

**PROGRESS ENERGY FLORIDA**  
**In re: Nuclear Cost Recovery Clause**  
**Docket 100009-EI**  
**Eighth Request for Confidential Classification**

**REDACTED**

**Exhibit B**

DOCUMENT NUMBER-DATE  
114927 JUN 14 2009  
FPSC-CONFIDENTIALITY CLEARING

**REDACTED**

**PROGRESS ENERGY FLORIDA  
In re: Nuclear Cost Recovery Clause  
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**Exhibit B**

**BATES NOS.  
10NC-OPCPOD3-56-000001  
through  
10NC-OPCPOD3-56-000066**

**ARE REDACTED IN THEIR ENTIRETY**

COM \_\_\_\_\_  
APA \_\_\_\_\_  
ECR  \_\_\_\_\_  
GCL \_\_\_\_\_  
RAD \_\_\_\_\_  
SSC \_\_\_\_\_  
ADM \_\_\_\_\_  
OPC \_\_\_\_\_  
CLK \_\_\_\_\_

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04927 JUN 16 2010  
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**BATES NOS.**  
**10NC-OPCPOD3-57-000001**  
**through**  
**10NC-OPCPOD3-57-000006**

**ARE REDACTED IN THEIR ENTIRETY**

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**BATES NOS.**  
**10NC-OPCPOD3-58-000001**  
**through**  
**10NC-OPCPOD3-58-000011**

**ARE REDACTED IN THEIR ENTIRETY**

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**BATES NOS.**  
**10NC-OPCPOD3-60-000001**  
**through**  
**10NC-OPCPOD3-60-000023**

**ARE REDACTED IN THEIR ENTIRETY**

**PROGRESS ENERGY FLORIDA**  
**In re: Nuclear Cost Recovery Clause**  
**Docket 10009-EI**  
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**BATES NOS.**  
**10NC-OPCPOD3-61-000001**  
**through**  
**10NC-OPCPOD3-61-000030**

**ARE REDACTED IN THEIR ENTIRETY**

**PROGRESS ENERGY FLORIDA**  
**In re: Nuclear Cost Recovery Clause**  
**Docket 100009-EI**  
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**Exhibit B**

**BATES NOS.**  
**10NC-OPCPOD3-61-000208**  
**through**  
**10NC-OPCPOD3-61-000212**

**ARE REDACTED IN THEIR ENTIRETY**

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**BATES NOS.**  
**10NC-OPCPOD3-62-000001**  
**through**  
**10NC-OPCPOD3-62-000005**

**ARE REDACTED IN THEIR ENTIRETY**



## 1.4 Observations

### General

Internal controls will ultimately determine the success of these projects, and the prudence of the company's actions. Many of PEF's internal control systems are still in development and, will continue to evolve as the projects progress. Therefore, staff has examined only the completed portions of the project and internal control structure that are presently in place. Further, any assessment made at this point in time cannot be expected to remain valid for the entire duration of the project activities.

Simply having internal controls in place that appear adequate at the outset cannot ensure that they will be used properly. Verification of adherence to procedures and careful examination of changes to control systems are essential ingredients to evaluating the reasonableness of management's actions. FPSC audit staff believes continued internal and external oversight is necessary over the lifespan of these projects. Of particular importance are internal audits and quality assurance audits which should provide broad coverage of controls, procedural adherence, and project management issues.

FPSC audit staff recognizes that its requests for information required the company to produce a significant volume of documents. Overall, the company created a streamlined process that improved the efficiency of data collection from the prior year. However, audit staff does have concerns about the completeness of the company's responses to some of its requests for information through data requests and company personnel interviews. This is a continuation of existing concerns identified during the 2008 review. Audit staff believes that PEF should work to eliminate these issues in future requests by Commission staff.

### Levy Nuclear Plant

PEF submitted its Combined Operating License Application (COLA) in July 2008. The company requested a 42-month review schedule from the Nuclear Regulatory Commission (NRC). PEF included a request to perform its dewatering efforts and diaphragm wall prior to the issuance of its Combined Operating License. The NRC notified PEF in January 2009 that it will not issue a Limited Work Authorization to complete this work in advance of the Combined Operating License. PEF states that this will impact its original construction schedule by at least 20 months.

On December 31, 2008, PEF signed an Engineering, Procurement, and Construction contract with Westinghouse and Shaw, Stone and Webster to design and build two AP1000 units at its Levy site. The company states there were several reasons for signing this contract in December 2008, including

However, subsequent to PEF signing the Engineering, Procurement, and Construction contract, the NRC decided not to approve the company's Limited Work Authorization on PEF's requested timeline. The parties are currently renegotiating the provisions of the contract. Although the company states the

project costs are still within its original forecast, the impact of this event may have a financial impact on the project.

Prior to signing the Engineering, Procurement, and Construction contract with Westinghouse and Shaw, Stone and Webster, PEF initiated two external reviews of the contract provisions. PricewaterhouseCoopers performed a review of the contract's terms and conditions, while Burns and Roe performed an assessment of the schedule and costs. Each review identified specific findings related to the contract. PEF is working to resolve these outstanding issues. FPSC audit staff believes that the company should continue to closely monitor the status of the findings and observations to ensure the project is designed on time and in keeping with the contract.

PEF contracted with the Joint Venture Team (Sargent & Lundy, Worley Parsons and CH2MHILL) for development and submission of the COLA, submission of the Site Certification Application, and continued support in response to NRC requests for additional information. Since PEF had not selected its Florida site, it requested bids for its Florida greenfield site using the characteristics of the company's existing Shearon Harris Plant in North Carolina. PEF stated it did anticipate additional costs due to the geographical differences of the locations. The Joint Venture Team (JVT) contract for the Levy site has expanded 220 percent over the original contract amount to-date. FPSC audit staff notes the difficulty in estimating costs associated with filing a COLA under the new process used for this wave of plants. According to PEF the increase in the cost of the Joint Venture Team contract has not resulted from errors or inefficiency, but rather in the growth of the scope of work required over time.

#### Crystal River 3 Extended Power Uprate Project

PEF is self-managing its Crystal River 3 Extended Power Uprate (Uprate) project. A significant portion of the project will occur during a scheduled refueling outage in [REDACTED]. During this outage, the company is scheduled to replace 18 major components. This work should increase the unit's output by 28 MWe. The company states it is within its original budget forecasts for this project.

The company is in its final planning stages for the fall 2009 work, and is transitioning to implementation and oversight of the project. The project team is working to finalize the schedule for each component to ensure that all the work can be performed timely and without interference to other planned projects. The company anticipates issuing its final project schedule in July 2009. PEF states the project is within its original budget forecast, and all components are on schedule and will arrive at the Crystal River Energy Complex site prior to the scheduled outage.

The company has made changes to the management organization during 2009. Management of the Uprate project is now within the Nuclear Projects Organization. Previously, the Levy project and the Uprate project were under the same organization. The company states that the new organization will provide a better management structure as the projects move from planning to construction.

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**What analysis preceded the signing of the Engineering, Procurement, and Construction Contract for the Levy project?**

In April 2008, the company acknowledged, through a Letter of Intent with Westinghouse, its intent to build two AP1000 nuclear units at the Levy project site. The agreement stated that PEF was to receive [REDACTED]

[REDACTED] Prior to signing the Engineering, Procurement, and Construction contract with Westinghouse and Shaw, Stone & Webster, PEF commissioned two outside consults to evaluate the viability of the anticipated contract. One study, by PricewaterhouseCoopers, analyzed the terms and conditions of the contract, while the other review, by Burns and Roe, evaluated the pricing and schedule timeline being negotiated by the companies. PEF used the information from these studies to evaluate and negotiate the final Engineering, Procurement, and Construction contract with Westinghouse and Shaw, Stone & Webster prior to its execution.

**PricewaterhouseCoopers Review**

Due to the specialized subject matter of the Engineering, Procurement, and Construction contract, the company chose to employ an outside auditing firm to review the proposed terms and conditions. PEF has an ongoing relationship with PricewaterhouseCoopers (PwC) for independent auditing services and this review was conducted under that existing contract. The review was conducted during May and June 2008. PwC was initially provided a draft copy of the contract dated January 23, 2008 and subsequent updated drafts of relevant articles and exhibits as they became available.


[REDACTED]

[REDACTED]

[REDACTED] PEF states it modified Section 6.2 of the final contract to resolve these concerns.

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<sup>2</sup> PricewaterhouseCoopers DRAFT Comments of EPC Contract. June 11, 2008. Pg 1of 21.



PEF's project management team, along with the company's Audit Services Department, developed a management response and action plan based on PwC's assessment. After resolving all of observations identified in the report, PEF management modified the terms of its draft Engineering, Procurement, and Construction contract. These changes were incorporated into the final version on December 31, 2008.

**Burns and Roe Review**

The consortium of first-wave utilities<sup>5</sup> agreed there was value for an independent third-party to review the AP1000 design and schedule package prior to its delivery. The consortium entered into a joint agreement with Burns and Roe to perform a two-part review of the AP1000. Due to each company negotiating its own Engineering, Procurement, and Construction contract and the proprietary information involved, the first part of the assessment would be a review of the AP1000, as if it were to be built on a "neutral" site. This information and related costs would be shared between the utilities to minimize the costs of the review. The second component of the review would be location-specific for each utility, and the results would be made available only to that company.

PEF entered into an agreement with Burns and Roe in March 2008, and the review work was completed in early November 2008. Burns and Roe identified 82 findings and 146 observations related AP1000 design and location-specific issues. PEF management reviewed the findings and states that its goal is to resolve or mitigate all of the identified Burns and Roe findings by the end of 2009. Currently, PEF has resolved 45 of these and the remaining 37 findings have been assigned a risk mitigation strategy and estimated completion date.

Once the company has addressed the findings, PEF management states the company will work to address and resolve all of the observations identified within the review. The observations identified are items that should be brought to PEF management attention, but do not require specific action. An observation may indicate a trend that could lead to potentially negative impacts. FPSC audit staff agrees that the company should closely review all the additional observations to ensure the project is designed on time and in keeping with the Engineering, Procurement, and Construction contract.

Although the AP1000 reactor design has been certified by the NRC through its review of the nuclear safety engineering components, Westinghouse has not completed the engineering

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<sup>3</sup> Ibid., Pg 2 of 21.

<sup>4</sup> Ibid., pg 2 of 21.

<sup>5</sup> The First-Wave utilities consist of the first four utilities that agreed to purchase the AP1000 technology from Westinghouse—PEF, Duke Energy, Southern Company and SCANA Corporation.

designs for all of the plant components.

[REDACTED]

- [REDACTED]

- [REDACTED]

- [REDACTED]

- [REDACTED]

[REDACTED]

- [REDACTED]

- [REDACTED]

- [REDACTED]

[REDACTED]

[REDACTED]

<sup>6</sup> Burns and Roe, et al. "Burns and Roe Review and Validation of AP1000 Cost and Schedule," March 2009.  
<sup>7</sup> Ibid.

[REDACTED]

[REDACTED]

PEF stated in its management response to the review that it will continue to monitor the Risk Register on a quarterly basis to verify a current and appropriate plan is in place. FPSC audit staff agrees that PEF should continue to monitor the risk register; however, until Westinghouse and Shaw, Stone & Webster finalizes a risk management process that satisfies PEF's concerns, FPSC audit staff believes monitoring should be completed more frequently than on a quarterly basis.

[REDACTED]

- [REDACTED]
- [REDACTED]
- [REDACTED]

The company states that the Burns and Roe report was valuable in assessing the overall feasibility of the draft Engineering, Procurement, and Construction contract. The company believes the report allowed it to better understand potential problems prior to contract execution. Company management states that Burns and Roe was asked whether PEF should continue with the project, given the identified findings. PEF states that Burns and Roe responded that the report did not identify any issues that would warrant the cancelation of the project.

**What are the key elements of the contract executed for the Engineering, Procurement, and Construction of the Levy Nuclear Project?**

The signing of the Engineering, Procurement, and Construction contract required the selection of the nuclear plant technology. PEF states it completed an extensive evaluation of the available technology and selected the AP1000 design by Westinghouse and Shaw, Stone & Webster as its choice for the new Levy Units. Though selection of the AP1000 technology

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<sup>8</sup> PEF's *Mitigation Strategy for the Risks Identified by Burns and Roe in Its March 2009 Report for Levy Nuclear Project*, Finding 8-1.

<sup>9</sup> Ibid, 8-6

<sup>10</sup> Ibid.

required that Westinghouse would perform the engineering and procurement functions of the project, PEF could have chosen a separate contractor to complete the construction of the plant. PEF decided to employ the consortium of Westinghouse and Shaw, Stone & Webster to handle all phases of delivery and construction of the facility. The company states that it was able to negotiate its best value for the project by using the consortium. The negotiated contract price for contractor's scope of work for the two units was \$7.65 billion. Costs for site preparation, other site facilities, transmission, escalation, and carrying costs account for the remaining balance of the total project cost, currently estimated at \$17.2 billion.

