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Docket Number 50-346

License Number NPF-3

Serial Number 2995

October 20, 2003

Mr. James E. Dyer  
Director  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
One White Flint North  
11555 Rockville Pike, Mail Stop O-5 E7  
Rockville, Maryland 20852-2738

Subject: Response to 10 CFR § 2.206 Petition Filed by Greenpeace

Dear Mr. Dyer:

On August 25, 2003, Greenpeace, acting on behalf of the Nuclear Information & Resource Service ("NIRS") and the Union of Concerned Scientists ("UCS"), filed a Petition under 10 CFR § 2.206, which requests the Nuclear Regulatory Commission ("NRC") to take enforcement action against FirstEnergy Nuclear Operating Company ("FENOC" or the "Company") in connection with operation of the Davis-Besse Nuclear Power Station ("Davis-Besse"). The Petition requests that the NRC:

1. take enforcement action against [FENOC] for failure to live up to their commitments made in response to the NRC's October 1996 10 CFR 50.54(f) letter. . . .
2. take enforcement action against [FENOC] for the numerous design basis violations dating back to the date of licensure . . . .
3. suspend the license and prohibit restart of the Davis Besse reactor unless and until [FENOC] has adequately addressed all 1000 design basis deficiencies identified in 1997.
4. suspend the license and prohibit restart of the Davis Besse reactor unless and until [FENOC] has updated its Probabilistic Risk Assessment to reflect the flaws in it [sic] design and licensing basis.

5. suspend the license and prohibit restart of the Davis Besse reactor with any systems in a "degraded but operable" condition.<sup>1</sup>

FENOC hereby responds and requests the NRC to deny the Petition in its entirety. The Petition contains no significant new information, and merely repeats issues and information already known to, and reviewed by, the NRC. Under the NRC's own guidelines, such a petition must fail. Moreover, the issues and events cited in the Petition do not warrant the extraordinary relief requested by Petitioners.

## DISCUSSION

### I. The Petition Presents No New Issues or Information

The NRC's own guidance provides that the NRC should deny a 2.206 Petition where the issues raised are already the subject of NRC staff review and evaluation and the petition presents no significant new information.<sup>2</sup> Consistent therewith, the NRC has repeatedly denied 2.206 petitions where the issues raised had already been, or were being, evaluated by the NRC, and the petitioner presented no new information in support of its request of which the NRC was not already aware.<sup>3</sup>

Applying the NRC's own guidance and case precedent, the instant Petition must fail. This Petition does not raise a single new issue or present any new facts that are not already known to, and currently under review by, the NRC. As the bases for the requested enforcement action, the Petition cites the following:

- An NRC Inspection Report, which states that there was inadequate or incomplete resolution of issues of varying significance identified during the Davis-Besse Design Basis Validation Program ("DBVP"); and
- Licensee Event Reports ("LER") on design basis issues identified since discovery of the RPV head degradation.

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<sup>1</sup> Greenpeace Petition Pursuant to 10 CFR 2.206 (Aug. 25, 2003), at p. 4.

<sup>2</sup> Management Directive 8.11, Part III, Section C(2)(b), as revised (Oct. 25, 2000).

<sup>3</sup> See *Entergy Nuclear Operations, Inc. et al. (Indian Point, Unit 2)*, DD-01-4, 54 NRC 326, 330-31 (Nov. 21, 2001); *Envirocare of Utah, Inc. (Salt Lake City, Utah)*, DD-97-2, 45 NRC 63, 68-69 (Feb. 5, 1997). See also *FirstEnergy Nuclear Operating Co. (Davis-Besse Nuclear Power Station, Unit 1)*, DD-03-03 (Sept. 12, 2003), at pp. 3-5.

Obviously, the NRC is fully aware of the issues and events cited in its own inspection reports and in the LERs. In fact, the NRC has evaluated, or is currently evaluating, the issues raised by Petitioners. And with respect to some of the LERs, the NRC has already invoked its Significance Determination Process, the object of which is the issuance of a determination as to whether the subject events warrant any regulatory action. In short, the present Petition simply rehashes issues and information already known to and reviewed, or under review, by the NRC.

