

## **7.5 Dose Projections and Field Monitoring Team Survey Maps and Data**

**Edwin I. Hatch Nuclear Plant  
Emergency Preparedness  
2003 Exercise 04**

**7.5 Dose Projections and Field Monitoring Team Survey Maps and Data**

The attached dose projection information provides the MIDAS dose assessment program outputs from each 15-minute projection period. It consists of a plume map which is a screen print of the Total Effective Dose Equivalent (TEDE) rate projection used for procedural radiological release determination and some Emergency Action Level (EAL) parameters. The second page is the MIDAS printout which is a 'copy' of the Emergency Notification Network (ENN) form containing the 4-hour dose projections used for EAL determination and Protective Action Recommendations (PARs).

The attached plume maps provide radiological data in the simulated effluent plume. Maps are provided covering the time of the release in 15-minute intervals. The data provided approximates values that would be obtained by an elevated release model.

For realism, controllers will randomly vary the data among the range indicated by the contour legend.

Data provided by the controllers should average out to the value of the contour in question.

All field monitor readings for times prior to the start of the release will be "AS READ". Data are provided in the following categories:

- Field Monitor Gamma Dose rates (closed window)
- Field Monitor Gamma plus Beta dose rates (open window)
- Field Monitor Thyroid dose rates
- Ground contamination (I -131)

The following information is provided for use by controllers:

Defaults for airborne radioactivity samples:

- Sample time 10 minutes
- Sample flow 14.5 LPM

**7:30 AM**  
**Dose**  
**Projection**  
**Result**

MESSAGE NUMBER

2. SITE: PLANT HATCH                      UNIT:                      REPORTED BY:

[illegible]

6. [A] Emergency Declaration At: [B] Termination At: TIME/DATE: \_\_\_\_\_  
(If B, go to Item 16.) (Eastern) mm dd yy

9. REACTOR STATUS: [A] SHUTDOWN TIME/DATE: \_\_\_\_\_ [B] \_\_\_\_\_ %POWER  
(Eastern) mm dd yy

\*\*11. TYPE OF RELEASE: [ ] ELEVATED [ ] GROUND LEVEL

[A] AIRBORNE: Started: \_\_\_\_/\_\_\_\_/\_\_\_\_ Stopped: \_\_\_\_/\_\_\_\_/\_\_\_\_  
Time(Eastern) date Time(Eastern) date

[B] LIQUID: Started: \_\_\_\_/\_\_\_\_/\_\_\_\_ Stopped: \_\_\_\_/\_\_\_\_/\_\_\_\_  
Time(Eastern) date Time(Eastern) date

[A]	NOBLE GASES	8.4E-04	[B]	IODINES	8.5E-06
[C]	PARTICULATES	0.0E+00	[D]	OTHER	

PROJECTION TIME: 07:30  
(EASTERN)  
ESTIMATED DURATION: 4.00 HRS

[A]	WIND DIRECTION(from)	70	[B]	SPEED(mph)	6.0
[C]	STABILITY CLASS	D	[D]	PRECIPITATION(type)	NO RAIN

[A] NO RECOMMENDED PROTECTIVE ACTIONS  
[B] EVACUATE \_\_\_\_\_  
[C] SHELTER-IN-PLACE \_\_\_\_\_  
[D] OTHER \_\_\_\_\_

\* If Items 8-14 have not changed,  
only Items 1-7 and 15-16 are required to be completed.  
\*\*Information may not be available on initial notifications.

