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United States Senate

COMMITTEE ON FOREIGN RELATIONS

WASHINGTON, D.C. 20510

November 9, 1979

WILLIAM B. BAKER, STAFF DIRECTOR

Mr. Carlton Kammerer
Director, Office of
Congressional Affairs
Nuclear Regulatory Commission
Washington, D. C. 20555

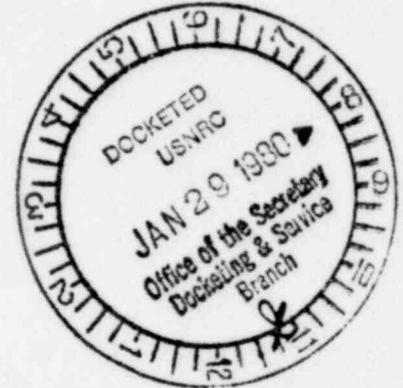
Dear Mr. Kammerer:

I appreciate the opportunity to respond to your invitation of October 25 to comment on jurisdictional and procedural issues relating to the export of a nuclear power reactor to the Philippine Islands. I would like to address several of the procedural and jurisdictional issues raised in the NRC's Order of October 19, 1979, on the proposed Westinghouse export to the Philippines.

My comments are made primarily from the standpoint of U.S. foreign policy and national security which may be affected by this particular export and which certainly can be affected by how the NRC considers matters of health and safety and environmental effects in deciding upon future export licenses.

It appears to me that the Commission has substantial inferred authority, and accompanying responsibility, to consider these factors. In my view, the Commission has the sensitive and demanding responsibility for so charting its consideration of health, safety and environmental aspects for major nuclear exports as to avoid the risks to U.S. foreign relations, security and foreign policy which could arise from a dangerous accident with a nuclear reactor exported from the United States. At the same time, the NRC has the responsibility to minimize other risks to U.S. non-proliferation objectives. Were NRC licensing decisions to jeopardize the reputation of the United States as a reliable nuclear supplier, it could diminish an important source of the influence the United States can bring to bear in persuading other nations to adopt and to support strong non-proliferation measures.

Concerning the relation of NRC export licensing decisions to U.S. foreign policy interests, it is no secret that our foreign relations today are in a time of turmoil and change,



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particularly with the third world, or developing nations. There is pressure upon the United States and other industrial countries not to raise barriers to the transfers of modern technologies which developing states hope can lift them out of their poverty. On the other hand, it would be imprudent to ignore the potential consequences for U.S. foreign relations and policy, and perhaps even for U.S. security, were a nuclear power plant exported from the United States to experience a Three Mile Island type of accident or worse. The voices of many countries would quickly shift to criticism of the United States for permitting a dangerous export with insufficient attention to risks to public health and safety and to the environment. We could expect strong political pressures for relief from the United States through claims for compensation and for aid in cleaning up and repairing the damage caused. Such reactions would exacerbate U.S. foreign relations and might well be seized upon by hostile nations in an effort to embarrass and discredit this country, and thereby to weaken our influence abroad.

Considering the serious political and foreign policy damage that could be expected from a dangerous accident with a U.S. supplied reactor, there are solid grounds for the Commission carefully and diligently to inquire into the health and safety and environment effects of the pending export to the Philippine Islands, as well as similar future exports to other developing countries. In my opinion, the United States should not apply less strict criteria to our licensing of the export of nuclear power reactors than we do to licensing them for domestic use.

Beyond these general foreign policy considerations, I would like to address three of the specific issues raised in the NRC's October 19 order:

Issue 1, NRC authority and obligation to consider health, safety and environmental factors in licensing the export.

A reading of the Atomic Energy Act of 1954 as amended and the Nuclear Non-Proliferation Act of 1978 provide solid basis for an inferred NRC authority and obligation to consider health, safety and environmental factors in licensing of the export. I refer to sections 103 and 104 of the Atomic Energy Act of 1954. Each provides that no export license may be issued if in the opinion of the Commission the issuance would be inimical to the common defense and security or to the health and safety of the public. The Nuclear Non-Proliferation Act takes note of environmental matters in Section 104(a)(3) which directs the President to develop international approaches to meeting future world nuclear fuel needs, which provide for feasible and environmentally sound approaches for the siting, development and management of certain nuclear facilities.