The Director of Nuclear Reactor Regulation ("NRR") has denied similar 2.206 petitions on these very grounds.<sup>4</sup> In fact, one such petition sought to suspend the plant's license and prohibit restart based on plant performance problems, such as errors in design and licensing basis documentation, errors in translating the design of the plant into hardware and procedures, and degraded plant conditions, all of which were documented in NRC inspection reports and plant performance reviews, licensee event reports, and other similar documents.<sup>5</sup> In denying petitioners' requests, the Director held that the requested action was not warranted "because the findings and issues that provided the basis for the requested action had all been evaluated previously during NRC's inspections and assessments of [the plant]."<sup>6</sup>

The same reasoning applies equally here. Because the Petition raises no new issues and presents no significant new information that would warrant additional review under 10 CFR 2.206, the Petition should be denied.

## **II. The Petition Provides No Basis for the Extraordinary Relief Requested**

The Petition requests the NRC to suspend FENOC's license to operate Davis-Besse, and prohibit plant restart on the following grounds:

- unless and until FENOC has adequately addressed the design basis deficiencies identified during the DBVP;
- unless and until FENOC has updated its Probabilistic Risk Assessment to reflect flaws in its design and licensing bases;
- with any systems in a "degraded but operable" condition.<sup>7</sup>

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<sup>4</sup> *Id.*

<sup>5</sup> *Entergy*, 54 NRC at 330.

<sup>6</sup> *Id.* at 331.

<sup>7</sup> *See* Petition, at p. 4.

As explained in detail below, none of the asserted grounds provides a sufficient basis for the extraordinary relief requested.

**A. Design Basis Deficiencies Identified During the DBVP**

Petitioners mischaracterize the purpose and intent of Davis-Besse's original DBVP. The DBVP was initiated in response to NRC's 1996 letter under 10 CFR 50.54(f) to nuclear power plant licensees on conformance with the design process. Davis-Besse's 1997 response to the NRC's 50.54(f) letter concluded that there was reasonable assurance that safety systems were capable of performing their intended functions, but that there were weaknesses in design calculations (such as missing calculations and calculations that did not always provide sufficient detail to verify assumptions and conclusions). Based upon the identified weaknesses in calculations, Davis-Besse initiated the DBVP to provide further assurance that design basis calculations were consistently reflected in the physical plant and controlled documents and contained sufficient information to support the underlying assumptions in the calculations.

Petitioners also appear to misunderstand the results of the DBVP. FENOC's December 17, 1999 letter to the NRC reported that the results of the DBVP identified few items of significance (and no equipment operability or functionality concerns). Only about 50 of the issues identified were categorized under the DBVP as having "important" safety-significance, and only about 12 of those were categorized as "potential non-conforming conditions."<sup>8</sup> Those issues were addressed upon discovery, or were documented in condition reports ("CR") and entered into Davis-Besse's Corrective Action Program.<sup>2</sup> The recommended corrective actions for those issues were completed and the associated CRs closed.

However, at the beginning of 2002, FENOC determined that it had been slow to implement corrective action for other issues identified in the DBVP. Specifically, FENOC determined that a large number of issues had not received corrective action and were the subject of requests for assistance from Engineering. FENOC subsequently determined that these issues either were corrected or have been documented on CRs and entered into the Davis-Besse Corrective Action Program. Additionally although not the intent of FENOC's Latent Issues Review ("LIR"), the LIR did identify some cases in which the prior corrective action for DBVP issues was not adequate. These issues also have been documented on CRs and entered into the Davis-Besse Corrective Action Program.

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<sup>8</sup> Letter from FENOC to NRC, re: Status of the Design Basis Validation Program and the Planned Program to Convert to the Improved Standard Technical Specifications (Dec. 17, 1999), at p. 2.

