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10 UNITED STATES OF AMERICA  
11 NUCLEAR REGULATORY COMMISSION

12 In the Matter of )

) Docket Nos. 50-361 OL  
) 50-362 OL

13 SOUTHERN CALIFORNIA EDISON )  
14 COMPANY, ET AL. )

15 (San Onofre Nuclear Generating )  
16 Station, Units 2 and 3.) )

17 INTERVENORS' BRIEF REGARDING REQUIRED MEDICAL SERVICES FOR  
18 THE GENERAL PUBLIC IN RESPONSE TO COMMISSION ORDER CLI-82-27  
19

20 The Intervenors, Guard et al. hereby respectfully  
21 submit their opening Brief with respect to the certified issues  
22 contained in the Commission's Order dated September 24, 1982  
23 (CLI-82-27).  
24

25 The Intervenors answer the two questions in the order  
26 posed by the Commission in said Order.  
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1 QUESTION PRESENTED NO. (1).

2  
3 "(1) Does the phrase "contaminated  
4 injured individuals" as used in 10 CFR  
5 50.47(b)(12) require applicants for  
6 nuclear power plants to provide  
7 arrangements for medical services only  
8 for members of the public who have  
9 suffered traumatic injury and are also  
10 contaminated with radiation?"  
11

12 I

13 THE PHRASE "CONTAMINATED INJURED INDIVIDUALS" AS USED  
14 IN 10 CFR 50.47(b)(12) DOES NOT REFER ONLY TO THOSE  
15 MEMBERS OF THE PUBLIC WHO HAVE SUFFERED TRAUMATIC  
16 INJURY BUT ALSO TO THOSE MEMBERS OF THE PUBLIC WHO HAVE  
17 SUFFERED RADIATION INJURY.

18 The Intervenors feel that the short answer to the  
19 Commission's first question regarding the precise meaning of the  
20 above referenced regulation is: "no". The Intervenors completely  
21 agree with the detailed and well reasoned opinion of the  
22 Licensing Board in this case (LPB-82-39). Please refer to slip  
23 opinion Page 24, et seq. Accordingly the Intervenors will not  
24 reargue the same points made by the Licensing Board in that  
25 decision herein.

26 The question posed turns on the meaning of the word  
27 "injured" in the above quoted regulation. The positions of the  
28 NRC Staff and the Applicants are correctly set forth in the

1 Appeal Board decision denying our motion for a stay pending our  
2 appeal (ALAB-680). The NRC Staff and the Applicants essentially  
3 take the position (although the NRC's position is somewhat  
4 unclear) that the word "injured" refers to traumatic, i.e.  
5 non-radiation, injuries. The Appeal Board appears to favor this  
6 view without citation of authority. The Intervenors have argued  
7 throughout the Hearing process that the word "injured" in this  
8 regulation refers not only to the traumatic, non-radiation type  
9 injury, but to radiation injuries as well.

10  
11 Although there is a difference of opinion among medical  
12 experts the applicants' witness, Dr. Linnemann, in this pro-  
13 ceeding, who was presented as an expert in radiological medicine,  
14 consistently made a distinction between those individuals who  
15 were contaminated and those individuals who are irradiated and  
16 actually suffering physical harm. Mere contamination was said to  
17 be something that could be washed off with soap and water,  
18 whereas actual irradiation, viz, receiving whole body doses in  
19 excess of 150 rem, was thought to be significant radiological  
20 "injury" for which hospitalization and careful supervision would  
21 be appropriate. (Transcript at 7728,7767)

22  
23 The phrase "contaminated injured individuals" would,  
24 therefore, appropriately mean an individual who was contaminated  
25 and also injured, either traumatically or because he had received  
26 a life threatening dose of radiation.

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28 ////

FEMA SUPPORTS THE READING OF THE INTERVENORS THAT "INJURED" REFERS TO THOSE WITH RADIATION INJURY.

This position is supported by Federal Emergency Management Agency ("FEMA"). FEMA provided evidence in this proceeding by way of letters addressing the meaning of this regulation and NUREG-0654. The letters are attached hereto as Exhibit "B" and incorporated by reference herein. FEMA, co-author of NUREG-0654 which sets forth the guidelines for implementing the emergency planning regulations, interprets NUREG-0654 to encompass medical arrangements for the general public beyond those people who may be traumatically injured during the radiological emergency.

The FEMA position clearly encompasses planning and arrangements for medical services for those people who are radiologically injured. Intervenor's contend that FEMA's position on this issue should be most persuasive authority because FEMA has been given lead responsibility to develop off-site jurisdiction emergency response planning by the Presidential Order of December 7, 1979 (E.O. 12148) implementing the recommendations contained in the Kemeny Report on Three Mile Island. The Memorandum of Understanding between the NRC and FEMA provides that FEMA will review the off-site jurisdiction plans and the regulations 10 CFR 50.47(a) and (b) provide that FEMA will make the review. The NRC staff essentially performs an appellate function in reviewing FEMA's "Findings" which are to form a

1 "rebuttable presumption" in Licensing Board proceedings. It is,  
2 therefore, respectfully submitted that the interpretation of FEMA  
3 as to the NUREG-0654, although not dispositive to the issue with  
4 respect to the NRC regulation, should be very persuasive to this  
5 Commission as to not only what the regulation means in a  
6 technical sense but what it should mean as a matter of public  
7 policy.

