NRC

AP 1001

Figure 1001-8

Three Mile Island Nuclear Station

Special Operating Procedure

SIDE 1

SOP No. 2-37 (REV 1)

(From SOP Log Index)

NOTE: Instructions and guidelines in AP 1001 must be followed when completing this form.

Unit No. 2

Date 4-4-79

1. Title Alternate Pressurizer Level Indication

2. Purpose (Include purpose of SOP) To provide alternate source of pressurizer level indication in the event RC1-LT1, 2 & 3 all fail

3. Attach procedure to this form written according to the following format.

A. Limitations and Precautions
   1. Nuclear Safety
   2. Environmental Safety
   3. Personnel Safety
   4. Equipment Protection

B. Prerequisites

C. Procedure

Attached

4. Generated by ______ Date ______

Duration of SOP - Shall be no longer than 90 days from the effective date of the SOP or (a) or (b) below – whichever occurs first.

(a) SOP will be cancelled by incorporation into existing or new permanent procedure submitted by ______ ☐

(b) SOP is not valid after ______ ☐

(fill in circumstances which will result in SOP being cancelled)

6. (a) Is the procedure Nuclear Safety Related?
If "yes", complete Nuclear Safety Evaluation. (Side 2 of this Form) . . . . . Yes ☐ No ☐

(b) Does the procedure affect Environmental Protection?
If "yes", complete Environmental Evaluation. (Side 2 of this Form) . . . . . Yes ☐ No ☐

(c) Does the procedure affect radiation exposure to personnel? . . . . . Yes ☐ No ☐

NOTE: If all answers are "no", the change may be approved by the Shift Supervisor. If any questions are answered "yes", the change must be approved by the Unit Superintendent.

7. Review and Approval

NRC [signatures]

Approved – Shift Supervisor [signature] 4/4/79

Date

Reviewed – List members of PORC contacted [signature] 4/4/79

Date

6 Ew iiFP 4-4-79

[signature] 4/4/79

Date

[signature] 4/4/79

Date

NRC [signature] 4/4/79 Approved - Unit Superintendent [signature] 4/4/79

Date

[signature] 4/4/79

8. SOP is Cancelled

______ Shift Supervisor/Shift Foreman ______ Date

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"EVALUATION"

AP-1001 | Three Mile Island Nuclear Station | SIDE 2

Figure 1001-8 | Nuclear Safety/Environmental Impact Evaluation | SOP No. _____

1. Title _____

2. Nuclear Safety Evaluation

Does this SOP:

*(a) increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety? . . . . . yes☐ no☐

*(b) create the possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report? . . . . . yes☐ no☐

*(c) reduce the margin of safety as defined in the basis for any technical specification? . . . . . yes☐ no☐

Details of Evaluation (Explain why answers to above questions are "no". Attach additional pages if required.)

Evaluation By _____ Date _____

3. Environmental Impact Evaluation

Does this SOP:

(a) possibly involve a significant environmental impact? . . . . . yes☐ no☐

*(b) have a significant adverse effect on the environment? . . . . . yes☐ no☐

*(c) involve a significant environmental matter or question not previously reviewed and evaluated by the N.R.C. . . . . yes☐ no☐

Details of Evaluation

Evaluation By _____ Date _____

*NOTE: If these questions are "yes", the change must receive N.R.C. approval.

4. Review (PORC review of evaluation is required only when requested by the Station Superintendent/Unit Superintendent. If this review is made, the PORC must consist of two off-site members.)

1. _____

2. _____ Off-Site Members | _____ PORC Chairman Signature | _____ Date

5. Approval

_____ Station Superintendent/Unit Superintendent | 130 256 Date

B. Prerequisites

The following valves are closed prior to commencing work:

CA-V-6		
SN-V101		
CA-V1	From Control Room	~~SN-V4~~
CA-V3		~~SN-V5~~
CA-V10		~~SN-V3~~
~~SN-V101~~		~~SN-V4~~
		~~SN-V110~~

