

EPIP/TEP Instruction Memo

Date 12/14/00 Verif: [Signature] Box No. 20000664 T1  T2

Please update your file with the attached listed below, destroy the superseded and post your Index accordingly. Also, if Controlled Documents please sign the acknowledgment at the bottom of this memo and return to Debbie Marshbank, Configuration Cntrl., Rm. 135, SOB

Document Number	Rev	PCR Number	Page Replac.	Entire	Delete Page(s)	Level
<u>EPIP-TMI-16</u>	<u>9</u>	<u>PCR-00-1867</u>		<input checked="" type="checkbox"/>		<u>2</u>

ADDITIONAL DISTRIBUTION:

I 3H C 3H

I hereby acknowledge receipt of this memo and have complied with the instructions. Signature and returned memo required ONLY if CONTROLLED.

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AD45

	I 3H	C 3H
*Backup TSC,OSF-113	---	L---
*Bureau of Rad Protection	---	L---
*Control Rm-U/1 File Copy, OOB-1	---	L---
Control Rm-U/1 Shift Mgrs Station, OOB	---	L---
*Control Rm-U/1 Work Copy, OOB-1	---	L---
Dauphin County EMA	---	L---
*Dir. Work Mgmt., OSF-2	---	L---
Dir. Communications, SOB.	---	L---
*Document Center, NOB-2	---	L---
*Document Control Desk	L---	---
Dosimetry, Serv. Bldg.	---	---
*EP - NDB, Trng. Bldg. #2	L---	L---
*Emerg. Prep. Dept.	---	---
*EOF, Trng. Bldg.	---	L---
*EP Drills, Trng. Bldg. #2	---	L---
ESD, Trng. Bldg.,	---	---
Environ. Affairs-Lab, Interstate Drive	---	---
Environ. Affairs-TMI, NOB-1	---	---
*Instructor Nuclear IV, Trng. Bldg. #2	L---	---
Logisitcal Support, Trng. Bldg.,	---	---
*NRC - Onsite, NOB-1	---	---
*NRC - Region 1, (Chief EP Section)	---	---
*PEMA - Bureau of Plans	---	---
Personnel/Vehicle Monitor Kit Trng Ctr.	---	---
*Plant Maint. (Library), Serv. Bldg.	---	L---
*Porter Consultants, Ardmore	---	---
RLM, Rad Field Ops.	---	---
Rad Con -RAC Locker, Rad Field Ops.	---	---
Rad Con -Kit 1 PC, Rad Field Ops.	---	---
Rad Con -Kit 2 PC, Rad Field Ops.	---	---
Rad Con -Kit 3 Env, Rad Field Ops.	---	---
Rad Con -Kit 4 EOF Bldg Rad Field Ops.	---	---
Rad Con -Kit 5 EOF Bldg Rad Field Ops.	---	---
Rad Con-Simulator Locker Rad Field Ops	---	L---
*Rad Engineers-U1, OOB	---	L---
*Rad Instrument, Bldg. 159	---	---
Radwaste/Chemistry, OOB-1	---	---
Secondary Chem Lab-, OOB-1	---	L---
*Security Mgr., PC	---	L---
Security U-1, PC	---	L---
*Simulator Room/File Copy, Trng.	---	L---
Simulator Room/Shift Supvs Office, Trng	---	L---
*Simulator Room/Working Copy, Trng.	---	L---
*TSC - Unit 1, OSF-113	---	L---
*Training Dept., Trng	---	L---
*OSC, Rad Field Ops.,	---	L---
*Unit 1 Operations, OOB-1	---	L---
*Vice President - TMI, OSF-2	---	L---
*Word Processing, OOB, No Stamp/Clip	---	L---
RECORDS MGMT	---	1---
C. Warlow	---	---
M. Vyenielo	---	---
L. Ritter	---	L---
L. Ritter	---	L---
L. Ritter	---	L---
D. Fetterhoff	---	---
S. Epler	---	L---
R. DeSantis	---	---
S. Burkett	---	L---
D. College	---	---
N. D. Brown	L---	L---
D. Light	L---	---
R. Finicle	---	L---
N. D. Brown	---	L---
R. Finicle	---	---
D. Russ	---	---
W. Ressler	L---	---
R. Neff	---	---
R. Finicle	---	---
P. Sauder	---	L---
<i>R. McNamara</i>	---	L---
D. Fleck	---	L---
T. Berstler	---	---
N. Smith	---	L---
S. Porter	---	---
T. Berstler	---	---
M. Wherry	---	L---
J. L. Eckroth	---	L---
L. Ritter	---	---
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V. Handley	---	L---
R. Goodrich	---	L---
D. Silar	---	L---
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D. Silar	---	L---
C. Warlow	---	L---
C. Flory	---	L---
T. Berstler	---	L---
L. Ritter	---	L---
P. J. Chevalier	---	L---
A. Houseal	---	1---
S. Zimmerman	---	---