8  
9 III

10 NUREG-0654 SUPPORTS THE READING OF INTERVENORS  
11 THAT "INJURED" REFERS TO THOSE WITH RADIATION INJURY.

12 The view of FEMA and the Intervenor's is also supported  
13 by specific reference to NUREG-0654. Exhibit "A" to this  
14 pleading sets forth the specific references in NUREG-0654 in  
15 their entirety which refer directly or indirectly to the pro-  
16 vision of off-site medical care for the general public. As can  
17 be seen these cover a vast array of arrangements from the  
18 identifying of resources (what the NRC Staff refers to as  
19 "preplanning") to the setting forth of agreements between the  
20 various private response organizations, to the planning and  
21 implementing of procedures to call upon said resources in the  
22 event of emergency, to the drilling and exercising of those  
23 facilities. It is submitted that this large amount of regulatory  
24 language would not have been used if the regulations meant only  
25 to protect those who were traumatically injured and also con-  
26 taminated in the event of emergency. This is because the  
27 traumatically injured, as set forth in the evidence of this  
28

1 proceeding and as quoted by the Appeal Board, would be a very  
2 small number indeed, perhaps no more than 25. (ALAB-680 Slip  
3 Opinion at 18) All evidence indicates that this number could be  
4 handled by the Applicants' on-site plans. In fact it is  
5 postulated that most of the traumatic injuries that were to  
6 happen together with contamination would probably occur on-site.

7  
8  
9 IV

10 THE "LEGISLATIVE HISTORY" SUPPORTS THE READING  
11 OF INTERVENORS THAT "INJURED" REFERS TO THOSE  
12 WITH RADIATION INJURY.

13 With respect to the "legislative history" of the  
14 regulation, NUREG-0654 refers directly to both NUREG-0396 and  
15 NUREG-75-111 as the guiding documents which form the basis for  
16 the new regulations and NUREG-0654. Applicants tend to rely on  
17 NUREG-0396 which refers generally to the pre-TMI adoption of the  
18 ten mile emergency planning zone concept for nuclear power  
19 plants. It is submitted that the information contained in that  
20 document is largely irrelevant to this proceeding as it is a  
21 pre-TMI document which does not focus on the emergency medical  
22 services or the adequacy thereof. The checklist, NUREG-75-111 is  
23 a more appropriate source. The relevant portions of that  
24 document are attached hereto as Exhibit "C". This document  
25 directly refers to medical preparations for the general public  
26 and the implementation of off-site emergency planning for medical  
27 services for the general public in the event of a radiological

28 ////



1 emergency. The document at Footnote 2 indicates that the exact  
2 nature of these services and planning should be based on site  
3 specific data and determined by health care professionals in the  
4 local jurisdictions and the State surrounding the nuclear plant.  
5 This is precisely the position of the Atomic Safety and Licensing  
6 Board, FEMA and the Intervenors in this proceeding.

7  
8 This position is also supported by the Kemeny  
9 Commission Report at Pages 74 and 75 containing the recom-  
10 mendations for worker and public health and safety, which  
11 indicate that it is recommended that the radioprotective drug,  
12 potassium iodide be made available for the general population and  
13 that there be sufficient health related equipment and that there  
14 be State and local training for health professionals in the area  
15 of the nuclear power plants regarding radiation and health  
16 issues.

17  
18 It is respectfully submitted that the appropriate  
19 meaning of the quoted regulation encompasses not only the  
20 traumatically injured but the radiologically injured as well.

21  
22 QUESTION PRESENTED NO. (2)

23  
24 "(2) If Applicants are required to  
25 provide arrangements for medical services  
26 for the general public who are injured  
27 and/or contaminated under 10 CFR  
28 50.47(b)(12), to what extent does that

1 regulation require advance, specific  
2 arrangements and commitments for medical  
3 services for the general public as  
4 opposed to the general knowledge that  
5 facilities and resources exist and could  
6 be used on an ad hoc basis?

7  
8 I

9  
10 ADVANCE, SPECIFIC ARRANGEMENTS AND COMMITMENTS FOR  
11 MEDICAL SERVICES FOR THE GENERAL PUBLIC MUST BE MADE  
12 TO PERMIT THE PROMPT DELIVERY OF MEDICAL SERVICES TO  
13 MEMBERS OF THE PUBLIC WHO ARE INJURED AND/OR CON-  
14 TAMINATED IN A NUCLEAR POWER PLANT ACCIDENT.

15 The reason for advance planning, as opposed to mere  
16 identification of resources ("preplanning"), is to facilitate the  
17 prompt delivery of medical services which are needed to protect  
18 the public health and safety. Prompt delivery of services will  
19 be crucial in order to mitigate the effects of radiation exposure  
20 in the event of a nuclear power plant accident. The services  
21 referred to here might include distribution of radioprotective  
22 drugs, decontamination of skin (whether broken or unbroken), and  
23 treatment of traumatic injuries of contaminated individuals. In  
24 order to deliver such services promptly, it will be necessary to  
25 identify the persons requiring them. That is, a system of  
26 "triage" will have to be established so that the available  
27 resources are utilized to protect the public health and safety.

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1 Without such a system, it is probable that the available  
2 resources would be overwhelmed, and the delivery of necessary  
3 services to injured and contaminated members of the public would  
4 be delayed beyond the bounds of efficacy. For example, if  
5 potassium iodide were to be used to prevent uptake by the thyroid  
6 of radioactive iodide, it would have to be distributed to the  
7 population to be treated within "a few hours" in order to be  
8 effective. NUREG-0654 at page 9 suggests "the possible  
9 administration of the thyroid blocking agent, potassium iodide  
10 should also be considered [for the plume Exposure pathacy EPZ]".  
11 Unless plans were well established for identification of the  
12 target population and distribution of the drug to members of the  
13 population, there would be little, if any, likelihood that the  
14 drug would be effective.

