

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8103130447 DOC. DATE: 81/03/09 NOTARIZED: NO DOCKET #
 FACIL: 50-361 San Onofre Nuclear Station, Unit 2, Southern California 05000361
 50-362 San Onofre Nuclear Station, Unit 3, Southern California 05000362
 AUTH. NAME: THOMPSON, G. AUTHOR AFFILIATION: Union of Concerned Scientists
 RECIP. NAME: Division of Licensing RECIPIENT AFFILIATION: Division of Licensing

SUBJECT: Submits comments on NUREG-0490, suppl to DES re operation of facilities. Suppl does not fulfill intent of Commission statement of interim policy. NRC should consult CEQ rept, "NRC Environ Analysis of Nuclear Accidents: Is It Adequate."

DISTRIBUTION CODE: C002S COPIES RECEIVED: LTR 1 ENCL 0 SIZE: 4
 TITLE: Environ. Comments.

NOTES: Send all FSAR & ER amends to L Chandler. 05000361
 1 cy: J Hanchett (Region V). D Scaletti, 1 cy of all envir info
 Send all FSAR & ER amends to L Chandler. 05000362
 1 cy: J Hanchett (Region V). D Scaletti, 1 cy of all envir info

	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
ACTION:	MIRAGLIA, F. 17	7 7	ROOD, H. 05	1 1
INTERNAL:	ACCIDENT EVAL BR	1	EF TREAT SYS BR	1
	ENV ENG BR 09	1	HYD/GEO BR	1
	HYDRO-GEO BR	1	I&E 07	2
	NRC PDR 02	1	OELD	1
	RAD ASSESSMT BR	1	REG FILE 01	1
	SIT ANAL BR 10	1	UTIL FINANCE BR	1
EXTERNAL:	ACRS	1	LPDR 03	1
	NATL LAB 20	5	NSIC 04	1

MAR 16 1981

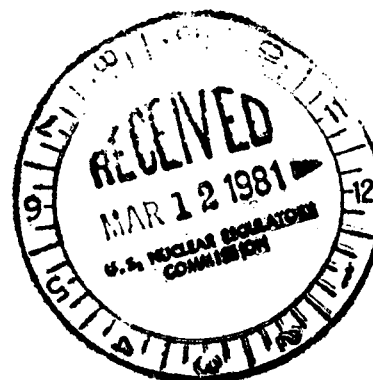
TOTAL NUMBER OF COPIES REQUIRED: LTR 31 ENCL 0

ER 4

Union of
**CONCERNED
SCIENTISTS**

9 March 1981

Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555



Attention: Director, Division of Licensing

Dear People:

Re: Supplement to the Draft Environmental Statement
(NUREG-0490) related to the operation of San Onofre
Nuclear Generating Station, Units 2 and 3

Herewith are some brief comments on the above Supplement, in response to your invitation.

We are pleased that the NRC has finally published a document providing a hint of the consequences of severe accidents at the San Onofre Station. We consider, however, that this Supplement does not satisfy the intent of the Commission's Statement of Interim Policy of 13 June 1980 (Federal Register, 45, 40101). Nor does this Supplement provide the public with information sufficient to make a reasoned assessment of the risks of severe accidents at this plant.

You will recall that the Commission's Statement of Interim Policy followed a letter of 20 March 1980 from the Chairman of the Council on Environmental Quality (CEQ) to the Chairman of the NRC. Included in this letter was the statement:

"The results of our review of impact statements prepared by the NRC for nuclear power reactors are very disturbing. The discussion in these statements of potential accidents and their environmental impacts was found to be largely perfunctory, remarkably standardized, and uninformative to the public."

This Supplement must be substantially revised and improved before it overcomes these CEQ criticisms. For guidance during this process of revision and improvement, the NRC staff should consult the report "NRC's Environmental Analysis of Nuclear Accidents: Is It Adequate?", prepared for CEQ by the Environmental Law Institute (ELI) in February 1980. A copy of this

COO2
S
1/0

report was provided to the NRC with the CEQ Chairman's letter.

Part 5 of the ELI report recommends that the NRC should continue, with some substantial improvements, its previous practice of studying a selection of accident scenarios. The ELI report recommends that this selection should be expanded to include "Class 9" accidents. Section 7 (Environmental Impact of Postulated Accidents) of the San Onofre Draft Environmental Statement (dated November 1978) exemplifies this previous practice; it estimates radiation doses for a number of selected accidents in Classes 1 through 8. This Supplement, however, merges nine release categories, weighted by assumed probabilities. The results of this analysis are confusing for the public; one might suspect that this is by intention.

Each accident scenario should be considered alone. For each scenario, the NRC should provide a clear account of:

- (i) the nature of the postulated accident
- (ii) the estimated nature of the radioactive release
- (iii) the estimated nature of the environmental consequences of that release.

The Commission's Statement of Interim Policy directs:

" . . . approximately equal attention shall be given to the probability of occurrence of releases and to the probability of occurrence of the environmental consequences of those releases."

This Supplement does not satisfy the intent of that directive. It merges these two probabilities although they are of quite different natures. One might suspect that this approach is selected in order to persuade the public that severe consequences have extremely low probabilities. This form of analysis and presentation does not fulfill the NRC's obligation to accurately inform the public.

As the NRC staff should well know, probabilities in nuclear accident analysis fall into two distinct categories:

- (i) probability of occurrence of release
This category of probability concerns engineering estimates. These are very difficult to make since there is a limited statistical base and much of the uncertainty relates to human behaviour.

(ii) probability of occurrence of environmental consequences, given a particular release

This category of probability concerns factors such as wind speed and direction. These factors can be estimated from a good statistical base.

The NRC staff should revise this Supplement so as to exhibit their estimates of these probabilities separately, within each accident scenario studied.

The Commission's Statement of Interim Policy also directs:

" . . . consequences shall be characterized in terms of potential radiological exposures to individuals, to population groups, and, where applicable, to biota."

This Supplement does not fulfill the intent of that directive. It provides very limited information on the geographical variation of potential exposure. More seriously, it provides essentially no information on the significance of exposure for different population groups. As the NRC staff should well know, certain population groups (especially children and fetuses) are at greater risk for a given release.

The importance of revising this Supplement, so as to accurately inform the public, can be illustrated by two estimates which can be gleaned from the supplement itself:

(i) probability of occurrence of the "PWR2" core melt accident

This release is one of the most severe accidents considered in the Reactor Safety Study (WASH-1400) and this Supplement. Table 7.1.4-2 of the Supplement estimates its probability as 7×10^{-6} per reactor-year. Section 7.1.4.2 concedes that this estimate could be low by a factor of 100. One thus finds (assuming a reactor life of 30 years) that this Supplement admits that a "PWR2" accident could have a 4% probability of occurrence during the life of San Onofre Units 2 and 3.

(ii) potential for serious health effects

Table 7.1.4-4 of this Supplement admits that a severe accident at San Onofre could lead to 130,000 acute fatalities, 300,000 subsequent fatal cancers, and 600,000 genetic effects.

Office of Nuclear Reactor Regulation
9 March 1981
Page 4.

In the light of the grave hazard shown by these estimates, the NRC has a clear duty to provide the public with more complete information than is contained in this Supplement.

Thank you for your attention.

Sincerely,

A handwritten signature in cursive script that reads "G. R. Thompson". The signature is written in dark ink and is positioned above the typed name.

Gordon Thompson, Ph.D.
Staff Scientist

GT:VN