# FOR INFORMATION ONLY

# AmerGen

TMI - Unit 1  
Emergency Plan  
Implementing Procedure

Number

**EPIP-TMI-.16**

Title

**Contaminated Injuries**

Revision No.

**9**

Applicability/Scope

**USAGE LEVEL**

Effective Date

TMI Division

**2**

**DEC 14 2000**

This document is within QA plan scope  
Safety Reviews Required

<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No

### List of Effective Pages

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	Signature	Date
Procedure Owner	/s/ J. L. Whitehead	12/07/00
Approver	/s/ N. Brown	12/07/00

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Title  <b>Contaminated Injuries</b>	Revision No.  <b>9</b>	

**1.0 PURPOSE**

- 1.1 To define the conditions where personnel who become ill or injured and contaminated or potentially contaminated with radioactive material in excess of guidelines will be removed from site to Hershey Medical Center (HMC), Hershey, PA. and/or to the Harrisburg Hospital, Harrisburg, PA.
- 1.2 To further define the steps involved in notifying HMC or Harrisburg Hospital to allow time for preparation of the Radiation Emergency Area (REA) to receive the injured personnel.
- 1.3 To provide for several levels of treatment based on the severity of the injury(s) and the degree of contamination involved.

**NOTE**

All personnel having injuries or illness in a radiologically contaminated area or involving radioactive material shall be considered potentially contaminated until proven otherwise.

**2.0 APPLICABILITY/SCOPE**

All TMI Personnel

**3.0 DEFINITIONS**

None

**4.0 RESPONSIBILITIES**

- 4.1 The Shift Manager is responsible for the implementation of this procedure and specifically for completion of Exhibit 1.
- 4.2 Radiological Controls personnel have responsibility for ensuring that Exhibit 2 is implemented.

**5.0 PROCEDURE**

- 5.1 Upon receiving notification of an injured or ill person, the Shift Manager shall notify:
  - The site Medical Response Team (see Exhibit 6 for instructions for paging the Medical Response Team),
  - Rad Controls (5444 or page phone)
- 5.2 If, based on the report from the scene, the Shift Manager determines that an ambulance may be needed he/she should ensure that the Dauphin County Emergency Operations Center (dial 9-911) is notified without delay.
- 5.3 The Shift Manager shall determine from Rad Controls if the person is contaminated or potentially contaminated.

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- \_\_\_\_\_ 5.4 If the injured or ill person is either contaminated or potentially contaminated and must be transported to an off-site medical facility prior to decontamination:
- The Shift Manager shall ensure that Exhibit 1 is implemented.
  - Rad Control shall ensure that Exhibit 2 is implemented.
- \_\_\_\_\_ 5.5 Final Conditions
- A. The person(s) has been entered into the bioassay program for whole body counting per Reference 6.2 (6610-ADM-4025.01, Bioassay Procedure).
  - B. The patient has been transported to the hospital and has been admitted or released, and all radioactive waste/used protective clothing has been removed to TMI.
  - C. The Radiological Controls Technician(s) who accompanied the patient to the hospital has coordinated the Radiation Safety actions at the emergency room. The Hospital Health Physicist (if available) has relieved the Radiological Controls Technician(s).
  - D. The Radiation Emergency Area and ambulance(s) used for transportation of the patient(s) have been surveyed and cleared or decontaminated and cleared by the TMI Radiological Controls Technician(s).