<sup>2</sup> *Id.*

In accordance with FENOC's normal processes, each CR was evaluated for potential impact on the operability of the plant's systems, structures and components ("SSCs"). Each CR was also reviewed by a Management Review Board to ensure that the proper significance classification and evaluation method is applied to the CR. Additionally, in accordance with Davis-Besse's Restart Action Plan, each CR was then reviewed by the Restart Station Review Board ("RSRB"),<sup>10</sup> to determine whether it presented a potential restraint to restart. As provided in Table 2 of the Restart Action Plan, a condition is designated as a restart action item if it satisfies one or more of seven criteria, including: affects operability, represents a nonconformance with the design basis, or represents a nonconformance with the license or license condition. Those identified conditions that are classified as restart restraints require evaluation for needed corrective actions prior to restart. Those identified conditions that are not classified as restart restraints are being prioritized and scheduled for resolution, which may occur after restart of the plant. This process provides assurance that appropriate corrective actions will be taken prior to restart for those conditions identified by the DBVP that could affect safety.

Petitioners refer to an NRC inspection report issued in February 2003, which states that approximately 200 DBVP deficiencies had, at that time, not yet received corrective action. Since that time, the number of open items has been reduced to approximately 100. Among the remaining open items, only six are designated as restart items. The remaining non-restart items are not safety-significant, do not affect safety function, and are relatively minor. Examples include such things as revising system descriptions, voiding or revising the status of calculations to indicate the calculation is no longer current, and updating calculations to reflect minor revisions that do not affect the calculations' conclusions. The remaining open items have been documented in CRs and entered into Davis-Besse's formal Corrective Action Program. They will be corrected in a timely manner consistent with their safety significance. Therefore, the open DBVP items do not warrant suspension of the license for Davis-Besse.

Furthermore, FENOC is not relying solely upon the DBVP to ensure that the plant conforms with its design basis. For example, as part of its Return to Service Plan for Davis-Besse, FENOC has established and has been implementing a System Health Assurance Plan ("SHAP"). Under this Plan, FENOC performed in-depth inspections and reviews of five safety systems, including reviews to verify that the systems conform to their design basis. Based upon the initial results of these reviews, FENOC decided to expand the scope of its reviews. The expanded activities included a Safety Function Validation Project ("SFVP"), and five topical area reviews in areas such as seismic, environmental qualification, and fire protection. The SFVP included a review of calculations and testing for ten systems to verify that the systems can perform their safety functions. The review of these fifteen systems under the SHAP and SFVP comprise

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<sup>10</sup> The RSRB consists of site managers with independent oversight provided by the nuclear quality assurance organization.

approximately 99% of the core damage frequency and large early release frequency for Davis-Besse. Deficiencies identified during implementation of the System Health Assurance Plan (including the expanded scope) were documented on CRs, reviewed for operability issues and evaluated against Davis-Besse's restart criteria, and are being appropriately corrected in a timely manner consistent with their safety significance.

Not only is FENOC inspecting, evaluating, and correcting, where appropriate, plant safety systems to ensure compliance with the design and licensing bases, FENOC's evaluations and corrective actions are being closely monitored and reviewed by the NRC, through its IMC 0350 process. As aptly explained by the Director NRR in denying a previous 2.206 petition:

The deficiencies in the Davis-Besse design and licensing bases that have been identified by the NRC's inspections or FENOC's reviews have been entered into the licensee's corrective action program as part of the FENOC Return to Service Plan. Additionally, this issue is being tracked under the NRC Restart Checklist "System Readiness for Restart" line item and it must be adequately addressed before the NRC will consider a restart of the plant. Furthermore, the NRC's oversight includes a specific inspection of the licensee's corrective action program. Therefore, [] the licensee's ongoing corrective actions, as monitored by the NRC Davis-Besse Oversight Panel, are addressing this issue . . . .<sup>11</sup>

In summary, the open DBVP items cited by the Petitioners do not provide a sufficient grounds for suspension of the license of Davis-Besse. Those items that affect safety have been designated as restart action items and are being corrected prior to restart. The remaining items are not safety significant and can be corrected after restart. Finally, Davis-Besse's extensive System Health Assurance Plan is providing assurance that plant systems will be able to perform their safety function prior to restart.

