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IMPORTANT TO SAFETY
NON-ENVIRONMENTAL IMPACT RELATED

1004.10
Revision 3
03/19/82

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THREE MILE ISLAND NUCLEAR STATION
UNIT NO. 1 EMERGENCY PLAN IMPLEMENTING PROCEDURE 1004.10
ONSITE/OFFSITE RADIOLOGICAL MONITORING

Official of New Reactor Reg.

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Signature

3/18/82
Date

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3-19-82
Date

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THREE MILE ISLAND NUCLEAR STATION UNIT NO. 1 EMERGENCY PLAN IMPLEMENTING PROCEDURE 1004.10 ONSITE/OFFSITE RADIOLOGICAL MONITORING

1.0 PURPOSE

The purpose of this procedure is to provide guidance to radiation monitoring teams for adequate monitoring of radiation levels, following the accidental release of radioactive materials to the environment. The procedure establishes monitoring team actions to be performed to supplement normal Radiological Controls procedures. The Radiation Monitoring Team is responsible for implementing this procedure.

2.0 ATTACHMENTS

2.1 Attachment I, Radiation Survey Log

2.2 Attachment II, Dosimeter Log

3.0 EMERGENCY ACTION LEVELS

3.1 This procedure is to be initiated upon any of the following conditions:

- a) Alert (as determined by Alert procedure 1004.2)
- b) Site Emergency (as determined by Site Emergency Procedure 1004.3)
- c) General Emergency (as determined by General Emergency Procedure 1004.4)
- d) As directed by the Emergency Director.

4.0 EMERGENCY ACTIONS

INITIALS

- 4.1 Proceed to the Processing Center and obtain an emergency kit, instrument kit, portable radio, pager and emergency respirators.

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- ___ 4.2 Verify seals on the emergency kit and then operationally check radiation meters. (Battery Check, Visual Inspection)
- ___ 4.3 If seals are broken, conduct a brief inventory of equipment.
- ___ 4.4 Prior to leaving the Processing Center, conduct a radio check with the Radiological Assessment Coordinator (RAC) in the Control Room using channel 3. Inform the RAC of your telephone pager number.
- ___ 4.5 Obtain a designated emergency vehicle at the Processing Center.
- ___ 4.6 Ensure your dose rate meter is turned on from the time you leave the Processing Center.
- ___ 4.7 Proceed to the designated monitoring location as directed by the RAC. (See map in emergency kit for specifically designated monitoring point locations.)
- ___ 4.8 Perform radiological surveys (as directed by the RAC).
 - 4.8.1 To perform dose rate surveys with the R0-2(A):
First take an open window reading at waist level, then take a closed window reading at waist level. Enter these readings and duration of meter readings on the Attachment I. Calculate true Beta dose rate and enter this on Attachment I. Report closed window reading and true Beta dose rate to the RAC.
 - 4.8.2 Perform contamination surveys if directed by the RAC as follows:
Obtain smears and coin envelopes from emergency kit, label envelope with date, time and location. Wipe the smear over a 100 cm² (4 in. x 4 in.) area. Count the

smear with RM-14/HP210 if available and background is less than 300 CPM. If background is too high, move to an area of acceptable background in order to count smears. Enter gross CPM and BKG CPM on Attachment I. Subtract background from gross CPM to obtain net CPM. Report net CPM for each smear to the RAC. Save smears in coin envelopes for later analysis as directed by the RAC.

4.8.3 Perform air samples in accordance with Airborne Radioactivity Sampling and Analysis, Procedure 1004.31.

___ 4.9 Call in sampling results to the RAC and await further instructions.

___ 4.10 If radio communications are lost and the pager is activated, attempt to re-establish radio communications with the RAC. If radio communications cannot be re-established, attempt to contact another monitoring team to relay information. If contact cannot be established, drive to the nearest telephone and call the RAC (948-8069, 948-8070, 948-8071) or the EACC (if transfer has been made) at 944-3737, 944-2648, 944-6709.

___ 4.11 Minimize personnel exposures by moving out of areas of high radiation when recording data or awaiting further instructions by the RAC.

