

10/6/81  
J. Kane

NRC MEETING AGENDA  
Meeting of Oct. 6, 1981

- I. Introduction
  - A. Meeting Purpose
  - B. Previous Activities and Meetings
  - C. Schedule and Activities
  - D. Recent Telecons
- II. Proposed Demonstration Solution
  - A. Acceptance Criteria
    - 1. Ovality Measurements
    - 2. Construction Hydro
    - 3. Periodic Verify of Acceptable Flow
    - 4. Inservice Inspection
- III. Limitations of Analytical Solution
  - A. Difficulty in Truly Modeling the Problem.
  - B. SMA Study on Soils Forces Required
  - C. No as Built Dimensions of Installed Conditions.
  - D. QCI Requirements
  - E. Basis of Acceptance Criteria
- IV. Preliminary 1981 Measurements Results
  - A. SRI Measurement Techniques
    - 1. Profiling
    - 2. Out of Roundness
  - B. Data Presentation
    - 1. Profiles for 1981 Data Compared with 1979 Data
    - 2. Ovality Measurements Results
- V. Miscellaneous Concerns
  - A. Overburden loads - 50.54(f) Question 34
  - B. Fuel oil lines
  - C. Rebedding and Realignment
    - 1. 10"-OHBC-27, 8"-2HBC-311, 8"-2HBC-310
    - 2. 36" Service Water Header Fix for Adequate Rattle Space
  - D. Sizing Pig Operation
    - 1. 8"-1HBC-310, 8"-1HBC-311, 8"-2HBC-81, 8"-2HBC-82
  - E. BWST Lines
- VI. Summary

8408030042 840718  
PDR FOIA  
RICE84-96 PDR

11/1/81

10/6/81

# ATTENDANCE

10/6/81

O. F. LEWIS	BECHTEL
D. E. Sibbald	CPO.
J. C. Isaacson	TES
D. M. BUDZIK	CPCO
F. C. Cherry	NRC/DE/MEB
MARK HARTZMAN	NRC/DE/MEB
A. J. CAFUCCI	NRC/DE/MEB
W. P. CHAN	ETEC
H. L. PRAMMER	NRC/DE/MEB
DARL HOOD	LB#4/DH/NRR
BILL CLOUTIER	CPCO
TED SULLIVAN	NRC/ASB
Roger Huston	Consumers Power
James Brynne	"
Joseph Kane	NRC, DE, HGEB
Hari Narain Singh	US Army Corps of Engineers Chicago
DINESH GUPTA	NRC, DE, HGEB
Gil Kealey	CPCO
<del>W. Cloutier</del>	<del>CPCO</del>

10/6/81  
1st  
J. Kune

Subject: Underground Piping  
Reprofiling started in May 1981

Acceptance criteria = 8% ovality limit  
(out of roundness)  $\left[ \frac{\text{max } \phi - \text{min } \phi}{\text{nominal } \phi} \right]$

cited SRP 2-9.3

Construction Hydro Test

Test Pressure =  $1/4 \times$  system design pressure. Hold test interval for 1 hr.  
Monitor test pump leakage (will be background for future readings)

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Efforts to demonstrate future capability

Periodic flow verification (Min. flows can perform necessary functions)