15  
16 Similarly, if persons who are contaminated with  
17 radiation must vie with those who are not contaminated, or who  
18 are only minimally contaminated, for available decontamination  
19 services, their decontamination will not be accomplished in time  
20 to mitigate the effects of radiation on them, and their health  
21 will be injured as a consequence of delay. Thus, it is necessary  
22 to do advance planning and make certain commitments for medical  
23 services in order to reach the goal of protection of the public  
24 health and safety. In cases where serious traumatic injury is  
25 accompanied by contamination, the need for prompt delivery of  
26 medical services is even more apparent.

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1 II

2 NUREG-0654 AND THE QUOTED REGULATION PROVIDE FOR  
3 ADVANCE PLANNING FOR MEDICAL SERVICES FOR A SPECTRUM  
4 OF ACCIDENTS INCLUDING CORE MLT SEQUENCES.

5 There is little guidance from actual experience of  
6 nuclear power plant accidents to test the adequacy of medical  
7 services arrangements during an accident. The TMI 2 accident is  
8 the most recent and most severe accident in the history of  
9 operating reactors, but it is still too soon to assess whether  
10 the medical services available succeeded in protecting the public  
11 health to the extent required by the Atomic Energy Act of 1954  
12 [42 U.S.C. 2021 (d)]. Generally, health planners recognize that  
13 in planning for disasters of any kind, the more unusual the  
14 disaster, the more there is a need to specify the procedures for  
15 response to such a disaster. Disaster planning and disaster  
16 drills are considered necessary for accidents which rarely occur  
17 in the ordinary course of business. Since nuclear power plant  
18 accidents are relatively infrequent, they require advance  
19 planning which specifies the response which is appropriate to the  
20 disaster, rather than ad hoc treatment.

21  
22 Hence NUREG-0654 Appendix 1 provides for a spectrum of  
23 accidents as a planning basis for the more detailed provisions.  
24 As set forth explicitly in Exhibit "A" attached hereto and  
25 incorporated herein by reference this includes much more than the  
26 preplanning and identification of resources.

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1 Without some required planning, it is difficult to  
2 imagine what standard is being applied - beyond "what exists is  
3 enough". How can experts conclude that there are sufficient  
4 resources without a plan demonstrating that those resources can  
5 be marshalled to meet the emergency.

6  
7 III

8  
9 ADVANCE PLANNING WHICH SPECIFIES THE APPROPRIATE  
10 ARRANGEMENTS FOR MEDICAL SERVICES FOR THE GENERAL  
11 PUBLIC WILL ENHANCE THE EFFECTIVENESS OF AVAILABLE  
12 MEDICAL RESOURCES AND WILL BE COST EFFECTIVE.

13 Appropriate use of medical services in the event of a  
14 nuclear power plant accident would make it more likely that  
15 existing medical resources would prove adequate to the task of  
16 providing care to injured or contaminated persons. Thus, if  
17 procedures for access to emergency clinical facilities were in  
18 place, only those persons who need clinical care would enter the  
19 medical system, which would be less likely to be overburdened.  
20 This would embody the "triage" concept, with screening,  
21 counseling, and referral components. It is important to note,  
22 that while such a system would no doubt have a beneficial effect  
23 on persons who are psychologically stressed, it is directed  
24 toward appropriate utilization of available resources, not  
25 toward providing psychological services, per se. A recent  
26 Commission decision, Metropolitan Edison Company, (Three Mile  
27 Island Nuclear Station Unit No. 1), CLI-82-6, 15 NRC 407(1982),

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1 reveals the Commission's reluctance to recognize psychological  
2 stress as properly within the scope of the Commission's  
3 authority. Even if this reading of the Atomic Energy Act is  
4 correct, the use of screening, counseling and referral services  
5 for the purpose of enhancing the appropriate utilization of  
6 existing medical services would be a cost effective method of  
7 ensuring the delivery of medical care to those who need it. In  
8 order to structure access to clinical facilities, such services  
9 would have to be planned for in advance of an accident.

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11 IV

12  
13 THE EXACT NATURE OF THE MEDICAL ARRANGEMENTS WHICH  
14 SHOULD BE PLANNED FOR IMPLEMENTATION IN THE EVENT OF  
15 A NUCLEAR POWER PLANT ACCIDENT IS A MATTER WHICH CAN  
16 BEST BE ADDRESSED BY MEDICAL PLANNING EXPERTS.

17 Although the general outlines of the medical arrange-  
18 ments which should be made to protect the health and safety of  
19 the public in the event of a nuclear power plant accident can be  
20 sketched in a brief, the planning for such arrangements is a  
21 matter for experts in the fields of community health and health  
22 planning. See Exhibit "C" hereto; Nureg 75-111 at page 31 and 32  
23 Footnote 2. The hearing process will be useful in providing  
24 evidence of the factors which must be considered in devising such  
25 plans, but the content of the plans will reflect medical judgment  
26 not available to the parties to this proceeding at the present  
27 moment. This will involve site specific considerations of

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1 resources and population and need. Intervenor and FEMA, without  
2 communicating with each other, arrived at essentially the same  
3 conclusion regarding the kinds of medical services which should  
4 be planned for, including decontamination facilities, monitoring  
5 equipment, trained staff, clinical facilities, history taking  
6 capability, etc. Compare Exhibit "B" to Intervenor's Response to  
7 Licensing Board Order dated August 6, 1982.

