



MISSISSIPPI POWER & LIGHT COMPANY

Helping Build Mississippi

P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

July 5, 1984

NUCLEAR LICENSING & SAFETY DEPARTMENT

Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Mr. Harold R. Denton, Director

Dear Mr. Denton:

SUBJECT: Grand Gulf Nuclear Station
Units 1 and 2
Docket Nos. 50-416 and 50-417
License No. NPF-13
File 0260/2050
Petition Filed Pursuant to
10 CFR 2.206
AECM-84/0339

In a letter to Mr. J. P. McGaughy, Jr; dated May 30, 1984, Mr. Darrell G. Eisenhut, Nuclear Regulatory Commission (NRC) Director of Licensing, requested a response to a petition filed by Jacksonians United for Livable Energy Policies (JULEP) pursuant to 10 CFR 2.206. Mississippi Power and Light Company is filing the attached response, pursuant to 10 CFR 50.54(f), in its own behalf and on behalf of Middle South Energy, Inc. and South Mississippi Electric Power Association. For the reasons stated in the attachment the petition should be denied in its entirety.

If you have any questions please advise.

Yours truly,

L. F. Dale
Director

PJR/JGC:db
Attachment

cc: (See Next Page)

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Member Middle South Utilities System

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cc: Mr. J. B. Richard (w/o)
Mr. R. B. McGehee (w/a)
Mr. N. S. Reynolds (w/a)
Mr. G. B. Taylor (w/o)

Mr. Richard C. DeYoung, Director (w/a)
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Mr. J. P. O'Reilly, Regional Administrator (w/a)
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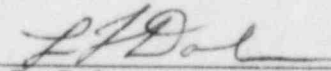
Ms. Cynthia Stewart (w/a)
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Route 3, Box 314-W
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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)
MISSISSIPPI POWER & LIGHT COMPANY) Docket No. 50-416
MIDDLE SOUTH ENERGY, INC., AND)
SOUTH MISSISSIPPI ELECTRIC POWER) License No. NPF-13
ASSOCIATION)
(Grand Gulf Nuclear Station))

AFFIRMATION

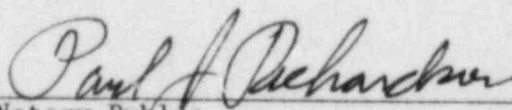
I, L. F. Dale, being duly sworn, state that I am Director, Nuclear Licensing & Safety of Mississippi Power & Light Company; that on behalf of Mississippi Power & Light Company, Middle South Energy, Inc., and South Mississippi Electric Power Association I am authorized by Mississippi Power & Light Company to sign and file with the Nuclear Regulatory Commission, this response to the petition filed under 10 CFR 2.206 by Jacksonians United for Livable Energy Policies on April 10, 1984, that I signed this statement as Director, Nuclear Licensing & Safety of Mississippi Power & Light Company; and that the statements made and the matter set forth therein are true and correct to the best of my knowledge, information and belief.



L. F. Dale

STATE OF MISSISSIPPI
COUNTY OF HINDS

SUBSCRIBED AND SWORN TO before me, a Notary Public, in and for the County and State above named, this 5th day of July, 1984.



Notary Public

My Commission Expires:

My Commission Expires Dec. 27, 1987.

RESPONSE TO JULEP 2.206 PETITION

I. Introduction

Jacksonians United for Livable Energy Policies (JULEP) filed a petition on April 10, 1984 pursuant to 10 CFR Part 2.206(a), which requested in part, that the Nuclear Regulatory Commission (NRC)

"serve upon Mississippi Power and Light Company ("Licensee" or "MP&L") an order to show cause, pursuant to 10 CFR 2.202(a), why the low power license for Grand Gulf Nuclear Station, Unit 1, should not be revoked, a stay of operation issued, the pending application for an operating license denied, and a proceeding initiated under 42 U.S.C. 2239(a)."

JULEP's allegations are focused on what it perceives to have been Licensee's shortcomings at some point in the past such as the time of issuance of the Low Power License. JULEP also makes reference to "consistently scoring poorly" on SALP reports. While Licensee does not concede JULEP's premises or allegations, this response focuses on the status of GGNS today as being relevant to the issue whether protection of the health and safety of the public requires the drastic enforcement actions they propose.

JULEP has requested the NRC to issue a show cause order based on the allegations presented and described in its petition. In fact, as part of its ongoing licensing, inspection, and enforcement programs, the NRC staff has reviewed or is currently reviewing MP&L's activities related to each of the areas of allegation. These reviews are in most instances a matter of public record and reveal thorough scrutiny and corrective action where needed. The

issuance of a show cause order related to these issues would be unwarranted since it adds nothing to the progress that has been and is being made, and would not be in the public interest.

For the reasons stated herein, the petition should be denied in its entirety. In part, the petitioner seeks relief which is not available pursuant to 10 CFR 2.206. Furthermore, the petition is premised in part upon immaterial and irrelevant statements, recitals and allegations. Finally, the factual premises of the petition with respect to diesel generators and compliance with the regulations are incorrect. The NRC staff has addressed or is addressing the diesel generator issue and the regulatory compliance issue (of which technical specification changes are a significant portion); therefore, no action pursuant to 2.206 is warranted.

II. Technical Matters Raised

JULEP raises a number of matters which form the factual predicate for the relief sought. These are summarized below. The merits of these matters are addressed in Section V of this response, following the summary in Section III of the relief requested and the discussion in Section IV of the limitations on relief which can be granted pursuant to 10 CFR 2.206.

The two principal areas of allegations are MP&L's alleged lack of conformance with the regulations and the alleged inadequacy of the onsite emergency power sources. With respect to the first category, erroneously detailed under the heading "10 CFR Section 50, Appendix A, Criteria," a

number of subissues are raised. Included are: (1) alleged poor management performance said to be documented in the NRC's Systematic Assessment of Licensee Performance Report (SALP); (2) the alleged existence of errors in approximately 200 technical specifications and 600 surveillance procedures; (3) the alleged falsification of operator qualifications; (4) the alleged lack of prior power reactor operating experience of the operators; and (5) the alleged inadequacy of the design and construction of the drywell cooling system. [JULEP petition, para. 12, pp. 4-5.]