~~From Sample Sink~~

C. Procedure

1. Locate SN-V101 in Unit #1 Sample Sink.
2. Install 1/4" - 1/8" reducing on 1/4" tubing downstream of SN-V101 (Refer Fig 1).
3. Route a run of 1/8" SS tubing from sample sink into rad. chem lab.
   NOTE: Route tubing run from SN-V101 along floor against wall such that shielding can be installed around tubing (except doorway as necessary).
4. Install 1/8" - 1/4" reducer, isolation valves, pipe tee with 0-3000 psig Hiese Gauge and cap as shown in Figure 1.
   See NOTE. Fill newly installed tubing with water and vent water thru Heise Gauge prior to connecting tubing to SN-V101, after to remove air from tubing.
5. Remove cap on pipe Tee and hookup hydro pump.
6. Pressurize tubing back to SN-V101 to 2500 psig and check for leaks. Repair leaks as needed, then vent pressure when complete.
7. Isolate hydro pump by closing SN-VT3, Remove hydro pump and replace cap on pipe tee.
8. Close isolation valves SN-VT1, SN-VT2, SN-VT3.
9. ~~Install lead brick shielding prior to sampling pressurizing Heise gauge from primary system.~~

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~~11. Install Sample Bomb tubing caps on ends of~~

D. Operation of System to obtain alternate pressurizer level indication.

1. Prior to leaving Unit 1 Sample Sink / Rad Chem Lab area perform following valve line up.

Lineup for SN-V5

a.	SN-V2	OPEN
b.	SN-V5	OPEN
c.	SN-V-T1	OPEN
d.	SN-V-T2	OPEN
e.	SN-V-T3	CLOSE

2. When alternate level indication is required as determined by Shift Supervisor, perform the following valve line up from control room.

a.	CA-V10	OPEN
b.	CA-V1	* OPEN (Steam Space Indication
	OR	
	CA-V3	* OPEN (Water Space Indication

* Only one valve will be open @ a time depending on which Steam Space Indication (CA-V1) or Water Space Indication (CA-V3) is desired.

Lineup for SN-V101

SN-V2	closed	SN-VT3	CLOSE
SN-V3	closed	SN-V1	OPEN
SN-V4	OPEN	SN-V110	CLOSED
SN-V101	OPEN	SN-V6	CLOSED
SN-VT1	OPEN	SN-V5	CLOSED
SN-VT2	OPEN	SN-V109	CLOSED
		SN-V7	CLOSED
		SN-V161	CLOSED
		SN-V174	CLOSED

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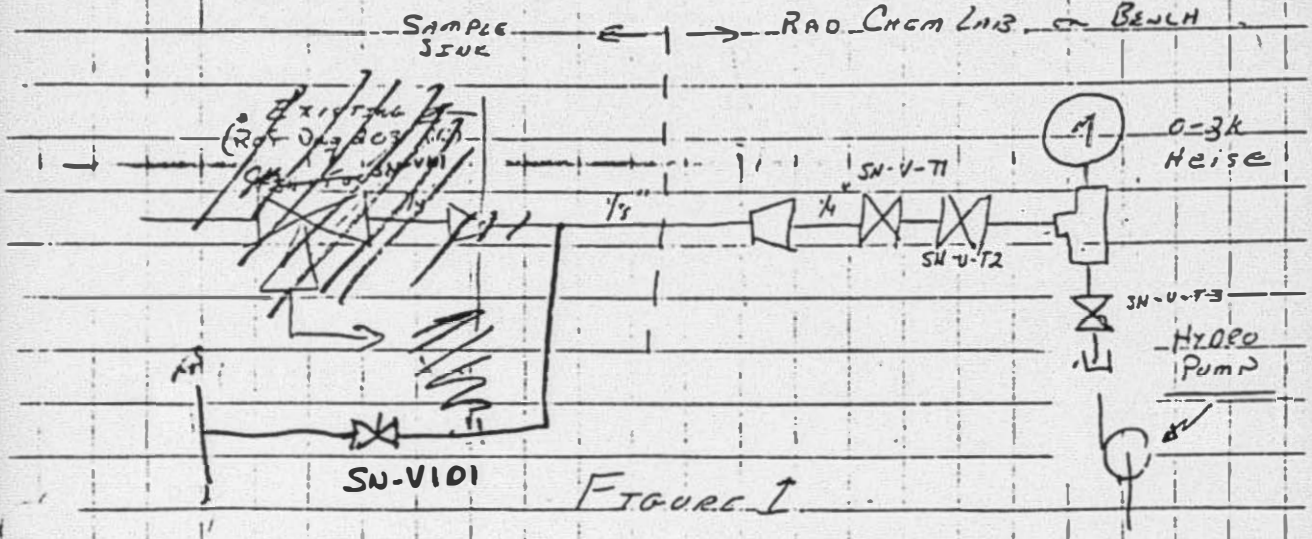