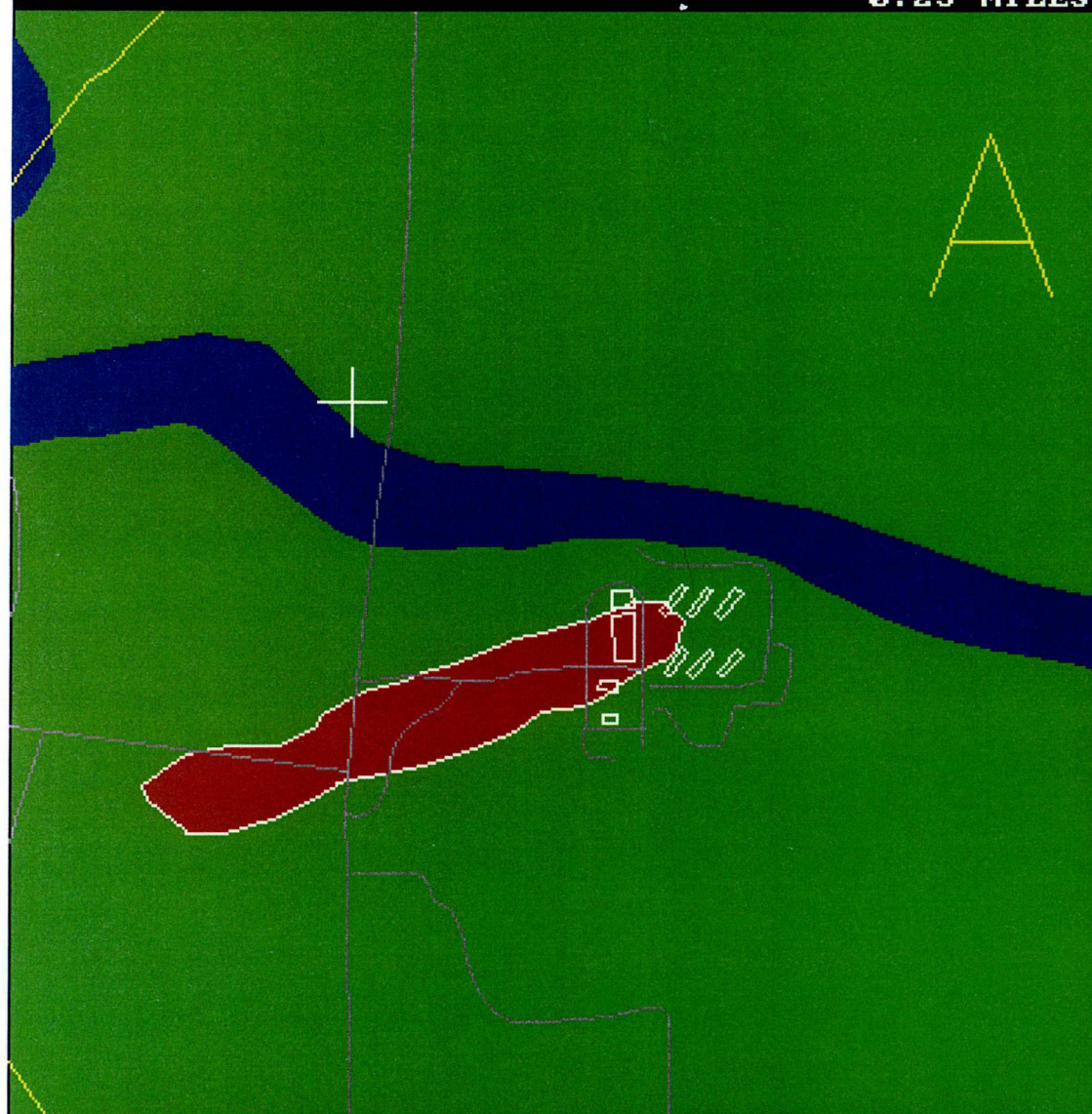


SITE: PLANT HATCH

TITLE: TOTAL EFFECTIVE DOSE EQUIV(TEDE) RATE

PERIOD: 0.25 HOUR PROJECTION

SCALE: 0.25 MILES



MENU B

MODEL: PROJECTED-PLUME SEGMENT

CURRENT TIME: 08/20/03 07:32

RUN TIME: 08/20/03 07:30

MET: FROM SCENARIO 10

CUR MET: WS= 6MPH, WD= 70, ST=D

END DATE OF 15 MINUTE RATE

COMPUTATION: 08/20/03 07:38

START RELEASE: 08/20/03 07:23

END RELEASE: 08/20/03 07:38

RELEASE: MONITOR VALUES FROM

SCENARIO 10 - ACCIDENT TYPE 02

CUR REL RATE(CI/SEC): 8.5E-04

TOTAL CI: NG:7.3E-01, I:7.7E-03

P:0.0E+00

PEAK TEDE (MREM/HR) : 2.1E-03

DIR(TO): WSW DIST(MILES): 0.9

TEDE/EDE AT PEAK TEDE: 1.1E+00

PK THY CDE(MREM/HR) : 5.9E-03

DIR(TO): WSW DIST(MILES): 1.4

CONTOUR	DOSE RATE
LEGEND	(MREM/HR)