The second principal area of concern is presented under the heading "Inadequate Onsite Electric Distribution," which also contains a number of subissues focused upon the adequacy of Grand Gulf's Transamerica Delaval, Inc. (TDI) diesel generators. The subissues raised include: (1) allegations of problems which have been encountered with TDI diesel generators [Id., para. 14-15, p. 5]; (2) the use of gas turbine generators allegedly in "jury-rigged" fashion as compensatory measures [Id., para. 16, p. 6]; (3) alleged improper switching of the HPCS diesel from its dedicated function Id., para. 17 p. 6]; (4) alleged TDI QA problems [Id., para. 18, p. 6]; (5) alleged inadequate crankshaft design [Id., para. 20, pp. 6-7]; (6) alleged inadequate piston design [Id., para. 21, p. 7]; (7) alleged inadequate cylinder head design [Id., para. 22, p. 7]; and (8) alleged inadequate fuel line design [Id., para. 23, p. 7].

On the basis of these allegations, JULEP requests the relief outlined in the next section.

III. Relief Requested

JULEP requests the following relief:

- (1) revocation of the low power license for Grand Gulf Unit 1
[JULEP petition, para. 27, p. 8];
- (2) a "stay of operation" [Id.];
- (3) denial of the pending full power license [Id.];
- (4) appointment of an independent panel of investigators from outside the agency to investigate
 - (a) alleged possible improprieties and illegal acts by NRC inspectors and investigators,
 - (b) the handling by the OIA [Office of Inspector and Auditor] of the alleged improprieties which have been previously identified, and
 - (c) the effectiveness of NRC Region II in fulfilling the mandated responsibility to enforce the regulations of the NRC to ensure protection of the public health and safety [Id., para. 28(1), p. 8];
- (5) modification of the operating license to include
 - (a) removal from the management organization of those allegedly responsible for past failures at Grand Gulf and
 - (b) implementation and verification of corrective actions for all identified deviations from requirements [Id., para. 28(2), p. 8]; and,
- (6) hearings before an Atomic Safety and Licensing Board pursuant to 42 U.S.C. 2239(a). [Id., para. 28(3), p. 8.]

IV. Relief Available under a 2.206
Petition is Limited to Enforcement
Actions On the Low Power License

Prior to addressing the technical issues which form the basis for any relief which can be granted, it is necessary to focus on the bounds of 10 CFR 2.206. The relief available under 2.206 is limited to the "institut[ing] of a proceeding to modify, suspend or revoke a license, or for such other action as may be proper."

The only relief available to JULEP which is within the scope of a 2.206 petition is modification, revocation or suspension of the low power license or other enforcement actions as contemplated by 10 CFR 2.201, 2.202 or 2.204. All other requested relief is beyond the scope of action which can be taken pursuant to 10 CFR 2.206. Therefore, the request for the revocation of the low power license [relief request number 1 in Section III above] is within the scope of a 2.206 petition. To the extent that JULEP's request for a "stay of operation," [relief request number 2], amounts to a request for a suspension of low power license, it would also be within the scope of 2.206. Conceptually, modification of the license as sought in request number 5 [though not necessarily all of the relief sought in request number 5] is also available pursuant to a 2.206 petition. Thus, the items we have listed in Section III above as items 1, possibly (depending on interpretation) 2, and, to some extent, 5 are the only permissible types of relief contained within the JULEP petition.

The request for denial of the pending full power license [relief request number 3] is not within the scope of relief provided by 10 CFR 2.206. There is no full power license to revoke, suspend or modify. Furthermore, under the "milestone" licensing system of the Atomic Energy Act and NRC regulations,⁽¹⁾ the request amounts to a request for a hearing on license issuance and for denial of the license, but it comes long after the time to request an operating license hearing, as acknowledged by JULEP. [JULEP petition, para. 6, p. 2]. To grant such relief would be tantamount to providing an operating licensing hearing. Therefore, relief request number 3 should be dismissed.

The further relief requested by JULEP, viz.: the appointment of an independent panel of investigators to investigate NRC actions [relief request number 4] is also beyond the scope of a 2.206 petition. Section 2.206 is not a vehicle for bringing charges against the Staff. It is a vehicle for seeking the initiation of enforcement action against licensees. Moreover, investigation of Region II or any other NRC personnel concerns matters properly within the ambit of the agency's internal management and control function and are exercised by the Office of Inspector and Auditor (OIA) pursuant to 10 CFR 1.30. In a prior Director's denial, the Director relied upon OIA to investigate alleged staff improprieties. Washington Public Power Supply System [WPPSS Nuclear Project No. 2), DD-84-7, ___ NRC ___, slip opinion, at p. 33 (1984).] To seek an independent investigation of OIA itself is outside the bounds of initiation of enforcement action against a licensee.

The request for a discretionary hearing before an Atomic Safety and Licensing Board [relief request number 6] is not an appropriate request for relief pursuant to a 2.206 petition. The hearing scheme envisioned in the petition process is that if and only if the Director issues a show cause order, the licensee and only the licensee may demand a hearing. Thus, if the 2.206 petition is denied, there is no adjudicatory hearing. If the 2.206 petition is granted and an order to show cause is issued, there may be an adjudicatory hearing but only if a person whose interest is affected opposes the action contemplated under the order. The scope of the hearing may not be enlarged beyond the enforcement action proposed. [See Bellotti v. U.S. Nuclear Regulatory Commission, 725 F.2d 1380, D.C. Cir. 1983.] In addition, the Director does not establish a licensing board.

Licensee notes that the requests for a denial of the full power operating license and for a discretionary hearing before an Atomic Safety and Licensing Board represent a clear attempt to seek an operating license hearing long after the period to intervene has expired and is, therefore, untimely. Intervenors recognize and admit that such a direct hearing request would be untimely. [JULEP petition, para. 6, p. 2]. Section 2.206 does not afford indirectly that relief which is not available directly.