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October 24, 1979



Chairman Joseph M. Hendrie
United States Nuclear Regulatory Commission
Washington, DC

Dear Chairman Hendrie:

I am a Ph.D. candidate in geology (volcanology), and have had the opportunity to review the volcanologic portion of the safety reports relating to the Philippine Nuclear Power Plant #1. The original request for this review was from the Center for Development Policy (letter attached), but three considerations have brought me to write to you directly rather than provide my review to the Center for Development Policy, namely:

1. I believe there is a critical need for development of volcanic hazard guidelines analogous to the seismic hazard guidelines, before we can begin to properly evaluate volcanic risk of a specific site.

2. There are substantial scientific shortcomings in the volcanologic reports for PNPP#1, which as a scientist I have a moral obligation to call to your attention.

3. I work part-time for the U.S. Geological Survey (on general volcanic problems, not on the specific case of nuclear power plant siting). In view of your formal working agreements with the U.S.G.S., I feel it would be inappropriate for me to participate through any public interest group.

As a concerned volcanologist, I am anxious to assist in bringing us to a better understanding of volcanic risks for both the specific Philippine site and for any sites in volcanic terrain. In the first instance I would like to share with you my review of the volcanologic portion of the PNPP#1 safety documents; the establishment of general guidelines will clearly require the concerted and coordinated efforts of a number of volcanologists and engineers, but I would be pleased to assist that process in any way that I can.

I look forward to hearing from you.

Sincerely yours,

Christopher Newhall

Christopher Newhall
Graduate Student

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THOMAS R. ASHER
ATTORNEY AT LAW

Enclosure

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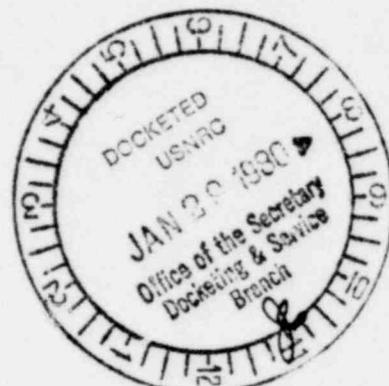


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October 24, 1979

Mr. Lindsay Mattison
Center for Development Policy
225 4th Street, NE
Washington, DC 20002



Dear Mr. Mattison:

Thank you for your call of September 20 and for the opportunity to examine the volcanologic portions of the PSAR and other documents relating to the Philippine Nuclear Power Plant #1. As I indicated to you over the phone, I am familiar with Philippine volcanic terrain and am very interested in the Mt. Natib case, in the general case of nuclear plant siting in volcanic terrain and in the value of such studies in the understanding of volcanic hazards in general. However, because I work part-time for the U.S. Geological Survey and because they already have an excellent formal working agreement with the N.R.C. for evaluating geologic hazards, it would be inappropriate for me to provide the review which you requested.

This is, as you know, one of the few proposed or established nuclear sites in the world which lie on a recently-active volcano. With rapidly growing populations and/or power needs in many volcanic areas of the world (most notably but not restricted to the circum-Pacific, Caribbean and Mediterranean areas), I think it is unlikely that this will be the last such proposal. The questions of volcanic risk at such sites are critical, tough questions; some important advances are being made in the field of volcanic hazard assessment, but much remains to be done. I believe that the best approach to these questions is to encourage the N.R.C. to initiate the process at once to establish volcanic guidelines analogous to the seismic guidelines. Before the seismic guidelines were established, geologists found it virtually impossible to agree on what constituted an "active" fault and how much risk each fault presented; now I am sure that similar disagreements will arise with respect to "active" volcanoes, and there will be many other questions of how to quantify or otherwise evaluate specific risks. The worst volcanic disasters in recorded history have been truly devastating, and the recent geologic record contains evidence of eruptions (eg. Toba, Sumat a) as much as 2 orders of magnitude (100 times) larger than the Krakatau eruption. The questions boil down to the probabilities

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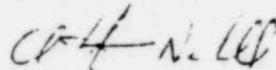
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of specific kinds of activity, what engineering measure can protect against the milder volcanic hazards, and what hazards are essentially beyond the engineers' art.

I strongly hope that the N.R.C. will address these general questions before it attempts to evaluate the specific questions of the Philippine site. For the immediate purpose of the preliminary hearings on the Philippine site, I am enclosing the names and phone numbers of several volcanologists who might be able to help you. I have not discussed this matter with any of the people on the list.

Sincerely yours,



Christopher Newhall
Graduate Student

Enclosure

CN/gm

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