## 6.0 **REFERENCES**

- 6.1 EPIP-TMI-.19, Emergency Dosimetry/Security Badge Issuance
- 6.2 6610-ADM-4025.01, Bioassay Procedure
- 6.3 6610-ADM-4241.05, Dosimetry Investigative Report
- 6.4 6610-ADM-4330.02, Personnel Contamination Monitoring and Decontamination
- 6.5 1044, Event Review and Reporting Requirements

## 7.0 **EXHIBITS**

- 7.1 Exhibit 1, Shift Manager Checklist for Contaminated Injuries
- 7.2 Exhibit 2, Rad Controls Checklist for Contaminated Injured Persons
- 7.3 Exhibit 3, Messages to the Hospital
- 7.4 Exhibit 4, Hershey Medical Center Emergency Department Floor Plan
- 7.5 Exhibit 5, Harrisburg Hospital Emergency Dept. Floor Plan
- 7.6 Exhibit 6, Instructions for Paging the Medical Response Team

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**EXHIBIT 1**

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**Shift Manager Checklist for Contaminated Injuries**

**NOTE**

The following steps may be performed concurrently. Conditional steps (i.e., steps containing an "if" statement) should be marked "N/A" and skipped if the condition is not met.

Check

- A. The Shift Manager should consult with Radiological Controls to determine if radiological conditions warrant a specific route for access to the patient and for patient transfer.
  - If so, provide this information to Medical Response Team.
- B. Obtain Medical Response Team's assessment of the medical needs of the patient.
- C. Obtain Radiological Controls assessment of the radiological condition of the patient.
- D. If off-site medical assistance is required:
  - Call Security Central Alarm Station at Extension 8039, 8040 to inform them of off-site medical assistance arrival so that they can direct off-site medical personnel to the patient.
  - The Shift Manager shall initiate the requirements of Reference 6.1 (EPIP-TMI-.19, "Emergency Dosimetry/Security Badge Issuance").
- E. If the decision is made to transport the patient to an offsite medical facility, the Shift Manager or his designee shall call the appropriate hospital (determine hospital from the Medical Response Team or Ambulance Crew), and using Exhibit 3 alert the hospital of the arrival of the injured patient.
- F. If contact with HMC or Harrisburg Hospital cannot be made by telephone, relay the message through the Dauphin County EOC by dialing 9-911 or by using the Notification Line in the Control Room.
- G. With concurrence of the Medical Response Team and Radiological Controls personnel, have the patient transported outside of the radiologically controlled area for further treatment and surveys if the injury/illness and contamination levels will allow movement.
- H. To prevent the possible spread of contamination, the Shift Manager should consider having the contaminated person's evacuation route announced on the page system, as appropriate.

**NOTE**

By agreements with the Hershey Medical Center (HMC) Hershey, PA and Harrisburg Hospital, Harrisburg, PA., all contaminated persons with injuries too severe to be treated on-site shall be sent to HMC and/or Harrisburg Hospital for decontamination and treatment.

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**EXHIBIT 1**

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- \_\_\_\_\_ I. Report this event to the NRC via the ENS in accordance with 10 CFR 50.72(b)(2)(v). Notification shall be made as soon as practical and, in all cases, within four (4) hours.
- \_\_\_\_\_ J. Declare an Event of Potential Public Interest in accordance with Reference 6.5, (1044, Event Review and Reporting Requirements).

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**EXHIBIT 2**

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**Radiological Controls Checklist for  
Contaminated Injured Persons**

**NOTE**

The following actions should be performed or considered while handling a contaminated injured person. These actions must not interfere with proper medical treatment of the person.

**NOTE**

The steps in this exhibit may be performed concurrently. Conditional steps (i.e., steps containing an "if" statement) should be marked "N/A" and skipped if the condition is not met.

Check

- A. If the patient's condition permits, assess radiation exposure/contamination levels prior to removal of the patient from TMI.
- B. If the patient is contaminated or potentially contaminated, accompany the patient to the hospital to provide radiological controls support.
  - If the patient is transported by helicopter (i.e., Life Lion), travel by vehicle to the hospital.

**NOTE**

By agreements with the Hershey Medical Center (HMC) Hershey, PA and Harrisburg Hospital, all contaminated persons with injuries too severe to be treated on-site shall be sent to HMC and/or Harrisburg Hospital for decontamination and treatment.

