A 1001
Figure 1001-8

Three Mile Island Nuclear Station

Special Operating Procedure

SIDE 1

SOP No. 2-20
(From SOP Log Index)

Unit No. 2

Date 4-2-79

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

NRC

1. Title Reactor Building H2 Sampling

2. Purpose (Include purpose of SOP)
Obtain sample of containment atmosphere

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

CONTROLLED COPY
CONTROL ROOM
FILE COPY

4. Generated by ______________ Date 4-1-79

5. 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)

NA

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 ☐

NA

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
   Approved – Shift Supervisor B Mehler 4-2-79
   Date
   Reviewed – List members of PORC contacted [illegible] 4/2/79
   Date
   John A. Brummer (VCL) 4/2/79
   Date
   James R. Paulles 4/2/79
   Date
   Approved - Unit Superintendent T.H. Connor 4-2-79
   Date
   [illegible] 4-2-79

NRC

B+W

R.W. Dubiel 4/2/79

NCRA

8. SOP is Cancelled

______________ Shift Supervisor/Shift Foreman ______________ Date

130 083

TMI-63 Rev. 3/77

Z-20
Rev. 0
4-2-79

TMI NUCLEAR STATION
REACTOR BUILDING HYDROGEN SAMPLING

1.0 Purpose

The purpose of this procedure is to install an on-line Hydrogen Analyzer for sampling the reactor building and to explain the operations necessary to take a sample.

2.0 References

2.1 TMI-2 HP Proc. 1631.2 Sampling of Waste Gas Decay Tanks and Reactor Building.

2.2 TMI-2 Dwg. 2041 Rev 19 "Flow Diag-Reactor Building Ventilation and Purge.

3.0 Precautions

3.1 During purging of sample lines, personnel should withdraw from area to minimize radiation exposure.

4.0 Analyzer Installation

4.1 Close containment isolation valves AH-V101 through AH-V108.

4.2 Close RSR-FV1, RSR-FV12, RSR-FV9 and RSR-FV11.

4.3 Install analyzer between RSR-FV9 and RSR-FV11.

4.3.1 Hang a temporary mod change tag on the analyzer when installed.

4.4 Open RSR-FV1, RSR-FV9, RSR-FV-11, RSR-FV12 and RSR-FV3.

4.5 Open containment isolation valves AH-V101 through AH-V108.

4.6 Start sampling pump HP-R-227 from local switch.

4.7 Adjust flow meter "C" needle valve for 2000 cc/min.

4.8 Turn sampling pump off and return switch to AUTO.

4.9 Turn on the hydrogen sample analyzer. Let analyzer warm up for 30 minutes before performing section 5.0.

4.10 Shut RSR-FV1 and RSR-FV12.

4.11 Shut containment isolation valves AH-V101 through AH-V108.

5.0 Sampling Reactor Building Hydrogen

130 084

5.1 Open RSR-FV1 and RSR-FV12.

5.2 Open containment isolation valves AH-V101 through AH-V108 from the control room.

5.3 Start HP-R-227 Sample pump from the control room.

5.4 Verify flow through flow meter C and purge lines for 5 minutes.

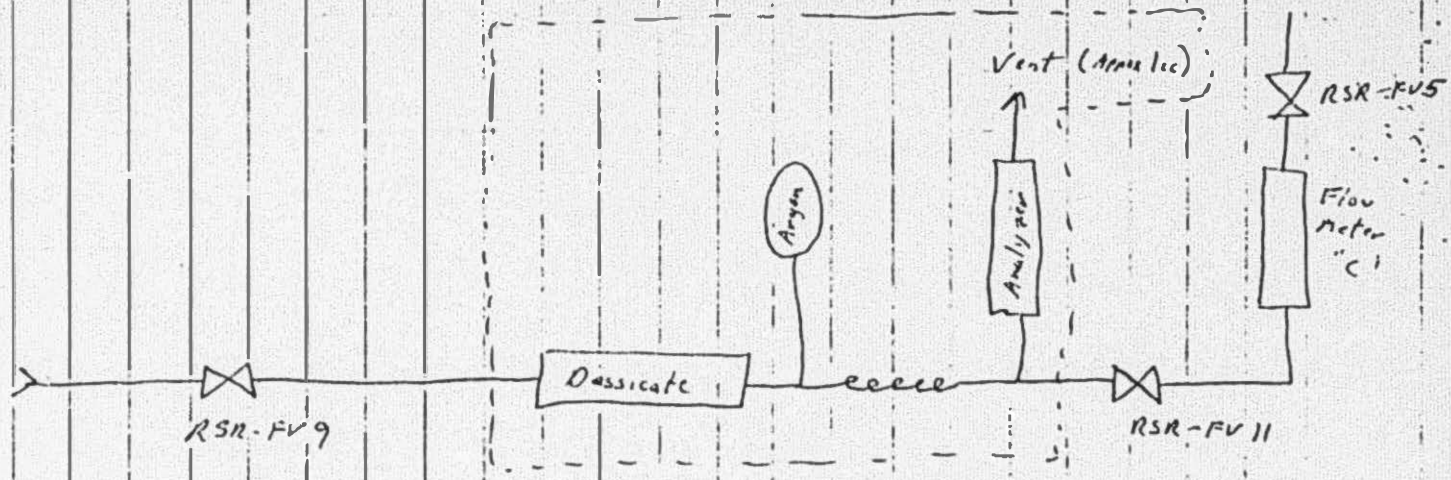
5.5 Push "ANALYZE" button and hold for a minimum of 5 seconds and a maximum of 10 seconds; pull to out position.