___ 4.12 Ensure all team members keep track of their exposure on Attachment II.

___ 4.13 Maintain all completed Attachments I for permanent records. Request direction from the RAC as to the disposition of these completed forms.

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- ___ 4.14 Notify the RAC when approaching 300 mREM. Recommend to the RAC that your team be relieved if possible. Relief should be conducted in a low radiation area.
- ___ 4.15 Retain all samples for later counting and analysis. Samples may be returned to the H.P. Lab or designated collection point at a convenient time as directed by the RAC.
- ___ 4.16 When the Environmental Assessment Command Center (EACC) is activated and takes control of offsite monitoring, begin reporting offsite surveys to the EACC.
- ___ 4.17 Notify the RAC when approaching $3E-10$ mCi/cc airborne radioactivity. Recommend to the RAC that your team don respiratory equipment.

ATTACHMENT I

Location Number	Date	Time	Open Window βγmR/hr	Duration of Meter Reading	Closed Window γmR/hr	Duration of Meter Reading	True β* mR/hr.	CPM(gross)	CPM(bkgd)	Vol (ft ³)	Activity (μCi/cc)

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* $(B\gamma - \gamma) \times C_f = \text{mRad/hr (true } \beta^-)$

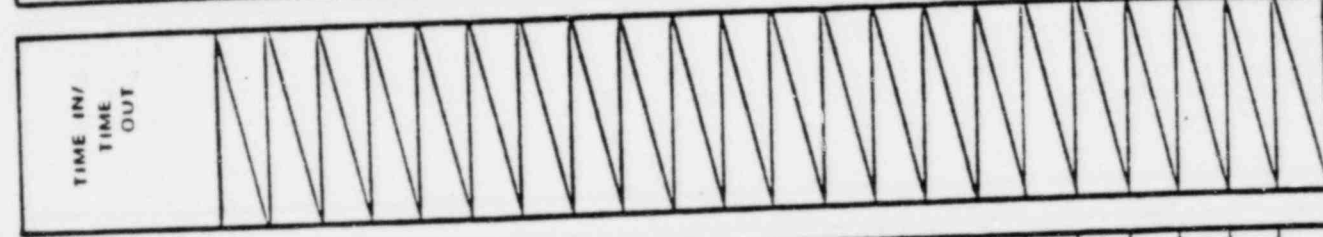
Radiac Inst. S/N and Type _____ Cal. Due _____ Beta Correction Factor _____
 C_F _____
 Air Sampler S/N _____ Flow Rate (CFM) _____ Counting Inst. _____
 Used _____
 S/N _____ Cal. Due _____ Date _____ Tech _____

UNIT CODE

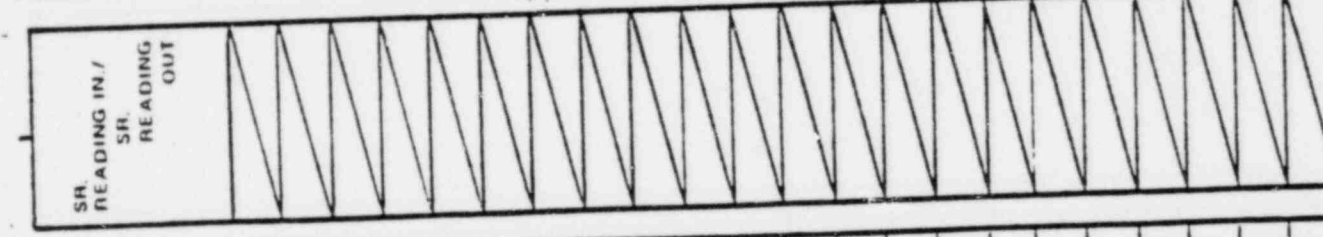
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APPC HOURS USED	CENTHS	
	07	

TOTAL TIME	HR.	MIN
	06	00



TOTAL EXPOSURE RECEIVED MREM	40	43
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EXPOSURE LIMIT MREM		
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SOCIAL SECURITY NUMBER	23	31
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NAME	INIT
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