It is true that the Appeal Board has stated:

"In every case, a party that for some reason cannot gain admittance to a construction permit or operating license hearing, but wishes to raise health, safety, or environmental concerns before the agency may file a request with the Director of Nuclear Reactor Regulation under 10 CFR 2.206 asking the Director to institute a proceeding to address those concerns." Detroit Edison Company, et al., (Enrico Fermi Atomic Power Plant Unit 2) ALAB-707, 16 NRC 1760, 1767 (1982).

However, the section 2.206 petition and any hearing granted thereunder does not supplant an operating license hearing. The Commission has ruled that such a petition may not be used to seek relitigation on an issue that has already been decided or to avoid an existing forum. Consolidated Edison Co. of N.Y., Inc. (Indian Point Units 1, 2 and 3), CLI-75-8, 2 NRC 173, 127 (1975). By extension, a section 2.206 petition should not be used to litigate matters that could have been litigated and decided in an operating license proceeding. Otherwise, the basic scheme of the Act, which calls for a mandatory public hearing at the construction permit stage and an opportunity for hearing at the operating license state, would be destroyed. Instead, there would be a continuing opportunity throughout the lifetime of an operating nuclear power plant for public hearings comparable in scope to operating license hearings, a result which was never intended by Congress.

Moreover, the NRC should carefully scrutinize petitions for action under 2.206 to be sure that for each premise on which the requested enforcement action is based, there is a specific allegation of a violation of the Atomic Energy Act or of some regulation, order or the license (including technical specifications) issued thereunder. In the absence of such a specific allegation, there is grave danger that the scope of the Director's decision or of any subsequent formal proceedings will not be focused on violations and necessary corrective action, but will be diffuse and subjective.

In the case of the JULEP petition, both of the foregoing principles should be carefully applied. JULEP as much as admits that what it seeks is tantamount to an operating license hearing. Coupled with this, JULEP has,

with but one exception, failed to allege any specific violations of the Act, NRC regulations, or the outstanding low power license. The sole exception is its reference to GDC 17. That subject has, of course, been addressed by the NRC's order of May 22, 1984 and by an MP&L exemption request of June 4, 1984.

JULEP is not, of course, entitled to any formal, on the record hearing prior to the Director's decision.⁽²⁾ In our view that is not because the threshold steps in the section 2.206 process are not part of a "proceeding," but rather that those steps, like many other steps in "proceedings" under 42 U.S.C. 2239 (a) do not warrant a formal hearing. Proceedings under that subsection can take many forms: a meeting with the NRC Staff in a rulemaking (Siegel v. Atomic Energy Commission, 400 F.2d 778, 785-86 (D.C. Cir. 1968)); informal notice and opportunity for comment in a rulemaking (Connecticut Light & Power Co. v. Nuclear Regulatory Commission, 673 F.2d 525 (D.C. Cir.), cert. denied, 51 U.S.L.W. 3254 (1982)); informal notice and comment for a materials license (City of West Chicago, Illinois v. U.S. Nuclear Regulatory Commission, 701 F.2d 632, 641-45 (7th Cir. 1983)); or an adjudicatory hearing on a power reactor construction permit, operating license or amendment. In proceedings pursuant to 2239(a), a threshold must be overcome before a hearing will be granted. Examples of this are the denial of a hearing for failure to raise a valid contention or for failure to overcome a summary disposition motion. This threshold applies to 2.206 petitions as well. Just as a petitioner may have a hearing request denied in a proceeding under 2239(a), so may a petitioner under 2.206 have a petition denied and thereby lose his opportunity to have a hearing. In both instances, a "necessary first step"⁽³⁾ or condition precedent to a hearing would not have been satisfied and no hearing would be triggered. The threshold question in

a 2.206 proceeding is whether enforcement action is to be initiated. The consideration of the petition by the Director is itself the first step in a 2239(a) proceeding. If the petition is denied, there is no formal adjudicatory hearing.

JULEP's asserted justification for their request for a discretionary hearing, that there is no existing forum, is without merit. The Atomic Energy Act and NRC regulations do not provide a hearing at every juncture. Rather, opportunities for hearing are limited, as outlined above. The statutory and regulatory scheme envisions that the Commission's professional staff will exercise its delegated functions to protect the public health and safety. For example, the NRC, as part of the review function delegated to the Director of Nuclear Reactor Regulation, will make all the necessary findings pursuant to 10 CFR 50.57 as to reasonable assurance that the public health and safety will be protected, prior to issuing a full power license.⁽⁴⁾

Thus, the only relief available to JULEP within the scope of a 2.206 petition is revocation, suspension or modification of the low power license or such other action as may be proper enforcement action under NRC regulations. In addressing the merits of these technical issues, the standard for issuance of a show cause order is whether substantial health or safety issues have been raised.⁽⁵⁾ For the reasons explained herein, this standard is not met and all such relief should be denied. Furthermore, all other requests for relief recited in the petition should be dismissed as beyond the scope of a 2.206 petition.

V. The 10 CFR Part 50, Appendix A Criteria and Other Issues Have Been Addressed and Corrected So That No Enforcement Action Is Warranted

The JULEP petition contains allegations of deficiencies in MP&L's compliance with the requirements of 10 CFR 50, Appendix A, although only referring explicitly to one (GDC-17) [Para. 12 and 13]. The purpose or relationship of these unfounded allegations as well as those made in paragraph 11 is unclear at best. These allegations misstate the extent and nature of the matters involved and overlook the exhaustive efforts which have been undertaken to correct such deficiencies as did exist.

