Davis-Besse Nuclear Power Station

Unit No. 1

Administrative Procedure AD 1850.06

Radiation, Contamination and Airborne Radioactivity Monitoring during Emergencies at the Davis-Besse Administration Building (DBAB)

NUCLEAR SAFETY RELATED

Record of Approval and Changes

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Recommended By [signature], SRB Chairman — 11/3/82 (Date)

QA Approved C. T. Daft, Quality Assurance Director — 12/5/82 (Date)

Approved By [signature], Station Superintendent — 12/8/82 (Date)

Revision No.	SRB Recommendation	Date	QA Approved	Date	Sta. Supt. Approval	Date
1	[signature]	5/10/83	[signature] 5/24/83		[signature]	5/27/83

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1. PURPOSE

1.1 To provide instructions for radiation, contamination and airborne radioactivity monitoring during emergencies at the Davis-Besse Administration Building after it has been determined by the Chemist and Health Physicist or designee.

1.2 To provide instructions for issuing personal dosimetery for emergency response personnel at the DBAB.

1.3 Section 3.1 through 3.5 are to be implemented after the Chemist & Health Physicist or designee has declared that higher than radiological background levels are detected, as determined from a radiation reading, contamination smear, and an airborne I-131 sample collected outside the North Exit of the DBAB.

2. REFERENCES

2.1 HP 1601.04, Radiation, Contamination and Airborne Radioactivity Areas

2.2 HP 1602.01, External Personnel Radiation Exposure Monitoring

2.3 HP 1604.01, Personnel Decontamination

2.4 Code of Federal Regulations 10 CFR 20

2.5 LI 4768.00, Stabilized Assay Meter SAM-2

2.6 EI 1300.07, Technical Support Center Activation

3. PROCEDURE

3.1 Airborne Radioactivity Surveys

1 NOTE: Airborne Radioactivity Samples will be taken to monitor areas routinely in the DBAB at the direction of the Chemist and Health Physicist.

3.1.1 Collect air sample using a Low-Volume air sampler, place a charcoal and particulate paper in the sampler.

3.1.2 Collect the sample for 10 minutes. Record start and stop time. Record Sample Flow Rate and Times on the Lab Data Card.

3.1.3 When sample has been collected, remove charcoal and particulate filters from sampler and place in plastic bag and deliver to C&HP lab in the DBAB with Lab Data Card.

3.3 Radiation Surveys

3.3.1 Radiation surveys should be run on a routine basis in work areas and areas where radioactive material might accululate, ie vent ducts, vent filters and the C&HP lab.

3.3.2 Areas should be posted in accordance with HP 1601.04, Radiation, Contamination and Airborne Radioactivity Areas.

NOTE: Radiation survey points are indicated on Attachment 1.

3.3.3 All survey data should be entered on Attachment V.

3.4 Personnel Monitoring

3.4.1 TLD's will be placed in occupied areas during emergencies at the locations listed on Attachment II. Dosimeters will be issued to all personnel in the DBAB Emergency Response Area by the Security personnel. Dosimeters will be read out periodically at the direction of the Chemist and Health Physicist.

3.4.2 TLD dosimetry will be picked up when directed by the Chemist and Health Physicist or when the emergency no longer exists. Dosimeters will be returned prior to leaving the DBAB.

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3.4.3 Emergency Personnel Dosimeter Issue Log will be filled out for all persons issued dosimeters during the emergency.

3.4.4 Dosimeter shall be worn for the duration of the emergency and controlled by security persons at the DBAB.

3.5 Personnel Decon during Emergencies

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NOTE: Friskers will be located entrances to the DBAB 1st floor Emergency Response Area.

3.5.1 Personnel are required to monitor their entire body with a frisker to ensure there is no excessive contamination on the body before entering or leaving the control area between the Security Stations in the lower north half of the DBAB or the Radiological Testing Lab.

3.5.2 If contamination exist in amounts of 350 to 500 cpm above background, then personnel decon must be performed in accordance with HP 1604.01.

