

STATEMENT BY JAMES K. ASSELSTINE
COMMISSIONER, U.S. NUCLEAR REGULATORY COMMISSION
— BEFORE THE
SUBCOMMITTEE ON ENERGY CONSERVATION AND POWER
HOUSE COMMITTEE ON ENERGY AND COMMERCE
JULY 10, 1985

Good morning, Mr. Chairman. As you know I have expressed rather strong concern about the way in which the Commission handled the Diablo Canyon case. In my testimony today, I do not intend to address all of the minute details of those concerns. Instead, I want to focus on the broader implications of the Commission's decision.

When reduced to their essence my concerns about the handling of the Diablo Canyon case are really about one thing - fairness. Was it fair to the parties to the Diablo Canyon proceeding to remove the consideration of the complicating effects of emergency planning as an issue in the litigation and treat it as a generic issue? In order to answer this question, one must first answer another question. Is there any basis for the Commission's decision to issue a generic rule which bans any consideration of the complicating effects of earthquakes on emergency planning in individual licensing proceedings? I believe not, and apparently NRC staff experts and the Commission's Advisory Committee on Reactor Safeguards (ACRS) agree.

The Commission's position on this issue, as carried out by the staff in the past, has been to treat all relatively infrequent natural phenomena in the same ~~manner~~. Emergency planning for each nuclear powerplant site takes into account whatever are the most likely to occur natural phenomena which could complicate an emergency response. Thus, most plans consider the effects of rain and fog, which are relatively frequently occurring phenomena at most plant sites. However, the staff also considers less frequently occurring natural phenomena such as tornados, hurricanes, blizzards, very large floods, and earthquakes. The staff determines what the most likely of these is and considers what effect they would have on emergency response for that site. Thus, the staff considers blizzards for plants in New England, but not for plants in Florida; it considers hurricanes for plants in Florida, but not for plants in Kansas; and it considers tornados for plants in Kansas, but not for plants where the risk of tornados is not high. The staff has also considered the effects of earthquakes on emergency response for plants in areas of high seismic risk like California.

Now this sounds like an eminently sensible way to handle this issue - to determine on a site-specific basis the most likely to occur natural phenomena and to determine whether the emergency plan accounts for the effects that those phenomena might produce and provides for alternative responses if necessary. However, the Commission has concluded that earthquakes are so different from all other natural phenomena, and so much more unlikely to occur, that at no site in the country need the effects of

earthquakes on emergency response ever be considered. This determination is based on three subsidiary determinations. The Commission says that:

1. Earthquakes below the Safe Shutdown Earthquake SSE will not require emergency response because the plant is designed to safely shut down if those earthquakes occur so there will be no radiological release and no need for emergency planning.
2. Earthquakes above the SSE are extremely unlikely. And,
3. The coincidence of an earthquake and a separately caused accident has such a low probability of occurring that it need not be considered.

The Commission concludes that given these probabilities every eventuality has been covered and there is no need to consider the impacts of earthquakes on emergency planning. The Commission's reasoning is flawed. First, the Commission ignores all of the uncertainties in those probabilities it so firmly relies upon. There are always uncertainties in any probabilistic determination, and especially in determining seismic probabilities. The determination of the probability that an earthquake will occur and its magnitude is far from being an exact science. In fact for Diablo Canyon, the ACRS recommended, and the Commission imposed, a license condition which requires a new seismic evaluation for Diablo Canyon 5 years from now - precisely because of such uncertainties. Even granting for the sake of argument that the probabilities cited by the Commission for the occurrence of earthquakes are accurate, those probabilities show earthquakes to be more likely to occur than other occurrences which we routinely consider for emergency planning purposes. Further, the Commission ignores a fundamental precept of emergency planning: we plan for low probability occurrences because no matter how safe we try to make

nuclear power plants there is always a possibility that some event will occur which will require use of one or more aspects of emergency planning.

The Commission's reasoning also is not as comprehensive as they would have you believe. The Commission ignored a fourth scenario: the possibility that an earthquake below the SSE could occur and could cause damage to the plant which would not result in immediate radiological release, but which would require emergency response in the form of getting equipment or people to the plant. In fact the Diablo Canyon emergency plan specifically recognizes this. It requires the licensee to shut down the plant and to take specific actions when earthquakes less than the SSE occur.

The NRC staff experts on this issue do not agree with the Commission. The staff has maintained all along that there is no basis for excluding earthquake impacts from consideration in emergency planning for all plants. In areas of high seismic risk - and those are the staff's words, not mine - planning should take earthquakes into account, at least for earthquakes below the SSE. And, in a recent memo to the Commission, the staff questioned the technical basis for excluding consideration of those earthquakes above the SSE.

Apparently the ACPS also does not agree with the Commission. In a recent letter to the Commission, they stated:

We see no technical reason for the exclusion of earthquakes from the natural phenomena considered in off-site emergency planning

for nuclear power plants. However, we believe that only limited consideration of earthquakes is appropriate. For sites where an earthquake capable of severely damaging emergency travel routes is sufficiently likely to occur, the local off-site authorities should have the benefit of studies indicating the types and potential locations of such damage. The study of this kind already performed for the region surrounding the Diablo Canyon site would clearly meet the intent of this comment.