Periodic in-service inspection

In service inspection @ interval  
3, 7, 10, 13, 17 yrs

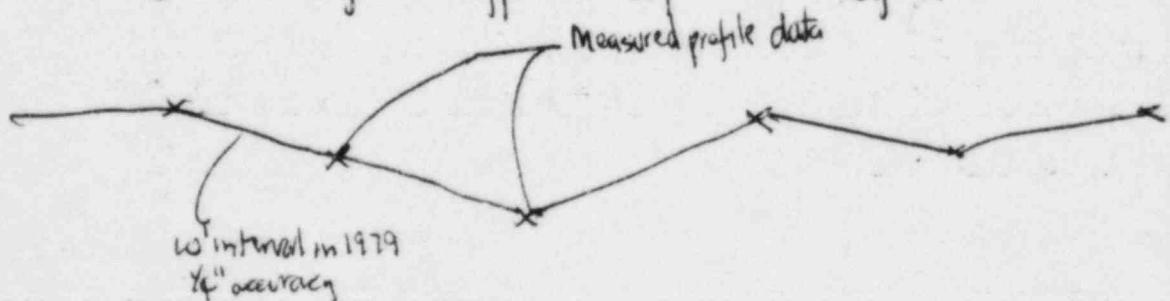
Ensure Pressure Boundary Integrity

ASM XI - 1980 Edition - Through Winter 1980 Addendum

Hydrostatic leakage - once each 10 yrs

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Limitations on analytical approach experienced by CPO



10/2/81  
2 of

New Profiling - attempted to improve reading accuracy  
new, accuracy =  $\pm 1/16$ " - decreased reading interval

### Conclusions

- A lot of discontinuities are a result of fabrication & initial installation

