

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of  
POWER AUTHORITY OF THE STATE  
OF NEW YORK  
(Greene County Nuclear Power  
Plant)

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Docket No. 50-549

SUPPLEMENTAL TESTIMONY OF NRC STAFF IN  
RESPONSE TO GREENE COUNTY ET AL.,  
STIPULATED CONTENTION I.A (SECURITY)

by

Michael J. Gaitanis

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1 This testimony is offered in response to Contention I.A. of Greene  
2 County et al., which reads as follows:

3 I. The Preliminary Safety Analysis Report ("PSAR") prepared  
4 by the Applicant does not provide reasonable assurance, as required  
5 by 10 CFR §§50.35 and 50.40 that (a) the health and safety of the  
6 public will not be endangered, and (b) the Applicant is financially  
7 qualified to engage in the proposed activities in accordance with the  
8 Commission's regulations in the following respects:

9 A. The Applicant has not demonstrated that the proposed  
10 site is suitable from the point of view of complying with the  
11 security requirements of Part 73 of 10 CFR due to the easy access to  
12 the site from the Hudson River and the resulting exposed nature.

13 All land and water approaches to a nuclear power plant site must be  
14 considered in the development of the site's physical protection systems  
15 and security plan. A physical protection system for nuclear power reactors  
16 is required by regulations, principally by 10 CFR Parts 50 and 73. These  
17 regulations require that each applicant for a license to operate a nuclear  
18 power plant provide protection to meet the general performance objectives  
19 of §73.55(a) and to submit a security plan describing the equipment,  
20 barriers, security organization, contingency plans, training programs and  
21 administrative controls for NRC review and approval. Applicants applying  
22 for an operating license, the receipt of which will be after February 23,  
23 1979, are required to provide a physical security plan as required by  
24 §50.34(c) and to provide the level of protection identified in §73.55.

Michael J. Gaitanis

1 Complete implementation of the physical security plan and final  
2 demonstration of compliance is required prior to issuing an operating  
3 license to the applicant. Satisfactory protection against intrusions  
4 by land and/or water must be demonstrated in the security plan in order  
5 to receive NRC approval.

6 We have reviewed the information submitted by Power Authority of the  
7 State of New York in its application for a construction permit describing  
8 the proposed security plan for the Greene County Nuclear Power Plant site.  
9 The applicant states in the Greene County Nuclear Power Plant-PSAR §13.7.1  
10 that "A protected area will be created by erection of a physical barrier  
11 completely around the plant" and shows in PSAR site plan Figure 1.2-3 a  
12 continuous protected area barrier surrounding the plant. All safety  
13 related structures are to be located inside the protected area. Therefore,  
14 we have concluded that the applicant is planning to protect the site against  
15 easy access and that there will be no unprotected access routes from the  
16 Hudson River.

Michael J. Gaitanis  
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PROFESSIONAL QUALIFICATIONS

I am a Reactor Safeguards Analyst in the Reactor Safeguards Licensing Branch, Office of Nuclear Reactor Regulation, U. S. Nuclear Regulatory Commission. I am responsible for the technical aspects of safeguards reviews of plant physical protection systems and plans associated with licensing actions related to commercial nuclear reactors used to generate electric power.

I received a Bachelor of Science degree in Chemistry from the Pennsylvania State University in 1948. Industrial Management was studied at the University of Tennessee, 1955-1956, and Electronics at the Knoxville School of Electronics, 1961-1964. Other educational background includes:

1. Oak Ridge National Laboratory (prior to 1962)
  - a. Radiochemistry
  - b. Reactor Shielding
  - c. Statistics
2. Short courses related specifically to safeguards at
  - a. Georgia Institute of Technology - Management and Economics of Nuclear Fuels (1971)
  - b. American Society for Industrial Security - Public Utilities Security (1974)
  - c. Defense Industrial Security Institute - Industrial Facilities Protection for Privately Owned and Privately Operated Facilities (1975)
  - d. George Washington University - Introduction to Fault Free Analysis (1976) - Application of Systems Analysis Methods to Security Control Programs (1976)

From 1948 to 1951 I was employed as a chemist by Linde Air Products Company and Koppers Company, Inc.

From February 1951 to August 1964 I was employed by Union Carbide Corp., Nuclear Division at the Oak Ridge National Laboratory in a number of technical and supervisory positions. I was involved in the analytical chemistry of a number of irradiated fuel reprocessing systems such as Purex, Thorex, and Volatility. I was associated with the High Radiation Level Analytical Facility, the Homogeneous Reactor (#1), the Molten Salt Reactor, the processing of plutonium and recovery of americium.

From August 1964 to July 1967 I was employed as the Plant Manager of the Quehanna Facility by the Martin Co. I was responsible for the safe, secure, and productive operation of personnel and facilities in producing radioactive fuels from Strontium-90 for thermo-electric generators.

From July 1967 to present I have been employed by the Atomic Energy Commission and the Nuclear Regulatory Commission. From 1967 to 1972 I was employed as an Isotope Fuel Specialist and then a Technical Manager by the Division of Space Nuclear Systems providing program direction and budgetary guidance in the production of heat sources for radioisotope thermoelectric generators for space missions such as Apollo and Pioneer.

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From 1972 to 1978 I was employed as an Operations Analyst and Reactor Protection Specialist by the Directorate of Standards Development. There I was responsible for recommending, administering technical programs, and participating in studies directed at providing the basis for new material protection guidelines, criteria, standards and regulations. In this capacity I have been the Task Leader for the development and preparation of the following guides for publication:

<u>Regulatory Guide</u>	<u>Title</u>
1.17	Protection of Nuclear Power Plants Against Industrial Sabotage
5.10	Selection and Use of Pressure-Sensitive Seals on Containers for Onsite Storage of Special Nuclear Material
5.12	General Use of Locks in the Protection and Control of Facilities and Special Nuclear Materials
5.15	Security Seals for the Protection and Control of Special Nuclear Material

In addition, I was one of four team leaders responsible for implementation of 10 CFR Part 73.50, "Requirements for physical protection of licensed activities," and §73.60, "Additional requirements for the physical protection of special nuclear material at fixed sites." Further I was the Task Leader responsible for developing and preparing for publication in the Federal Register the regulations for the physical protection of nuclear power reactors 10 CFR Part §73.55. From May 1977 to May 1978 as a loanee from Standards Development to NRR and from May 1978 to the present as a

Reactor Safeguards Analyst, I have been the lead reviewer for physical security plans submitted by eight power reactor's licensees to meet the requirements of §73.55 at their sites.

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