

THE TOLEDO EDISON COMPANY
DAVIS-BESSE NUCLEAR POWER STATION
EMERGENCY PLAN SUPPORTING PROCEDURES
REVISION INDEX

<u>PAGE</u>	<u>REVISION</u>	<u>PROCEDURES</u>	<u>REVISION</u>	<u>TEMPORARY MODIFICATIONS</u>
1	5	HP 1602.01	10	
		HP 1604.01	2	
		AD 1827.01	3	
		AD 1827.02	8	
		AD 1827.03	1	
		AD 1827.04	1	
		AD 1827.05	2	T-6019
		AD 1827.06	2	
		AD 1827.07	2	
		AD 1827.08	1	
		AD 1827.09	1	
		AD 1827.10	11	
		AD 1827.11	2	
		AD 1827.12	7	
		AD 1827.13	4	
		AD 1827.14	1	
		AD 1827.15	3	
		AD 1827.16	1	
		AD 1827.17	1	
		AD 1850.04	3	
		AD 1850.05	5	

ADMINISTRATIVE MEMORANDUMS

	<u>REVISION</u>
No. 37 - ECS Pager and Telephone Numbers	25
No. 38 - First Aid Team	11
No. 39 - Fire Brigade	12
No. 41 - Emergency Duty Officer (EDO)	23
No. 42 - Radiation Monitoring Teams (RMT)	13

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Davis-Besse Nuclear Power Station

Unit No. 1

ADMINISTRATIVE PROCEDURES AD 1827.01

Annual Radiation Emergency Medical Exercise

NUCLEAR SAFETY RELATED

Record of Approval and Changes

Prepared by Bill Green April 23, 1975
 Date

Submitted by A. W. Briden 5/14/75
 Section Head Date

Recommended by Jack Egan 5/20/75
 SRB Chairman Date

QA Approved NA DWB
 Manager of Quality Assurance Date

Approved by Jack Egan 5/20/75
 Station Superintendent Date

Revision No.	SRB Recommendation	Date	QA Approved	Date	Sta. Supt. Approved	Date
1	<u>B. H. Egan</u>	6/17/80	NA		<u>Tommy</u>	8/9/80
2	<u>B. H. Egan</u>	9/14/80	NA		<u>Tommy</u>	9/19/80
3	<u>sm</u>	3/20/82	NA		<u>Tommy</u>	4/2/82

1. PURPOSE

The purpose of this procedure is to provide guidelines for the coordination of activities in the preparation, execution and critique of annual radiation emergency exercises.

2. APPLICABILITY

This procedure will be used by personnel having responsibility for conduct of emergency exercises with the off-site organizations providing emergency medical support to the nuclear power station.

3. REFERENCES

- 3.1 Davis-Besse Nuclear Power Station Emergency Plan, Section 8.1.2, "Drills and Exercises"
- 3.2 Davis-Besse Nuclear Power Station Emergency Plan
- 3.3 AD 1827.02, "Medical Treatment of Injuries"
- 3.4 HP 1604.01, "Personnel Decontamination"
- 3.5 HP 1602.02, "Internal Personnel Monitoring"
- 3.6 Emergency Implementing Procedures, EI 1300 series
- 3.7 Magruder Memorial Hospital Procedure "Decontamination and Treatment of the Radioactively Contaminated Patient", Sections I, II, and III

4. PRECAUTIONS AND LIMITATIONS

All communications relating to an emergency medical exercise shall be unequivocally identified as a drill. Verbal communications shall be initiated and closed by the statement, "This is a drill".

5. PREREQUISITES

- 5.1 Agreement shall be obtained from the following individuals or organizations as to the time and sequence of an exercise.
 - 5.1.1 Station Superintendent
 - 5.1.2 Emergency Planning Supervisor
 - 5.1.3 REMS Corporation
- 5.2 A scenario shall be prepared and distributed by REMS

Corporation to the individuals and organizations identified in paragraphs 5.1.2 and 5.1.3 above. It shall describe a credible sequence of events from the time of accident occurrence until the accident victims have been transferred from the Radiation Emergency Area of the hospital to the uncontrolled area of the hospital and the Radiation Emergency Area has been restored to its original uncontaminated condition.