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### Procedure for Profiling - Don Sibbold

Pulled valves @ East side of Turbine & SW Structure to permit entrance

Cut line (Train B) to permit cleaning  
Measured  $2\frac{1}{2}$ " on each side of weld ~~on~~  
then @  $5'$  interval (closer @ elbows)

Instrument 1979 - Nold Aquaducer

Southwest Research - see handout

For small <sup>20"</sup> pipe - Southwest is developing a crawler (160#)

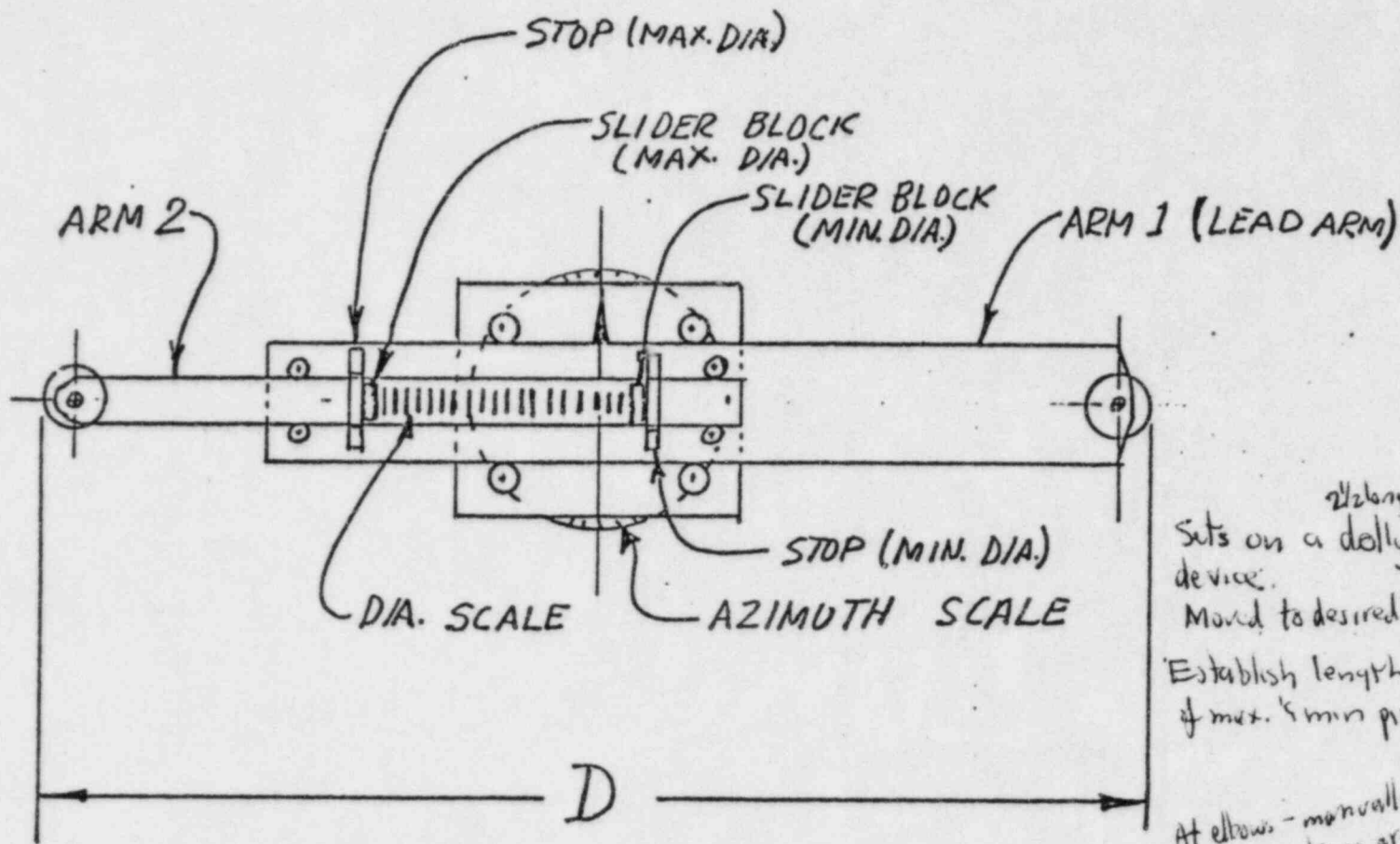
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$$\% = 100 \times \frac{\text{Max } \phi - \text{Min } \phi}{2\frac{1}{4} \text{ (nominal } \phi)} \quad (\text{are I.D.})$$

