

July 18, 1980

Hearings

MEMORANDUM FOR: Chairman Ahearne
Commissioner Gilinsky
Commissioner Hendrie
Commissioner Bradford

FROM: Carlton Kammerer, Director
Office of Congressional Affairs

SUBJECT: SOUTH TEXAS TESTIMONY

Attached is a copy of draft testimony to be given by the Chairman before the Subcommittee on Oversight and Investigations, House Committee on Interstate and Foreign Commerce, on July 29, 1980, concerning the construction of the South Texas Nuclear Power Plant.

It is requested that comments concerning the testimony be provided the Office of Congressional Affairs by close-of-business Tuesday, July 22, 1980.

Attachment:
As stated

cc: OPE
OGC
SECY
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STATEMENT OF

JOHN F. AHEARNE, CHAIRMAN
U.S. NUCLEAR REGULATORY COMMISSION

TO THE

SUBCOMMITTEE ON OVERSIGHT & INVESTIGATIONS

REP. BOB ECKHARDT, CHAIRMAN

HOUSE COMMITTEE ON INTERSTATE AND

FOREIGN COMMERCE

JULY 29, 1980

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Mr. Chairman and Members of the Subcommittee, I am pleased to appear before you to discuss the South Texas nuclear power plant and other related subjects identified in your July 11 letter inviting me to testify.

The NRC's principal mission is to protect the public health and safety in the field of nuclear energy. This is accomplished through the processes of licensing and regulation coupled with an inspection program to monitor licensee compliance with the terms of the license and with the regulations. These NRC processes have been applied to the South Texas project. NRC's inspection activities led to the enforcement action against South Texas which is the subject of principal interest today. I have with me Victor Stello, Jr., Director of the Office of Inspection and Enforcement. Mr. Stello will provide details of problems at the project. Karl Seyfrit, Director of Region IV, where the South Texas plant is located, is also here. The three of us will respond to any questions you may have.

As background, construction at the South Texas project started in late 1975, about the time of issuance of a construction permit by the NRC. The pressurized water reactors used in the plant are of Westinghouse design. The licensee is Houston Lighting and Power Company. Brown and Root, Inc., is the architect/engineer as well as the constructor. At this time construction of the first of two units at the site is somewhat more than 50% complete.

As perceived by the NRC the basic problem at South Texas can be summarized as inadequate licensee control of the construction process leading to serious deficiencies in the quality assurance program. As a result, we have taken a number of enforcement actions in this case including the issuance of immediate

action letters and show cause order, and the imposition of civil penalties. Mr. Stello will provide details concerning our inspection and enforcement effort in his testimony.

Your letter of July 11 asked for comment concerning the different forms of project management employed by utilities in the construction of a nuclear power plant and their relative merits. Houston Lighting and Power has employed the same firm as both architect/engineer and constructor. Some licensees have used a similar approach while others have employed two separate firms in these capacities. There have been almost as many variations in project management involving licensee, architect/engineer and constructor as there are licensees. It has been NRC's experience that any project structure can be effective if it is directed by a strong licensee. In NRC's judgment a strong licensee is one whose own technical and quality assurance staff can determine good quality in design, manufacturing, construction and fabrication. Our regulations make it clear that the licensee is responsible for determining that a nuclear power plant is constructed and operated in compliance with all appropriate standards and requirements.

Your letter also asked for comments concerning the proper organizational structure whereby quality assurance and quality control programs are carried out. As related to South Texas there are two aspects worth noting. First, NRC regulations require the licensee to insure that its quality assurance people have sufficient independence from cost and schedule considerations to do their job. At South Texas the NRC found that quality control inspectors were subject to production pressure, lack of support by their own management,

harassment, intimidation, and threats. Second, NRC regulations also require that the quality assurance organization report to sufficiently senior management to give it the freedom to identify quality problems; to initiate, recommend, or provide solutions; and to verify implementation of solutions. NRC's inspections at South Texas indicate licensee senior management was insufficiently involved in quality assurance actions at the site to provide the quality organization freedom from influences detrimental to its functions.

Your letter also asked for comments concerning the ability of nuclear power plant constructors to attract qualified craftsmen and any problems that they might face in that regard. This is an area best addressed by the constructors themselves. However, NRC experience is that two factors heavily influence this subject. One is whether the plant is located in a section of the country where other heavy industry provides a supporting labor pool, and the other is the relative wage rate offered nuclear workers compared to competing industries.

Your staff also expressed an interest in the impact that the NRC Action Plan, resulting from its assessment of the Three Mile Island accident, might have on the South Texas project. I will discuss that subject in some detail. I should note, however, that the Plan is in final review and has not yet been fully approved for implementation by the Commission.

The so-called TMI Action Plan, formulated as a result of the TMI-2 accident, was developed to provide a comprehensive and integrated plan for the actions judged necessary by the NRC staff to correct or improve the regulation and operation of nuclear facilities based on the experience from the accident at

TMI-2 and the official studies and investigations of the accident. The TMI Action Plan will contribute to public safety assurance with regard to the South Texas Plant because of its emphasis on improving operational safety; upgrading plant design; upgrading the state of planning and preparedness for emergencies; improvements in the protection of the public from radiation; emphasis on early identification, assessment, and resolution of safety issues; and actions to be taken by the Commission to revise present policies, procedures, and organization to more effectively accomplish the safety mission of the agency.

The actions in the plan directed toward increasing operational safety have two objectives. The first is to improve the operation of the plant so that the number of events that could lead to accidents is reduced. The second is to improve the ability of the licensee's staff to recognize such events and to take appropriate corrective actions. These objectives will be accomplished through improvement in the selection and training of not only operators, but all the plant staff, and improvements in management techniques and capabilities. Special consideration will be given to the human factors that are so important to safe plant operation and effective management of the safety and quality functions.

Improvements in plant design will be considered by reviewing and upgrading where necessary the reliability of engineered safety features, overall assessment of accident probabilities and consequences using simplified reliability analyses, studies of the desirability of additional requirements and safety

systems to reduce risks in accidents in which there is significant degradation or melting of the core, and special consideration of control of hydrogen evolution for smaller containment structures. X

The state of planning and preparedness for emergencies has been upgraded through centralization of emergency planning and response in a single federal agency - the Federal Emergency Management Agency (FEMA). In addition, the Commission is also placing great emphasis on upgrading licensee and NRC facilities and provisions for emergency response. Emphasis is also being placed on the importance of informing the public during and before emergencies.

Improvements in protection of the public from radiation are planned, including improved monitoring of radioactive effluents from plants, better radioanalytical measurements and more rapid estimation of offsite doses, control of the release of radioactivity to the hydrosphere, and improved radiation protection of workers.

The actions within the Commission will be to consider revision of present policies, procedures, and organization to more effectively include articulation of a safety goal or safety policy objective, evaluation of the licensing process, increased public participation, and examination of the Commission's role in safety regulation.

In summary, implementation of the TMI Action Plan for the South Texas Plant will result in improved operational safety and reactor plant design, an

upgraded state of planning and preparedness for emergencies, and protection of the public from radiation. This will place the Commission in an improved position to correct and improve regulation of the operation of that plant. We consider this will result in a substantial upgrading of public health and safety in terms of the South Texas Plant.

Based on the South Texas experience and other recent experiences in reactor construction, we have initiated, or soon will initiate, the following actions:

- ° Upgrading the qualification of quality assurance personnel.
- ° Indoctrination of workers regarding the importance of quality assurance.
- ° Upgraded reporting of construction deficiencies.
- ° Evaluation of the team approach to inspection.
- ° Further expansion of the Resident Inspection Program for construction.

I will now ask Mr. Stello to further describe the current South Texas problem.

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