- C. Consider the following contamination control measures and implement them if they are practicable and will not interfere with patient treatment.
  - Covering the stretcher with plastic
  - Wrapping the patient in a blanket
  - Providing P.C.'s to stretcher bearers
  - keeping unnecessary personnel out of the transfer path, etc.

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- \_\_\_ D. If the ambulance crew has not been issued TLDs, request or obtain TLDs for them.
  - \_\_\_ • Allow the ambulance crew immediate access to the patient.
  - \_\_\_ • Issue TLDs if/when conditions permit.
  - \_\_\_ • If TLDs were not issued, document this fact.
- \_\_\_ E. Limit contamination of the ambulance and crew by appropriate measures such as:
  - \_\_\_ • Providing P.C.'s to the crew and/or
  - \_\_\_ • Laying plastic on the floor of the ambulance.
- \_\_\_ F. Take a radiation survey meter, a frisker and the ambulance response bag (located in the 305' Control Tower Stairwell) with you to the hospital.
- \_\_\_ G. Ensure that ambulance personnel do not turn in their dosimetry as they leave the site. They should retain it until they turn the patient over to hospital personnel.
- \_\_\_ H. If possible, verify contamination and radiation levels on the patient enroute to the hospital.
- \_\_\_ I. Upon arrival at the hospital and subsequently, provide periodic updates to the Control Room.
- \_\_\_ J. Provide radiological controls support to the Emergency Department staff in the following areas:
  - \_\_\_ • Contamination Control
  - \_\_\_ • Exposure Control
  - \_\_\_ • Patient Decontamination
  - \_\_\_ • Access Control
  - \_\_\_ • Personnel Monitoring
  - \_\_\_ • Dosimetry
- \_\_\_ K. Survey the path from the ambulance to the treatment room. Refer to Exhibits 4 or 5 for the appropriate hospital floor plan.
- \_\_\_ L. Request that the ambulance and crew are not released until:
  - \_\_\_ • The ambulance and crew have been verified to be free of contamination and
  - \_\_\_ • TLD's (if issued) have been collected.

**NOTE**

With permission from the Shift Manager, the ambulance and crew can return to TMI for survey and decontamination as needed.

- \_\_\_ M. Obtain necessary information as appropriate for any Dosimetry Investigative Reports per Reference 6.3 (6610-ADM-4241.05, Dosimetry Investigative Report).

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**EXHIBIT 2**

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N. Remain at the hospital until:

- \_\_\_\_\_ • Rad Con responsibilities are turned over to hospital health physics (HMC only) or
- \_\_\_\_\_ • Patient and hospital emergency room area are decontaminated or
- \_\_\_\_\_ • Patient is released or
- \_\_\_\_\_ • You are properly relieved by another technician.

**NOTE**

Harrisburg Hospital does not have a health physicist; TMI Rad Controls personnel must continue to provide radiological controls assistance, as needed.

\_\_\_\_\_ O. Before leaving the hospital:

- Ensure all contaminated trash and used P.C.'s are collected and
- A thorough survey of the hospital emergency room and adjacent areas, as applicable, has been completed and documented.

\_\_\_\_\_ P. Any material that is above release limits should be securely sealed in plastic, marked "Radioactive", and returned to the site.

- \_\_\_\_\_ • Prior to transporting material marked "Radioactive", consult with a representative of the TMI Waste Disposal Group, if possible.

\_\_\_\_\_ Q. Ensure the Control Room is informed of the status.



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**EXHIBIT 3**

Please take down the following information:

Patient's Name(s): \_\_\_\_\_  
 \_\_\_\_\_

Nature of injury/illness(s): \_\_\_\_\_  
 \_\_\_\_\_

Contamination Levels (if known): \_\_\_\_\_  
 \_\_\_\_\_

Estimated Time of Arrival: \_\_\_\_\_

Method of Transport: \_\_\_\_\_

Additional Misc. Info. \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

This section for Hershey Medical Center ONLY

Please provide me with the following information either now or when you call back to verify this message:

Will HMC Health Physics Personnel be available in the Emergency Room?  
 Yes/No (inform TMI Rad Con of Response)

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

(Cont'd next page)