1. Alleged Poor Management Performance. [JULEP Petition, para. 12, p. 4]

JULEP alleges that MP&L's management has consistently scored poorly in the Systematic Assessment of Licensee Performance (SALP) evaluations. While there were several areas in which the SALP evaluation reflected a need for improvement Commission representatives, at the SALP meeting on January 19, 1984, stressed that the overall rating of "3" in any given area of evaluation did not indicate unsatisfactory performance. Furthermore in the SALP letter dated January 11, 1984, Mr. Richard C. Lewis to Mr. J. B. Richard, the SALP Board Chairman stated that

"(t)he Board recognizes that major resource commitments have been made by you in the implementation of the Operational Enhancement Program and the Operator Recertification Program. It appears that these programs will result in significant

performance improvements if they continue to receive proper management attention and the necessary resources."⁽⁶⁾

Further, the SALP Board report stated,

"[D]uring this assessment period, the Licensee has undertaken significant improvement programs to enhance communications and technical exchange between the plant and the corporate offices. During the previous SALP period significant problems were identified with management control systems and the timeliness of corrective actions. The overall assessment for this SALP period, therefore, reflects an implementation period during which comprehensive improvement programs were instituted. These programs, targeted to correct the root causes of the identified problems, have slowly resulted in improvements in management control and the timeliness of corrective actions. Management control, as it relates to adherence to procedures and indepth analysis of plant problems, needs improvement. The Licensee's management presence at the site has improved, and top level management now participates to a greater degree in day-to-day activities and the resolution of problems and technical concerns."⁽⁷⁾

In the section of the SALP report entitled "Facility Assessment," the SALP Board concluded that:

"In general, the licensee has devoted significant resources to solve the identified problem areas. These efforts have not yet been completely successful, resulting in the need for continued increased licensee attention in certain areas. NRC believes that, at the time of this report, the Licensee has proposed corrective actions sufficient to solve them."⁽⁸⁾

In order to improve the use of management resources, still further major organization changes were made this last spring. These changes were documented in a letter to Mr. Denton on May 24, 1984.⁽⁹⁾ These changes primarily consisted of concentrating MP&L's management resources in the areas of operation, safety and licensing, and engineering and

construction. Support and administrative related responsibilities were moved from the operations and engineering and construction departments and consolidated under a separate Vice President. This allows MP&L management to concentrate resources on those areas which are important to safety and management effectiveness. Additionally, earlier this year, as described in an April 18, 1984⁽¹⁰⁾ submittal, MP&L obtained a new president. The new president has substantial nuclear operating experience and was responsible for the recent realignment of MP&L's management.

Thus, taking the SALP report as a whole, and in light of recent management reorganizations, JULEP's allegation does not provide any basis for enforcement action and relief should be denied.

2. Alleged Errors in Technical Specifications and Surveillance Procedures

JULEP alleges a number of technical specification and surveillance procedure errors without any description of the nature or development of any safety significance of the alleged deficiencies. To ensure the technical adequacy of GGNS surveillance procedures, a Licensee task force was organized in late 1982 to review all surveillance procedures and, based on that review, make all changes necessary to achieve clarity and consistency with the technical specifications and with other documentation associated with these procedures. Licensee's commitment to conduct this surveillance procedure review effort was confirmed by the NRC letter dated October 20, 1982.⁽¹¹⁾ Licensee's response to the

NRC's October 20, 1982 Confirmation of Action was provided in the MP&L submittal dated August 29, 1983⁽¹²⁾ and reported the completion of essential elements of the surveillance procedure task force effort. The NRC letter dated September 23, 1983⁽¹³⁾ to Licensee indicated that corrective actions associated with the surveillance procedure review had been verified complete. Licensee has conducted a comprehensive review of the technical specifications to ensure that the technical specifications reflect the Final Safety Analysis Report, the Safety Evaluation Report, and the "as-built" condition of the plant. The NRC staff has recognized the satisfactory progress of the Licensee in the Safety Evaluation Report accompanying the NRC order of April 18, 1984.⁽¹⁴⁾ This order required implementation of certain technical specifications changes identified as necessary by MP&L. Those changes were implemented by MP&L prior to resumption of low power operations at GGNS-1 in late April, 1984.

While the petition states that a large number of errors were found in technical specifications and surveillance procedures, it offers no evidence that any of these errors are of safety significance. In fact, none of the discrepancies identified during MP&L's review of the technical specifications has been found to present a significant safety concern. MP&L has taken prudent action to identify all discrepancies, to propose changes to the NRC staff, and to initiate technical specifications revisions where necessary. Nothing has been found that warrants the issuance of a show cause order.

3. Alleged Falsification of Operator Qualifications [Id.]

JULEP alleges that the "qualifications of operators were apparently falsified." MP&L did discover and document errors in operator license applications and qualification cards. These errors were discussed with the NRC during an inspection and meetings and were more fully addressed in an MP&L submittal dated November 1, 1983.⁽¹⁵⁾ Additionally, MP&L conducted a comprehensive operator recertification program, as documented in a November 21, 1983 submittal⁽¹⁶⁾ to correct all identified deficiencies, and proposed adequate measures to prevent their recurrence. The completion of the operator training was subsequently reported in a submittal dated April 10, 1984.⁽¹⁷⁾

JULEP's reference to "falsification" implies that there was intent on the part of the Licensee. JULEP supplies no basis for such a supposition. Moreover, Licensee has taken appropriate action to correct any deficiencies and prevent recurrence. Licensee understands that NRC is currently considering enforcement action on its own initiative with respect to these errors in qualification cards or operator license applications. In any event, there is no basis for the NRC undertaking the enforcement action sought by JULEP in its petition.

4. Alleged Lack of Prior Operating Experience [Id.]

JUELP alleges a lack of prior operating experience as a basis for the relief it requests. The qualifications and experience of MP&L's management and staff have been previously evaluated by the NRC Staff.

As a result of these evaluations, MP&L's operating license is presently conditioned to require certain BWR-experienced advisors. These advisors act to support both corporate management and the shift superintendents. They ensure that substantial BWR operating experience is available to decision makers. The MP&L shift advisor program has been favorably reviewed by both the NRC, in Inspection Report No. 50-416/84-12, and the Utility Advisor Evaluation team, as reported in a May 1, 1984 submittal by MP&L.⁽¹⁸⁾ Additionally, MP&L's operating shift crews either meet or exceed proposed requirements recommended by the Industry Working Group on Operating Shift Experience for prior nuclear experience as presented to the NRC Commissioners. Therefore, there is no basis for granting the relief JULEP requests based upon this allegation.