↳ for 26" pipe

Profiling that has been completed indicates max of 2% ovality  
(Code allows 8%)

Discussed by Don Sibbald

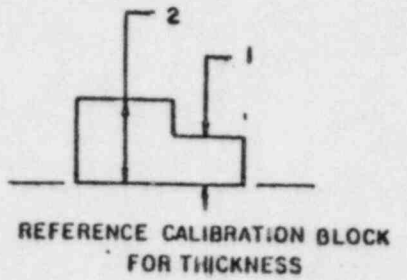
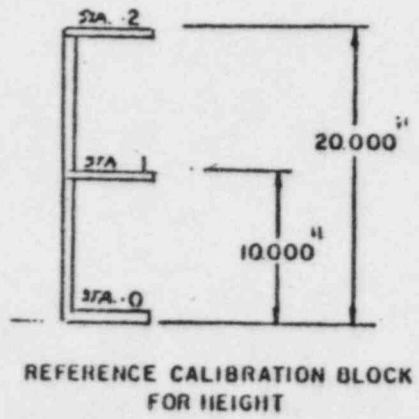
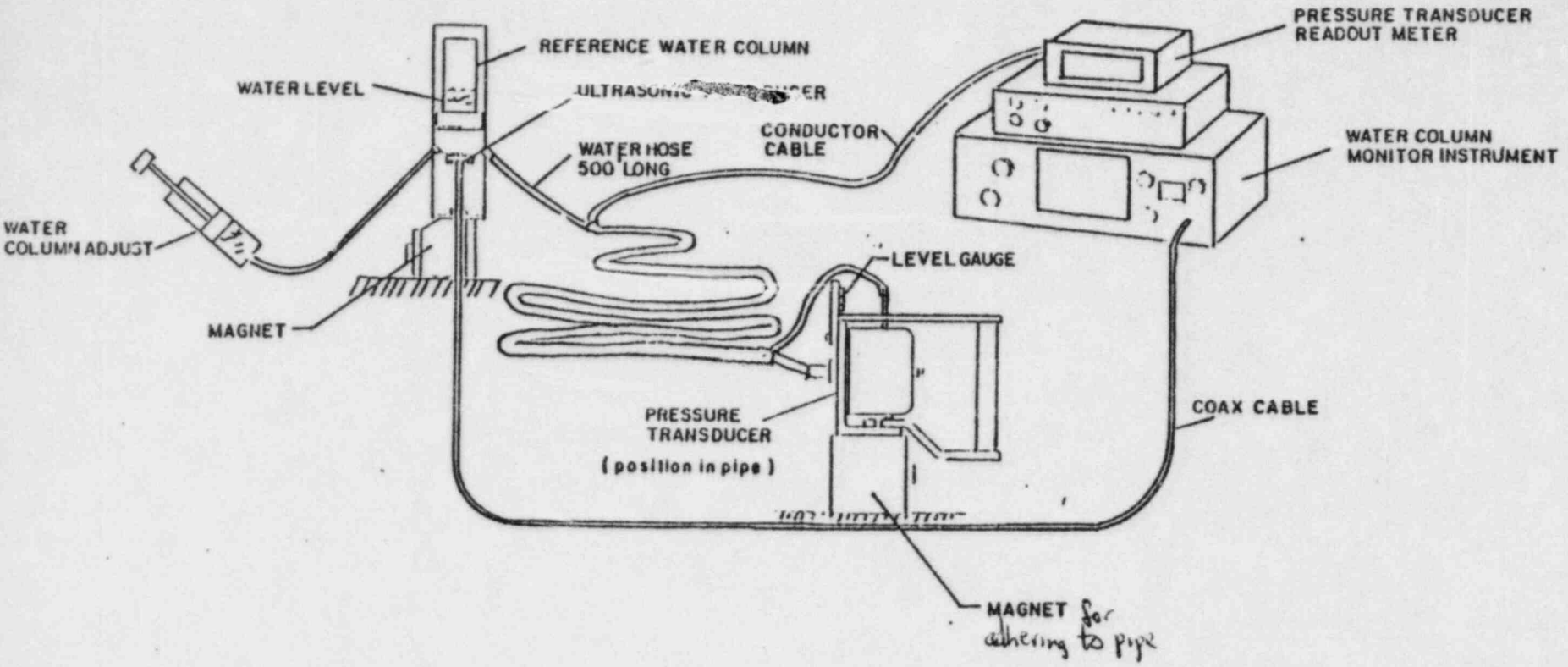