#### **B. Design Basis Deficiencies Identified in LERs**

The Petition identifies seven LERs that Davis-Besse submitted to the NRC on design basis issues since mid-2002. The deficiencies documented in these LERs were largely identified by FENOC and promptly reported to the NRC, in accordance with the requirements of 10 CFR 50.73. Not only did FENOC identify and report design basis issues, demonstrating its willingness and ability to comply with requirements, it did so under the very process that Petitioners now attack. In fact, the bulk of the deficiencies referred to by Petitioners were identified as part of FENOC's System Health Assurance Plan.

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<sup>11</sup> *FirstEnergy*, DD-03-03, at p. 26.

Ironically, the LERs cited as bases for this Petition are, themselves, evidence of the success of Davis-Besse's new senior management team in identifying, reporting, and effectively resolving safety issues. Perhaps most ironic, Petitioners cite LER 2002-005 re: clogging of the emergency sump as a basis for this Petition.<sup>12</sup> Not only has FENOC fully addressed the containment sump issues, by rebuilding the entire sump, one of the Petitioners has specifically lauded FENOC for doing so. Mr. Lochbaum of UCS has stated:

The Davis-Besse nuclear plant is the only PWR is (sic) the United States to have addressed the containment sump problem and fixed it. . . . Within a year [of identifying the problem], [FENOC] developed and installed an improved containment sump arrangement that features screens with 25 times the surface area. . . . If you work at Davis-Besse nuclear plant, pat yourself on the back for voluntarily fixing a serious safety problem and being the first PWR in the United States to have done so.<sup>13</sup>

In addition, pursuant to the LER process, these issues have been reviewed by NRC personnel. And, the NRC has already invoked the Significance Determination Process with respect to some of these LERs. Significantly, FENOC considers the conditions reported in the noted LERs to be restart items. Therefore, all such conditions either have been corrected, or will be corrected prior to restart.

In summary, the LERs cited by the Petitioners do not warrant suspension of the license for Davis-Besse. To the contrary, FENOC identified most of these issues itself through its aggressive System Health Assurance Plan, indicating that FENOC is aggressively finding and fixing the design basis problems.

### C. Probabilistic Risk Assessment Updates

Petitioners' second asserted ground reflects a fundamental misunderstanding of the nuclear regulatory framework. Development of a Probabilistic Risk Assessment ("PRA") is not a regulatory requirement, and there is no specific requirement to maintain or update a PRA. In short, a PRA is not a condition of, or requirement for operation, let alone restart.

Moreover, PRAs are typically updated to reflect *permanent* changes to the plant. Conversely, PRAs are usually not updated to reflect temporary changes or modifications. Because design/licensing basis deficiencies or non-compliances must be corrected, they are necessarily temporary in nature, and thus not within the scope of PRA updates. In

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<sup>12</sup> See Petition, at p. 3.

<sup>13</sup> UCS Issue Brief: Pressurized Water Reactor Containment Sump Failure (Aug. 20, 2003), pp. 4, 6.

other words, the design/licensing basis issues asserted by Petitioners either have been, or are being, corrected, and therefore do not warrant any update of the PRA.<sup>14</sup>

To the extent Petitioners seek to modify the scope and/or purpose of the PRA, that is a broader industry issue, and this is not the appropriate forum for pursuit of such actions. The purpose of the 10 CFR 2.206 process is to provide a forum for members of the public to seek enforcement action against a licensee.<sup>15</sup> As stated in NRC's own guidance, "It is the policy of the [NRC] to provide members of the public with the means to request that the Commission take enforcement-related action (i.e., to modify, suspend, or revoke a license, or for other appropriate enforcement-related action, *as distinguished from actions such as licensing or rulemaking*)."<sup>16</sup> Plainly, Section 2.206 is not intended to be used as a platform for airing grievances with the regulator or dissatisfaction with the existing regulatory framework. In fact, the NRC's guidance specifically states that "[t]he staff will not review a petition under 10 CFR 2.206 [where] . . . [t]he request addresses deficiencies within existing NRC rules."<sup>17</sup> Therefore, it is inappropriate to use the 2.206 process as a means of seeking a change in NRC's regulatory process related to updating of PRAs.