5. Alleged Inadequate Drywell Cooling [Id.]

JULEP alleges that the inadequate drywell cooling matter should be a basis for the relief requested. For new product line prototypes, such as Grand Gulf Nuclear Station (GGNS), the identification of matters requiring analysis and possible modification during preoperational tests and during low power testing can be anticipated. The problems at GGNS were generally typical of those encountered during shakedown of new prototype designs.

During non-nuclear heatup it was discovered that GGNS-1 had insufficient drywell heat removal capability. This did not impact non-nuclear testing activities since the drywell purge system and temporary blowers were used to keep the drywell temperature within acceptable limits.

However, the experience gained during non-nuclear heatup showed that certain modifications would be necessary to assure drywell cooling capability before plant operations could begin. In October, 1982 a decision was made to enter an outage for the purpose of accomplishing the necessary design changes and physical work in the plant.

Modification of the drywell cooling capability at GGNS-1 was a critical path item for the outage from October, 1982 through June, 1983. The modifications included design and installation work including repair and rework of the existing reflective insulation, the addition of insulation in certain areas, modifications and additions to the air distribution systems and addition of 1200 tons of chiller capacity for the drywell. (19)

MP&L took prudent actions to identify the causes of this problem and to resolve it in a manner and under conditions in which there was no risk to public health and safety. The drywell cooling design matter does not form any basis for the relief JULEP requests.

JULEP also makes vague and unsubstantiated allegations regarding a "design flaw requiring modifications" [JULEP Petition, paragraph 12, page 4]. Licensee assumes that JULEP is referring to the drywell cooling issue, discussed above.

6. Conclusion on 10CFR 50, Appendix A and Other Issues

The matters discussed above, whether based on criteria in 10 CFR Part 50, Appendix A, or provided for elsewhere in the regulations have been or are being adequately addressed. There have been no substantial health or safety issues raised by JULEP, and it should be denied in these respects.

VI. The TDI Diesel Generator Issue
Will be Resolved by Ongoing
NRC Staff Actions So That
Enforcement Action is Not Warranted

The JULEP petition addresses a number of issues associated with onsite emergency power. Most of JULEP's recitals have been addressed by the NRC's May 22, 1984 Order regarding the disassembly and inspection of the Division I TDI diesel generator and by MP&L's subsequent exemption request submitted June 4, 1984.

1. TDI Diesel Generator Matters

The JULEP petition provides a recital of issues which have arisen with TDI diesel generators primarily in marine, non-nuclear applications of TDI diesels. The listing of occurrences presented in paragraph 14 of the JULEP petition is Grand Gulf specific. All occurrences listed in paragraph 14 of the petition have been previously evaluated by MP&L, and the results of such evaluations have been submitted to the NRC. Effective corrective actions have been implemented in all cases. In addition, Licensee was instrumental in the formation of a TDI Diesel

Generator Owners Group to accumulate operating history on the TDI diesel product line and to address these issues in an efficient, comprehensive manner. Based on an evaluation of all available information on TDI diesel operating experience, the TDI Diesel Generator Owners Group developed a listing of critical components which must be addressed on a plant specific basis, regardless of the occurrence of a component failure at that site. Licensee has evaluated each of the critical components and its associated history and has submitted these evaluations to the NRC staff.⁽²⁰⁾ Through evaluation of Grand Gulf specific experience and through active participation in the Owners Group's program to accumulate and evaluate all available TDI operating history, Licensee is confident that all significant TDI diesel engine failures have been properly and effectively addressed. JULEP's petition presents no new information for consideration by MP&L or the NRC. The specific information provided by the Petition's Attachment 1 was made available publicly in a meeting of the TDI Diesel Generator Owners Group with the NRC staff on January 26, 1984.⁽²¹⁾

A simple listing of operating history without proper engineering evaluation does not support JULEP's conclusion that TDI diesel generators "cannot be depended upon to function when needed" (JULEP Petition, paragraph 15, page 5). The vast majority of issues listed would not have resulted in the diesel engines being unable to operate and perform their intended function during an actual emergency. Confirmatory inspections conducted at Grand Gulf were recently completed. The results of this inspection, to be documented in a submittal to the NRC this month, revealed no component problems which

would prevent performance of the diesel's design function, further demonstrating from a strong technical basis that the Grand Gulf TDI diesel generators are reliable sources of emergency power.

JULEP indicates that the TDI diesel generators are completely unreliable [JULEP petition, paragraph 18, page 6]. MP&L has contended in its numerous submittals to and meetings with the NRC that, based upon testing, numerous inspections, and analyses, the Grand Gulf TDI diesel generators are reliable.⁽²²⁾ The basis for the NRC order requiring inspection of the Division I TDI diesel generator was to resolve uncertainty and not to refute evidence that the GGNS TDI diesels had been shown to be unreliable.⁽²³⁾ During a NRC Staff meeting with the Commissioners on May 25, 1984, Mr. Darrell Eisenhut, Director of the Division of Licensing, explained the reason for the order, "... it is not that we have concluded that they (the TDI diesels) are unreliable. It is just that it has not been demonstrated that they are reliable." The required inspection results (to be submitted to the NRC) have confirmed MP&L's position that the TDI diesels are reliable and support operation at full power for GGNS. Thus the allegations concerning TDI diesel generators do not provide a basis for the relief requested.