2 1/2 long  
Sets on a dolly w/ leveling device.  
Moved to desired location  
Establish length & azimuth of max. & min pipe diameter  
At elbows - manually located @ 50° locations around pipe diameter

Southwest Research

For 24" to 36"  $\phi$  pipes

SKETCH - SwRI OUT-OF-ROUNDNESS MEASUREMENT INSTRUMENT

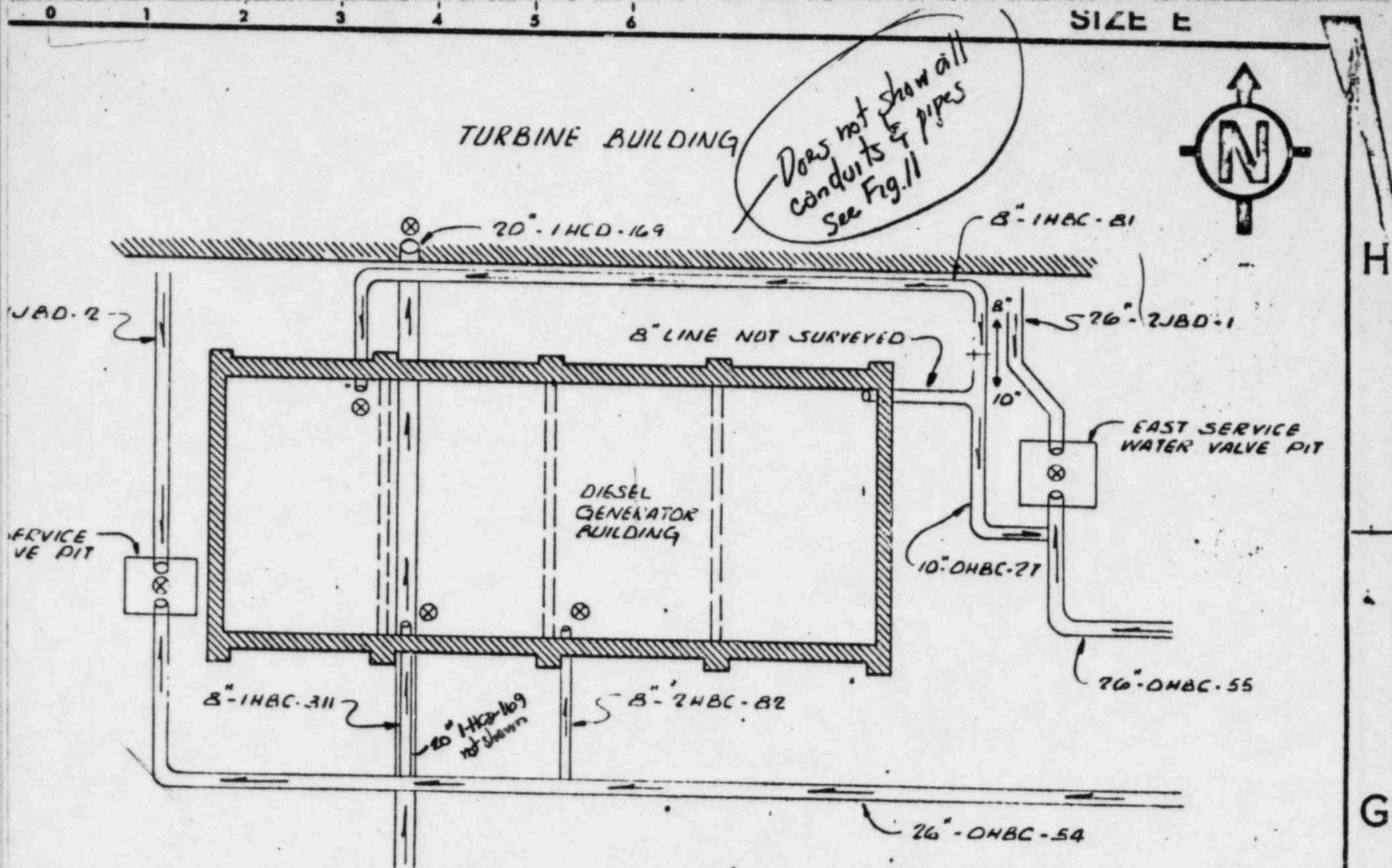


SCHMATIC- PIPE ELEVATION PROFILE MEASUREMENT SYSTEM



TURBINE BUILDING

Does not show all conduits & pipes See Fig. 11