A key element of the Engineering, Procurement, and Construction contract is

[REDACTED]

The Engineering, Procurement, and Construction contract

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

As a result of the NRC's response to PEF's application for a LWA, the contract and identified terms are currently in re-negotiation and subject to revision. PEF management stated its goal is to amend the contract to reflect anticipated regulatory approval timelines while maintaining as many of the current terms and conditions as possible.

**What is the current schedule for the Levy Nuclear Project, and how has it been impacted by the NRC's decision on the Limited Work Authorization?**

Two major regulatory requirements necessary to construct the new units at the Levy site are the Florida Power Plant Siting Act Site Certification Application (SCA) and the NRC

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<sup>11</sup> Contract Number 414310 signed December 31, 2008: Engineering, Procurement, and Construction contract between Progress Energy and Westinghouse / Shaw, Stone & Webster for two AP1000s.

Combined Operating License. The company submitted its request for both of these regulatory approvals during 2008. The SCA was submitted June 2, 2008 and the COLA July 28, 2008.

In the company's original COLA, PEF classified certain work activities as excavation-related as opposed to construction-related activities. Specifically these included the following:

- ✦ Installation of permanent reinforced concrete diaphragm wall to facilitate dewatering and excavation of the nuclear islands.
- ✦ Pressure grouting<sup>12</sup> of rock below the nuclear island foundations roller compacted concrete bridging mats to facilitate dewatering of the excavation for the nuclear island.<sup>13</sup>

On September 5, 2008, the NRC requested that PEF revise its Limited Work Authorization to include the diaphragm wall and grouting work required for excavation. On September 12, 2008, PEF amended its LWA application to include these two critical work elements.

PEF states that at the time it submitted its COLA, the NRC was still evaluating the requirements for the type of work to be included in its LWA scope. Specifically, the NRC was refining its definition of excavation work and construction work. The company states that it filed its request based on its understanding of the regulatory requirements at the time.

[REDACTED] PEF management states that the exclusion of this work in the original application did not have an impact on the NRC's final ruling on the LWA application.

The NRC docketed PEF's application on October 6, 2008 and issued a letter stating that the agency anticipated issuing its review schedule within 30 days. Along with docketing the application, this correspondence included additional Requests for Additional Information and responded to PEF that:

Although our acceptance review determined that the [Levy project] COLA is complete and technically sufficient, the complex geotechnical characteristics of the Levy County site require additional information in order to develop a complete and integrated review schedule . . . Because of the scheduling uncertainty in the areas of geotechnical science and structural engineering, the NRC staff does not intend to commence a review of these areas until all associated RAIs are sufficiently answered. For all other sections of the [Levy project] COLA, the NRC staff intends to commence review based on the availability of resources . . . Because of the complexity of the site characteristics

<sup>12</sup> Pressure grouting is the underground injection of a concrete-like, slurry material into porous rock to prevent water intrusion.

<sup>13</sup> Progress Energy letter to the Nuclear Regulatory Commission. "Application for Combined License for Levy Nuclear Power Plant Units 1 and 2: NRC Project Number 756." July 28, 2008. pg. 5.

<sup>14</sup> Burns and Roe, et al. "Burns and Roe Review and Validation of AP1000 Cost and Schedule," March 2009.

Combined Operating License approval process and additional time to complete the pre-safety construction work previously identified in the LWA. The 36-month assessment recognizes that the COLA approval may not be issued within the current NRC schedule dates.

[REDACTED]

PEF management states that they expect Westinghouse and Shaw, Stone & Webster to complete this evaluation sometime in August 2009. The company anticipates the results of this analysis will culminate in a change order and amendment to the current contract.

Therefore, the cost impact resulting from this delay is not currently known. In the near term, the company states that it anticipates the delay will defer a portion of the project's cost, between [REDACTED] through the issuance of the Combined Operating License. Determining the total financial impact on the project will require completion of negotiations with Westinghouse and Shaw, Stone & Webster and the company's evaluation of the current financial conditions. In addition to the company's request for contract renegotiations, PEF issued on April 30, 2009 a partial suspension to the EPC contract for work on the Levy project. PEF does not anticipate issuing an updated schedule until after these negotiations are finalized.

In light of the NRC's delay in issuing the review schedule for the company's COLA by the end of 2008, PEF provided its rationale for moving forward with the contract signed on December 31, 2008. The company believed its actions were reasonable, given the years of negotiations with the consortium which ensured that the [REDACTED] [REDACTED]<sup>18</sup> However, company management states that the company did not conduct a formal cost benefit analysis prior to signing the contract in December (outside of the cost-benefit analysis of the needs determination proceeding).

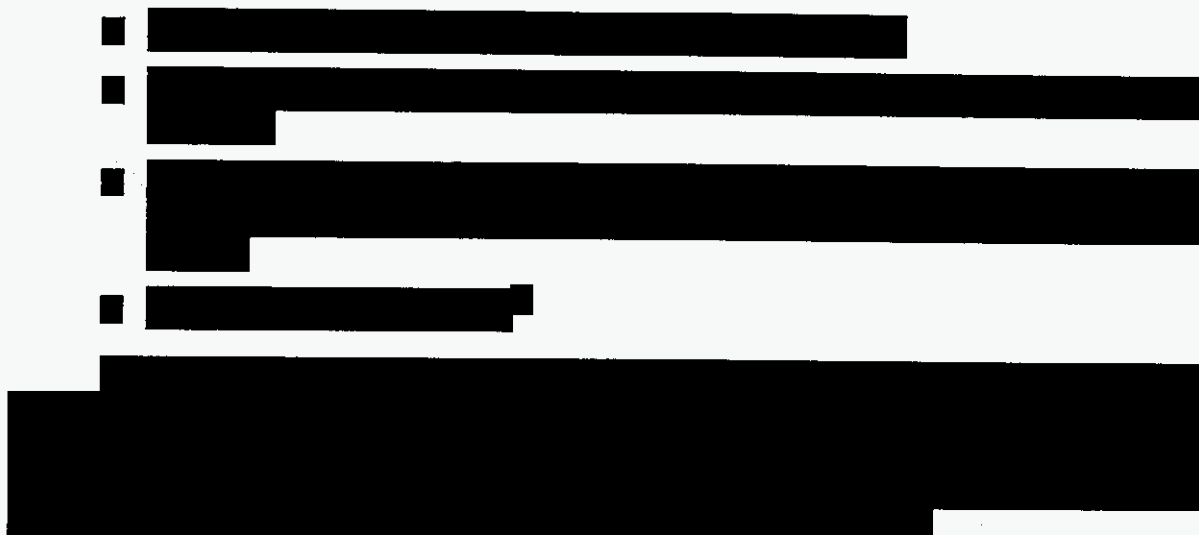
The company states a major factor influencing its decision was [REDACTED]

[REDACTED]

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

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<sup>18</sup> PEF's response to FPSC Data Request-Levy 7.4.



In February 2009, the NRC provided PEF with its anticipated review schedule for the Levy COLA. **EXHIBIT 2** details the current Combined Operating License review timeline issued by the NRC.

PEF Levy Units 1 and 2 Combined Operating License Review Schedule Issued by the NRC February 2009	
Key Events	Target Timeline
<b>Acceptance Review</b>	
Docketing Decision Letter Issued/Acceptance Review Complete	10/06/2008
Review Schedule Established/Schedule Letter Issued to Applicant	02/18/2009
<b>Safety Review</b>	
Phase A - Requests for Additional Information (RAIs) and Supplemental RAIs	02/11/2010
Phase B - Advanced Final Safety Evaluation Report (SER) without Open Items	09/30/2010
Phase C - ACRS Review of Advanced Final SER	02/10/2011
Phase D - Final SER	05/05/2011
<b>Environmental Review</b>	
Phase 1 - Environmental impact statement (EIS) scoping summary report issued	05/28/2009
Phase 2 - Draft EIS issued to EPA	10/26/2009
Phase 3 - Response to public comments on draft EIS issued	04/06/2010
Phase 4 - Final EIS issued to EPA	09/22/2010
<b>Hearing and License</b>	
Commission or Atomic Safety and Licensing Board hold mandatory hearing	TBD
Commission decision on issuance of COL application	TBD

**EXHIBIT 2**

*Source: Nuclear Regulatory Commission*

<sup>19</sup> PEF Response to FPSC Data Request Levy 7.4.

**What is the current schedule for the Crystal River 3 Extended Power Uprate project?**

In 2007, the company completed Phase 1, or the Measurement Uncertainty Recapture, resulting in an increase of 12 MWe for the unit. In the fall of 2009, the company is scheduled to complete Phase 2, a large portion of the balance of plant replacements, which should result in an increase of 28 MWe. In 2011, the company plans to perform the necessary work on the reactor components, which will have the greatest increase in output of 140 MWe, and conclude Phase 3. The project is scheduled to be closed out following testing in 2012. Once complete, the impact of the Uprate should increase output by 180 MWe (20.1 percent). Along with the Phase 3 work necessary to modify the unit's output, the company will construct a new cooling tower for the unit in 2010. The cooling tower is necessary to alleviate the rise in discharge water temperature created by the higher operating temperatures resulting from the unit Uprate.

In conjunction with the Phase 2 Uprate work scheduled for fall 2009, two additional and separate, major projects will be completed during this outage: a steam generator replacement and refueling for the unit. The costs associated with these projects are not included in FPSC Docket 090009-EI; however, the company must ensure that each project's schedule does not impact the overall workflow. Currently, the company anticipates the Uprate work to take [REDACTED] within the outage scheduled for [REDACTED]. The company has included an extra [REDACTED] into the outage schedule for any unforeseen delays. The Uprate management team has been working with senior management to ensure that all three projects scheduled for the 2009 outage can be performed in tandem without adverse effects.

The company is currently finalizing its schedule for the Phase 2 Uprate work. The steam generation replacement project will drive the critical path for the outage. Therefore, the Uprate work will be scheduled within the total steam generation replacement and refueling window. The project controls scheduling manager combined the 12 Uprate work schedules (which include all 18 major component replacements) into a master schedule in April 2009. After adjustments are made, a final Uprate schedule of work will be issued by July 2009. Along with coordinating the 12 components of the Uprate project, the management team is working with the steam generation project team and the maintenance project team to ensure that the workflow for all of the projects can be completed concurrently. Because of the significant amount of work planned for Crystal River 3 during the fall 2009 outage, each project is reliant on the successful implementation of the other projects to ensure that there is no delay of the restart of the unit in December 2009. The major components of the Uprate work scheduled for fall 2009 are shown in **EXHIBIT 4**.

As part of the Phase 2 work, the company scheduled to replace two low pressure turbine rotors. The Company states it has closely monitoring the industry activities associated with the September 2008 low pressure turbine failure at the D.C. Cook nuclear plant in Michigan. These components are of a similar design as the CR3 Uprate rotors. Once the relevant technical issues are fully understood and reviewed, PEF will finalize its decision concerning which turbine rotor design to install at CR3. This may prevent this work from being completed in Phase 2.

- ◆ Resources (Progress Energy Staffing, Project Staff Augmentation)
- ◆ Project Management (Levy EPC Implementing Procedures).

Westinghouse and Shaw, Stone and Webster reports to PEF, on a monthly basis, the status of its Key Performance Indicators related to the project. PEF will use these indicators to monitor and evaluate the status of the project over time. Requiring this information be provided on a monthly basis will allow PEF to maintain a constant focus on status of its contractors. The indicators provided by Westinghouse include:

- [REDACTED]
- [REDACTED]
- [REDACTED]
- ◆ [REDACTED]

**Crystal River 3 Extended Power Uprate**

The company stated in its original *Integrated Project Plan*, issued March 2008, that the expected cost of the Crystal River 3 Uprate project would be approximately \$461.5 million. At the end of 2007, the company states that it had spent \$41.4 million on the project. In the most recent update to the *Integrated Project Plan*, issued March 2009, the company states that the total cost will be approximately \$461.4 million. At the end of 2008, the company states it had spent \$111.1 million on the project. The updated *Integrated Project Plan* did not identify any factors that would cause the project to experience an increase in costs. The unit's joint owner's responsibility is for 8.2 percent of the costs.

To ensure that the project remains on budget, the project team states focus is maintained on costs throughout each stage of the process. Each the monthly management report includes a section on the costs. These reports detail the overages or underages on cost and spending levels. The company states that this allows the company to accurately assess at any point in time, the overall spending for the project.

The Projects Control unit provides a centralized organization point for each of the projects being performed on the Crystal River 3 Unit. This unit is charged with monitoring the overall status of each project to ensure that the costs and schedules are maintained in accordance with the master schedule. This requires continued interaction with each project management team.