#### **D. Degraded but Operable Conditions**

Similarly, Petitioners' third asserted ground reflects a fundamental misunderstanding of the nuclear regulatory framework. Contrary to Petitioners' suggestion, a plant may continue to operate with systems in a "degraded but operable" condition. NRC's Generic Letter 91-18, which provides licensees a process to support continued operation while resolving degraded or nonconforming conditions, expressly states:

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<sup>14</sup> Similarly, a PRA update to include the "rate" of design errors, as suggested by Mr. Lochbaum during the Petition Review Board public meeting, is not required and is not feasible. Contrary to Mr. Lochbaum's suggestion, design errors cannot be analogized to operator errors and equipment failures, in this context. The rate of operator errors is based on recurring activities, and the rate of equipment failures is based on continued use of the same, or replacement, equipment. This is not the case with design errors. As design errors are corrected, there is no basis to assume that the new design will have the same error rate, going forward, as the old design.

<sup>15</sup> See 10 CFR 2.206(a). See also *Envirocare*, 45 NRC at 68-69 ("Since the inception of the section 2.206 process, the Commission has consistently stated that the purpose of section 2.206 is to provide the public with the means for participating in the enforcement process.").

<sup>16</sup> Management Directive 8.11, at p. 1 (emphasis added).

<sup>17</sup> *Id.* at Part III, Section C(2)(d). See *Entergy*, 54 NRC at 337-38 ("[A] request that the NRC institute a proceeding under section 2.202 due to perceived deficiencies in existing NRC regulations is not within the scope of section 2.206. . . . Consequently the Petitioners' request . . . does not meet the requirements for review under section 2.206.").



The license authorizes the licensee to operate the plant in accordance with the regulations, license conditions, and the Technical Specifications (TS). **If an SSC is degraded or nonconforming but operable, the license establishes an acceptable basis to continue to operate and the licensee does not need to take any further actions.** The licensee must, however, promptly identify and correct the condition adverse to safety or quality in accordance with 10 CFR Part 50, Appendix B, Criterion XVI. The basis for this authority to continue to operate arises because the TS contain the specific characteristics and conditions of operation necessary to obviate the possibility of an abnormal situation or event giving rise to an immediate threat to public health and safety. **Thus, if the TS are satisfied, and required equipment is operable, and the licensee is correcting the degraded or nonconforming condition in a timely manner, continued plant operation does not pose an undue risk to public health and safety.**<sup>18</sup>

In sum, as long as a system is operable, the Davis-Besse Technical Specifications and NRC's Generic Letter 91-18 permit continued operation, even if the system is "degraded."

FENOC also has corrected, or will have corrected prior to restart, the majority of the "degraded but operable" conditions that have been identified during this refueling outage. Although some "degraded but operable" conditions identified during this outage may remain open, they do not prevent restart under the existing regulatory framework.<sup>12</sup> Furthermore, as explained in the foregoing section, a Section 2.206 petition is not the appropriate tool for effecting a change to that framework.

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<sup>18</sup> Generic Letter 91-18, Rev. 1: Information to Licensees Regarding NRC Inspection Manual Section on Resolution of Degraded and Nonconforming Conditions, Atch 1 -- NRC Inspection Manual Part 9900: Technical Guidance on Resolution of Degraded and Nonconforming Conditions, at pp. 4-5 (Oct. 8, 1997) (emphasis added).

<sup>12</sup> Some conditions may remain "open" at restart, even though the technical issue has been corrected. For example, some conditions may remain "open" due to highly conservative, long-term corrective actions, such as future contract negotiations, implementation of proposed long-term modifications, and planned system testing during worst-case conditions (e.g., during peak summer months). To the extent "open" technical issues may remain, they typically involve redundant or duplicative equipment or components, and, in any event, do not prevent the system from performing its intended safety function.

### III. License Suspension Is Not Warranted Under NRC's Enforcement Policy

It is within the NRC's discretion to suspend or revoke a license.<sup>20</sup> In exercising this discretion, the NRC has held that: "Not every violation of the Commission's regulations or licenses compels suspension or revocation of a license."<sup>21</sup> The NRC Enforcement Policy provides examples of the types of violation that may warrant license suspension. Some of those examples include: when a licensee "*has not responded* adequately to enforcement action," or when a licensee "*interferes* with the conduct of an inspection or investigation."<sup>22</sup> Such a case cannot be made against FENOC. The record demonstrates that FENOC has been responsive and cooperative in all NRC inspections occurring since the discovery of the reactor head degradation in March 2002, including the NRC's inspection of the design basis issues cited in the Petition.