2. Gas Turbine Generators as Compensatory Measures

JULEP mischaracterizes as "jury-rigged" the MP&L proposal to use gas turbine generators as an additional source of AC power to Unit 1. [JULEP petition, para. 16 and 19, p. 6] Contrary to the JULEP contention, the use of the gas turbine generators represents a carefully

engineered and evaluated approach to providing an additional source of power. Further, adequate surveillance procedures were implemented by MP&L to assure their continued reliability. As discussed in a meeting with the NRC on February 21, 1984, the gas turbines will provide AC power to emergency loads in the unlikely event that both TDI standby diesel generators fail to respond to the loss of all offsite power. In the unlikely event of this accident, power from the gas turbine generators will be supplied to emergency loads through the non-Class 1E plant distribution system to the Division I or II safety related busses. Connection of the gas turbines to these busses through a non-Class 1E distribution system is consistent with the manner in which the three offsite power lines are tied into the plant.

The gas turbines can be started up and loaded within 25 minutes of a loss of offsite power event. This time is sufficiently long to permit using a manual means to start and load the gas turbines and still maintain the plant in a safe condition.

In addition, based on its review of MP&L's submittals⁽²⁴⁾ and its own independent technical assessment, the NRC has stated, "Based on our evaluation of the available power sources and in view of the minimum power needs for low power operation, the staff finds that these sources (offsite, one TDI diesel and gas turbine generators) together with the specified surveillance requirements, represent a power system which has the capacity, capability, reliability, and redundancy for this low power level and that the health and safety of the public will not be endangered by implementation of this Order."⁽²⁵⁾ MP&L has demonstrated

that the use of the gas turbines does not represent a "jury-rigged" approach as JULEP contends, but, to the contrary, was ordered by the NRC in its May 22, 1984 Order, subject to strict maintenance, surveillance and testing requirements. Thus, the allegations concerning use of gas turbine generators does not provide a basis for the relief requested.

3. Switching HPCS Diesel

JULEP alleges that MP&L has proposed switching over the HPCS diesel generator to carry other loads during an accident. [JULEP petition, para. 17, p. 6] This is not the case. MP&L has considered the possibility of using the HPCS diesel generator in this manner along with other alternatives, [MP&L meeting with NRC on February 16, 1984, summarized in AECM-84/0113, dated February 26, 1984]; however, such an unusual alignment and operating mode is not the preferred approach to supplying plant loads and has not been proposed by MP&L. In responding to an NRC question,⁽²⁶⁾ MP&L stated that, "There is currently no procedure developed for cross-connecting the Division III (HPCS) D/G to Division I or II loads. While this alternative is considered technically feasible, a detailed design review is needed to support procedure development and to ascertain its feasibility from the standpoint of required operator actions and maintaining plant safety." It is clear that the use of the HPCS diesel generator to power Division I or II loads is a possible alternative that MP&L has considered, but this approach has not been evaluated in sufficient detail for MP&L to propose it as a viable means of providing another source of power to these loads. Therefore, the JULEP allegation has no merit and is

apparently based on lack of comprehension of information MP&L has submitted to the NRC.

4. TDI QA Problems

JULEP alleges problems with the TDI QA program as a basis for the requested relief. In order to demonstrate that the TDI Emergency Diesel Generators, in general, are capable of performing their intended safety function in nuclear service, a program plan has been established by the TDI Diesel Generator Owners Group. The objective of the plan is to confirm the reliability of TDI diesel generators by establishing adequate confidence through a combination of design reviews, quality revalidations, engine tests, and component inspections that the diesel generator will perform satisfactorily in service (Design Review/Quality Revalidation Program). The plan was instituted by the TDI D/G Owners Group. Prior to implementation of the plan for the key engine components at Grand Gulf, NRC concurrence was obtained in the Order dated May 22, 1984. The DR/QR program provides a planned and systematic approach necessary to provide adequate confidence that the diesel engines will perform their intended nuclear safety service throughout the life time of the plant.

The design reviews for the key TDI engine components have been completed by the Owners Group. An independent third party, Failure Analysis Associates, Inc. (FaAA), verified the TDI diesel generator design as being in accordance with established regulatory requirements and design criteria of 10 CFR 50 Appendix A.

Prior to the most recent engine disassembly at Grand Gulf ordered by the NRC on May 22, 1984, a detailed inspection plan was developed and stringent acceptance criteria were established. The plan was executed and the results were documented in accordance with the NRC approved MP&L Quality Assurance Program. The physical characteristics of the components and materials were verified to the predetermined requirements set forth in the DR/QR program. Anomalies found were either determined to be acceptable to the predetermined acceptance criteria or replaced with known acceptable components (e.g., turbocharger bolts). MP&L will in the near future submit a report to the NRC documenting the results of this inspection.

Based on the augmented inspection and design reviews of the Grand Gulf TDI diesel generators, objective evidence has been provided that the TDI emergency diesel generators will perform their intended safety function with a high confidence level. Upon reassembly a thorough testing program of the engine commenced as required in the staff's May 22, 1984 Order, to confirm the operability of the engines under load conditions. MP&L will in the near future submit a report to the NRC documenting the results of this testing program. Based upon the inspection program and the Owners Group actions, there are no grounds for the requested relief premised upon this allegation.

5. Crankshaft Design Inadequacies Allegation

JULEP alleges design deficiencies in the Grand Gulf diesel generator crankshafts. It should be noted that JULEP mischaracterizes the crankshaft design problems. Only the original Shoreham crankshafts (for a very different design and model from the diesel generator at Grand Gulf) were of deficient design. There have been no crankshaft problems of any significance at Catawba as indicated in the June 1, 1984 report by Duke Power, entitled "Catawba Nuclear Station Diesel Engine 1A Component Revalidation Inspection Report," contrary to JULEP's assertion. [JULEP petition, para. 20, p. 7.]

Upon notification of the Shoreham crankshaft failures, investigations were immediately conducted by MP&L on the applicability of the failures to the Grand Gulf TDI diesel generators. A physical comparison of the DSR-48 (in-line eight cylinder) series engine crankshaft that failed, with that employed in the DSRV-16-4 (Vee-16 cylinder) series at Grand Gulf, revealed some important differences. The Shoreham engine crankshafts were unique to the Shoreham engines in that they were the only crankshafts having 11" crankpins and 13" journals supplied in DSR-48 in-line engines rated at 225 BMEP. Among the significant design differences on the Grand Gulf engine are the larger web size and shape, larger crankpin diameter, larger pin fillet radius and the use of counter-weights.