In addition to monitoring the costs, the company has in place a control to ensure that all additional costs are documented and approved. The company requires that an *Integrated Change Form* is completed for any task that is outside of the agreed-upon scope and price. This form must be completed by the individual requesting the change, and approved by the appropriate

With the signing of the EPC contract, the Nuclear Construction group charged Sargent & Lundy and Worley Parsons, to expand the current risk assessment to include more detailed risks associated with the project, including evaluating the company's risk management platform and database for adequacy. The company states its intent was to assess whether another commercially available product would be beneficial to the project. The assessment included a report on how the company's risk management tool and assessment platform should be developed to effectively manage the project's risk. The assessment evaluated six viable products based on several criteria, and the company selected a new risk management platform, Enterprise Risk Register<sup>®</sup> to manage risk through the design and construction phases of the Levy project.

#### Crystal River 3 Extended Power Uprate

The Major Projects group maintains a risk assessment matrix to monitor and assess the current risks associated with the Uprate project. When a risk is identified by management, it is evaluated for its overall impact to the project and ranked by severity. The project team has established a process to capture and track the project risks from design through implementation. Progress Energy's corporate risk management process consists of:

- \* Establishing Context
- \* Identifying Risk Events
- \* Assessing Probability and Impact
- \* Developing Response and Strategy

The company's Project Risk Management procedure, PJM-SUBS-0008, implemented in March 2009, provides detail on how to evaluate and assess the risk probability and impact on a project. In accordance with procedures, the management maintains a risk register and matrix for all the identified risks associated with the Uprate project. Each risk is assigned to a risk manager who is responsible for monitoring and resolving the risk concern.

Prior to the [REDACTED] outage, Uprate management must resolve, mitigate, or create a contingency plan for all open "high" severe and critical risks. Along with the Uprate project, senior management must also ensure that all three projects has resolved or mitigated all "high" severity risks prior to the outage. This should ensure that there will not be a negative impact to the Uprate work due to a risk oversight of another unit.

The Uprate project management team states that this list is fluid and continually evolves. While items may be resolved at any time, an additional risk may be added or the status of an existing risk may be elevated to a higher level of concern. In late 2008, the company's management reports documented concerns with the effective use of the risk matrix by the project team. PEF management stated that extra emphasis was placed on the risk analysis by the project team, including assigning a manager to oversee the process. The issue was resolved in early 2009, and FPSC audit staff notes the current management reports no longer list the risk assessment matrix as a concern.

**What are the company's current auditing and quality assurance controls?**

The company's Audit Services Department has increased its focus on auditing the construction projects underway at Progress Energy. In 2008, the audits performed on major construction projects mainly evaluated the financial and operational aspects of the projects. However in 2009, audit management states its focus shifted to more direct construction auditing. This focus will directly examine the risks associated with the projects planning and construction, and include such areas as business and regulatory environments, schedule, quality and inspections, and cost management. The company states that 19 percent of its overall 2009 audit plan is devoted to construction auditing.

**Levy Nuclear Project**

PEF Audit Services Department completed an audit on the Levy County Governance and Controls during March 2009.

[REDACTED]

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

PEF management reviewed each recommendation, developed an action plan assigning ownership of each recommendation, and establishing a completion date.


The Quality Assurance and Internal Audit groups plan several internal Levy project reviews for 2009. Two Quality Assurance reviews are scheduled to be completed during 2009. A Nuclear Oversight audit focusing on new plant development is scheduled for the third Quarter of 2009. The internal audit group has six planned audits in 2009 surrounding the Levy Project, including one assessing the EPC contract.

**Crystal River 3 Extended Power Uprate**

The Audit Services Department completed an internal audit of the Crystal River 3 Uprate project on December 12, 2008.

[REDACTED]





Management responded to the audit report findings and addressed all identified issues.

The Quality Assurance group conducted several vendor oversight trips throughout 2008, and plans to conduct future trips as the Crystal River 3 Uprate progresses and the implementation work begins for the project. These trips occur at specified milestones for product design and manufacturing, or as determined by management. The Quality Assurance group will work with the vendor to correct problems that are identified, resolve issues and keep the project schedule. FPSC audit staff verified that PEF vendor assessments were completed on the major components of the 2009 Uprate project. The company maintains the records of these assessments and monitors the results for future follow-up.

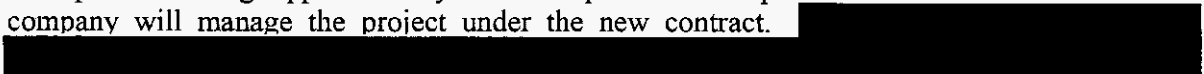
The Crystal River 3 Nuclear Oversight auditing group is charged with inspecting and monitoring the nuclear safety work performed at the Crystal River 3 unit. This group did not complete any nuclear oversight reviews related to the Uprate work scheduled for 2009. Nuclear Oversight management stated that the Uprate work being performed in 2009 relates to the Balance of Plant, and does not pose a nuclear safety threat. Therefore, this group did not evaluate or monitor the production of the components scheduled to be replaced in Phase 2.

### **Are project control activities documented?**

PEF has in place detailed procedures that direct the oversight and control of each project. The company has updated these procedures as each project progressed and developed over time. Additionally, the company developed and is continuing to refine standard procedures for project management, through its *Project Management Center of Excellence*. PEF states that these procedures provide guidance to project teams on the standard practices established by company.

#### **Levy Nuclear Project**

In addition to the current procedures that document the company's project management oversight, the project management team is developing new procedures that directly address the management of the Engineering, Procurement, and Construction contract. The company anticipates creating approximately 33 new policies and procedures to document how the company will manage the project under the new contract.



The company has established a timeline for completing these procedures, with a final date of November 2009.

include how the selection benefits PEF regarding costs, schedule and technical ability along with the name and title of the authorizing manager.

**What are the current controls for contractor management?**

**Levy Nuclear Project**

Oversight of contractors working on the Levy project is performed by continuous engagement between PEF and its vendors, both on the Levy site and the vendor's facilities. There is at minimum weekly phone calls with the Joint Venture Team (Sargent & Lundy, Worley Parsons, and CH2MHILL) and the Owner's Engineer Team (Sargent & Lundy and Worley Parsons) to review work scopes supporting COLA and SCA development/review.

To facilitate contractor oversight, large contracted scopes are divided into individual tasks which may be more closely managed and monitored. Monthly reports provide information relative to scope, budget, invoicing, schedule performance, and cash flow projections. Regular communication with each contractor ensures that the work is progressing as planned and any issues are addressed early on. These communications include periodic meetings, conference calls, and status reports.

As previously noted, all vendors completing nuclear safety work for the Levy New Units must qualify and be included on PEF's Approved Supplier List. Once on the approved list, the vendor must successfully complete evaluations by PEF auditors, Quality Assurance and/or NUPIC.

Due to the size and duration of the Levy Engineering, Procurement, and Construction contract, PEF is establishing policies and procedures that incorporate the specific needs of this project. PEF developed its Levy *EPC Implementing Procedure Development Plan* that lists policies and procedures that are to be developed specifically for the Levy project. These procedures will provide project personnel with details needed to manage the rules and requirements contained in the contract.

[REDACTED]

[REDACTED]

**Crystal River 3 Extended Power Uprate**

PEF has elected to self-manage the Uprate project rather than enter into an agreement with an outside vendor for an Engineering, Procurement and Construction contract. FPSC audit

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<sup>27</sup> PEF Response to FPSC Data Request 1-34b.

**What are the current controls for managing contractor costs and performance?**

Once PEF completes its selection and negotiation, its master contracts contain several provisions that either will protect PEF outright, or share the risk with the vendor completing the work. The company states it protects its interests when defining the scope of work within the contract. The terms and conditions of the contract form a key protection against substandard contractor performance and cost escalation. PEF includes standard provisions within its contracts that cover contingencies such as indemnity, work stoppage, cancellation with or without cause, and dispute resolution. PEF also includes provisions that authorize a right to audit and inspect of work at its discretion.

Another key protection to PEF is the selection of the type of payment. There are three primary types of payment that allow PEF to monitor the progress of the work and verify the work quality as it is being completed. The time and materials pricing method is open-ended, and may require more oversight from the company to ensure the hours worked and materials purchased were all necessary to the completion of the project. It is because of this uncertainty that a time and materials contract will frequently be written to include target pricing as additional protection from cost escalation.

Target pricing allows the company to have flexibility to pay a vendor strictly for the work and materials used, but also include a target price for the vendor to seek to maintain. Target pricing can also contain rewards and penalties that further incent the vendor to stay within the agreed upon pricing. For instance, a vendor coming in under budget may be eligible to share a percentage of the unused portion with PEF. The same is true for going over budget. The vendor may have to share a portion of the costs if it is not able to stay within the predefined amount.

The third form of payment is fixed or firm price. This form of payment offers PEF the most protection due to setting a price that will be paid and what must be done for payment. The vendor submits an invoice, usually upon reaching a predetermined milestone, and PEF has the opportunity to verify the completion and quality of work. This payment offers protection to both PEF and the vendor. The vendor knows when it will receive payments, and PEF knows how much will be paid for the work.

PEF states it also protects its interests during the project by evaluating the credit stability of its vendors. Corporate Treasury and Enterprise Risk Management may evaluate prospective vendors at the request of the contracting department. Evaluations are done at least on an annual basis, with interim evaluations being performed if there is reason to believe that a vendor's financial condition may have changed. PEF monitors markets, industries, news wires, and peer groups and reviews the information to determine if an interim review is necessary. Depending on its evaluation of a vendor, PEF may limit its exposure by using potential liability levels, warranty periods, length of contract and total contract value limits.



[REDACTED]  
FPSC audit staff reviewed PEF contracts provided in response to data requests and verified these provisions are routinely included in its contracts. [REDACTED]  
[REDACTED]

## What contracts are in place for the Levy Project?

PEF initiated 36 contracts greater than \$200,000 relevant to the Levy Project. These contracts are estimated to cost approximately \$7.84 billion at the completion of the project. As discussed below, a scope of work can be issued to a contractor through two methods; competitive bidding or a single/sole source. The following section discusses each method, and highlights its impact on the total costs of the Levy project.

### Competitively Bid Contracts

**EXHIBIT 14** identifies contracts greater than \$1 million for the Levy Project that were awarded using the competitive bidding process. As the exhibit shows, the original contract amount does not always equal the final price. Once the contract is executed, additional work may be identified that was not contemplated in the original scope, thus resulting in a final price exceeding original estimates. The company states that it typically includes provisions in its contracts for invoicing additional approved expenses. If the company identifies a necessary change to the scope, an amendment to the contract can be negotiated with the vendor.

The competitively bid contracts greater than \$1 million are currently estimated to cost \$50,992,465 at completion, and represent approximately one percent of the costs for the Levy Project. FPSC audit staff notes that the estimated final contract amounts for these seven contracts exceed the original amount by \$34,731,478. According to PEF, these increases are not the result of errors or inefficiency by the vendor or company. Rather, they are the result of PEF identifying additions to the scope. The company has documented these additions as directed by its policies and procedures.

### *Joint Venture Team Contract*

As discussed earlier, a master contract is a source document that authorizes a vendor to perform a single task, and/or authorizes future work that has yet to be identified. The work will be assigned to the vendor through a work authorization as an extension of the contract. As shown in Exhibit 14, the JVT contract has four work authorizations during 2008, each over \$1 million. The master contract was competitively bid for work in both North Carolina and Florida.

Since Progress Energy knew the location of the planned construction on its Harris site in North Carolina, it was able to secure bids for COLA preparation for that location. PEF's Florida location was still in the selection process at the time, so the company requested bids for its Florida greenfield site based on its Harris site. PEF stated it was aware the geographical location of Florida would result in higher costs; however, it felt the Florida site costs would be proportionately higher for all bidders. PEF determined awarding both sites, even on an unknown

greenfield site, was cost effective compared to waiting for a known location in Florida and signing separate contracts for each site. The use of multiple awards is a negotiation technique used by PEF to secure the best price possible from the winning bidder.