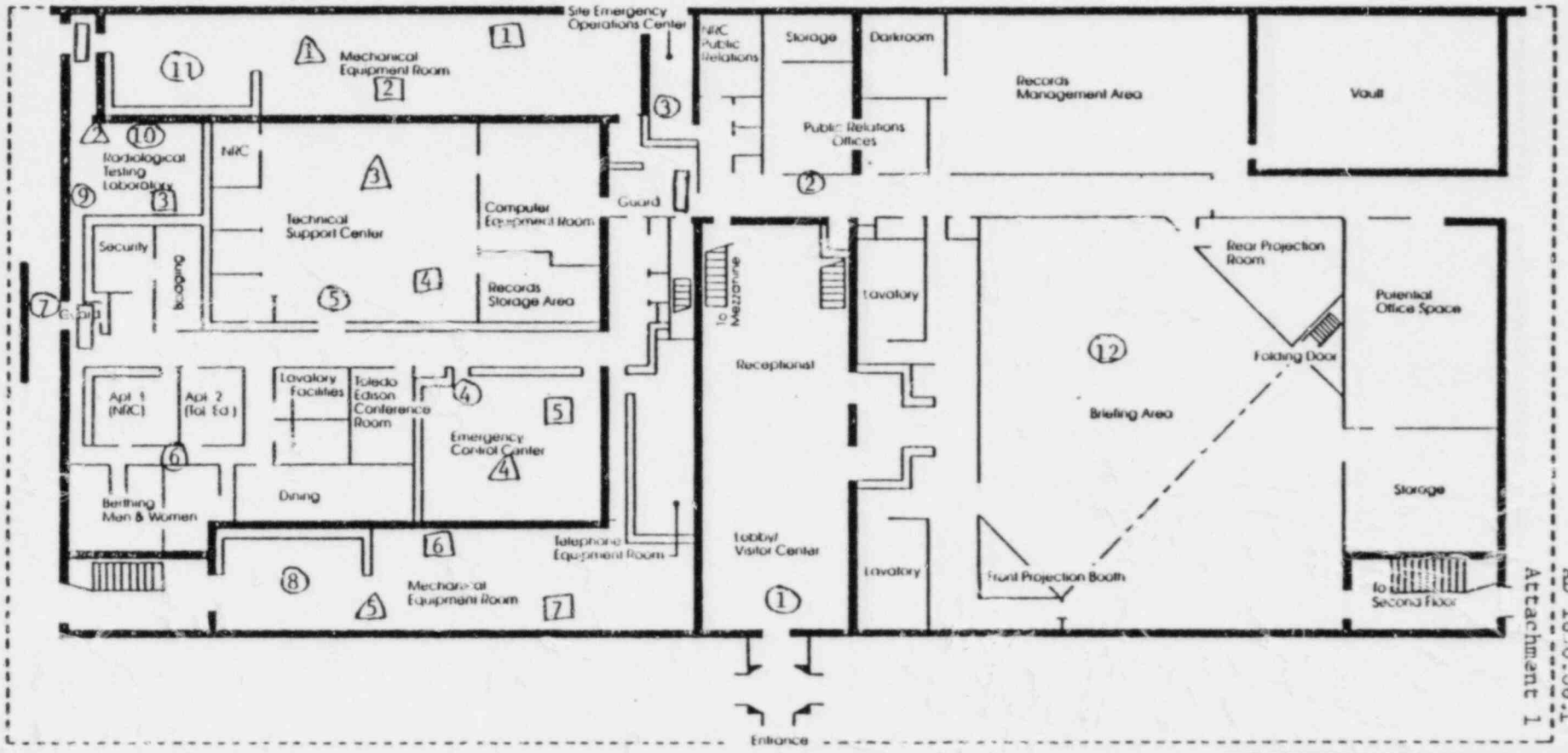
Circle indicates smear location

Box indicates radiation survey point

Triangle indicates airborne sample point

Rectangle - Frisking Station

N



DAVIS-BESSE ADMINISTRATION BUILDING DESIGN DESCRIPTION MANUAL

FIGURE 4.0-1
Davis-Besse Administration Building
First Floor Plan

AD 1850.06.1
Attachment 1
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Attachment III

Emergency

1 Personnel Dosimeter Issue Log

NAME (Last, First, Mi.)	SS#	Company/Address

DAVIS-BESSE NUCLEAR POWER STATION
RADIATION/CONTAMINATION SURVEY

☐ ROUTINE
☐ SPECIAL

UNIT NO. 1
ALL READINGS/MR HR

BUILDING	LEVEL	ROOM NAME/NO.

SURVEY BY	DATE	TIME

INSTRUMENT USED	L. I. No.	CALIBRATION DUE DATE	INSTRUMENT USED	L. I. No.	CALIBRATION DUE DATE

CONTACT READINGS CIRCLED — CONTAMINATION LOCATIONS "BOXED"

ATTACHMENT V
PAGE 1 of 1

AREAS POSTED AS REQUIRED BY HP 1601.04

SIGNATURE/TITLE	DATE

TRITIUM

Sample: Start Time_____ Stop Time_____ ml in Bubbler_____

Activity = (_____µCi/cc) (_____ml in bubbler)

(_____min) (_____L/M) (1000 cc/L)(0.9 buffler eff) = _____µCi/cc

PARTICULATES

Filter Size 2"_____, 4"_____ Sample: Start Time_____ Stop Time_____

$$\text{Activity} = \frac{(\text{net CPM})}{(*\text{ cc})\ (\text{ min})\ (2.22 \times 10^6)\ (\text{ eff})} = \frac{\mu\text{Ci/cc}}{}$$

*Calculate volume in cc by:
Time x cfm x 2.8317 x 10^4 cc/ft^3=_____cc
Time x L/M x 1000 cc/L =_____cc

If airborne radioactivity levels are less than $1x10^{-10}$ µCi/cc for I^{131}; no action is required. If airborne radioactivity levels are greater than $1x10^{-10}$ µCi/cc, follow actions given in AD 1827.12.

END

DAVIS-BESSE REVISION COVER SHEET

June 15, 1983
DATE

TO: Dir of RRC

FROM: EMERGENCY PLANNING & PREPAREDNESS SUPV.

SUBJECT: Davis-Besse EMERGENCY PLANNING SUPPORTING PROCEDURES Manual Changes

This letter transmits additions and revisions to the Davis-Besse EMERGENCY PLANNING SUPPORTING PROCEDURES Manual. Control Copy 52A.

Instructions for the material are as follows:

REMOVE AND RETURN	INSERT
AD 1850.06.1	AD 1850.06.1 (Corrected Copy)

Date Revision Entered _____

Addressee Signature _____

RETURN TO THE OFFICE MANAGER - STOP #3050

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