Independent dynamic analyses of the DSRV-16-4 crankshafts at GGNS have also been performed by Bechtel and FaAA and confirmed that the total stress values for the GGNS DSRV-16-4 engine crankshafts are within the limits of allowable stress published by the Diesel Engine Manufacturers Association (DEMA). Although not mandatory, the DEMA standards are in widespread use in stationary diesel engine applications.

As a further verification of crankshaft adequacy, during December, 1983, and January, 1984, when the Division I and II engines were disassembled for maintenance and replacement of existing piston skirts with improved piston skirts, the Division I and II crankshafts were inspected using accepted NDE methods. No indications outside the bounds of acceptance criteria were discovered. Also a recent inspection of the Grand Gulf Division I TDI diesel generator, in accordance with the NRC order of May 22, 1984 reverified that the design of the GGNS TDI engine crankshaft is adequate to perform satisfactorily in service. Therefore, this allegation does not provide any basis for the relief requested.

6. Inadequate Piston Design Allegation

JULEP alleges that the pistons are inadequately designed. JULEP overlooks significant differences in the different types of piston components manufactured by TDI. The GGNS TDI diesels were originally provided with pistons that included type AF piston skirts. During preoperational testing of one GGNS TDI diesel in November, 1981, a single piston's crown and skirt became separated due to failure of studs which fasten the crown and skirt. Based on evaluations by both TDI and

Licensee, all pistons in both GGNS Unit 1 TDI diesels were returned to TDI for modification to prevent future separations. All piston skirts were modified by TDI (i.e., "modified AF skirts") and were re-installed in the GGNS Unit 1 TDI diesels. The discussion of the subject piston design change implemented as a corrective action was documented in the MP&L submittal dated October 26, 1983.⁽²⁷⁾ No further problems were encountered with piston skirt-crown separation at GGNS during subsequent operation of the engines.

In December 1983 and January 1984, based on early evaluations of the discovery of linear indications in the modified AF skirts at Shoreham, MP&L replaced the modified AF skirts with the improved type AE piston skirt. Major improvements were made in the AE piston skirt design in the region of the bosses through which studs extend to attach the crown to the skirt.

A recent inspection of the MP&L Unit 1, Division I TDI engine AE piston skirts and inspection of other AE piston skirts that have accumulated thousands of hours of operation disclosed no anomalies and provides confidence that the AE pistons will perform satisfactorily in service.

Based on the results of the engine operated AE piston skirt inspections and stress analysis, the independent consultants to the TDI D/G Owners Group have also concluded that the AE piston skirt will perform satisfactorily in service. Therefore, this allegation does not provide any basis for the requested relief.

7. Inadequate Cylinder Head Design Allegation

JULEP alleges that the cylinder heads are inadequately designed. The results of an evaluation by the independent consultants to the TDI D/G Owners Group concluded that the TDI R-4 series cylinder heads are adequate for their intended service. Replacement of the head during engine installation was due to an indication on the air intake pipe mounting flange. Heads replaced during the December 1983 and January 1984 engine disassembly for piston change out were replaced due to indications in the stellite valve seats. A metallurgical evaluation performed by Middle South Services concluded that the indications were shrinkage cracks which are not detrimental to the intended service of the engines. A recent inspection of the Division I D/G heads per the NRC Order of May 22 confirmed that the heads are adequate for their intended service. The condition of the valve seats did not impair the operation of the GGNS Unit 1 TDI engine. Therefore, this allegation does not form an adequate basis for the relief requested.

8. Inadequate Fuel Line Allegation

JULEP alleges that fuel lines are inadequately designed and/or installed. Discussions of fuel line related issues are provided in the MP&L submittal dated October 26, 1983.⁽²⁸⁾ A further update on evaluations in this area was provided in the MP&L submittal dated April 20, 1984.⁽²⁹⁾

As noted by JULEP (JULEP Petition, paragraph 23, p. 7), a fuel line failure did result in a diesel fire at GGNS. The failed line was a low pressure fuel oil line. Evaluations to determine the cause of failure were quite extensive, including engine walk downs and metallurgical analyses. While these were contributing factors, it was determined that the line failure was due to high cycle fatigue which in turn was caused by excessive vibrational loads induced by the turbocharger and improper tubing support. The line has been repaired; new design tubing supports have been installed on both Unit 1 TDI diesels; and a special procedure was developed for turbocharger alignment. Based on extensive diesel testing and vibration monitoring conducted, Licensee is confident that the above discussed corrective actions effectively address the low pressure fuel line failure.⁽³⁰⁾

A failure of a high pressure fuel line was experienced on a GGNS TDI diesel. The metallurgical evaluation indicated that the cause of failure was a manufacturing flaw. As discussed in the MP&L evaluation of this issue, those lines considered suspect were replaced with new lines. The replacement lines have successfully passed TDI inspections, designed specifically to reveal the manufacturing flaw discovered in the Grand Gulf line.⁽³¹⁾ The above discussed action is considered adequate both by Licensee and the NRC staff's consultant in this matter, as discussed below.

The JULEP petition at paragraph 23 only notes the occurrence of the subject fuel line failures but does not acknowledge corrective actions taken by Licensee, and furthermore, offers no criticism as to the

adequacy of those corrective actions. The NRC staff's consultants have reviewed these proposed actions and concur in Licensee's findings and have concluded that these actions are acceptable.⁽³²⁾ And therefore, this allegation does not form an adequate basis for the requested relief.

9. Conclusion on TDI Diesel Generators

Thus, the NRC Order of May 22 and the Licensee's disassembly and inspection program have already addressed this issue in full. This has eliminated any substantial health or safety issues. Therefore, relief pursuant to a 2.206 petition is unwarranted and should be denied.