The Enforcement Policy also states that, "[o]rdinarily, a licensed activity is not suspended for failure to comply with requirements where . . . adequate corrective action has been taken."<sup>23</sup> FENOC satisfies this test. As set forth in detail above, FENOC has taken, and continues to take, extensive corrective and preventive measures to address the design/licensing basis issues cited by Petitioners.

In sum, the NRC, clearly and repeatedly, has expressed that a violation, even one severe enough for enforcement action or civil penalty, is not sufficient in and of itself to warrant the suspension of an operating license. There must be some demonstrated refusal on the part of the licensee to correct a violation or to respond to the NRC. FENOC cannot be so categorized. Therefore, the circumstances do not warrant the suspension of Davis-Besse's operating license, and the Petition should be denied.

### CONCLUSION

The Petition presents no significant new information that would warrant a change of course or position on the part of the NRC. As demonstrated above, the Petition merely repeats issues and facts already known to, and already reviewed or under review by, the NRC. Moreover, the

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<sup>20</sup> 10 CFR § 50.100.

<sup>21</sup> *Sequoyah Fuels Corp. (Gore, Oklahoma Facility)*, DD-86-13, 24 NRC 587, 607 (Oct. 15, 1986). See also *FirstEnergy*, DD-03-03, at p. 41.

<sup>22</sup> NRC Enforcement Policy, Section VI.D.2.

<sup>23</sup> *Id.* Even in cases where the violation was found to be deliberate or willful, the NRC has refused to suspend or revoke the operating license. See, e.g., *Northeast Utilities (Millstone Nuclear Power Station, Units 1, 2, and 3)*, Final Director's Decision, DD-00-1, 51 NRC 71, 73-74 (Feb. 15, 2000) (wherein the NRC credited, among other things, the licensee's completion of commitments, effective corrective actions, and changes in plant management and operation in denying the petition).

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Petition disregards the corrective actions taken by FENOC to address these issues, not to mention the numerous other measures being implemented by both FENOC and the NRC, which operate collectively to ensure regulatory compliance and the continued safe operation of the plant after restart. Significantly, under FENOC's existing Restart Action Plan and the NRC's 0350 Process, Davis-Besse will not be permitted to restart unless and until the plant has demonstrated its readiness to operate safely. Accordingly, the Petition does not articulate a sufficient basis for the action requested, and should be denied in its entirety.

Sincerely,



Lew W. Myers

Enclosure

cc: Mr. William D. Travers, NRC Executive Director for Operations  
Mr. James L. Caldwell, Regional Administrator, NRC Region III  
Mr. Jon B. Hopkins, DB-1 NRC/NRR Senior Project Manager  
Mr. Christopher S. Thomas, DB-1 NRC Senior Resident Inspector  
U.S. NRC Document Control Desk  
Mr. James P. Riccio, Greenpeace  
Mr. Paul Gunter, NIRS  
Mr. David Lochbaum, UCS

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Enclosure 1

**COMMITMENT LIST**

THE FOLLOWING LIST IDENTIFIES THOSE ACTIONS COMMITTED TO BY THE DAVIS-BESSE NUCLEAR POWER STATION (DBNPS) IN THIS DOCUMENT. ANY OTHER ACTIONS DISCUSSED IN THE SUBMITTAL REPRESENT INTENDED OR PLANNED ACTIONS BY THE DBNPS. THEY ARE DESCRIBED ONLY FOR INFORMATION AND ARE NOT REGULATORY COMMITMENTS. PLEASE NOTIFY THE MANAGER – REGULATORY AFFAIRS (419-321-8450) AT THE DBNPS OF ANY QUESTIONS REGARDING THIS DOCUMENT OR ANY ASSOCIATED REGULATORY COMMITMENTS.

COMMITMENTS	DUE DATE
None	