Levy Units 1 & 2 Project Current Competitively Bid Contracts Greater Than \$1 Million				
Contractor/ Contract Number	Work	Original Contract Amount	Estimated Final Amount	Type Payment
Joint Venture Team 00255934-WA02	COLA Preparation	[REDACTED]	[REDACTED]	[REDACTED]
Joint Venture Team 00255934-WA05	Support to respond to NRC requests for Addtl information	[REDACTED]	[REDACTED]	[REDACTED]
Joint Venture Team 00255934-WA03	SCA support for Levy Nuclear Plant Site	[REDACTED]	[REDACTED]	[REDACTED]
Joint Venture Team 00255934-WA01	COLA Preparation on tasks to support both Levy and Harris	[REDACTED]	[REDACTED]	[REDACTED]
Patrick Energy Services 00409194-WA01 to WA06	Owners Engineering Services	[REDACTED]	[REDACTED]	[REDACTED]
Power Engineers Inc 00262141-WA03 Amd. 1, 2, & 5	Line and Substation Design Study Support	[REDACTED]	[REDACTED]	[REDACTED]
Golder Associates 00080678-WA129	Levy Transmission Route Study	[REDACTED]	[REDACTED]	[REDACTED]
<b>TOTAL</b>		[REDACTED]	[REDACTED]	[REDACTED]

EXHIBIT 14

Source: PEF 2008 Filing Docket 090009; Schedule AE-8

The four work authorizations awarded to the JVT for the Levy site separate the project into different portions; three are specific to the Levy site and one is joint work to share costs with the Harris site, preventing duplication of work during preparation of the shared portions of the two COLAs. Several chapters of the Combined Operating License application are specific only to the selected technology and can be reused between the two sites. The work would have to be repeated for each vendor submitting work for the Combined Operating License. The three work authorizations specific to the Levy project include: COLA preparation, support for responding to NRC requests for additional information, and Levy Site Certification Application support.

FPSC audit staff observed that the four Work Authorizations currently active with the JVT are estimated to be completed for costs well above the original amount. PEF did foresee increased costs for the original Levy work once the Florida site was selected, and all three site specific JVT contracts have grown substantially.

The second work authorization (255934-WA02) currently shows the greatest difference between original cost and amount expended for the COLA development. This work authorization was originally estimated to be [REDACTED] for [REDACTED] to complete pre-work and preparation of the COLA. At the time of this review, 79 additional tasks had been identified and added to WA-02, including environmental studies, responding to requests for additional information from the NRC, and additional fieldwork including the Levy grout test program. The costs of this work authorization surpassed [REDACTED] as of 2008, and are expected to increase to [REDACTED] by completion. According to the company, the increases for these work authorizations are not the result of errors or inefficiency by the JVT or the company. Rather, the additions are a result of the additional information needed to for the regulatory approval process.

During its review of the additional costs, FPSC audit staff identified 12 of the 79 additional tasks that were attributed to the geographical difference between the Harris site in North Carolina, and the Levy site in Florida. Reasons for the additional scope of work include “differences in conditions in the Levy County site and those assumed in the original proposal,” and “Original JV proposal assumed Florida site to be similar to the Carolina site, sites cannot be replicated.”<sup>30</sup> These 12 changes have increased costs approximately [REDACTED] to date.

The JVT work authorization for Site Certification Application support (255934-WA03) has grown from its estimated cost of [REDACTED] to [REDACTED]. This represents an estimated increase of approximately 690 percent. Once the COLA was submitted, PEF issued a new work authorization to authorize support to respond to NRC requests for further information (255934-WA05). This work authorization has also grown from its original price of [REDACTED] to an estimated completion cost of [REDACTED]. Again, PEF states costs incurred have been in response to additional scope for the application process, and not due to error or inefficiency on behalf of PEF or the JVT.

*Additional Contracts Over \$1 Million*

Power Engineers, contract 262141-WA03 (Amendments 1, 2, and 5) is also a contract that has exceeded its estimated original price. This contract is for line and substation design study support, and was originally signed for [REDACTED]. PEF has expanded the original scope, and it is now estimated to be [REDACTED] at its completion. According to PEF, the original contract was for the preliminary line and substation design support study. The amendments were added to complete additional studies including; preliminary line and substation design, providing conceptual substation engineering and line route study services, and substation design and engineering for Levy Transmission. Amendments three and four were not listed since they do not pertain to the Levy Project.

Two additional transmission contracts in 2008 were competitively bid; Golder Associates and Patrick Energy Services. Golder Associates contract is to perform the route selection study, and Patrick Energy Services is to provide Owners Engineering services for the transmission line project. As with the other companies shown, PEF states that these contracts also required additional work added to its scope or additional funding to continued services that increased the costs beyond the original estimates.

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<sup>30</sup> PEF Response to FPSC Data Request Levy 6-1, Bates number 000002.

*Contracts Under \$1 Million*

PEF has two contracts between \$200,000 and \$1,000,000 for the Levy project that were competitively bid. These contracts were issued to Burns & Roe and Sargent & Lundy, and have a combined estimated value of approximately \$1.21 million.

**EPC Contract**

**EXHIBIT 15** details the EPC contract, and the pre-work completed as negotiations were completed. There were five work authorizations issued supporting the EPC contract; four to Shaw, Stone & Webster, and one to Westinghouse. PEF states these work authorizations were completed within the scope of the EPC contract as negotiations were being completed. While listed separately, the costs associated with the work authorizations are included in the final contract price of \$7.65 billion.

<b>Levy Units 1 &amp; 2 Project EPC Contract</b>			
<b>Contractor/ Contract Number</b>	<b>Work</b>	<b>Contract Amount</b>	<b>Type Payment</b>
Westinghouse (EPC Contract) 414310	Contract for delivery and construction of the AP1000 Plant	[REDACTED]	[REDACTED]
<i>Westinghouse 3382-00148</i>	<i>Supply chain, Q. A., project mgt. and engineering services to support the Letter of Intent</i>	[REDACTED]	[REDACTED]
<i>Shaw, Stone &amp; Webster 00300968-00009</i>	<i>Support additional tasks for Units 1 &amp; 2 COD Sched.</i>	[REDACTED]	[REDACTED]
<i>Shaw, Stone &amp; Webster 00300968-00007</i>	<i>Execute limited authorization described in letter of intent</i>	[REDACTED]	[REDACTED]
<i>Shaw, Stone &amp; Webster 00300968-00006</i>	<i>Support of SCA and LWA submittals</i>	[REDACTED]	[REDACTED]
<i>Shaw, Stone &amp; Webster 00300968-00008</i>	<i>Support Units 1 &amp; 2 COD Schedules</i>	[REDACTED]	[REDACTED]
<b>TOTAL</b>		[REDACTED]	[REDACTED]

(\*)—The costs associated with these contracts were incorporated into the total EPC Contract price when it was initiated on December 31, 2008.

**EXHIBIT 15**

Source: PEF Filing Docket 090009: Schedule AE-8

Single/Sole Source Contracts

PEF reported several contracts initiated using the company's single/sole source process. EXHIBIT 16 lists the current single/sole source Levy contracts and work authorizations that are greater than \$1 million.

Levy Units 1 & 2 Project Current Sole Source Contracts Greater Than \$1 Million				
Contractor/ Contract Number	Work	Original Contract Amount	Estimated Final Amount	Type Payment
Westinghouse 00003382-00128	Levy price finalization support	[REDACTED]	[REDACTED]	[REDACTED]
Shaw, Stone & Webster 00300968-00004	Levy price finalization support	[REDACTED]	[REDACTED]	[REDACTED]
Shaw, Stone & Webster 00300968-00002	Conceptual design and site characterization	[REDACTED]	[REDACTED]	[REDACTED]
NuStart Energy Development N/A Annual Membership	Membership agreement for preparation of COLA	[REDACTED]	[REDACTED]	[REDACTED]
Golder Associates 00080678-00111	Transmission corridor studies	[REDACTED]	[REDACTED]	[REDACTED]
<b>TOTAL</b>		[REDACTED]	[REDACTED]	[REDACTED]

EXHIBIT 16

Source: PEF Filing Docket 090009: Schedule AE-8

*Contracts Over \$1 Million*

In 2008, PEF's only new sole source work completed was in support of the EPC contract. PEF issued three work authorizations, one to Westinghouse and two to Shaw, Stone & Webster. The work authorizations were issued as sole source due to Westinghouse being the sole vendor of the selected reactor technology, and to Shaw, Stone & Webster as the contracted engineering partner. According to PEF, the scopes of these work authorizations include activities necessary to determine and document detailed costs associated with the Levy Nuclear Project.

The membership agreement listed for NuStart Energy is an annual fee for members of the organization. The members have combined resources for preparation of the COLA. The membership costs may increase throughout the year as additional expenses shared among the members become known, such as legal fees.

The contract awarded in 2007 to Golder Associates was based on prior work completed on the PEF transmission system. PEF stated the work that Golder Associates had completed up to that point could not be assumed by another contractor. If the contract had been competitively bid, another vendor would have to duplicate the work Golder Associates had already completed, at additional expense. This contract currently exceeds the original amount by [REDACTED]



*Contracts Under \$1 Million*

PEF issued one work authorization and four amendments with activity in 2008 that were between \$200,000 and \$1,000,000, but were sole sourced and required justification. FPSC audit staff reviewed these contracts and verified that a sole source justification was completed by the company. The work authorization issued to Shaw, Stone & Webster is based on an established master contract relationship in support of the Levy Project. Three amendments issued to Energy Services represent additional scope to provide supervision and labor for line design. The fourth amendment, issued to Power Advocate Inc, is for contract strategy development and materials market assessment.

*Real Estate Contracts*

**Exhibit 17** lists contracts for the purchase of land that will be used for the Levy project, and the transmission line and sub-station construction. PEF employed an outside realtor, who was paid on a tiered commission, to acquire the land without the seller knowing the buyer's identity. PEF states it still sought to achieve the best possible price for the land; there was no alternative to allow use of competitive bidding.

Levy Units 1 & 2 Project Current Real Estate Contracts				
Contractor	Original Contract Amount	Estimated Final Amount	RFP or Single/Sole Source	Type Payment
Rayonier Forest Resources N/A	[REDACTED]	[REDACTED]	N/A - Purchase of property	[REDACTED]
Daryl M. Carter PEF2008-10-36, PEF2009-3-39	[REDACTED]	[REDACTED]	N/A - Purchase of property	[REDACTED]
The Duncan Companies 293651	[REDACTED]	[REDACTED]	Approved Nominee Agreement	[REDACTED]
Roger & Aare Pavlik PEF2008-10-128, PEF2008-12-121	[REDACTED]	[REDACTED]	N/A - Purchase of property	[REDACTED]
Murray Eugene Bertine & Evelyn Bertine Bailey PEF2008-12-163	[REDACTED]	[REDACTED]	N/A - Purchase of property	[REDACTED]
Russell & Cynthia Varney PEF2008-10-129 PEF2008-12-122	[REDACTED]	[REDACTED]	N/A - Purchase of property	[REDACTED]
<b>TOTAL</b>	[REDACTED]	[REDACTED]		

**EXHIBIT 17**

Source: PEF Filing Docket 090009: Schedules T-8B and AE-8

### What vendor management issues have arisen for the Levy Project?

PEF's Quality Assurance Program conducted quality assurance surveillance on Paul C. Rizzo and Associates, a sub-contractor through Sargent & Lundy, which started December 1, 2008.

[REDACTED] A verbal Stop Work Order was given at that time with a formal, written order the next day.

[REDACTED] On February 11, 2009, PEF verified that the corrective actions had been completed and the remaining elements of the stop work order were lifted, allowing Paul C. Rizzo and Associates to return to unrestricted work activities.

### What current contracts are in place for the Crystal River 3 Extended Power Uprate?

PEF initiated 27 contracts greater than \$200,000 relevant to the Crystal River 3 Extended Power Uprate. These contracts are estimated to cost approximately \$174.38 million at the completion of the project. As previously discussed, a scope of work can be issued to a contractor through two methods; competitive bidding or a single/sole source. The following section discusses each method, and highlights its impact on the total costs of the Crystal River 3 Extended Power Uprate.

#### Competitively Bid Contracts

**EXHIBIT 18** identifies the contracts and work authorizations for the Crystal River 3 Uprate project amounts greater than \$1 million using an RFP process. The competitively bid contracts over \$1 million are estimated to cost \$125,291,817 and represent approximately 67 percent of the costs for all contracts included in the Crystal River 3 Uprate.

#### *Contracts Over \$1 Million*

As shown in the exhibit, the original contract amount does not always equal the final price. The contract that currently shows the greatest difference between the original contract price and amount expended is AREVA's Master Contract 101659, Work Authorization 93. This Work Authorization allows the vendor to provide engineering services for Crystal River 3 Secondary Systems Uprate in support of the Uprate project. While this work authorization is fixed price, the company has documented multiple change orders that extend the original scope of work.

Contract activity in 2008 included four additional items that were competitively bid. PEF expanded the scope of the AREVA Work Authorization 93 (Amendment 7) to now include the development of Engineering Change Documents to replace the Main Turbine Bypass Valves at

the Crystal River 3 unit. This amendment is fixed price with payments to be made upon completion of defined milestones.