While there are large portions of the country where the risk of damaging earthquakes is probably too low to be a concern, California at least is not one of those places. In fact, the nuclear plants with the most stringent seismic requirements are located in California - Diablo Canyon and San Onofre. The Commission has recognized, by imposing such stringent requirements, that seismic risk plays an important part in the risk for Diablo Canyon and San Onofre. Yet, in the same breath the Commission says that the seismic risk is too low to be considered for emergency planning. The Commission simply can't have it both ways. Further, the NRC staff has identified Diablo Canyon as a site for which seismic risk is high and where earthquake impacts ought to be considered. Clearly, Diablo Canyon is one of those sites for which earthquakes should be considered, as the staff and the ACRS have asserted.

Thus, there is no basis for generically excluding the impacts of earthquakes on emergency response for all plants. It is a site specific issue like all other natural phenomena, and Diablo Canyon is one of the sites for which this issue is relevant. The question is, then, material to the licensing of Diablo Canyon, and the parties to the Diablo Canyon proceeding should have been given an opportunity to litigate any factual issues. There are clearly factual issues associated with a determination

of whether the Diablo Canyon emergency plan is indeed adequate to account for the impacts of earthquakes and to provide for alternatives where necessary. It was not fair to the parties to simply remove the issue from the proceeding under the guise of treating it as a generic issue, and to refuse them an opportunity to contest these issues.

In the past I have stated my view on why the Commission ignored all of its experts and chose to issue a generic rulemaking on this issue. I stated that I thought it was simply because they did not want to delay licensing of the Diablo Canyon plant. The Commission majority has denied this. I am not going to reargue the Commission's motivation. You have the transcripts of the Commission meetings and the Commission's explanations. You can draw your own conclusion about why they chose the course of action they chose. What I will do, however, is point out the practical effect of the Commission's decision, and that is, that the two plants for which this issue is most relevant, Diablo Canyon and San Onofre, have been licensed without giving the parties to the proceeding an opportunity to litigate the issue.

Now some might argue that in the overall scheme of things this particular issue is not of very high importance. However, my concerns about the Commission's handling of this issue go beyond the relative importance or unimportance of the substance of the issue itself. What I am most concerned about is the integrity of the Commission's licensing process.

of whether the Diablo Canyon emergency plan is indeed adequate to account for the impacts of earthquakes and to provide for alternatives where necessary. It was not fair to the parties to simply remove the issue from the proceeding under the guise of treating it as a generic issue, and to refuse them an opportunity to contest these issues.

In the past I have stated my view on why the Commission ignored all of its experts and chose to issue a generic rulemaking on this issue. I stated that I thought it was simply because they did not want to delay licensing of the Diablo Canyon plant. The Commission majority has denied this. I am not going to reargue the Commission's motivation. You have the transcripts of the Commission meetings and the Commission's explanations. You can draw your own conclusion about why they chose the course of action they chose. What I will do, however, is point out the practical effect of the Commission's decision, and that is, that the two plants for which this issue is most relevant, Diablo Canyon and San Onofre, have been licensed without giving the parties to the proceeding an opportunity to litigate the issue.

Now some might argue that in the overall scheme of things this particular issue is not of very high importance. However, my concerns about the Commission's handling of this issue go beyond the relative importance or unimportance of the substance of the issue itself. What I am most concerned about is the integrity of the Commission's licensing process.

Public confidence will play vital role in determining whether nuclear power will have a place in our future. An essential element in establishing ~~public~~ confidence is the belief that the NRC has the public interest in mind when it licenses and regulates nuclear power plants. The public must see the NRC as an impartial adjudicator when it licenses plants, and the public must be able to trust the Commission to be fair to all parties. The Commission cannot be perceived as manipulating the process to achieve a particular end. Continued resort by the Commission to procedural shortcuts like those in the Diablo Canyon proceeding can only further erode public confidence in the fairness and objectivity of our regulatory process. This hurts not only the Commission, but the nuclear industry as well. Thank you.



OFFICE OF THE
COMMISSIONER

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

September 24, 1985

Samuel W. Speck
Associate Director
State and Local Programs and Support
Federal Emergency Management Agency
Washington, D.C. 20472

Dear Mr. Speck:

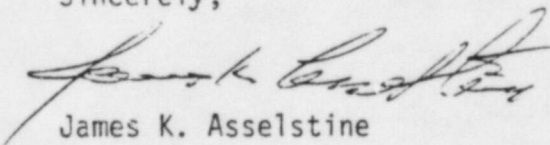
I read with interest your letter received by the Commission on September 20, 1985. In that letter you expressed your support for the Commission's "initial position" on earthquakes and emergency planning. You argued that the rule proposed by the staff in SECY 85-283 which sets out procedures for the consideration of the complicating effects of severe, low frequency natural phenomena on emergency planning is unnecessary.

However, the only reason you gave in support of your position was the following general statement:

"The probability of severe, low frequency natural phenomena in the vicinity of a commercial nuclear power plant is very low. The probability of a concurrent radiological incident at the nuclear power plant is lower yet."

Unfortunately, the NRC staff and the ACRS were unable to reach the same conclusion you reached. The staff identified several very difficult issues associated with relying merely on a statement that the probability is too low to be considered. See, SECY 85-283 and various staff memoranda on this subject. I would appreciate it greatly if you would provide me with any relevant information you might have to support your conclusion. I am specifically interested in information which would bear on the issues raised by the staff in SECY 85-283. Thank you for your attention to this matter.

Sincerely,


James K. Asselstine

~~85-93-344~~ Lp.