6. PROCEDURE

6.1 General

Coordination and general supervision of the annual radiation emergency medical exercise shall be provided by REM Corporation and the Toledo Edison Emergency Planning Group.

6.2 Preparation

6.2.1 Annually REMS Corporation shall consult with the Emergency Planning and Preparedness Supervisor and select a date that is mutually convenient for the annual radiation emergency medical exercise.

6.2.2 REMS Corporation shall initiate coordination of subsequent exercises NOT later than one week preceding the anniversary calendar quarter of the previous year's exercise.

6.2.3 NOT less than two months prior to an exercise, REMS Corporation shall submit an exercise scenario to the Emergency Planning and Preparedness Supervisor for approval.

6.2.4 Disclosure of the scenario beyond the parties supervising the exercise shall be restricted.

6.2.5 Station personnel, and REMS Corporation shall present a training program to members of the Station Staff within approximately two weeks prior to the annual exercise.

6.2.6 The Station training program referred to in paragraph 6.2.5 shall include instruction relating to the references identified in paragraphs 3.1 through 3.6 above.

6.2.7 The Lead Medical Coordinator and REMS Corporation shall present a training program to members of the Magruder Memorial Hospital and the Carroll

Township Emergency Medical Service staff within approximately two weeks prior to the annual exercise.

- 6.2.8 The training referred to in paragraph 6.2.7 shall include instruction relating to the procedures identified in paragraphs 3.3 through 3.7 above.
- 6.2.9 In accordance with agreements among the Station Superintendent, Emergency Planning Supervisor, Lead Medical Coordinator, the Magruder Memorial Hospital Administrator, and REMS Corporation, umpires for the exercise shall be appointed.

6.3 Execution

- 6.3.1 The time of initiation of the exercise shall be decided by the Emergency Planning and Preparedness Supervisor with concurrence of the Station Superintendent.
- 6.3.2 The participants shall exercise every aspect of the emergency plan and procedures as pertains to the problem unless specifically directed to exclude certain aspects.
- 6.3.3 Participants will inject as much realism into the exercise as is compatible with safe operations.

NOTE: Extreme care shall be exercised to assure that individuals receiving exercise communications and those who may overhear such communications, are NOT misled into belief that an emergency exists. The phrase "This is a drill" shall be used at the start and finish of communications.

- 6.3.4 Simulation of time and/or the availability of supplies, instruments or equipment shall NOT be employed during the exercise.
- 6.3.5 Umpires shall be assigned in sufficient number and at locations to observe the responses of the participants.

6.4 Post-Exercise Critiques

- 6.4.1 Post-exercise critiques shall be held at the Station and at Magruder Memorial Hospital by REMS Corporation.

- 6.4.2 The principal objectives of these critiques shall be evaluation of plans and procedures and evaluation of training, based on observations made during the exercise.
- 6.4.3 Critique attendees shall be specified by senior officials of the respective institutions.
- 6.4.4 Minutes of the critiques shall be maintained.
- 6.4.5 Verbal comments by off-site personnel shall be confirmed by written reports to the Station Superintendent, Emergency Planning Supervisor, or the Administrator, Magruder Memorial Hospital, as applicable.

END

Davis-Besse Nuclear Power Station

Unit No. 1

Administrative Procedure AD 1827.02

Medical Treatment of Injuries

NUCLEAR SAFETY RELATED

Record of Approval and Changes

Prepared by Bob Peters April 14, 1975
Date

Submitted by Terry D. Murray 6/9/75
Section Head Date

Recommended by Jack Evans 7/8/75
SRB Chairman Date

QA Approved NA/TM
Manager of Quality Assurance Date

Approved by Jack Evans 7/8/75
Station Superintendent Date

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1	Jack Evans	1/13/76	NA		NA/TDM		Jack Evans	1/13/76
2	T. D. Murray	6/23/76	NA		NA/TDM		Jack Evans	6/29/76
3	T. D. Murray	4/5/77	NA		NA		Jack Evans	4/6/77
4	T. D. Murray	9/13/77	NA		NA		Jack Evans	9/13/77
5	<i>TD Murray</i>	<i>3/17/78</i>	<i>J. W. Murray</i>	<i>3/34/78</i>	NA		<i>TD Murray</i>	<i>3/31/78</i>
6	<i>B. B. Boye</i>	<i>2/27/79</i>	NA		NA		<i>TD Murray</i>	<i>3/9/79</i>
7	<i>B. B. Boye</i>	<i>6/17/80</i>	NA		NA		<i>TD Murray</i>	<i>8/19/80</i>
8	<i>sm. d. murray</i>	<i>3/30/82</i>	NA		NA		<i>TD Murray</i>	<i>4/2/82</i>

1. PURPOSE

- 1.1 To list and describe the methods of treatment of injuries including radiation casualties.