PEF also issued two work authorizations on existing contracts. Mesa Associates (221186-WA24) for discharge canal cooling tower civil engineering. This work authorization is based on time and materials with a target price. MHF Solutions, Inc. (47083-WA08) was awarded a fixed price work authorization for large component radioactive waste disposal. PEF added one new contract in 2008 to Barnhart Crane and Rigging (384426). This fixed price contract is for the heavy hauling requirements during the Crystal River 3 Uprate.

<b>Crystal River 3 Uprate Project</b>				
<b>Current Competitively Bid Contracts Greater Than \$1 Million</b>				
<b>Contractor/ Contract Number</b>	<b>Work</b>	<b>Original Contract Amount</b>	<b>Estimated Final Amount</b>	<b>Type Payment</b>
Siemens 145569-WA50	Turbine retrofit, all equipment & installation			
AREVA-NP 101659-WA93	Uprate balance of plant			
AREVA-NP 101659-WA93, Amd 7	Turbine Bypass Valves			
Thermal Engineering 342253	4 Moisture Separator Reheaters			
Yuba Heat Transfer 355217	Feed water heater			
Mesa Associates Inc. 221186-WA24	Civil Engineering POD Cooling Tower			
Barnhart Crane and Rigging 384426	Uprate heavy hauling.			
MHF Logistical Solutions Inc. 47083-WA08	Large component radioactive waste disposal			
<b>TOTAL</b>				

EXHIBIT 18

Source: PEF Filing Docket 090009: Schedule AE-8

*Contracts Under \$1 Million*

PEF has six contracts and work authorizations that are between \$200,000 and \$1,000,000 that were competitively bid, and will play a supporting role in the Crystal River 3 Extended Power Uprate. The combined total of these contracts are estimated to be \$3,363,262 upon completion.

**Sole/Single Source Contracts**

**EXHIBIT 19** lists PEF's single/sole source contracts greater than \$1,000,000. The listed single/sole source contracts are estimated to cost \$41,971,527 at the completion, and represent approximately 33 percent of the costs included in the Crystal River 3 Extended Power Uprate.

<b>Crystal River 3 Uprate Project Current Sole Source Contracts Greater Than \$1 Million</b>				
Contractor/ Contract Number	Work	Original Contract Amount	Estimated Final Amount	Type Payment
AREVA -NP 101659-WA84	NSSS and fuel engineering, LAR support	[REDACTED]	[REDACTED]	+
AREVA -NP 101659-WA61	Flow meter engineering and design	[REDACTED]	[REDACTED]	-
Atlantic Group 3714 Amd 69-74, (72 & 74 belong to PEF)	CR3 R16 Uprate labor and support	[REDACTED]	[REDACTED]	-
Atlantic Group 3714 Amd 53 & 57	Flow meter installation	[REDACTED]	[REDACTED]	-
NuFlo Technologies Sales 44867 Amd 07	Purchase and Installation of leading edge flow meter to recapture measurement uncertainty	[REDACTED]	[REDACTED]	-
<b>TOTAL</b>		[REDACTED]	[REDACTED]	

**EXHIBIT 19**

Source: PEF Filing Docket 090009: Schedules T-8 and AE-8

*Contracts Over \$1 Million*

While there were no new contracts in 2008, the company did expand the scope of its existing contract with AREVA, adding two additional work authorizations. Work Authorization 61 is for the Engineering Design and Licensing for Measurement Recapture, and Work Authorization 84 is for the Uprate Nuclear Steam Supply System Engineering, Fuel Engineering, and Support of the License Amendment Request. Both of these work authorizations were issued to AREVA based on its status as the original equipment manufacturer.

The two Atlantic Group work authorizations listed are part of an existing fleet contract with PEF. This Fleet Contract was initiated through the competitive bidding process; however the winning bidder has a long standing contract to provide services at a pre-negotiated rate. In the case of Atlantic Group, this contract has [REDACTED]

[REDACTED] Atlantic Group is supplying the Uprate project implementation and labor support for many of the projects scheduled for completion during the fall 2009 scheduled outage.

**PROGRESS ENERGY FLORIDA**  
**In re: Nuclear Cost Recovery Clause**  
**Docket 100009-EI**  
**Eighth Request for Confidential Classification**

Exhibit B

**BATES NOS.**  
**10NC-OPCPOD3-62-000114**  
**through**  
**10NC-OPCPOD3-62-000123**

**ARE REDACTED IN THEIR ENTIRETY**

Levy Nuclear Project Response To:  
Florida Public Service Commission  
Audit Document/Record Request

Utility: Progress Energy Florida  
From: Tripp Coston  
Request Number: DR-1 Date of Request: 11/24/09  
Audit Purpose: Nuclear Project Management and Internal Controls Review

**Item Description:**

- 8) Question:  
Please describe:
- a) Any changes made to company planning since January 2009 to date due to potential project risks, and the impact of those changes on the Levy project schedule and costs.
  - b) All risk mitigation strategies developed or considered and indicate which strategies the company is deploying on the Levy units project.

Response a) & b):

**Redacted**

The Company had identified the risk of not receiving Limited Work Authorization (LWA) and this risk was triggered early in the second quarter of 2009. As a result, changes made to company planning since January 2009 include Progress Energy's Management decision in April 2009 to shift the Levy schedule by at least 20 months, and formally withdraw the Levy Limited Work Authorization (LWA) request. This decision was based on the results of continuing discussions with the NRC regarding a reduced scope LWA for Levy, and the associated advantages/disadvantages.

[Redacted]

[Redacted]

REDACTED

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Please see Q7 for additional risk management documents.

10PMA-DR1LEVY-RESPONSE-0000017

10NC-OPCPOD3-62-000140

Levy Nuclear Project Response To:  
Florida Public Service Commission  
Audit Document/Record Request

Utility: Progress Energy Florida  
From: Tripp Coston  
Request Number: DR-1  
Audit Purpose: Nuclear Controls Review

Date of Request: 11/24/09

**Item Description:**

21A) Question:  
Has the company finalized the amendment to its AP1000 EPC contract? If so, please provide a copy of the original contract and all current amendments.

**REDACTED**

Response:

No. [REDACTED]

10PMA-DR1LEVY-RESPONSE-0000043

10NC-OPCPOD3-62-000166



Levy Nuclear Project Response To:  
Florida Public Service Commission  
Audit Document/Record Request

Utility: Progress Energy Florida  
From: Tripp Coston  
Request Number: DR-1  
Audit Purpose: Nuclear Controls Review

Date of Request: 11/24/09

**Item Description:**

- 22) Question:  
Provide a current status and description of any changes in the purchase and provision of long-lead and other equipment, other than those included in the Levy units EPC contract, which may impact the Levy units project.

**REDACTED**

**Response:**

Other than equipment included in the Levy units EPC contract, a purchase order #407759 was issued on 11/11/08 to Southern States for the purchase of 3 switches for a total of [REDACTED]. These switches were received on 8/24/09 and were installed into the Crystal River Switchyard, which is a part of the Levy Transmission Crystal River Plant Sub-Station Phase 1 Project.

10PMA-DR1LEVY-RESPONSE-0000046

10NC-OPCPOD3-62-000169

## REDACTED

**d) Construction cost estimating and cost review process** – The overall observation of Burns and Roe regarding construction cost estimates is that the fully loaded rates (“full-up rates”) are consistent with what the industry typically uses and consistent with a nuclear construction project of this size. The report also states that the unit rates are reasonable and applied consistently in the Contractor’s estimate.

[REDACTED]

The significant factors identified by B&R that could impact the accuracy of the construction labor estimate were productivity of craft workers and the number of non-productive days that were included in the estimate for inclement weather. Both of these issues had been identified previously by Progress and were the topic of multiple discussions and subsequent negotiations with the Contractor. B&R’s Finding regarding craft productivity was consistent with and reinforced the position of Progress that the estimates for actual productive time for each craft worker would directly impact the number hours required to complete the project, [REDACTED].

[REDACTED] If the estimated productivity rate used by Contractor in its estimates turns out to be overstated (productivity is lower than estimated), the actual cost of the labor (and the price to Progress) would be higher than estimated. Contractor’s estimates included as a core assumption, the fact that much of the work would be done in module fabrication shops [REDACTED].

[REDACTED]

**e) Project development and project scheduling process** – The project schedule has improved significantly since the review was initially done by B&R. The detailed review of the schedule by B&R revealed multiple issues with the schedule. For the most part these issues were process related and tied to the maturity of the schedule for the US customers. In fact, as the China plants were the lead AP-1000 plants, the schedule for China was used as the baseline for all AP-1000 projects. Using the China schedule as a baseline created significant logic issues as the China plants are scheduled for completion at least 2 ½ years ahead of the first US plant. The decision to use the China schedule as the baseline has been changed and the quality of the schedule in place today for the US customers is much better than the schedule that B&R reviewed. The

## REDACTED

actual schedule for the LNP is not required by contract to be delivered to Progress until [REDACTED]

[REDACTED]. Progress continues to receive interim updates as the schedule matures.

## REDACTED

- 37). Please state whether the final accepted Burns and Roe report, or any prior draft, provide an opinion or recommendation on the reasonableness or likelihood of success concerning PEF's LWA request to the NRC. If so, please identify which sections of the report these opinions, observations, findings or recommendations may be found.

**ANSWER 37:** The B&R report does not state an opinion regarding the likelihood of success in obtaining an LWA. It mentions LWA in three areas of the risk section of the accepted report.

- Section 8, page 8-2, Table 8-1, item #10 States "Site construction limitations due to current NRC Limited Work Authorization restrictions..." This is in regard to potential risks that were not clearly captured by Contractor in its risk matrix.
- Section 8.4.7, page 8-16, second paragraph, discusses and places in context item #10 from Table 8-1. The intent was to point out the change in LWA rule from 10 CFR 51.10 (e) which expanded the definition of what activities are to be considered construction. This expanded definition led to a risk that work prior to receipt of an LWA would be more restricted than believed prior to the revised Rule. [REDACTED]  
[REDACTED] B&R Finding 8-11 identifies the need to reflect the change in LWA Rule in the construction schedule.
- Section 8, Table 8-3 "AP1000 WEC/SN Risk Register," page 8-35, Risk #40, identifies that a Regulatory Risk existed. This risk "LWA Not Issued as Expected" was identified in the table with the risk transferred to the Owner and therefore no cost was included in the contingency or risk numbers in the price of the project. This was a reasonable approach as the Contractor had no control over the decision to issue an LWA.

## REDACTED

- 38). Based on the information contained in the final accepted Burns and Roe report to PEF Tables 8-1, 8-2 and 8-5, please describe what measures or actions that PEF has or is in the process of taken to address each of the identified findings.

**ANSWER 38:**

Risks identified in Table 8-1 are being incorporated into the Progress LNP project risk matrix. They will be tracked and appropriate mitigation strategies, action items, and action tracking items will be developed.

Findings in Table 8-2 have been included in the Progress action tracking system and specific assignments have been made to track closure on each item.

Table 8-5 identifies the difference between calculated contingency values and actual contingency values included in the EPC. [REDACTED]

REDACTED

Docket No. 100009-EI  
OPC's 2nd Set of Interrogatories  
Witness: Will Garrett

Question # 17

Provide the information supporting the [REDACTED] shown on  
Schedule T-6.3, column (D), exhibit WG-1, page 30, line 21.

Answer

See attached documents, corporate wire transfer form and buyer's closing statement summary.

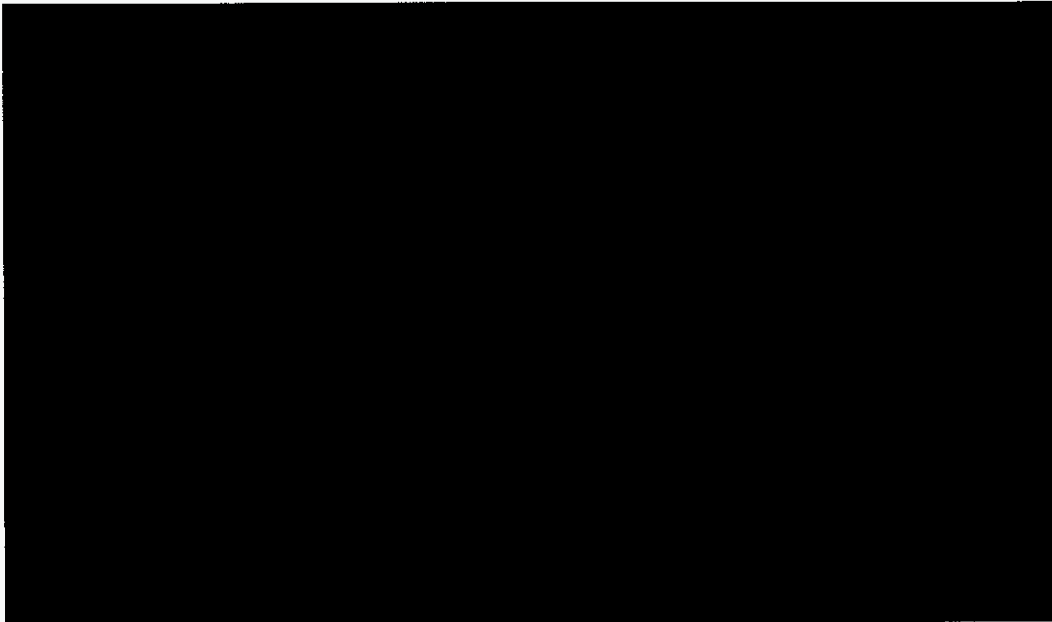
## REDACTED

31. Gary Miller Testimony, May 1, 2009. Why was it prudent to make firm commitments before a reasonable NRC COLA schedule was known?

