal Wall: _____
6. Date: _____
7. Sketch of Grid Location: _____
8. Inspector (Signature): _____

Comments:

