DUKE POWER COMPANY
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NUCLEAR PRODUCTION

TELEPHONE
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April 15, 1983

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Ms. E. G. Adensam, Chief
Licensing Branch No. 4

Re: McGuire Nuclear Station
Docket Nos. 50-369, 50-370

Dear Mr. Denton:

Attached is a description of various programmatic activities and special audits that have taken place which support Duke Power Company's conclusion that an Independent Design Verification Program is unnecessary for McGuire Nuclear Station. This matter was discussed in some detail with NRC management representatives during an NRC site visit on February 25, 1983.

Please advise if there are any questions regarding this matter.

Very truly yours,

Hal B. Tucker

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Attachment

cc: Mr. W. T. Orders
NRC Resident Inspector
McGuire Nuclear Station

Mr. James P. O'Reilly, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30303

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This summary describes Duke Power Company's corporate commitment to technical excellence and quality which is exemplified in the McGuire Nuclear Station.

Duke Power Company designs, constructs, and operates its own nuclear power plants. These "in-house" capabilities minimize the informational interfacing problems associated with separate utility, architect/engineer, and constructor corporate entities. Duke's corporate organization (Attachment 1) is structured such that quality assurance activities receive appropriate management attention independent of schedular or budgetary concerns. Programmatic consistency, informational exchange, and experience feedback are facilitated by this organizational structure. The following outlines why Duke Power's Quality Assurance audits, the INPO criteria programmatic/interface audit, self-initiated technical audits, and NRC initiated inspections and audits continue to reinforce Duke Power's confidence in the high quality of our nuclear power plants.

Duke Power Company's corporate quality assurance activities are administered by the Corporate Quality Assurance Manager who reports to the Executive Vice President, Engineering and Construction (Attachment 1). The Corporate Quality Assurance Manager is responsible for all quality assurance activities related to Duke Power's nuclear stations and reviews and co-signs (with the appropriate departmental Vice President) all quality assurance procedures. These quality assurance procedures govern all safety related activities at all of Duke Power's nuclear stations. The Duke Power Quality Assurance Program receives appropriate emphasis from top management (Attachment 2). Audits are conducted as a part of quality assurance activities to assure that applicable procedures are being correctly implemented. Error trends or problems are reviewed by appropriate levels of management to assure that high quality is maintained.

In addition to quality assurance audits, Duke Power and TVA recently completed a design/construction audit of the Catawba Nuclear Station. As noted previously, Duke Power programs apply equally to all nuclear stations. Any programmatic findings involving one station will affect all stations equally. The Catawba audit was performed to INPO-developed criteria and took place from September 27, 1982 to October 14, 1982. During this time, Duke Power and TVA expended over 10 man/months of effort. The audit team consisted of senior Duke and TVA personnel experienced in the design/construction of nuclear stations. The Duke personnel involved had no direct responsibility for the areas under review. Fifty-seven findings resulted from this audit, Duke Power took action on fifty-four of these. All of the findings were the result of isolated instances of inadequate implementation or interpretation of existing procedures. There were no major programmatic findings or deficiencies.

As a result of the seismic design problems that were discovered at the Diablo Canyon Nuclear Station, Duke Power initiated a seismic design audit of the McGuire Nuclear Station in early 1982. The stated purpose of this audit was to identify deficiencies in Duke Power's seismic design information exchange process, to identify any inadequate seismic designs, and to recommend changes which would reduce the potential for breakdowns in Duke Power's seismic design program. A five member audit team of senior engineering personnel (not directly responsible for the areas under review) was formed by the Vice President, Design Engineering. The audit methodology consisted of sampling of information exchange adequacy at critical interfaces throughout the seismic design process. The audit team expended approximately 10 man/months and while informational exchange breakdowns in Duke Power's seismic design process were identified, there were no design inadequacies. The audit team determined that sufficient data has been

reviewed to conclude that design conservatism would preclude any actual design inadequacies. There were no safety concerns resulting from this audit. In addition to the audit findings, five general recommendations were forwarded to the Department Vice President. These recommendations were as follows:

1) Consolidation of all seismic design criteria in one area of Design Engineering. This area would control all revisions of the criteria and assure that user groups have the correct information.

2) On future plant designs utilize isometric format for piping drawings which require stress analysis/support restraint design. This would avoid having the stress analyst prepare his own isometric from orthographic layouts.

3) Improvements in the currently issued McGuire and Catawba seismic design specifications. This included suggestions for better response spectra curve labeling, better indexing and a more consistent treatment of torsion.

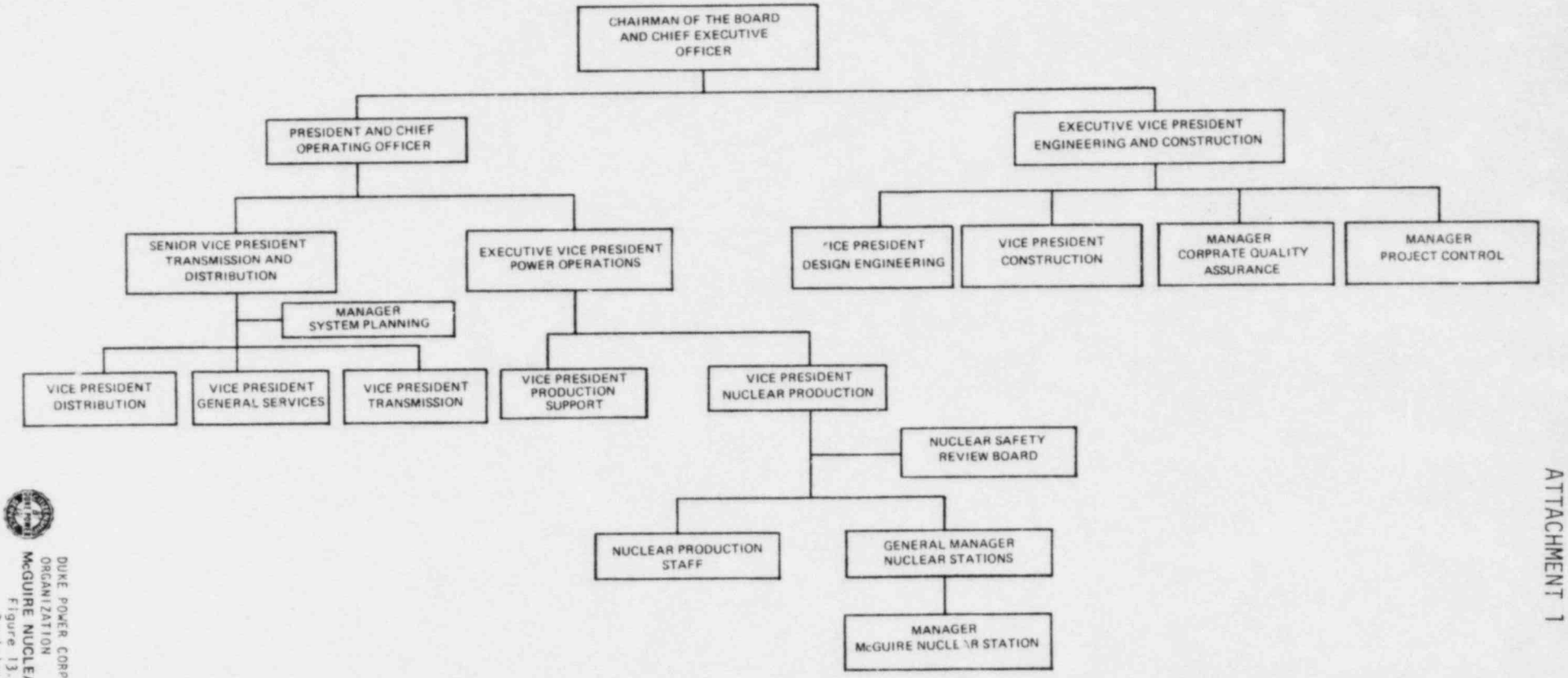
4) Designation of specific areas for the performance of structural adequacy calculations. This recommendation was the result of audit team noting several instances where an engineer not experienced in structural adequacy calculations would attempt to perform such a calculation with marginal results.

5) Continuation of internal auditing as a tool to better our overall performance as a design organization.

Actions to implement these recommendations are already in progress. The fifth recommendation is being addressed by the ad hoc formation of audit teams in possible problem areas. The ad hoc audit teams will function in essentially the same manner as the seismic design audit team.

In addition to the audits described above, Duke Power is involved in an extensive As-Built Verification Program that has been approved by the NRC (I.E. Bulletins 79-14 and 79-02 are closed for the McGuire Nuclear Station). The NRC regularly inspects all facets of the McGuire Station and, in addition to the usual utility I and E inspections, Region II inspectors use criteria specified in several "Region IV Inspection Modules" that examine the architect/engineer aspects of Duke Power. As part of the Systemmatic Assessment of Licensee Performance (SALP) program conducted by the NRC, Duke is periodically audited on a broad programmatic basis. In the latest SALP ('80-'82) report to Duke, the NRC found that Duke Power was responsive to NRC concerns and performed thorough evaluations of technical concerns. The SALP report specifically addressed Duke Power's corporate management attention to problem areas and the marked improvement resulting from that attention.

Duke Power Company is committed to quality in all aspects of the planning, design, construction, and operation of its power generation facilities. This corporate commitment to quality emanates from the highest level of corporate management and is impressed upon all personnel in the course of daily work activities. Corporate management is kept abreast of any quality problems by means of audit results, both internal and NRC, and is involved in the resolution of any significant problems. In addition, all work is performed in a professional atmosphere with experienced, capable supervision at all levels. Duke Power Company believes that this significant commitment to quality will continue to produce safe, efficient, high quality power plants such as the McGuire Nuclear Station.



DUKE POWER CORPORATE ORGANIZATION
McGUIRE NUCLEAR STATION
Figure 13.1.1-1
Revision 43

ATTACHMENT 1

ATTACHMENT 2

DUKE POWER COMPANY

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DOUGLAS W. BOOTH
PRESIDENT &
CHIEF OPERATING OFFICER
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October 13, 1982

DUKE POWER COMPANY
QUALITY ASSURANCE PROGRAM
POLICY STATEMENT

Duke Power Company has developed a comprehensive quality assurance program to answer our own needs and the regulatory requirements established by the Nuclear Regulatory Commission and other jurisdictional authorities for the safe and effective design, construction and operation of nuclear stations.

This quality assurance program has been documented in the quality assurance and administrative manuals and procedures prepared by the several departments involved and reviewed by the Quality Assurance Department. These documents delineate the action taken by Duke Power Company personnel during the design, procurement, construction, testing, operation, refueling, maintenance, repair and modification of its nuclear stations.

This program has my unqualified support and is to be followed at all times. The authority and responsibility to administer the quality assurance program described in these manuals are assigned to the Corporate Quality Assurance Manager, who supervises the Quality Assurance Department and who reports to the Executive Vice President, Engineering and Construction. The department heads of all company departments engaged in nuclear activities are responsible for implementing procedures required by the program. Quality Assurance personnel are given authority commensurate with their responsibility including the authority to stop work which does not conform to established requirements. This stop-work authority must be exercised in accordance with approved procedures.

All matters concerning quality assurance which cannot be resolved at the normal interfaces among departments shall be referred to the Executive Vice President, Engineering and Construction. In case of involvement by Power Operations, the Executive Vice President, Power Operations shall be a party to the decisions reached. In case of involvement by Transmission and Distribution, the Senior Vice President, Transmission and Distribution shall be a party to the decisions reached. Matters that cannot be resolved at this level will be referred to me for final resolution.

W S Lee