### Answer

For the purpose of responding to this interrogatory, PEF assumes that the term “firm commitments” refers to any cost PEF has incurred to date on the project. PEF further assumes that “reasonable NRC COLA schedule” means the schedule that PEF originally requested.

PEF determined that baseload electrical generating resources were required for the PEF system in the 2016-2019 timeframe. The Florida Public Service Commission (PSC) concurred and voted unanimously on July 15th, 2008, to approve the Determination of Need for two units at Levy without conditions and subsequently issued its final order on August 12th 2008. The COLA was docketed on October 6, 2008, and the review schedule for Levy was initially expected to be issued in November.



REDACTED

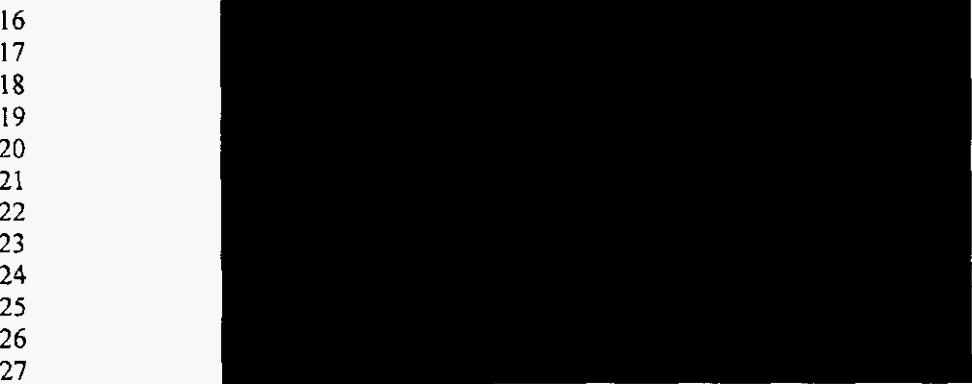
1 (Miller Deposition Transcript, Volume 1, page 43, lines 10-14, Exhibit WRJ(PEF)-3,  
2 Pages 40-41 of 233.)  
3

4 The EPC contract would have required extensive revisions to the cost and schedule if  
5 the Company had known that the LWA would not be issued. It would have also not  
6 placed them in the weak renegotiating position in which they now find themselves.  
7

8 **Q. THE COMPANY APPEARS TO BLAME THE SUSPENSION OF THE**  
9 **PROJECT TOTALLY ON NOT RECEIVING THE LWA. DID YOU FIND**  
10 **EVIDENCE THAT THERE WERE OTHER REASONS FOR THE**  
11 **SUSPENSION?**

12 A. Yes. PEF was clearly concerned about their capital plan for new nuclear units given  
13 the known risks.

14 In an April 15, 2009 letter to the Progress Energy Board of Directors, William D.  
15 Johnson, Progress Energy Chairman, President and Chief Executive Officer states:



29 [Emphasis Added]. (William D. Johnson letter to Progress Energy Board of  
30 Directors dated April 15, 2009 09NC-OPCPOD3-61-000049 Exhibit  
31 WRJ(PEF)-3, Pages 42-62 of 233.)  
32

33 It is clear from this letter to the PGN Board and the Levy Nuclear Project Update  
34 dated April 17, 2009 (and attached to that letter) that many other factors contributed  
35 to the need to adjust the capital plan for new nuclear units.



1 Q. WHAT ARE THE "LANDSCAPE CHANGES" THAT ARE IDENTIFIED IN  
2 THE APRIL 17, 2009 BOARD PRESENTATION?

3 A. The April 17, 2009 presentation to the Progress Energy Board of Directors identifies  
4 the following "Landscape Changes" that have potential to impact the Levy project.

- 5 • **Capital Market Deterioration**
  - 6 ○ Share price near or below book value
  - 7 ○ Our sector no longer holding up
  - 8 ○ Debt market concerns (unsecured)
- 9 • **Federal Energy Policy Landscape**
  - 10 ○ Climate change
  - 11 ○ Nuclear/coal policies
  - 12 ○ Renewables
  - 13 ○ Environmental regulation
- 14 • **Broad economic indicators continue to show weakness**
  - 15 ○ Prospects for late 2009 / early 2010 recovery uncertain
  - 16 ○ Impact on load/energy
  - 17 ○ Customer ability to pay

18 [REDACTED] s  
19 [REDACTED] d  
20 [REDACTED] d  
21 [REDACTED] d  
22 [REDACTED] d  
23 [REDACTED] d  
24 [REDACTED] d

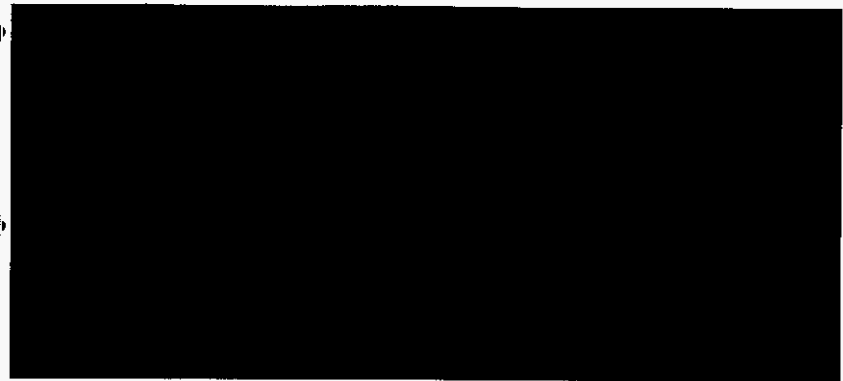
- 21 • **Florida regulatory / legislative climate**
  - 22 ○ Price Impact
  - 23 ○ Potential legislation

25 These landscape changes reveal a large number of concerns held by Progress Energy  
26 executive management. These concerns were evident even before the EPC contract  
27 was signed. Some of these concerns were evident as far back as September 2008  
28 when a schedule contingency strategy was being discussed, continuing up through the  
29 2009 EPC cost spending caps imposed in the fourth quarter of 2008.

30  
31 Q. WHAT CONDITIONS ARE IDENTIFIED TO PROCEED WITH THE LEVY  
32 PROJECT?

33 A. The April 17 Board presentation identifies the following conditions to proceed with  
34 the Levy project:

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12



13 **Q. DOES THE APRIL 17 BOARD PRESENTATION IDENTIFY BENEFITS OF**  
14 **THE PROPOSED SCHEDULE DELAY FOR LNP?**

15 A. Yes it does. The presentation identifies the benefits of delaying the LNP schedule  
16 including providing additional time for and certainty on:

- 17 • Obama Administration nuclear position
- 18 • Financial market and economic rebound
- 19 • Customer/policy maker support
- 20 • PEF rate case, first NCRC prudence hearing
- 21 • Federal policies on carbon, renewables and coal
- 22 • JO participation
- 23 • NRC COLA process
- 24 • Commodity/labor stabilization
- 25

26 **Q. WHAT IS THE RELEVANCE OF THE ABOVE FACTORS TO THE**  
27 **COMPANY'S DECISION TO EXECUTE THE EPC CONTRACT?**

28 A. These concerns are not new. They were all known well before (and on) December  
29 31, 2008 when PEF executed the EPC contract. A more reasonable, cautions  
30 approach given the uncertainty in the LWA schedule and the list of concerns  
31 identified above would have been to continue to support development of the COLA  
32 while delaying signing of the EPC contract until the issuance of the LWA was known  
33 and the above concerns are resolved. Although the incremental impact of the signing  
34 of the EPC contract may not be known at this time, the Company believes that it is

**REDACTED**

1 **Q. WHAT IS THE POTENTIAL IMPACT OF THE COMPANY SIGNING THE**  
2 **EPC CONTRACT WITH THE KNOWN OUTSTANDING RISKS?**

3 A. The economic impact of PEF's execution of the EPC contract is unknown at this  
4 time. The Company is currently attempting to renegotiate the EPC contract with the  
5 consortium. From an overall project cost standpoint they are clearly in a weaker  
6 position to renegotiate the signed contract than if they had delayed signing until the  
7 LWA schedule and other risks were known or clarified. [REDACTED]

8 [REDACTED]

9 [REDACTED]. As a minimum the Company will incur additional carrying costs  
10 due to spending money under the EPC agreement earlier than would have been  
11 required if they had not signed. The answer to this question will become clearer once  
12 the EPC contract has been renegotiated.

13

14 **Q. WHAT IS YOUR CONCLUSION REGARDING PEF'S EXECUTION OF THE**  
15 **EPC CONTRACT ON DECEMBER 31, 2008?**

16 A. In my opinion, the Company's decision to sign the EPC contract on December 31,  
17 2008 given the uncertainty that existed with the LWA, the lack of committed joint  
18 owners and the myriad of other uncertainties including the deteriorating economy, the  
19 chaos in the financial markets and the uncertain federal and state regulatory climate  
20 was not reasonable. I do not believe the company has met its burden of demonstrating  
21 that this action was reasonable or prudent. This decision may result in significant  
22 extra cost to the project that could have been avoided with a more cautious approach  
23 given the known risks and uncertainties at the time of signing. At the very least, the  
24 Commission does not have sufficient information to determine whether 2009 and  
25 2010 EPC contract related costs are reasonable.

1 When we consider feasible, we consider is it technically  
2 feasible? Is the AP1000 design as deployed at this site, the Levy  
3 site, are there any technical issues that suggest that will not  
4 work? We also consider regulatory feasibility or, if you will, the  
5 legal feasibility. Can you secure all of the permits, approvals,  
6 authorizations, licenses, like zoning permits and comprehensive  
7 -- comprehensive land use amendment, things like that? And in  
8 those cases and for both the technical and, as I described, this  
9 regulatory feasibility, the project still is feasible. Now we also  
10 consider cost, and so as we go forward, as we said earlier, on an  
11 ongoing basis, we will always consider the total project cost and  
12 make informed decisions of moving the project forward.

13  
14 (Miller deposition 7/2/2009, Volume I, page 82, Exhibit WRJ(PEF)-3, Pages  
15 112-114 of 233.)  
16

17 **Q. IS MR. MILLER CORRECT IN HIS ASSESSMENT OF THE LONG TERM**  
18 **FEASIBILITY OF THE PROJECT?**

19 A. There is not enough information provided for Mr. Miller or the Commission to reach  
20 such a conclusion. He states that there are three areas of consideration by PEF:  
21 technical feasibility, regulatory feasibility and cost feasibility. There are major  
22 questions in each area.