8  
9 CONCLUSION

10  
11 It is respectfully submitted that 10 CFR 50.47(b)(12)  
12 contemplates medical services for the general public who may  
13 receive radiation injury in an emergency and said regulation  
14 requires more than "preplanning" and identification of resources,  
15 it requires planning for the actual use of those resources in an  
16 emergency.

17  
18 Respectfully submitted,

19 PHYLLIS M. GALLAGHER and

20 FLEMING, ANDERSON, McCLUNG & FINCH

21  
22 By 

23 CHARLES E. McCLUNG, JR.  
24 One of the counsel for the  
25 Intervenor.  
26  
27  
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EXHIBIT "A"

NUREG-0654 REFERENCES TO EMERGENCY MEDICAL SERVICES

1. A. Assignment of Responsibility (Organizational Control)

Section 2.a. "Each Organization shall specify the functions and responsibilities for major elements and key individuals by title of emergency response, including the following: ... emergency medical services ...."

This requirement is made applicable to the State and local governments, there is a completely separate Section B which refers to the Licensee. NUREG-0654 at 32.

Section 3. "Each Plan shall include written agreements referring to the concept of operations developed between Federal, State and local agencies and other support organizations having an emergency response role within the emergency planning zones ..." (emphasis added)

FEMA concurs that this is applicable to medical support organizations, see Exhibit "B", page 2, no. 4. NUREG-0654 page 32.

2. B. On-Site Emergency Organization

Section 9. "Each licensee shall identify the services to be provided by local agencies for handling emergencies, e.g. police, ambulance, medical, hospital and fire fighting organizations ... shall be specified. NUREG-0654 at 39.

3. C. Emergency Response Support and Resources

Section 4. "Each Organization shall identify nuclear and other facilities, organizations or individuals, which can be relied upon in an emergency to provide assistance. Such assistance shall be identified and supported by appropriate letters of agreement."

This is made directly to the licensee, State and local government. NUREG-0654 at Page 41.

4. F. Emergency Communication

Section 2. "Each Organization shall ensure that a coordinated communication link for fixed and mobile medical support facilities exists."

This criterion is made applicable to the licensee, State and local. NUREG-0654 at Page 48.

5. J. Protective Response

Section 10.d. "Means for protecting those persons whose mobility may be impaired to such factors as institutional or other confinement."

"e. Provisions for the use of radioprotective drugs, particularly for emergency workers and institutionalized persons within the plume exposure EPZ, whose immediate evacuation may be infeasible or very difficult including quantities, storage and means of distribution."

"f. State and local organizations Plans should include the method by which decisions by the State Health Department for administering radioprotective drugs to the general population are made during an emergency and the predetermined conditions under which such drugs may be used by off-site emergency workers."

All these sections refer and are applicable to the State and local organizations and they are referenced by FEMA in Exhibit "B" hereto. NUREG-0654 at 63.

6. L. Medical and Public Health Support

Section 1. "Each organization shall arrange for local and

back-up hospital and medical services, having the capability for evaluation of radiation exposure and uptake, including assurance that persons providing these services are adequately prepared to handle contaminated individuals."

This provision is made directly applicable to all the response organizations. NUREG-0654 at 69.

Section 3. "Each State shall develop lists indicating the location of public, private and military hospitals and other emergency medical services facilities within the State or contiguous States, considered capable of providing medical support for any contaminated injured individual. The listing shall include the name, location, type of facility and capacity and any special radiological capabilities. These emergency medical services should be able to radiologically monitor contamination personnel and have facilities and trained personnel to care for contaminated injured persons."

This criterion is made directly applicable to the State. NUREG-0654 at 69.

Section 4. "Each organization shall arrange for transporting victims of radiological accidents to medical support facilities."

This criterion is made directly applicable to all response organizations. NUREG-0654 at 69.

7. N. Exercises in Drills

Section 2.c. Medical Emergency Drills. "A medical emergency drill involving a simulated contaminated individual which contains provisions for participation by the local support services, (i.e. ambulance and off-site medical treatment facility) shall be conducted annually. The off-site portions of the medical drill may be performed as part of the required annual exercise."

This criterion is made applicable to the licensee and local response organizations and is referred to in Exhibit "B" by FEMA. NUREG-0654 at 72.

8. O. Radiological Emergency Response Training

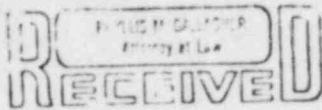
1.a. "Each facility to which the Plan applies shall provide site specific emergency response training for those off-site emergency organizations who may be called upon to provide assistance in the event of an emergency."

1.b. "Each off-site response organization shall participate in and receive training. Where mutual aid agreements exist between local agencies, such as fire, police, ambulance and rescue, the training shall be offered to the other departments who are members of the mutual aid district."

4. "Each organization shall establish a training program for instructing and qualifying personnel who implement a radiological emergency response plans. The specialized initial training and periodic retraining programs, including the scope nature and frequency shall be provided in the following categories: ... h. Medical Support Personnel; ..."

These sections refer generally to the response training required by all the emergency response personnel. Footnote 1. NUREG-0654 at page 75 provides "training for hospital personnel, ambulance/rescue, police and fire departments, shall include the procedures for notification, basic radiation protection and their expected roles ..."





UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

DOCKETED  
USNRC

OCT 26 1981

ATOMIC SAFETY AND LICENSING BOARD

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OFFICE OF SECRETARY  
DOCKETING & SERVICE  
BRANCH

BEFORE ADMINISTRATIVE JUDGES  
James L. Kelley, Chairman  
Elizabeth B. Johnson  
Cadet H. Hand

SERVED OCT 23 1981

In the Matter of

SOUTHERN CALIFORNIA EDISON COMPANY,  
ET AL.