FIGURE 1

* Partial figure 2 Ref. Dwg 2031

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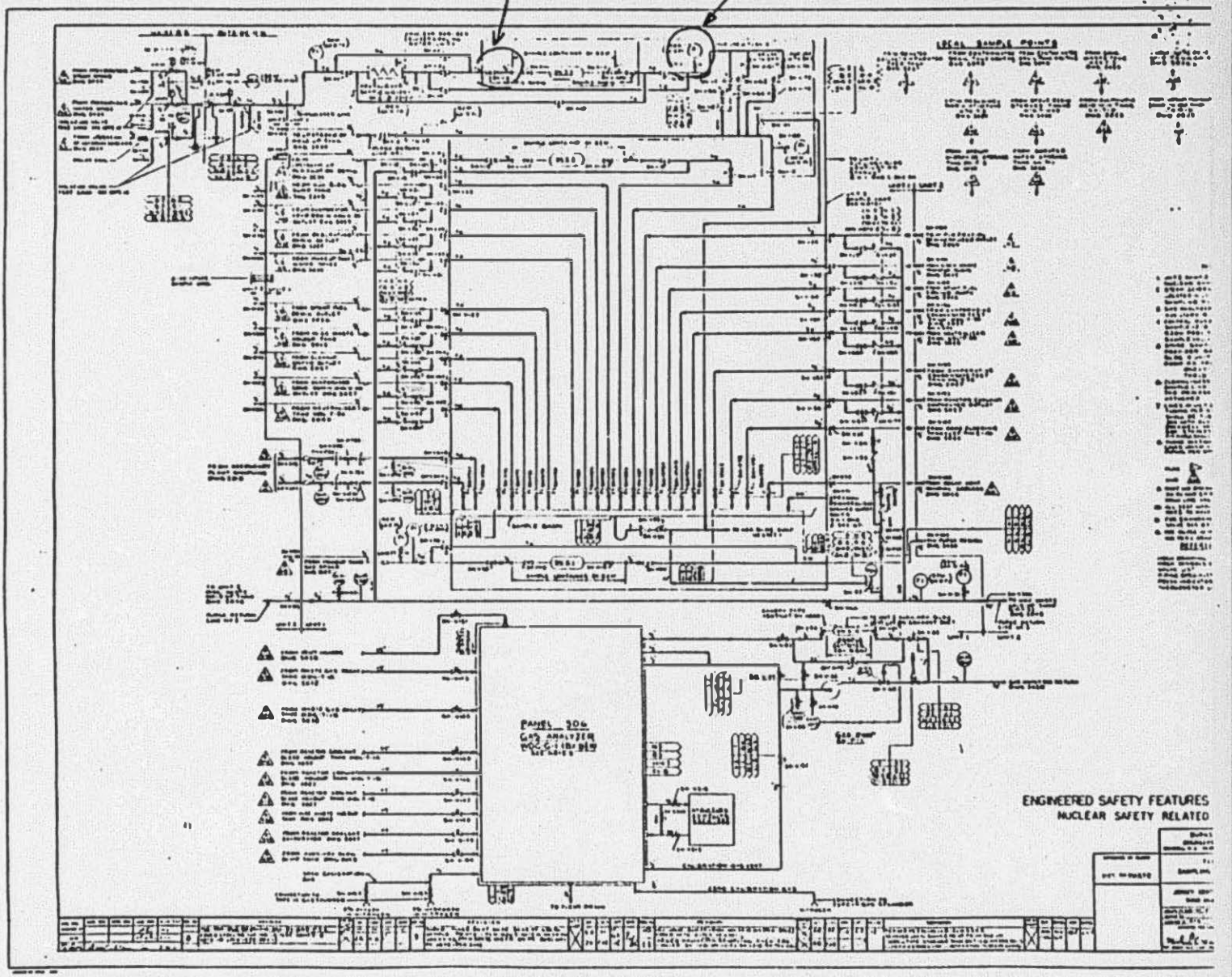

Figure 2

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