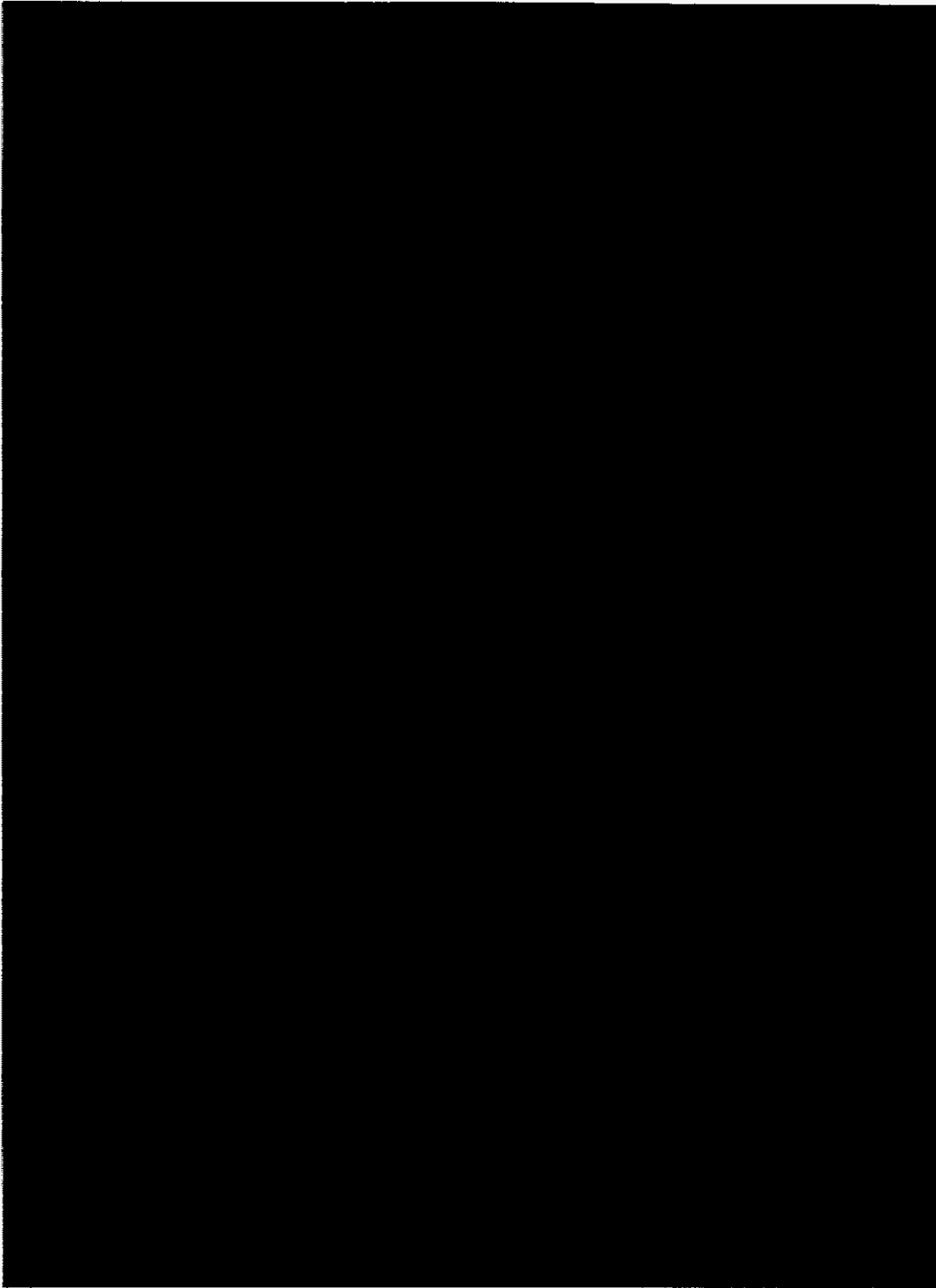
23  
24 **Q. PLEASE EXPLAIN THESE MAJOR QUESTIONS.**

25 A. I will address each area separately:

**REDACTED**

26 • Technical feasibility. In the EPC contractor's report of May2009, the  
27 contractor states [REDACTED]  
28 [REDACTED]  
29 [REDACTED] (Letter  
30 from Shawn Hughes, Westinghouse-Shaw, to Jeff Lyash, May 11,  
31 2009, page 6 of 52 of attachment. Exhibit WRJ(PEF)-3, Pages 115-  
32 168 of 233.)

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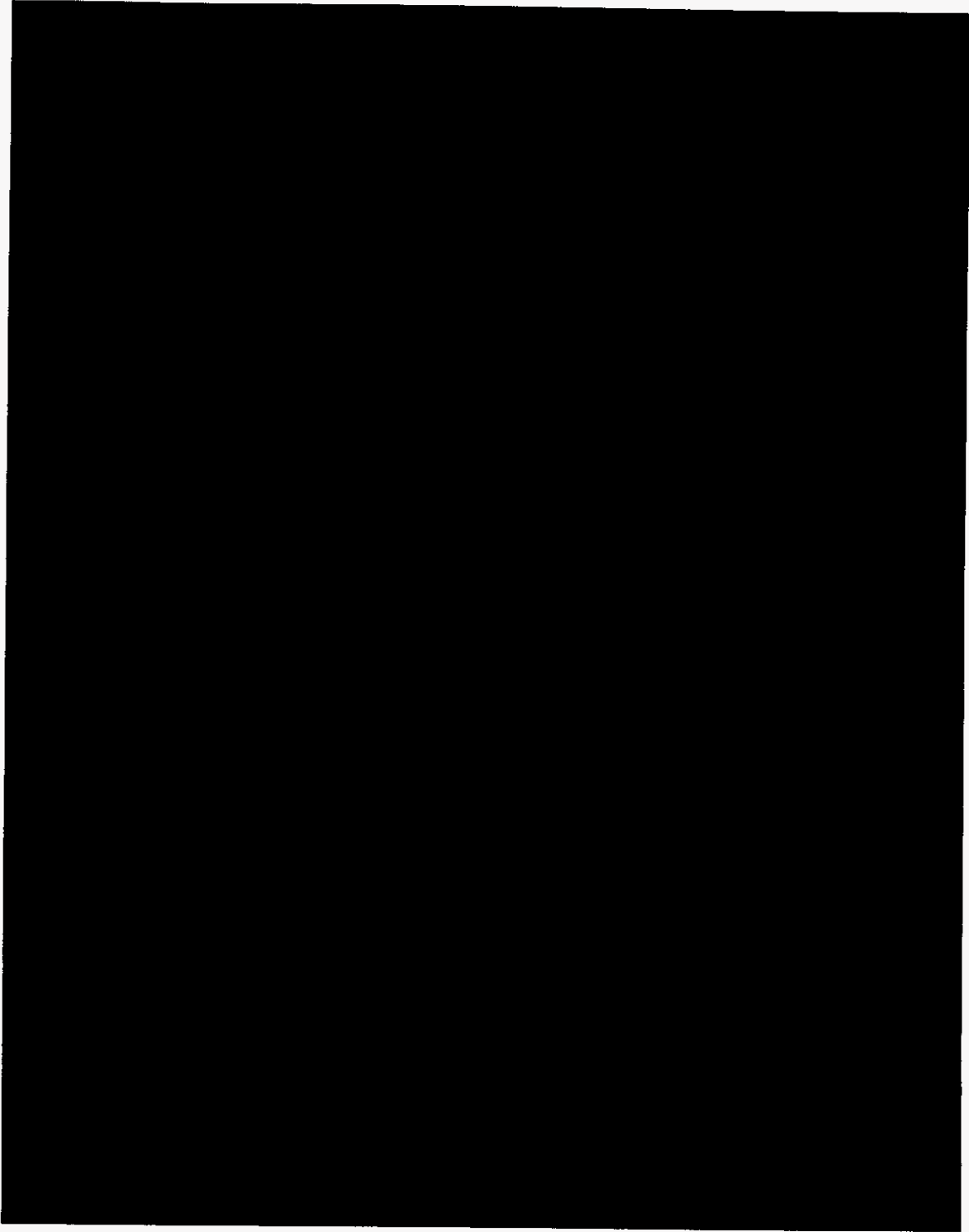