(San Onofre Nuclear Generating  
Station, Units 2 and 3)

Docket Nos. 50-361-OL  
50-362-OL

October 22, 1981

ORDER  
(Including Letters from Federal Emergency  
Management Agency in the Record)

Attached are copies of two letters dated October 15, 1981 from Marshall E. Sanders, Acting Chief, Technological Hazards Division, Office of Natural and Technological Hazards, Federal Emergency Management Agency, to the Board Chairman. Pursuant to the Board's Order of October 6, 1981, these letters are being included in the record. Any party who wishes to submit written comments on these letters shall do so by November 15, 1981.

FOR THE ATOMIC SAFETY AND  
LICENSING BOARD

*James L. Kelley*  
James L. Kelley, Chairman  
ADMINISTRATIVE JUDGE

Dated at Bethesda, Maryland  
this 22nd day of October, 1981.

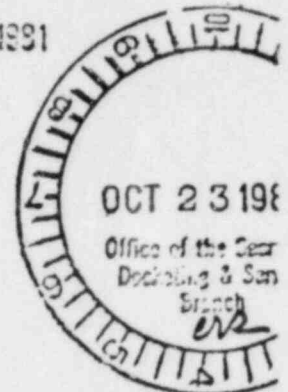
EXHIBIT B



# Federal Emergency Management Agency

Washington, D.C. 20472

OCT 15 1981



Judge James L. Kelley  
Administrative Judge  
Atomic Safety & Licensing Board Panel  
Washington, D.C. 20555

Dear Judge Kelley:

This letter sets forth answers of the Federal Emergency Management Agency (FEMA) to questions you posed to Mr. Spence Perry at the recent hearings on San Onofre concerning special arrangements for medical services for persons within the 10-mile EPZ around the San Onofre Nuclear Generating Stations 2 and 3.

Question: "In determining whether offsite emergency plans concerning the 10-mile EPZ provide adequate protective measures in the event of a serious radiological emergency, does FEMA believe that any specific arrangements need to be made for medical services for people in the zone who may be contaminated, suffering from radiation or both? If not, why not? If so, what kinds of arrangements?"

FEMA believes that special arrangements for medical services need to be made for persons within the 10-mile EPZ who may suffer from radiation exposure, radiologic contamination of both. Moreover, this position is supported by specific planning standards and criteria in NUREG-0654/FEMA-REP-1 Rev. 1 for use by State and local governments in assuring that adequate arrangements are made for the provision of medical services for accidents encompassing the full range of the four classes of emergency action levels as delineated in Appendix 1.

The question posed does not specify whether or not we should address exposure control measures and medical services for emergency workers who are more likely to be exposed to dangerous levels of radiation. Because the intent of the question appears to be directed towards the general public and not emergency workers, our answer, therefore, assumes the general public.

It is significant that your question draws a relationship between arrangements for medical services and the provision of protective measures. The primary intent of protective response measures as presented in planning standard "J" of NUREG-0654/FEMA-REP-1 is to prevent or significantly minimize the exposure of the general population within the 10-mile plume exposure pathway to dangerous radiation levels. To the extent, therefore, that such protective measures accomplish their purpose, there would be no or little need for medical services.

The planning and preparedness guidance provided in NUREG-0654/FEMA-REP-1 for medical services is based, in part, on the possibility that despite the application of protective response measures, persons within the 10-mile EPZ may be exposed to dangerous levels of radiation. Those persons so exposed would, therefore, require appropriate medical services.

Planning standard "L" and other related planning standards with NUREG-0654/FEMA-REP-1 describe the arrangements that should be made by State and local governments for the provision of medical services to offsite contaminated and injured individuals. These arrangements include:

1. Provision of local and backup hospital and medical services having the capability for evaluation of radiation exposure and uptake, including assurance that persons providing these services are adequately prepared to handle contaminated individuals. (L-1)
2. Identification of public, private and military hospitals and other medical services facilities within the State or contiguous States considered capable of providing medical support for any contaminated injured individual. The listing should include the name, location, type of facility and capacity and any special radiological capabilities. L 3

These emergency medical services provided should include the capability to radiologically monitor contaminated personnel. Trained personnel within these facilities should be able to care for contaminated injured persons. (L-3)

3. Provision of arrangements for transporting victims of radiological incidents to medical support facilities. L 4
- ✓ 4. Documentation by written agreements of all designated Federal, State and local agencies and medical support organizations having an emergency role within the EPZs. (A-3)
- ✓ 5. Provision of radiological monitoring and other appropriate medical services for those persons who have been evacuated. (J-12)
6. Provision for protecting those persons whose mobility may be impaired due to such factors as institutional or other confinement. (J-10d)
7. Provision for the use of radioprotective drugs, particularly for institutionalized persons within the plume exposure EPZ whose immediate evacuation may not be feasible or very difficult, including quantities, storage and means of distribution.

State and local organizations' plans should include the method by which decisions by the State Health Department for administering radioprotective drugs to the general population are made during an emergency and the predetermined conditions under which such drugs may be used. (J-10e-f)

8. Establishment of a training program for instructing and qualifying personnel who will implement medical services. These organizations include those within the EPZs who are party to written agreements with State and local governments. Such organizations and their personnel should participate in exercises and drills on, at least, an annual basis. (N-2, O-1-5)

FEMA is developing two courses related to the provision of medical services for radiologically contaminated individuals. Two contracts have been awarded to the Oak Ridge Associated Universities' Radiological Emergency Assistance Center/Training Site (REAC/TS) to develop two courses for training medical personnel on how to handle and provide emergency medical treatment to contaminated persons. The first course is for paramedics and the second course is for emergency room personnel in hospitals. It is expected these courses will be ready for training these two groups of specialists in April or May of 1982.