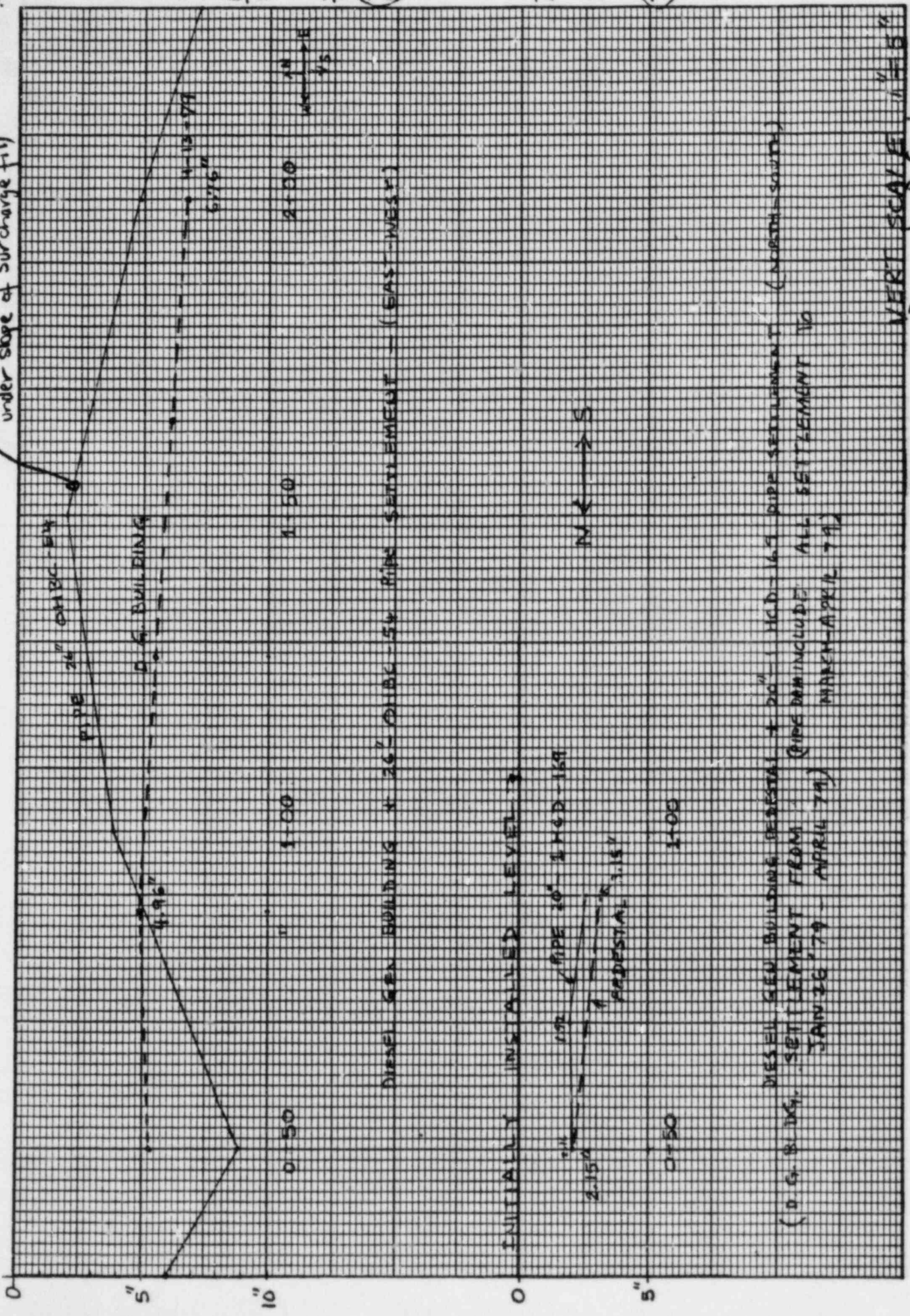
LEGEND

- ⊕ POSITION OF READ-OUT UNIT
- ≡ DIRECTION THAT PROBE WAS FILLED DURING READINGS

KEY PLAN



Not under full surcharge load, but  
 under slope of surcharge fill



1.8" / 115' (Rad)

1" / 40' (Rad)

DIESEL GEN BUILDING, DISTAL + 210" (H.C.D. - 16.5 PIPE SETTLEMENT (NORTH-SOUTH))  
 (D. G. B. BLDG. SETTLEMENT FROM (PIPE DRAIN INCLUDE ALL SETTLEMENT TO  
 JAN 26 '79 - APRIL 79) MARK - APRIL 79)