5.6 Shut RSR-FV1 and RSR-FV12.

5.7 Turn off sample pump from control room.

5.8 Close containment isolation valves AH-V101 through AH-V108 from control room.

QW



Vent (Approx 1cc)
RSR-FV5
Flow meter "C"
Argon
Analyzer
Dassicate
RSR-FV9
RSR-FV11

SKETCH #1

REACTOR BUILDING SAMPLING PANEL

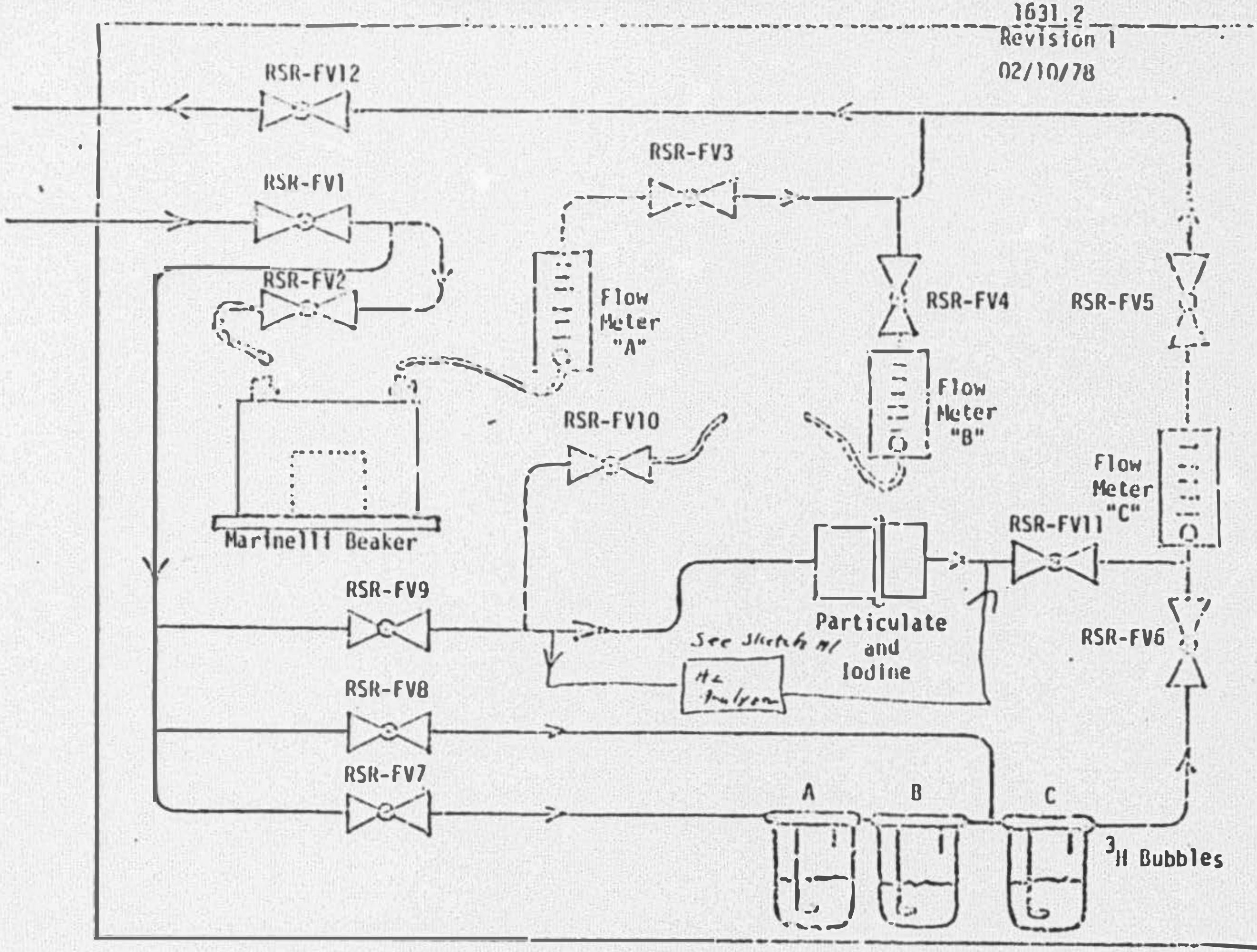


FIGURE 2