Question: "In FEMA's consideration of this question [previous question addressed what consideration is given to very low probability high-consequence accidents, commonly referred to as class 9 accidents?"

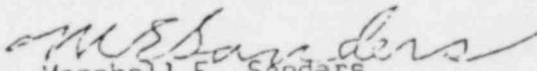
Class 9 accidents are commonly understood to indicate nuclear power plant accidents involving a core melt down. As indicated earlier, the planning and preparedness guidance provided in NUREG-0654 for the provision of medical services to contain (injured) persons applies to all four classes of emergency action levels as described in Appendix 1. The fourth class level, "General Emergency," involves "the actual or imminent substantial core degradation or melting with the potential for loss of containment." (Page 1-3)

In response to your specific question, general guidance is provided for the provision of medical services for "General Emergencies." No specific considerations, however, are provided for a class 9 accident. If such an accident occurred and if the accident resulted in a large number of persons being contaminated by excessive levels of radiation, State and local governments would have to rely upon identified medical support organizations in an area beyond the EPZs for the plant where the accident occurred and even other States with facilities that have the required capabilities and resources.

Such support is already anticipated in the guidance provided in NUREG-0654/FEMA-REP-1. State and local governments are expected to document such support by providing written agreements in their emergency response plans. Also, all medical organizations which are party to such agreements would assure that their emergency personnel were trained to cope with such a scenario. Participation in annual exercises and periodic drills would constitute a significant part of a training program.

I hope the foregoing is responsive to your questions.

Sincerely,



Marshall E. Sanders

Acting Chief

Technological Hazards Division

Office of Natural and Technological Hazards

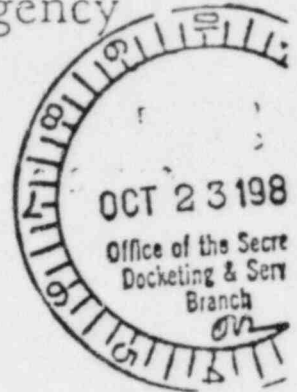




# Federal Emergency Management Agency

Washington, D.C. 20472

OCT 15 1981



Judge James L. Kelley  
Administrative Judge  
Atomic Safety & Licensing Board Panel  
Washington, D.C. 20555

Dear Judge Kelley:

During the hearings on the licensing of the San Onofre Nuclear Generating Stations 2 and 3, you asked Mr. Spence Perry, FEMA Staff Counsel, to have FEMA Headquarters respond by letter to some questions you raised. This letter is in compliance with this request.

Question #1: What further steps does FEMA plan to take in evaluating the offsite emergency plans?

Answer: FEMA Region IX will continue to monitor the progress of Southern California Edison's efforts in working with the local jurisdictions to correct the deficiencies noted in the June 3, 1981, evaluation of offsite plans and preparedness. Monthly reports will be made by FEMA Region IX to FEMA Headquarters. FEMA Region IX will determine what limited exercises and drills are needed to demonstrate that the deficiencies have been corrected. When the corrective actions outlined in a June 26, 1981, letter from Mr. K. P. Baskins, Southern California Edison to Mr. Brian Grimes of the NRC are completed, FEMA will make an interim finding, under the terms of the November 1980 NRC-FEMA Memorandum of Understanding, concerning the adequacy of offsite emergency plans and preparedness.

Question #2: Does FEMA consider that it is premature to consider questions of offsite emergency preparedness for San Onofre at this time?

Answer: FEMA does not believe that it is premature for the Board to consider offsite emergency preparedness. Much planning has been done, a full exercise has been held, and interim FEMA findings have been made and FEMA has continued to monitor and update its views as is reflected in its testimony.

Question #3: What is the status of the Nauman testimony, should it be characterized as a national view or a regional view?

Answer: Mr. Nauman's testimony represents a FEMA Regional view, except where he reflected his knowledge of Headquarters views provided to him. He represents a Regional view because FEMA Headquarters has delegated to its Regions the responsibility for working with State and local governments in developing their plans and preparedness and in evaluating these efforts. Typically, Headquarters makes findings and determinations on adequacy based on the evaluations by the Region. Mr. Nauman's testimony will become a part of this evaluation process and as such have a bearing on the FEMA findings and determinations on offsite preparedness.



Question #4: Is the July 14, 1981, memorandum to Mr. Brian Grimes (subject: emergency preparedness and support of San Onofre Nuclear Generating Station (SONGS), signed by Mr. Jaske) still an accurate reflection of FEMA's proposed actions and timing?

Answer: Yes, this memorandum is an accurate reflection of the actions to be taken by FEMA. The timing, however, is contingent upon Southern California Edison being able to meet the schedule for correcting the deficiencies detailed in the enclosure to Mr. Baskin's letter of June 26, 1981, to Mr. Brian Grimes.

Question #5: Does the Nauman testimony to the extent that it differs from the June 3, 1981, FEMA findings, supercede those findings?

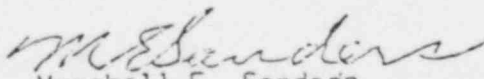
Answer: No, the Nauman testimony does not represent new or different findings from those of June 3. The present delegation of authorities to the FEMA Regions do not include the making of findings which is reserved for the FEMA National Headquarters. The Nauman testimony, to the extent that it differs from the June 3 FEMA findings, reflects actions that have been taken by Southern California Edison and local jurisdictions to correct the deficiencies noted in the June 3 findings.