Drawn by D. Gupta  
 Nov. 4, 1980

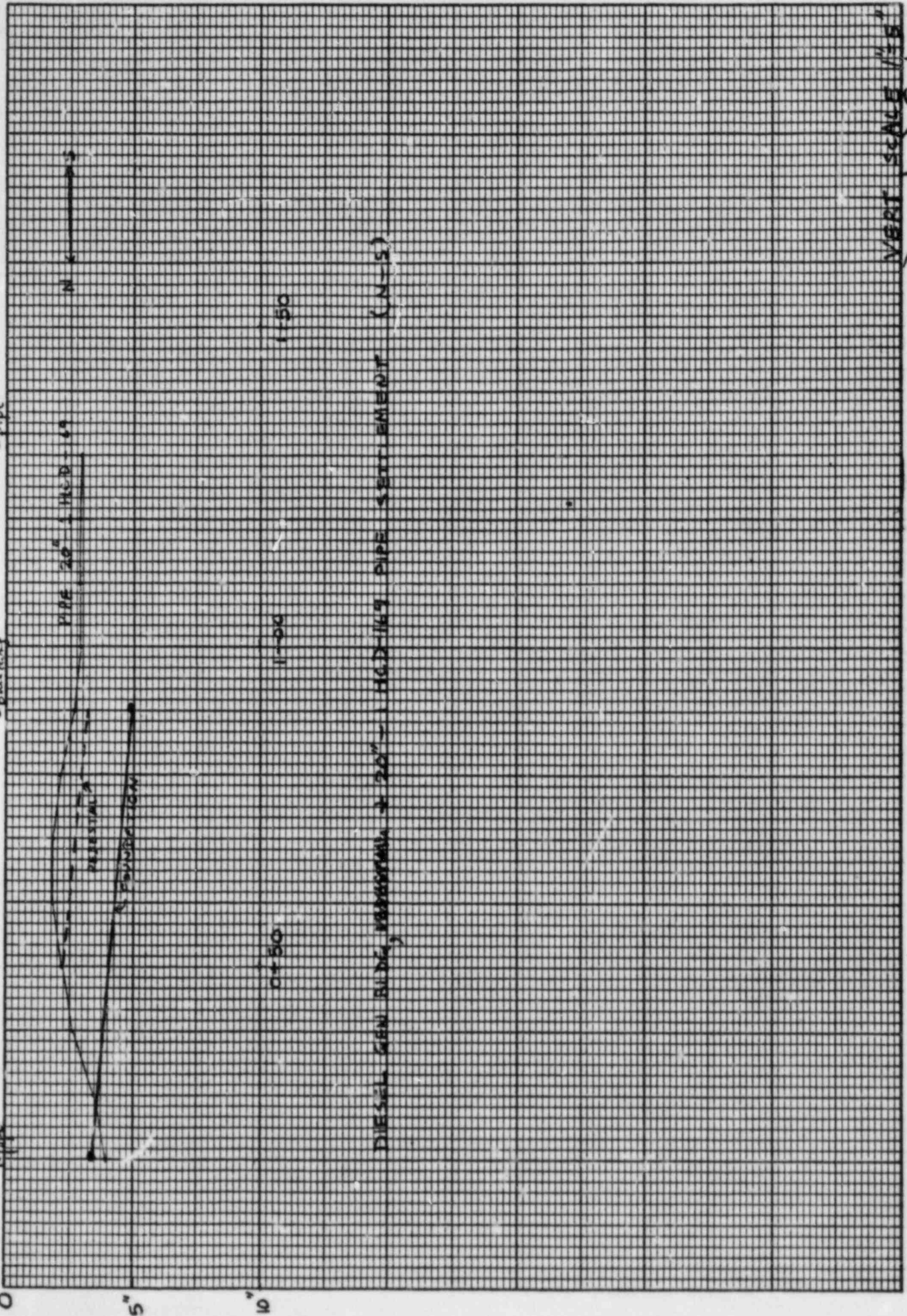
K&E 12 X 20 TO THE INCH 46 1973  
7 X 10 INCHES  
MADE IN U.S.A.  
KRUPP & ESSER CO.

N Pipe

↳ Pedestal

↳ Building

↳ Spibe



VERT. SCALE 1/16"  
Drawn by D. Gupta  
Nov. 4, 1980

References

DRAWING 43 Settlement of 22 & 25 (NS)

DRAWING 60 PROFILES 26"-OHBC-54 (EW)  
20"-1HCD-169 (NS)

FIGURE 27-3 VOL 2 RESPONSES TO NRC QUE. (REV 5)  
SHOWING LOCATION OF PEDESTAL MARKERS

FIGURE 27-53, 27-54, 27-56 and 27-59 - Vol 2  
RESPONSES TO NRC QUE (REV 6)  
SHOWING SETTLEMENT OF MARKERS  
SINCE 1-26-79.

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DRAWING 11 STATIONS ALONG PIPE 26"-OHBC-54

DRAWING 14-1 SETTLEMENT OF DG BLDG (EW)

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