2. REFERENCES

- 2.1 Davis-Besse Nuclear Power Station Emergency Plan
- 2.2 EI 1300.02, Unusual Event
- 2.3 Administrative Memorandum No. 5, Accident/Injuries - Reports and Forms
- 2.4 Administrative Memorandum No. 38, First Aid Team
- 2.5 HP 1604.01, Personnel Decontamination

3. SCOPE

- 3.1 Priority for medical treatment will depend on the severity of the injury and whether it has radiological aspects or NOT.
- 3.2 A minor injury is an injury that, in the estimation of a First Aid Team Leader, requires only First Aid Treatment.
- 3.3 A major injury is an injury that, in the estimation of a First Aid Team Leader, requires professional medical treatment.
- 3.4 The order of medical treatment will be:
- 3.4.1 Care of major injuries
- 3.4.2 Care of minor injuries
- 3.4.3 Decontamination of personnel
- 3.4.4 Monitor for Internal Contamination
- 3.4.5 Definitive treatment and subsequent therapy as required.
- 3.5 The Davis-Besse Station has trained personnel and necessary equipment to respond to immediate First Aid requirements of injured personnel; in addition, the Medical Treatment Room on the 603' elevation of the Auxiliary Building adjacent to the Control Room elevator has sufficient supplies and equipment to allow a physician to treat many injuries locally, if necessary.

8 | 3.6 First Aid Response Equipment in the form of First Aid Trama Kit, First Aid Suitcase, splints, back boards, Resuscitator and stretcher are located in a cabinet inside the cafeteria on the Turbine Deck 623' level.

8 | 3.7 The First Aid Team consists of a First Aid Team Leader and First Aid Team members. First Aid Team Leaders hold a minimum of Red Cross Multi Media Certification while First Aid Team members have received First Aid Training. First Aid Team Leaders/Members are identified in Administrative Memorandum No. 38, First Aid Team.

4. ACTIONS

4.1 Actions of the injured person or any individual who discovers an injured person.

4.1.1 Notify the Control Room of the nature, extent, and location of the injured person(s).

4.1.2 Render life saving first aid as necessary.

4.1.3 Keep the Control Room informed of the status of the injured individual(s).

4.1.4 When the first aid team arrives, standby to assist the first aid team by:

1. Assisting first aid team as requested.

2. Maintaining communications with the Control Room.

4.2 Actions of Shift Supervisor/Assistant Shift Supervisor

NOTE: Transportation of contaminated injured individual(s) constitutes an Unusual Event and requires action per EI 1300.02, Unusual Event.

4.2.1 Summon First Aid Team to the location of the injured person(s) by sounding the Initiate Emergency Procedures Alarm and announcing location and nature of emergency on the PA System. Unless the Shift Supervisor believes that additional help is necessary, all other personnel should be instructed to stand clear and that assembly according to the Emergency Plan is NOT required.

4.2.2 Request assistance from the Chemistry and Health

Physics person in charge to determine if decontamination is needed.

- 8
- 4.2.3 Call the Nuclear Security Supervisor, who will make medical treatment arrangements (Magruder Memorial Hospital) and ambulance arrangements (Carroll Township Emergency Medical Service) where required, through the Ottawa County Sheriff's Office. The extent of the known injury should be related to provide for proper medical attention.

NOTE: If the injured individual does NOT require immediate Professional Medical treatment, the Shift Supervisor will call the Edison Operator giving the injured individual's name and the nature of the injury. The Edison Operator will inform the individual's Supervisor, the Safety and Health Services Administrator and Safety Coordinator of the time and place.

- 4.2.4 Contact the Davis-Besse Station Medical Coordinator(s) as designated in Administrative Memo No. 37, Attachment 2, Section IX.

NOTE: If contact with the Medical Coordinator cannot be made, contact the hospital 24 hour Emergency Room Doctor and relate accident and injury information. Also, notify the hospital Nursing Supervisor that the Station Medical Coordinator could not be reached.

- 4.2.5 Ensure that Security and the First Aid Team are notified of the impending ambulance arrival and give necessary instructions (i.e. access door, number of ambulances responding).
- 4.2.6 Send a man to the Gate Office (P.P.F.) to direct the ambulance.
- 4.2.7 Notify the Station Superintendent and the Chemist and Health Physicist.
- 4.2.8 The Station Superintendent or his designated representative will arrange for notification of the injured person(s) family.

NOTE: Some member of Station Supervision will accompany the man to the doctor or

hospital. If the injury occurs during off normal hours, weekends or holidays, then a member of Supervision will be called to meet the employee at the doctor's office or hospital.

4.3 Actions of the First Aid Team

- 4.3.1 Proceed immediately to the injured individual(s) with the First Aid Response Equipment.
- 4.3.2 Evaluate the extent of the injury and render First Aid as required.
- 4.3.3 Keep the Shift Supervisor assessed as to the status and degree of injury to person(s) involved.
- 4.3.4 The First Aid Team Leader shall use the following criteria in determining where and when to move the injured person(s).
 1. If in his estimation, the injured person(s) should NOT be moved without Professional Medical Care, First Aid will be provided locally until Professional Medical treatment is available.
 2. If the injured person(s) requires immediate professional medical treatment and may be moved, he will direct the transportation of the injured person(s) to the nearest 585' elevation exit for ambulance pickup.
 3. If the injured person(s) does (do) NOT require immediate professional medical treatment, then:
 - a. Contaminated injured person(s) may be taken to the Medical Treatment Room and/or Decon Room for decontamination and further First Aid and/or Professional Medical Treatment.
 - b. Uncontaminated injured person(s) may be taken to the Medical Treatment Room for further First Aid and/or Professional Medical Treatment.

5. DISCUSSION

5.1 Minor injuries

- 5.1.1 Move injured person(s), for injuries NOT requiring immediate professional medical treatment, to the Medical Treatment Room, taking care to minimize aggravating the person's condition. The Medical Treatment Room is located on the 603' elevation of the Auxiliary Building adjacent to Access Control. Immediate and temporary care may be given to a victim of an accident at this point.

5.2 Major injuries

- 5.2.1 In all cases of major injury (except section 5.2.2) transportation of injured person(s) shall be to Magruder Hospital unless Magruder Hospital has cleared the transportation to another hospital. St. Charles Hospital is to be used as the backup for Magruder Hospital if the transportation is cleared.
- 5.2.2 In cases of severe burns, severe eye injuries or heart attacks, transportation of injured person(s) shall be to St. Vincents Hospital. This can be done by the use of Life Flight-Emergency Air Ambulance Service (see Attachment 2).

5.3 Radiological

- 5.3.1 Actions of the Chemistry and Radiation Tester (C&RT):
1. Proceed immediately to the scene of accident.
 2. Check area dose rate. If greater than 1 R/hr, move injured party from area as soon as possible or set up shielding to reduce exposure. Also, move injured party as soon as feasible if an airborne or surface contamination hazard exists. If no radiation hazard exists, DO NOT move the patient until approved by the First Aid Team Leader.
- 5.3.2 If the injury involves contamination, all efforts will be made to decontaminate the injured to below 220 dpm/100 cm². If decontamination delays necessary medical treatment, the victim will be covered in such a manner as to avoid any spread of contamination and appropriately shielded until medical aid can be obtained or hospitalization made.

- 5.3.3 Remove protective clothing and begin decontamination according to HP 1604.01, Personnel Decontamination, if required and only if this will NOT aggravate the injury.
- 5.3.4 For minor injuries personnel decontamination may be accomplished in the Personnel Decontamination Area located in the Auxiliary Building. This area contains showers, a large sink, wash basin, and necessary monitoring equipment.
- 5.3.5 In case of injury, both minor and major, medical attention should take precedence over contamination controls. Emergency medical treatment of inhalation cases should take precedence over decontamination and/or wound treatment. In the event of any minor open wound in the RACA, the wound will be flushed with copious amounts of water and bleeding will be controlled as required. In cases of a puncture wound, forcing it to bleed will remove some contamination if present.

NOTE: Transportation of contaminated injured individual(s) constitutes an Unusual Event and requires actions per EI 1300.02, Unusual Event.

- 5.3.6 When hospitalization is required and contamination or its possibility exists, the ambulance driver, hospital and doctor shall be advised in advance. Precautionary measures to prevent spread of contamination shall be initiated, i.e., placing injured person on a cloth sheet and shielding him if required, providing the ambulance driver with TLD, dosimeter and protective clothing as required.
- 5.3.7 For each injury involving radiological complications, the C&RT individual shall complete a Body Map, Attachment 1. Should the injured individual require transport to an off-site medical facility, the Body Map shall accompany the individual to expedite recovery actions at the facility.
- 5.3.8 Should hospitalization be required, one Health Physics Technician shall accompany the individual in the ambulance to the hospital. Should enough casualty victims exist which require more than one ambulance, only one Health Physics

Technician is required. The Technician shall accompany the first injured individual transported and wait at the hospital to provide radiological assistance as the other casualties arrive.

- 5.3.9 Urinary bio-assay or whole body counts will be performed on all persons suspected of having received 10% of the maximum permissible body burden.

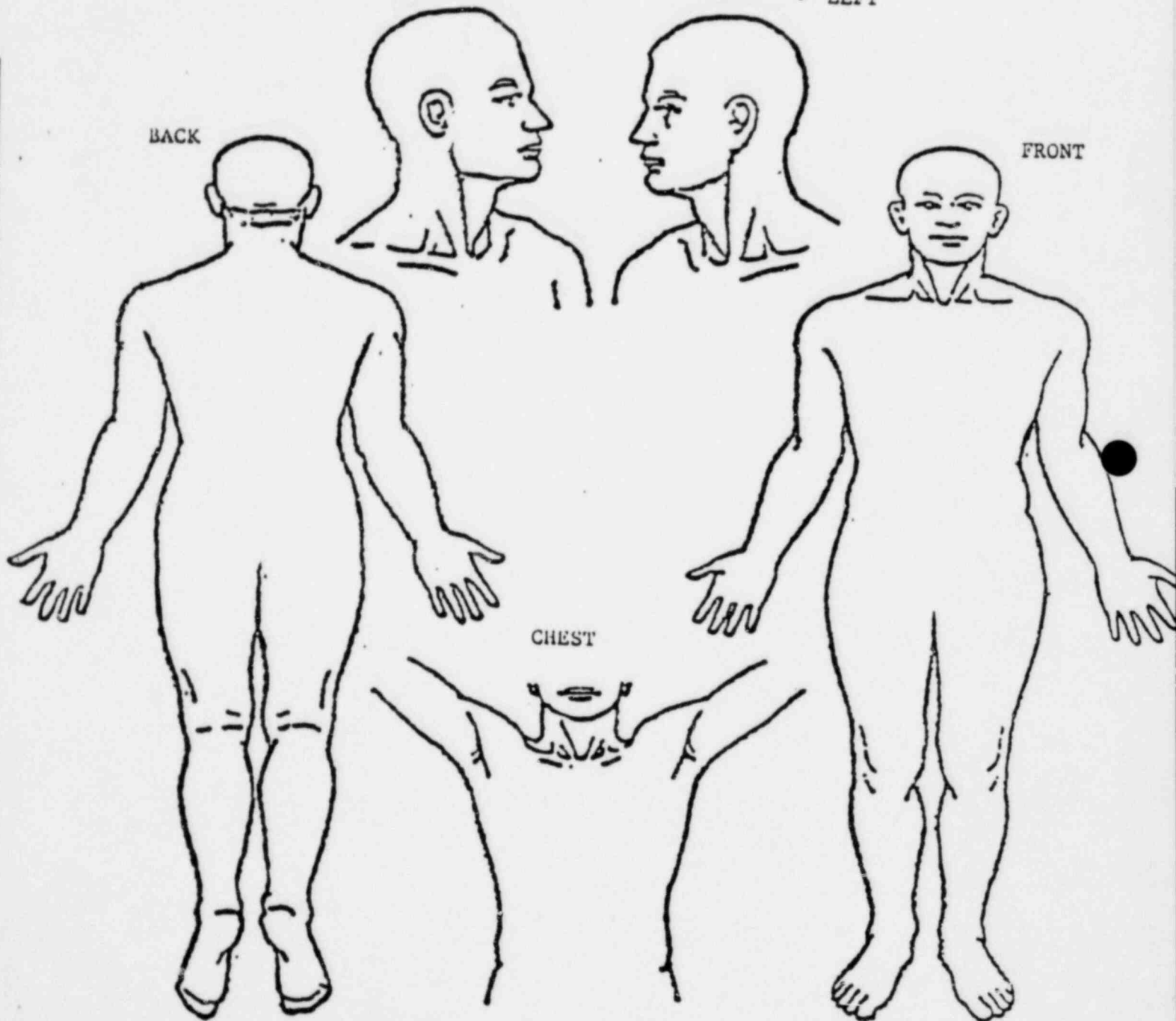
6. REPORTS

- 6.1 Reports of accidents and injuries shall be completed and processed in accordance with Administrative Memorandum No. 5, Accident/Injuries - Report and Forms.

BODY MAP

Indicate Contaminated Areas as to Location, Degree of Contamination,
and Decon Effort

Indicate Location of Wounds
RIGHT (use additional sheets if necessary) LEFT



Type of Meter Used: _____
(indicate model and number)

Distance Skin-to-Probe: _____ in.

PROCEDURES FOR THE USE OF LIFE FLIGHT -
EMERGENCY AIR AMBULANCE SERVICE

CONTENTSATTACHMENT PAGE NO.

Background Information	Page 1
Procedure to Follow . . . Actions to Initiate Service	Page 2
Instructions for Edison Operator	Page 3
Safety Rules . . . for establishing and marking landing site . . . (for Security Supervisors)	Page 3 - 5

BACKGROUND INFORMATION: On August 15, 1979, St. Vincent Hospital and Medical Center, Toledo, Ohio, commenced its "Life Flight" Emergency Air Ambulance Program.

Life Flight, (an Emergency Room in a helicopter), rapidly transports a St. Vincent emergency physician, specialized registered nurse, life support medications and supplies to any medical emergency scene within a 130 mile radius of Toledo.

Life Flight transports the patient to the most appropriate hospital or hospital of choice, (Physician referrals are honored).

Medical treatment is begun at the scene, continued in flight, and the receiving hospital is alerted to the nature and severity of the injury or illness, and medical specialties needed.

Life Flight was initiated in coordination with the Regional Medical Services of Northwest Ohio (REMSNO). It augments existing primary ground emergency transportation systems and provides service 24 hours a day, seven days a week.

Since Life Flight is a self-contained emergency treatment center, it can carry a maximum of two adult patients at a time.

Most appropriately, utilization of this service at the Davis-Besse Nuclear Power Station should be limited to severe injuries and illnesses or treatment cases best suited to the use of available specialty service of St. Vincent's, (i.e., heart attacks or suspected heart attacks, eye injuries, burns, etc.).

However, designation of particular care facility, will be determined through contact with the Edison Operator.

To Call Life Flight: (419) 241-LIFE is the emergency number; the call is received simultaneously by REMSNO and Life Flight Communications Center.

PLEASE NOTE: Contact must be made through the Edison Operator (the phone number is shown here only for informational purposes and as an alternative measure, should contact with the Edison Operator be unworkable).

PROCEDURES TO FOLLOW . . . ACTIONS TO INITIATE SERVICE:

* The Shift Supervisor or his designee will contact the Edison Operator and detail the following information which will be passed along to the Life Flight Dispatcher.

- _____ 1. This is (your name & position) calling from Davis-Besse, I am requesting that you call: 241-LIFE, to establish "Life Flight" Emergency Air Ambulance Service. Please provide the following information to the Life Flight Dispatcher:
 - _____ A. - Type and extent of injuries . . .
 - _____ B. - Call-back telephone number . . . 259-5663, D-B Control Room (for contact through Shift Supervisor with First Aid Team Leader)
 - _____ C. - Probable landing site/landing instructions . . .
 - _____ D. - Patient's name and expected destination . . .
 - _____ E. - Hold on the line until the Edison Operator tells you to hang up
- _____ 2. Notify the Control Room that ext. 5663 must be kept open for possible incoming emergency information call.
- _____ 3. Notify Security Supervisor to establish and mark landing area and to follow Safety Rules (attached to this procedure for your information).
- _____ 4. Inform First Aid Team Leader that arrangements have been made and help is on the way . . . (This is extremely important to NOT only keep him informed but to enable him to comfort and reassure the injured).
- _____ 5. Ensure that a First Aid Team member or Operations person is designated to meet Life Flight and take medical personnel to the injured.
- _____ 6. Note arrival and departure times of Life Flight Service.

Upon receiving request from the field for this service, make certain that you obtain the following information to pass along to the Life Flight Dispatcher:

1. Caller's name, phone number, and location
Name _____
Phone _____
Location _____
Time In _____
2. Type and extent of injuries or illness _____

3. Call-back telephone number _____ (for D.B.: 259-5663, Control Room).
4. Address, cross streets, nearby landmarks, and nearest landing site _____

5. REPEAT INFORMATION BACK TO CALLER TO VERIFY ACCURACY.
6. INFORMATION COMPLETE? Yes! Tell caller to hang up.
No! Tell caller to hold on.
7. Call 241-LIFE, (the call is received simultaneously by REMSNO and the Life Flight Communications Center).
8. Repeat information written above. Time Out _____
9. Follow normal, established procedures.

SAFETY RULES: (For Davis-Besse Security Force Supervisors) . . . For establishing and marking LIFE FLIGHT landing site and general precautions concerning aircraft.

A vital part of the total information supplied to the Life Flight Dispatcher is the - address, cross streets, nearby landmarks, and nearest landing site.

Due to plant architecture, our cooling tower provides an obvious and convenient "landmark of address".

However, we must remember that the landing site for Life Flight has some definite requirements:

"The site must be 60 feet square and free of rubbish and overhead obstructions."

The On-Duty Security Supervisor will:

- _____ 1. Select an appropriate landing area;
- _____ 2. Direct Station Security Personnel to mark the landing site; and
- _____ 3. Arrange a rapid transport of medical personnel to the injury scene.

to ensure -- the safety of the aircraft and its personnel; prompt treatment for the injured; and security control of landing activities.

LANDING SITE

60 foot square, clear of trees, wires, emergency vehicles, trash cans, signs, fallen branches, and snow. (100 foot square needed when high winds are a factor).

Surface should be as smooth as possible with no more than 14 foot difference in elevation from one end of the landing site to the other.

Crowds must be kept back 100 feet from the helicopter at all times.

LANDING SITE MARKINGS

Mark landing site in each corner with smoke bombs (daylight) or flares (night).

X _____ X

----- 60 ft. -----

X _____ X

WIND DIRECTION

Station one smoke bomb (daylight or flare (night) on the upward side of the landing site to introduce wind direction.

GENERAL SAFETY PRECAUTIONS

1. Approaching Aircraft:

Always approach the aircraft from the front.

Never approach the aircraft until signaled to do so by the pilot.

Never approach aircraft when blades are in motion.

At no time is anyone permitted near the tail of the aircraft.

No smoking within 50 feet of the aircraft.

No running within 50 feet of the aircraft.

Do NOT assist crew members in opening or closing doors of the aircraft.

2. Loading or Unloading:

Flight crew is responsible for loading and unloading equipment.

Flight crew will direct loading and unloading of patient.

When Aircraft Has Landed . . . There should only be three people aboard. The Life Flight Crew consists of - physician, nurse, and pilot.

The Shift Supervisor or his designee shall have an escort, at the landing site, to direct medical personnel to the injured.

If the pilot elects to remain at the aircraft, a Security Officer will stay with him, at all times.

Prior To Departure . . . Security personnel shall make certain that the injured's badge and TLD are NOT on the injured and have been turned over to the Security Supervisor. Clear area of take off. Note time of departure and record.