Question #6: Was the target date of November 1, 1981, for the issuance of new FEMA findings, set in the Jaske memorandum of July 14, 1981, the result of external activities by the Southern California Edison Company or internal FEMA considerations?

Answer: FEMA was given October 15, 1981, by the company as a target for completing the improvement activities to correct the deficiencies. On the assumption that this schedule was met, FEMA added 15 days for processing and forwarding to FEMA Headquarters an evaluation by the Region and for the preparation of findings by FEMA Headquarters. Thus, the target date was the result for a combination of factors, those outside its control and those within its control.

I hope that the foregoing is responsive to your questions.

Sincerely,



Marshall E. Sanders

Acting Chief

Technological Hazards Division

Office of Natural and Technological Hazards



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

RECEIVED  
9/13/82

September 9, 1982

James L. Kelley, Esq., Chairman  
Administrative Judge  
Atomic Safety and Licensing Board  
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Administrative Judge  
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In the Matter of  
SOUTHERN CALIFORNIA EDISON COMPANY, ET AL.,  
(San Onofre Nuclear Generating Station, Units 2 and 3)  
Docket Nos. 50-361 OL & 50-362 OL

Dear Members of the Board:

On September 3, 1982, the Staff served its response to the Licensing Board's Memorandum and Order of August 6, 1982, appending to it the then best available copy of FEMA's response. Subsequently, the Staff has received the original of FEMA's response and is able to provide the Licensing Board and parties with a more legible copy, which is attached.

Sincerely,

*Lawrence J. Chandler*

Lawrence J. Chandler  
Deputy Assistant Chief Hearing Counsel

Enclosure: As stated above

cc:

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Atomic Safety and Licensing Board  
Atomic Safety and Licensing Appeal Panel  
Docketing and Service Branch



# Federal Emergency Management Agency

Washington, D.C. 20472

SEP 3 1982

MEMORANDUM FOR: Brian Grimes, Director  
Division of Emergency Preparedness  
U.S. Nuclear Regulatory Commission

FROM: *Richard W. Krimm*  
Richard W. Krimm  
Assistant Associate Director  
Office of Natural and Technological  
Hazards

SUBJECT: ASLB Memorandum and Order (8/6/82) San Onofre Nuclear Generating  
Station, Offsite Planning Medical Services

I am responding to the letter to Spence W. Perry, Esquire, the Federal Emergency Management Agency Associate General Counsel (8/11/82), from Mr. Joselp Scinto, Deputy Director, Hearing Division, Nuclear Regulatory Commission (NRC), which requested information concerning whether further proceedings on the adequacy of offsite planning for medical services should be conducted. This subject appears in a Memorandum and Order issued by the NRC/ASLB dated August 6, 1982, for the San Onofre Generating Station, Units 2 and 3 (Docket Nos. 50-361-OL and 50-362-OL). The ASLB is proposing to consider in the light of further submissions whether further proceedings may produce a better evidentiary record on the need, if any, for medical services arrangements for the offsite public.

Following are questions the Board asked FEMA as well as our responses (it should be noted that both the questions and the answers address the radiological conditions of contamination or exposure and not a concurrent condition such as broken bones, bleeding or unconsciousness. While I am aware of a variation in viewpoint on the breadth of the discussion, this does not constitute an inconsistency.):

1. If further proceedings were directed, what additional evidence, if any, would you produce on the need for medical services arrangements offsite, beyond that recognized by the Appeal Board in ALAB-680? Describe briefly the thrust of that evidence and the qualifications of proposed expert witnesses.

There is no additional evidence that FEMA would produce on the need for medical services arrangements offsite, but we will restate our position that appeared on page 36 of the initial decision dated May 14, 1982, which is as follows:

"FEMA believes that special arrangements for medical services need to be made for persons within the 10-mile EPZ who may suffer from radiation exposure, radiological contamination, or both. Moreover, this position is supported by specific planning standards and criteria in NUREG-0654/FEMA-REP-1, Rev. 1 for use by State and local governments in assuring that adequate arrangements are made for the provision of medical services for accidents encompassing the full range of the four classes of emergency action levels as delineated in Appendix 1."

\* \* \*

The planning and preparedness guidance provided in NUREG-0654/FEMA-REP-1 for medical services is based, in part, on the possibility that despite the application of protective response measures, persons within the 10-mile EPZ may be exposed to dangerous levels of radiation. Those persons so exposed would, therefore, require appropriate medical services. (Letter to the Board Chairman from Marshall Sanders, Acting Chief, Technological Hazards Division, dated October 15, 1981.)"

The use of expert witnesses for the presentation of new evidence is not expected. Expert witnesses for clarification or reaffirmation may be used by FEMA if needed.

2. Two witnesses, Drs. Linnemann and Ehling, testified that hospitalization was indicated for a person who has received a 150 to 200 rem whole body radiation dose, Tr. 7728, 9992. If that is so, and if it is prudent to assume that perhaps several hundred people offsite could receive such doses in a serious accident, then is it necessary, or at least prudent, to make advance arrangements for medical services for such people? \_

Yes, it is prudent to make advance arrangements for medical services for offsite persons who might be classified as contaminated or radiologically exposed (150 to 200 rem whole body radiation dose).

The justification for this answer is, in part, the difficulty of predicting additional and concurrent medical needs. Advanced arrangements are justified because of the need to initiate a medical history for those exposed individuals whose future health could be affected and to reduce organizational demands on hospital emergency staff. The medical services being called for here are those predominantly of medical staff knowledge and capability to handle the additional factor of radiological contamination or exposure.