VII. License Modifications

Petitioners seek two specific modifications to the operating license. The first of these requested modifications deals with "removal from the management organization of those responsible for past failures at Grand Gulf . . ." [relief request number 5(a)]. Licensee recognizes that technical and management competence to operate a facility is an important issue and is within the realm of Staff review in accordance with 10 CFR 50.40(b) and the Standard Review Plan (NUREG-0800), Section 13.1. The Staff finding which must be made is that the licensee has complied with all appropriate Commission requirements in the area of management competence and is qualified to operate the facility.⁽³³⁾ In denying another 2.206 petition with a similar contention on management competence, the Director found that, despite

prior SALP deficiencies, a civil penalty and a notice of violation, the management was capable and responsible.⁽³⁴⁾ As described above in Section V. 1 the NRC staff has already concluded the MP&L staff to be competent and qualified for operation. Additional improvements have also taken place in terms of a strengthened management team and organization.⁽³⁵⁾

MP&L's response to correcting the technical specification deficiencies, the other technical issues petitioner has raised, the diesel generator inspection program, and implementation of compensating onsite power measures demonstrates a clear commitment to compliance with NRC regulations and the safe operation of the plant. As indicated in Section V above, MP&L has also demonstrated that its management philosophy embraces a strong commitment to ensuring that its management team is highly qualified and dedicated to ensuring safe operation of the plant. Because MP&L has demonstrated its management competence, there is no merit to the requested license modification and it should be denied.

The second proposed license modification requests "implementation and verification of corrective actions for all identified deviations from requirements". As described above, MP&L has corrected all deviations identified from requirements. In doing so MP&L has applied its QA program, which fully complies with 10 CFR 50 Appendix B requirements. This QA program provides confidence that all NRC requirements are implemented, among other things, by independently verifying corrective actions for any identified deficiencies. In addition, the NRC Region II staff, by its program of resident and special inspections, determines licensee compliance with

regulations and licensee fulfillment of commitments to those regulations governing the design, construction, and operation of GGNS. The NRC Region II program includes a comprehensive inspection program which identifies deficiencies and tracks these deficiencies until adequate licensee corrective action has been implemented. Therefore, modification of the operating license is (1) not warranted for the reasons set forth in Sections V and VI, and, (2) completely superfluous since the NRC regulations (10 CFR Part 50 Appendix B) and inspection practices already provide for verification of corrective actions.

VIII. Irrelevant, Immaterial
Statements and Allegations

The JULEP petition is fraught with irrelevant and/or immaterial statements and allegations which form the premise for many of JULEP's arguments. We have already cited inaccuracies and shortcomings in the characterization of the diesel generator resolution.

Another such irrelevant and immaterial allegation concerns the removal of the Director of OIA. [JULEP petition, para. 26, p. 8]. That matter is not germane to the licensing and operation of Grand Gulf.

Furthermore, the JULEP assertion of cost overrun, increased utility rates and delays ["JULEP petition, para. 9, p. 3] are not germane to the NRC's concern with enforcement actions to protect public health and safety.

XI. Conclusion

The scope of relief available pursuant to a 2.206 petition is limited to revocation, suspension or modification of the existing low power license. All other forms of relief are inappropriate as beyond the scope of a 2.206 petition and should be dismissed.

The technical matters raised by JULEP does not meet the standard for issuance of a show cause order (whether substantial health or safety issues have been raised) because all technical matters raised have been or are being adequately addressed by the NRC staff and the Licensee. Thus, that much of the requested relief which is within the scope of 10 CFR 2.206 should be denied.

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- 1 42 USC 2133, 2235; 10CFR 2.104, 2.105
- 2 Lorion v. U. S. Nuclear Regulatory Commission, 712 F.2d 1472, (D.C. Cir.
1983)
- 3 Natural Resources Defense Council, Inc. v. U. S. Nuclear Regulatory
Commission, 606 F.2d 1261, 1265, (D.C. Cir. 1979).
- 4 In uncontested operating license proceedings, the operating license does
not "automatically" issue. Rather the NRC must make all findings set
forth in 10CFR 50.57. Washington Public Power Supply System, et al.
(WPPSS Nuclear Project No. 2), ALAB-722, 17 NRC 546, 553, n. 8 (1983).
- 5 Consolidated Edison Company of New York (Indian Point, Units 1, 2 and
3), CLI-75-8, 2 NRC 173, 175 (1975).
- 6 MAEC-84/0006, January 11, 1984
- 7 Id.
- 8 Id.
- 9 AECM-84/0283, May 24, 1984
- 10 AECM-84/0207, April 18, 1984
- 11 MAEC-82/0242, October 20, 1982
- 12 AECM-83/0431, August 29, 1983
- 13 AECM-83/0298, September 23, 1983
- 14 MAEC-84/0144, April 18, 1984
- 15 AECM-83/0681, November 1, 1983
- 16 AECM-83/0750, November 21, 1983
- 17 AECM-84/0191, April 10, 1984
- 18 AECM-84/0267, May 1, 1984
- 19 AECM-83/0630, September 30, 1983
- 20 AECM-84/0240, April 20, 1984
- 21 Report of Meeting with Representatives of Transamerica Delaval, Inc.
Owners Group, Ralph Caruso, NRC Staff, MAEC-84/0044, February 2, 1984.

- 22 AECM-84/0271, May 6, 1984
- 23 MAEC-84/0195, May 22, 1984
- 24 AECM-84/0103, February 20, 1984; AECM-84/0113, February 26, 1984;
AECM-84/0226, April 17, 1984; and AECM-84/0271, May 6, 1984
- 25 MAEC-84/0195, supra
- 26 AECM-84/0241, April 18, 1984; Meeting with NRC, April 3, 1984
- 27 AECM-83/0689, October 26, 1983
- 28 Id.
- 29 AECM-84/0240, supra
- 30 Id.
- 31 Id.
- 32 MAEC-84/0160, April 25, 1984
- 33 WPPSS Director's Denial, DD-84-7, Supra, at 32-33
- 34 Id. at 29-33.
- 35 MAEC-84/0283, supra