1	1.0E-03+
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POINT  
OF  
INTEREST

MAP  
FEATURES

SELECT  
AREA

RESTORE

CONTINUE

**9:00 AM**  
**Dose**  
**Projection**  
**Result**

MESSAGE NUMBER

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only Items 1-7 and 15-16 are required to be completed.  
\*\*Information may not be available on initial notifications.



SITE: PLANT HATCH

TITLE: TOTAL EFFECTIVE DOSE EQUIV(TEDE) RATE  
PERIOD: 0.25 HOUR PROJECTION

SCALE: 0.25 MILES

MENU B

MODEL: PROJECTED-PLUME SEGMENT

CURRENT TIME: 08/20/03 09:07

RUN TIME: 08/20/03 09:00

MET: FROM SCENARIO 10

CUR MET: WS= 6MPH, WD= 74, ST=D

END DATE OF 15 MINUTE RATE

COMPUTATION: 08/20/03 09:08

START RELEASE: 08/20/03 07:23

END RELEASE: 08/20/03 09:08

RELEASE: MONITOR VALUES FROM

SCENARIO 10 - ACCIDENT TYPE 02

CUR REL RATE(CI/SEC): 8.5E-04

TOTAL CI: NG:5.2E+00, I:1.1E-01

P:0.0E+00

PEAK TEDE (MREM/HR) : 7.8E-03



DIR(To): WSW DIST(MILES): 1.4

TEDE/EDE AT PEAK TEDE: 1.3E+00

PK THY CDE(MREM/HR) : 5.9E-02

DIR(To): W DIST(MILES): 1.1

CONTOUR DOSE RATE  
LEGEND (MREM/HR)

1		1.0E-02+
2		1.0E-03-1.0E-02



POINT  
OF  
INTEREST

MAP  
FEATURES

SELECT  
AREA

RESTORE

CONTINUE

**9:15 AM**  
**Dose**  
**Projection**  
**Result**

MESSAGE NUMBER

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only Items 1-7 and 15-16 are required to be completed.

\*\*Information may not be available on initial notifications.



SITE: PLANT HATCH

TITLE: TOTAL EFFECTIVE DOSE EQUIV(TEDE) RATE

PERIOD: 0.25 HOUR PROJECTION SCALE: 1.0 MILES



MENU B

MODEL: PROJECTED-PLUME SEGMENT

CURRENT TIME: 08/20/03 09:12

RUN TIME: 08/20/03 09:15

MET: FROM SCENARIO 10

CUR MET: WS= 5MPH, WD= 75, ST=D

END DATE OF 15 MINUTE RATE

COMPUTATION: 08/20/03 09:23

START RELEASE: 08/20/03 07:23

END RELEASE: 08/20/03 09:23

RELEASE: MONITOR VALUES FROM

SCENARIO 10 - ACCIDENT TYPE 01

CUR REL RATE(CI/SEC): 9.1E-04

TOTAL CI: NG:6.3E+00,I:1.1E-01

P:0.0E+00

PEAK TEDE (MREM/HR) : 6.7E-03

DIR(TO): WSW DIST(MILES): 1.6

TEDE/EDE AT PEAK TEDE: 1.2E+00

PK THY CDE(MREM/HR) : 3.2E-02

DIR(TO): WSW DIST(MILES): 1.6

CONTOUR DOSE RATE

LEGEND (MREM/HR)

1	1.0E-02+
2	1.0E-03-1.0E-02

POINT  
OF  
INTEREST

MAP  
FEATURES

SELECT  
AREA

RESTORE

CONTINUE