3. If such arrangements were to be made, what would they consist of--beds, decontamination and testing facilities, specially trained personnel, special medicines, what else? Would it be possible to make the necessary arrangements on an ad hoc basis? If so, how long would that take?

Decontamination facilities and monitoring equipment would be necessary along with trained and knowledgeable staff. Planning, training and pre-established procedures are clearly a need. The arrangements for beds, special medicines, if any, and perhaps the need for isolation could be handled on an ad hoc basis. The time involved is indeterminate because of the variation in facilities, variation in the magnitude of the demand, and the location of the medical supply source with respect to the hospital(s).

4. In assessing the need for medical services, should one assume that the emergency plans for evacuation and sheltering will be effective (as suggested at p. 20 of ALAB-680) or ineffective (as suggested in the FEMA letter quoted at p. 36 of the initial decision)?

No assumption should be made about the effectiveness of evacuation and sheltering. These are protective actions available for use just as medical services are to be available when needed. To protect the health of the public, one or all may be required and the decisionmakers need the availability of all three. NUREG-0654/FEMA REP 1, Rev 1, planning standards D, J, and L call for these protective actions to assure that State and local officials will be aware of these alternatives for protecting the public health.

5. Did the Board in its Initial Decision (at 35-37) correctly state the FEMA position?

Yes, the position is correctly stated. Arrangements for medical services should be made for the general public in the 10-mile emergency planning zone.



## L MEDICAL AND PUBLIC HEALTH.

### PLANNING OBJECTIVE

To determine the availability within the State and local communities of public and private medical facilities that could accommodate and care for persons involved in a radiological emergency who may require medical care, and to establish the role of each medical facility in the medical and public health support plan. (See footnote 1.)

### GUIDANCE

### PLAN REFER- ENCE

1. Public, private, and military medical and first-aid support facilities within the State and local communities (including those of the nuclear facilities) capable of providing both emergency and definitive care of offsite victims of a radiological accident should be identified.
2. A medical response plan for dealing with nuclear facility incidents with offsite consequences should be developed.
3. Maps showing the physical location of all public, private and military hospitals and other emergency medical services facilities within the State considered capable of providing medical support for any offsite victims of a radiological incident should be included in the plan. These emergency medical services facilities should be able to radiologically monitor

#### Footnote 1.

The availability of an integrated emergency medical services system and a public health emergency plan serving the area in which the facility is located and, as a minimum, equivalent to the *Public Health Service Guide for Developing Health Disaster Plans, 1974* and to the requirements of an emergency medical services system as outlined in the *Emergency Medical Services System Act of 1973 (P.L. 93-154)*, should be a part of and consistent with overall State or local disaster control plans and should be compatible with the specific overall emergency response plan for the facility.



contaminated personnel, and have facilities and trained personnel able to care for victims of radiological accidents. Persons may also need to be evacuated to a hospital due to an existing physical condition not related to the incident.

4. Arrangements should be developed for transporting offsite victims of radiological accidents to medical support facilities.
5. A system for State public health medical recording and followup of radiologically exposed individuals should be established in collaboration with the local or State medical association. The record should include such items as location at time of emergency, radiation dose, contamination status, treatment status, and release status. (See footnote 2.)
6. Training programs should be developed for medical support personnel who may be called upon to care for offsite victims of a radiological accident.
7. A limited list of qualified medical consultants who can, if required, assist State/local government medical authorities in the event of a nuclear facility emergency, should be developed.
8. Medical facilities and ambulances should be equipped with emergency communications capability for intrasystem communications as well as for communications with the State and local government emergency operating centers.

---

*Footnote 2.*

The circumstances under which medical attention would be required or useful for any offsite victims of a radiological accident should be determined by guidance provided by the State or local government public health officer, in consultation with Federal health authorities, private physicians and hospitals.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING APPEAL

BOARD

In the Matter of	)	
	)	
SOUTHERN CALIFORNIA EDISON COMPANY,	)	Docket Nos. 50-361 OL
ET AL.	)	50-362 OL
	)	
(San Onofre Nuclear Generating Station,)	)	
Units 2 and 3)	)	

CERTIFICATE OF SERVICE

I certify pursuant to 10 C.F.R. §2.712(e)(2) that:

I am employed as an attorney in the County of Orange, California and one of counsel for Intervenor Guard, et al.

I am over the age of eighteen years and not a party to the within action; my business address is 24012 Calle de la Plata, Suite 330, Laguna Hills, California 92653.

On October 13, 1982 I served the attached "INTERVENORS' BRIEF REGARDING REQUIRED MEDICAL SERVICES FOR THE GENERAL PUBLIC IN RESPONSE TO COMMISSION ORDER CLI 82-27" in said cause by placing a true copy thereof enclosed in the United States mail, first class (or by Fed. Express, where asterisked), at Laguna Hills, California addressed as follows:

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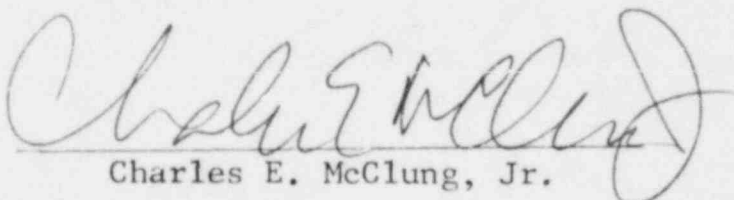
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Charles E. McClung, Jr.