

*Shipping records replaced by 2-51*

AP 1001  
Figure 1001-8

Three Mile Island Nuclear Station  
Special Operating Procedure

SIDE 1 E-47  
SOP No. FEW-19201  
(From SOP Log Index)

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

*about the unit!*

Unit No. I & II  
Date 4/4/79

1. Title Release from INTS (IWFS) and Neutralizing Tank

2. Purpose (include purpose of SOP)  
To monitor releases from the above systems

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

**NRC**

4. Generated by CE Hartman Date 4/4/79

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 N/A   
(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 Station Superintendent/Unit Superintendent.

7. Review and Approval

NRC V. Mitchell Approved - Shift Supervisor \_\_\_\_\_ Date \_\_\_\_\_

ALARA E. Keegan Reviewed - List members of PORC contacted  
W. J. [unclear] U-1 4/4/79 Date \_\_\_\_\_  
J. [unclear] U-1 4/4/79 Date \_\_\_\_\_  
J. [unclear] U-1 4/4/79 Date \_\_\_\_\_  
J. [unclear] U-1 4/4/79 Date \_\_\_\_\_

J. [unclear] Approved - Station Superintendent/Unit Superintendent \_\_\_\_\_ Date \_\_\_\_\_

8. SOP is Cancelled

\_\_\_\_\_  
Shift Supervisor/Shift Foreman Date T30 294

## 1.0 Discharge from IWIS (IWFS) and Neutralizing Tank.

### 2.0 Purpose

To monitor and control release from the IWIS (IWFS) and the neutralizing tank while isotopes are present in concentrations greater than MPC.

### 3.0 A Limits and Precaution

- 1) Nuclear - None
- 2) Environmental - ① assure pH is within limits
- 3) Personnel - None releasing. ② Prompt sample analysis must be performed while
- 4) Equipment - None

### B Prerequisites

- 1) H-asure approvals are obtained prior to commencing release

## C.1 Procedure - Release of IWTS (IWFS)

1. Prior to commencing discharge to the river obtain a grab sample from the sump with the mixers running. Sample volume shall be 500 mls.
2. Obtain isotopic analysis of sample.
3. Complete IWTS (IWFS) Water Sample Analysis Calculation Sheet. Use 150 gpm release rate for calculation of Dilution Factor unless a higher release rate is planned. Verify the final fraction is  $< 1.0$ . If MPC levels are exceeded, do not release water.
4. Verify the pH is between 6 and 9.

5. Obtain approval to commence release from the following:

V.P. Generation

~~PA. BRH~~

~~MPC~~

~~Governor of Pennsylvania~~

Attached  
detailed  
isotopic  
analysis  
sheet  
to form.

6. Start up IWTS (IWFS) and commence  
on: DE release per OP 1104-50A(50B). Control release rate  
RM-L7 alarm,  $\leq$  flow used in DE calculation.
7. Notify the Unit 1 and Unit 2 Control Room  
personnel that the discharge is in progress,  
And if effluent flow is reduced calculate a  
new MPC fraction for the release (must be  $< 1.0$ ).  
Notify control room to inform release operator if RM-L7 alarm,  
so that they can terminate discharge.
8. Obtain 500 mL grab samples from point 107(104)  
~ every 2 hours while discharging. Insure priority  
analysis. Complete a calculation sheet using  
actual flow rates and verify that the final  
fraction of MPC is  $< 1.0$ . If the final MPC  
fraction is  $\geq 1.0$  immediately terminate the  
release and notify Unit 1 Control Room.

Note: Additions to the system being discharged  
are permitted only if in accordance with  
SOP Z-33.

## C.2 PROCEDURE Release of ~~the~~ Secondary Neutralizing Tank from Unit 1

1. Obtain <sup>500 ml</sup> samples for chemistry and isotopic analysis
2. Prepare calculation sheet <sup>using 110% of intended discharge rate</sup> verify that the final fraction is less than ~~the~~ 1.0. Do not release tank if MPC levels will be exceeded.
3. Verify that pH is between 6 and 9.
4. Commence release per OP 1104-18. If RM-L7 alarms, notify operator to terminate release <sup>Resample per site</sup>
5. Obtain grab samples and record flow rates every two hours. These samples are analyzed on a priority basis.
6. When isotopic analysis is received verify that the final fraction is  $< 1.0$

If the final fraction is  $> 1.0$   
stop the discharge.

APPROVAL TO RELEASE INDUSTRIAL  
WASTE FILTER SYSTEM.

Unit/Station Supt.

date

VP Generation

date.

Approval to Release Industrial Waste Treatment  
System.

Unit/Station Supt.

date

VP Generation

date

Approval to Release Secondary Neutralizing Tank

Unit/Station Supt

date

VP Generation

date.