EXHIBIT 4

Hershey Med Center Emergency Department Floor Plan

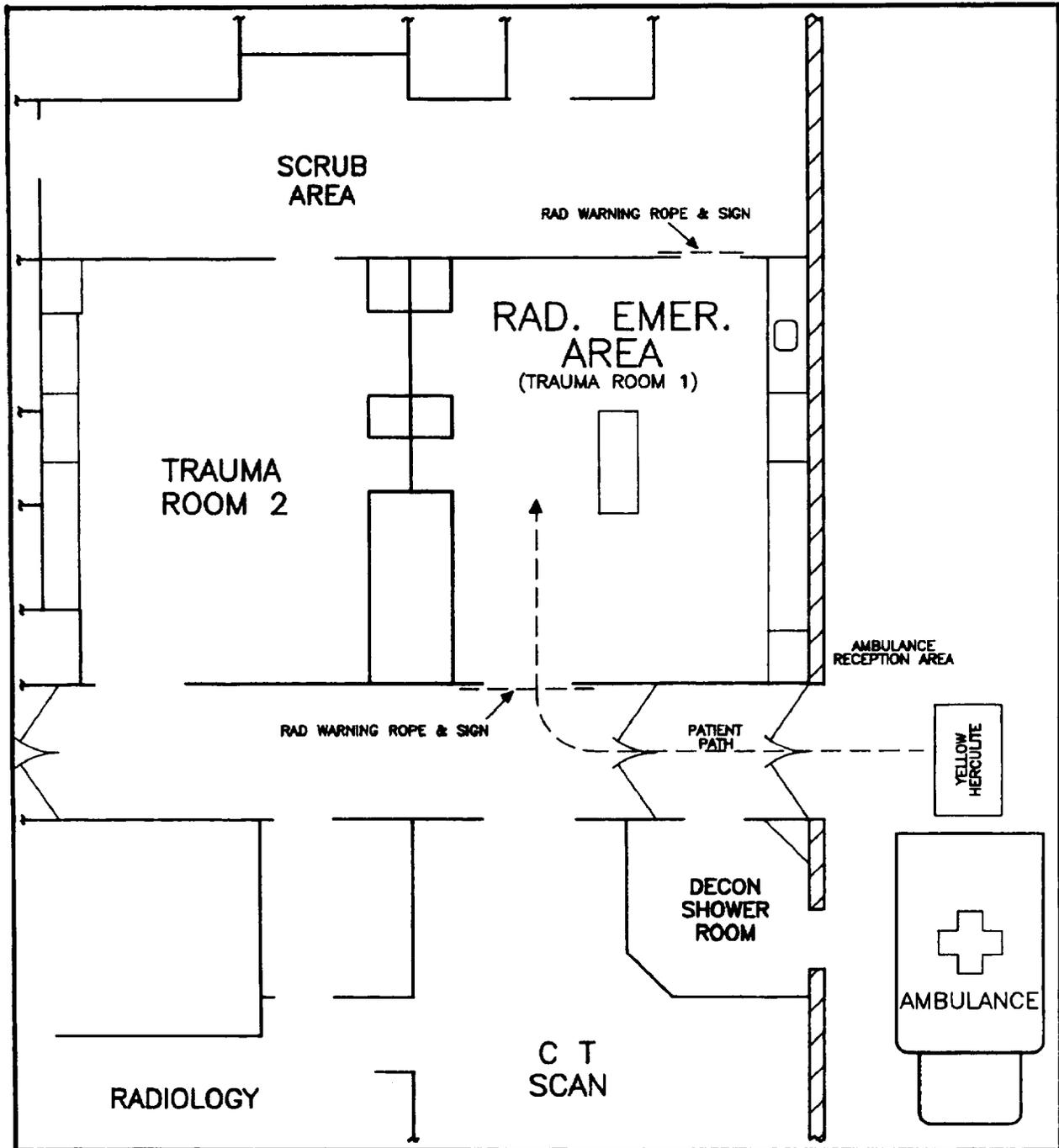
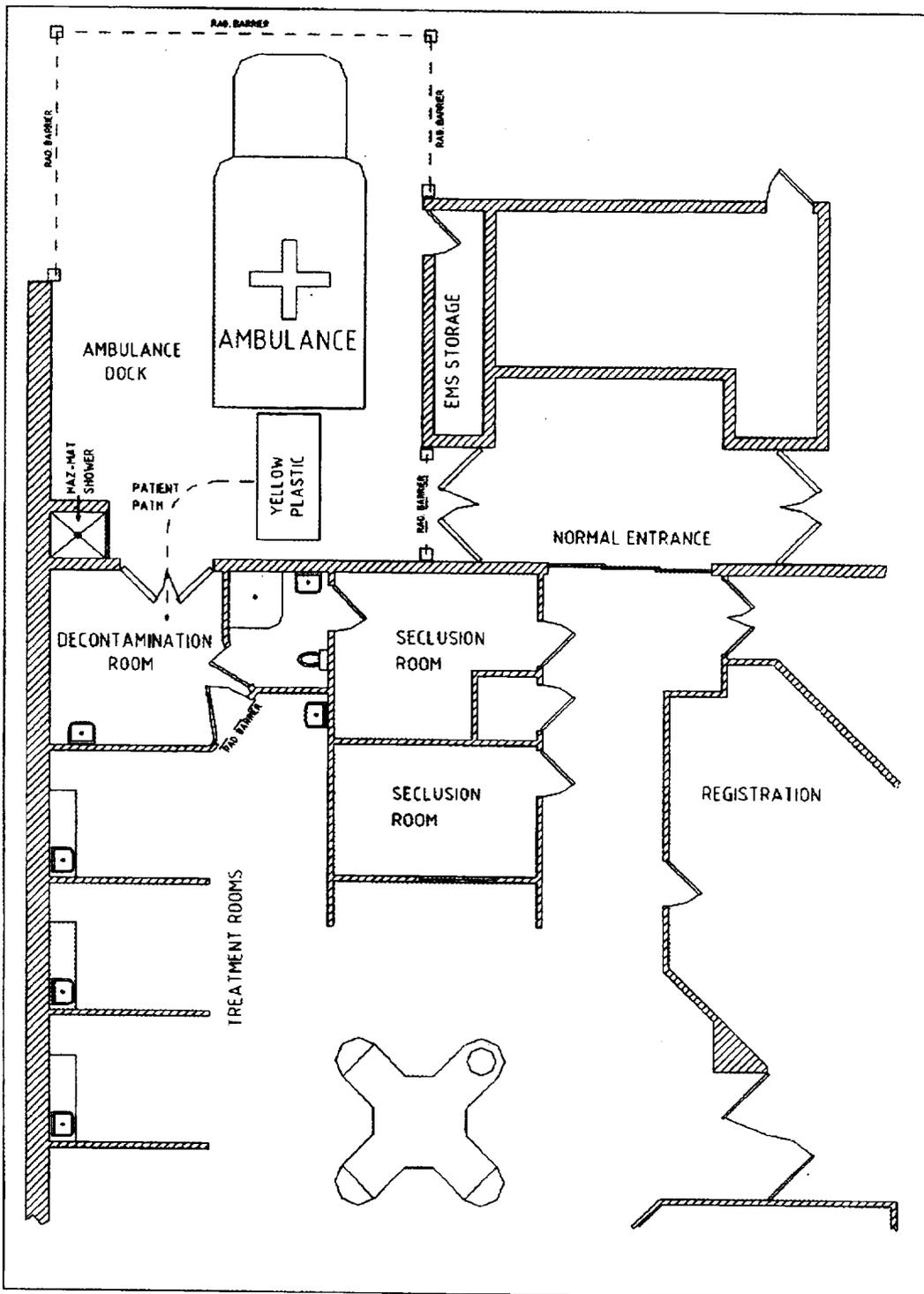


EXHIBIT 5

Harrisburg Hospital Emergency Department Floor Plan



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**EXHIBIT 6**

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**Instructions for Paging the Medical Response Team**

1. Dial the Medical Response Team group pager number: 9-213-8899.
2. When prompted for the password, dial 9110.
3. Dial "911\*" plus the location code from the table below. (For drills, dial "912\*" plus the location code.)

Patient Location	Location Code
U-1 Service Building	1
U-1 Turbine Building	2
U-1 Aux. Building	3
U-1 Control Building	4
OSF	5
NOB	6
Warehouse 1	7
Screen House	8
SOB	9
Unit 2 (all areas)	10
Training Center/Simulator Building	11
OESB	12
TEST	13
OOB	14
North Gate	15