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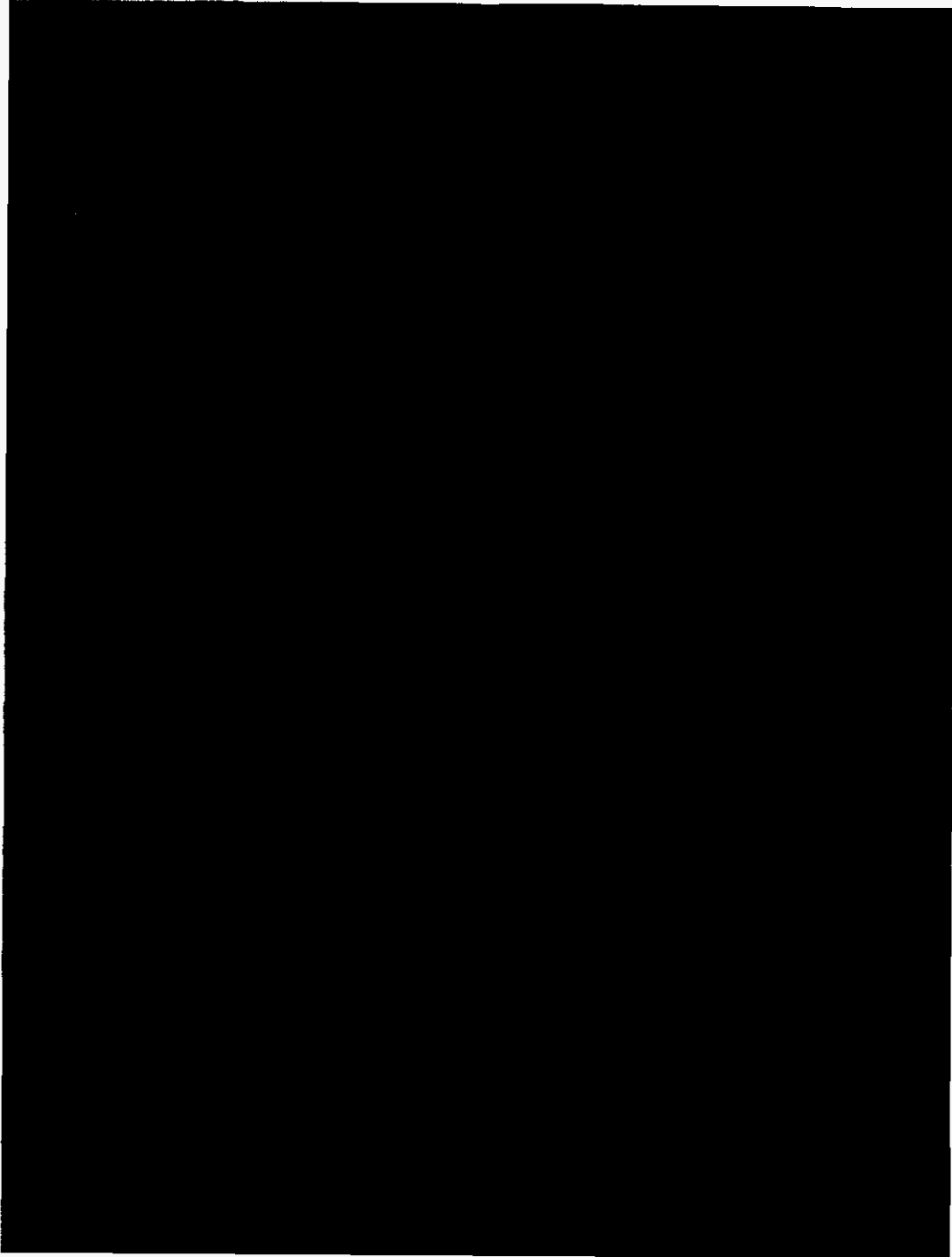
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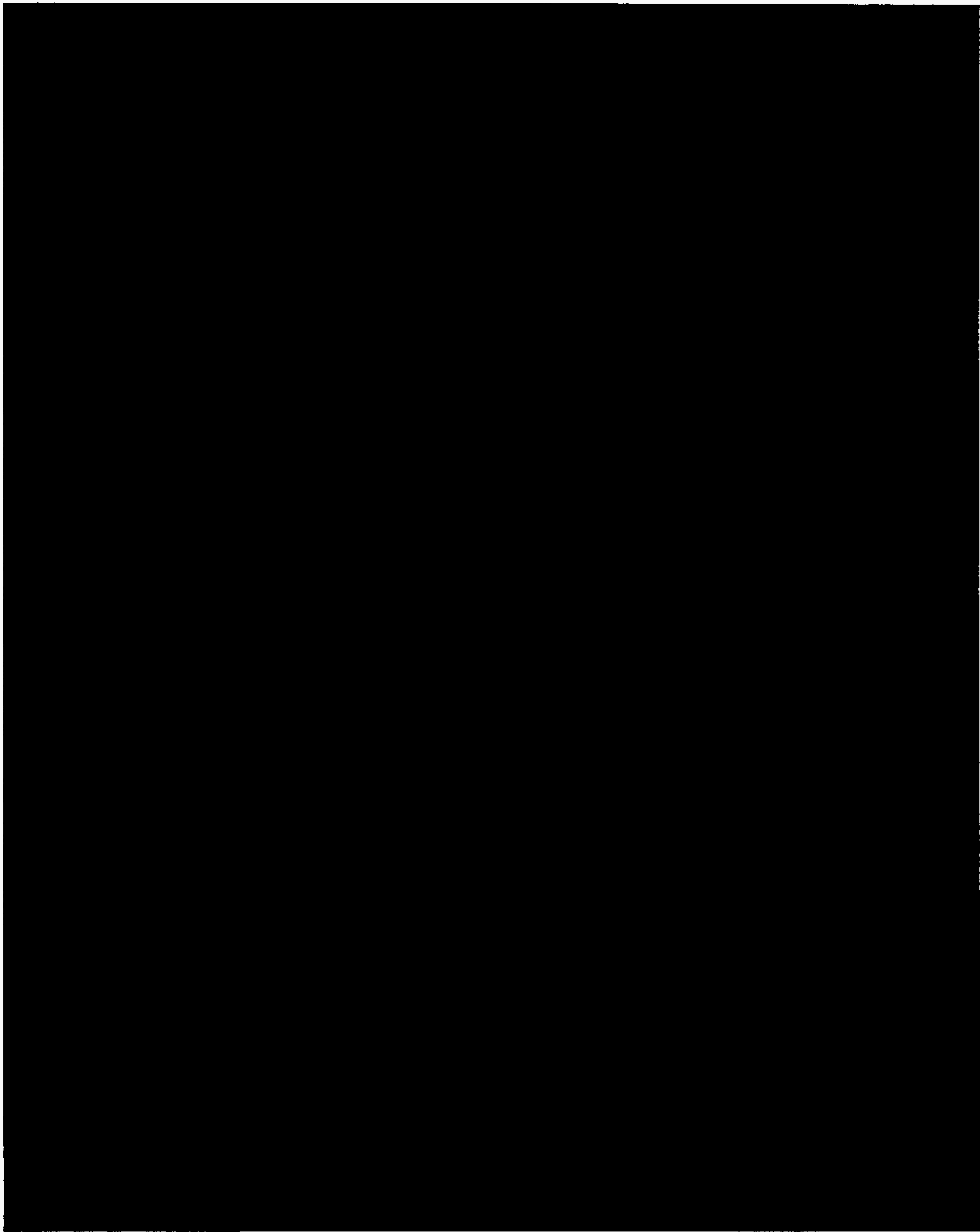
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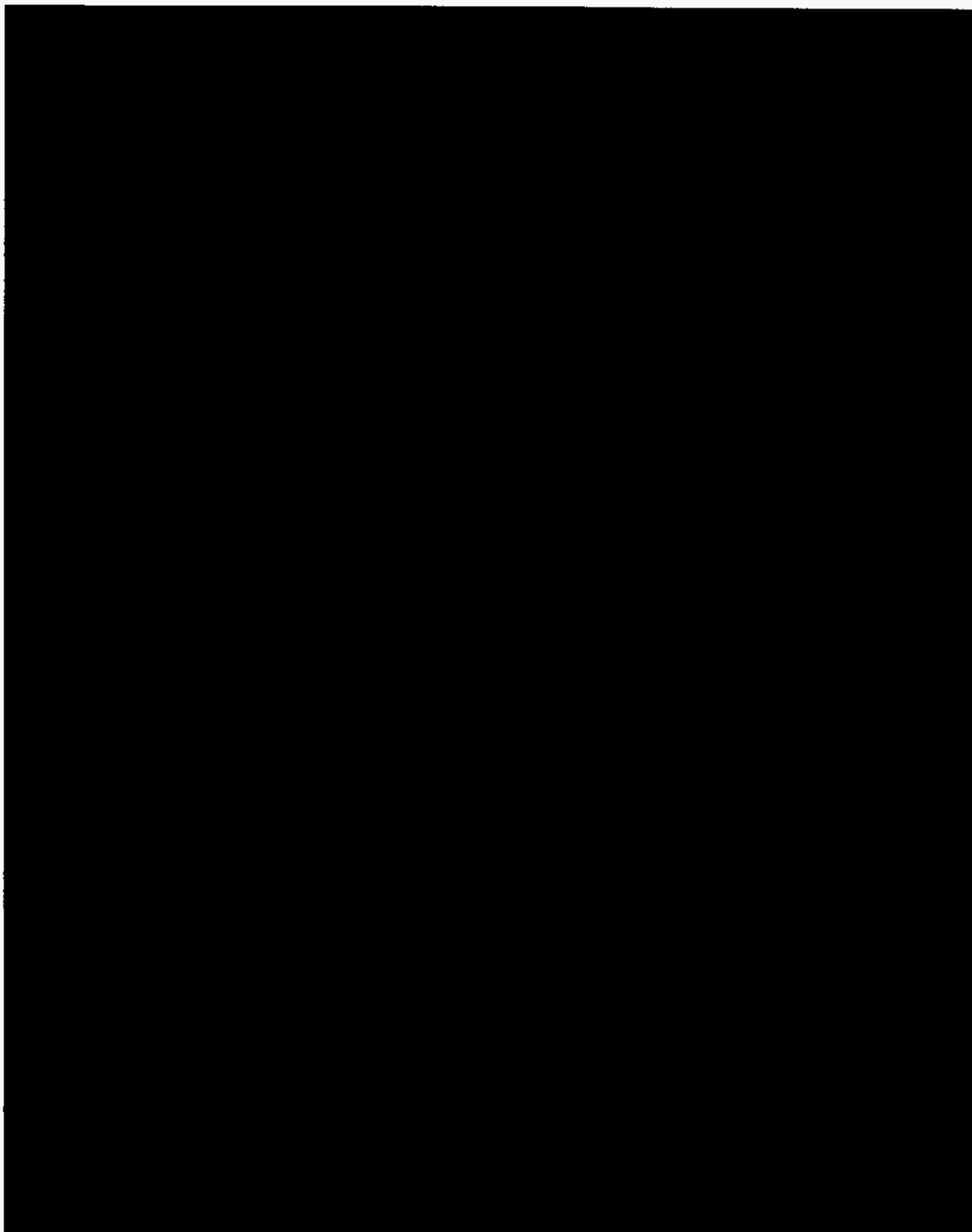
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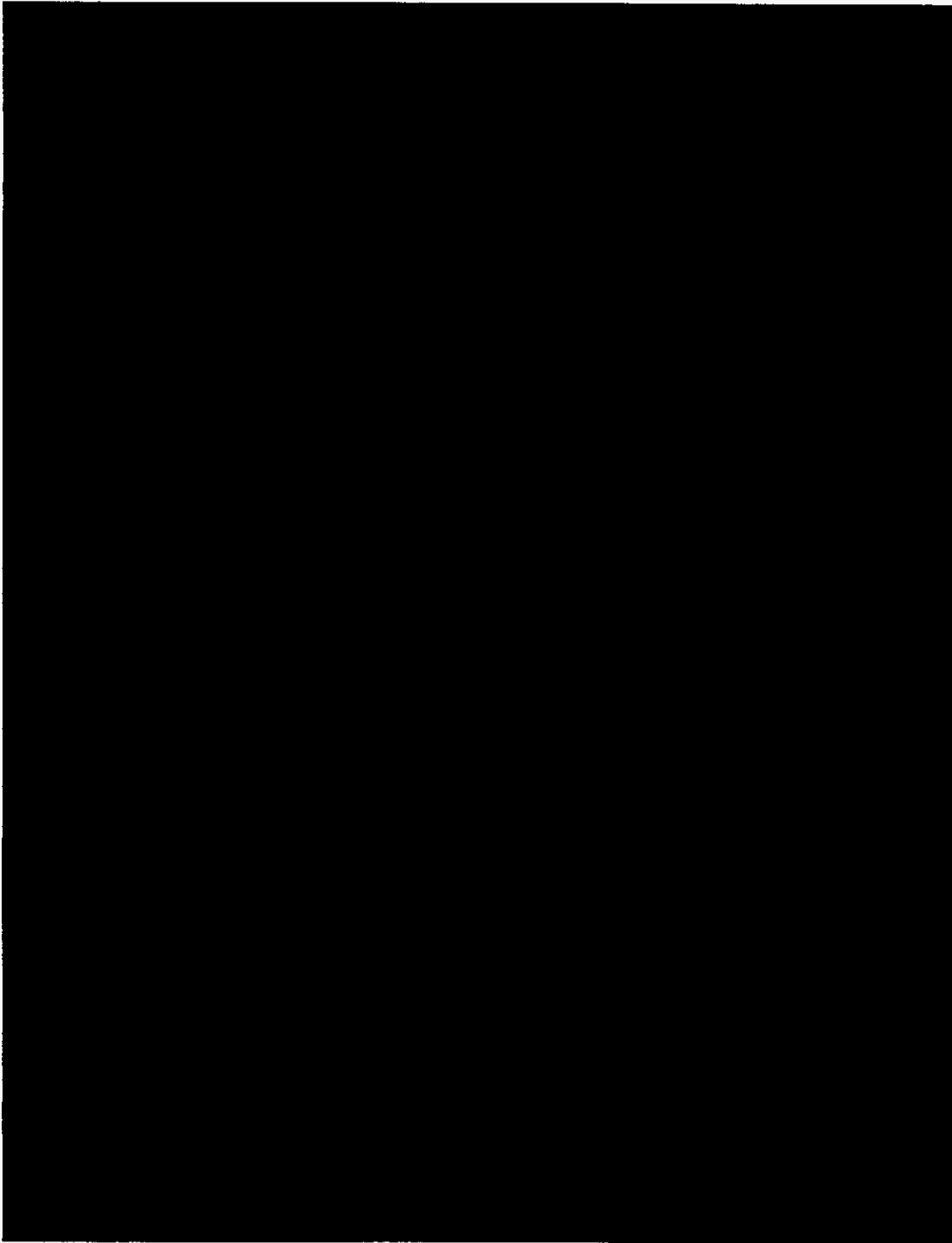


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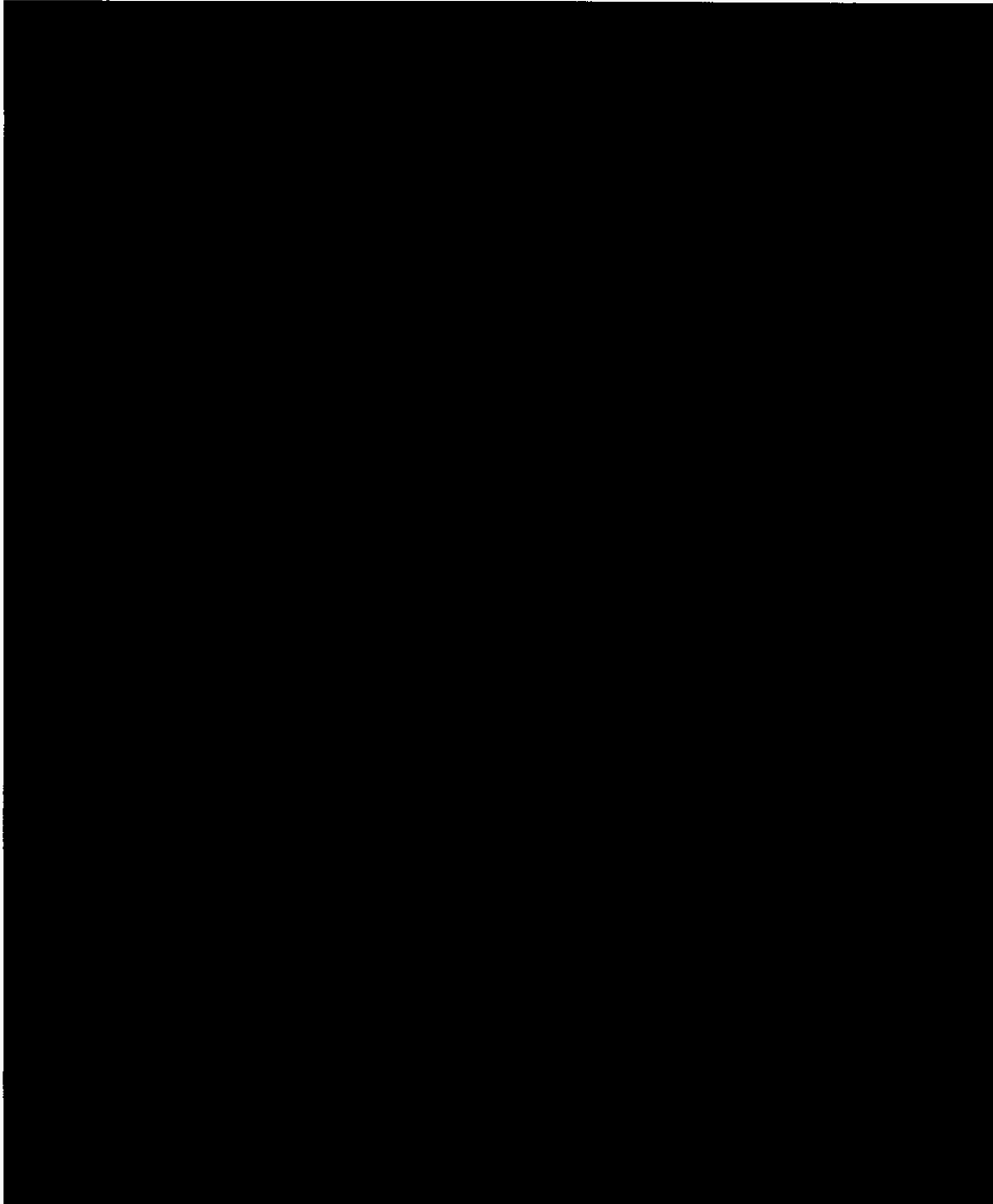


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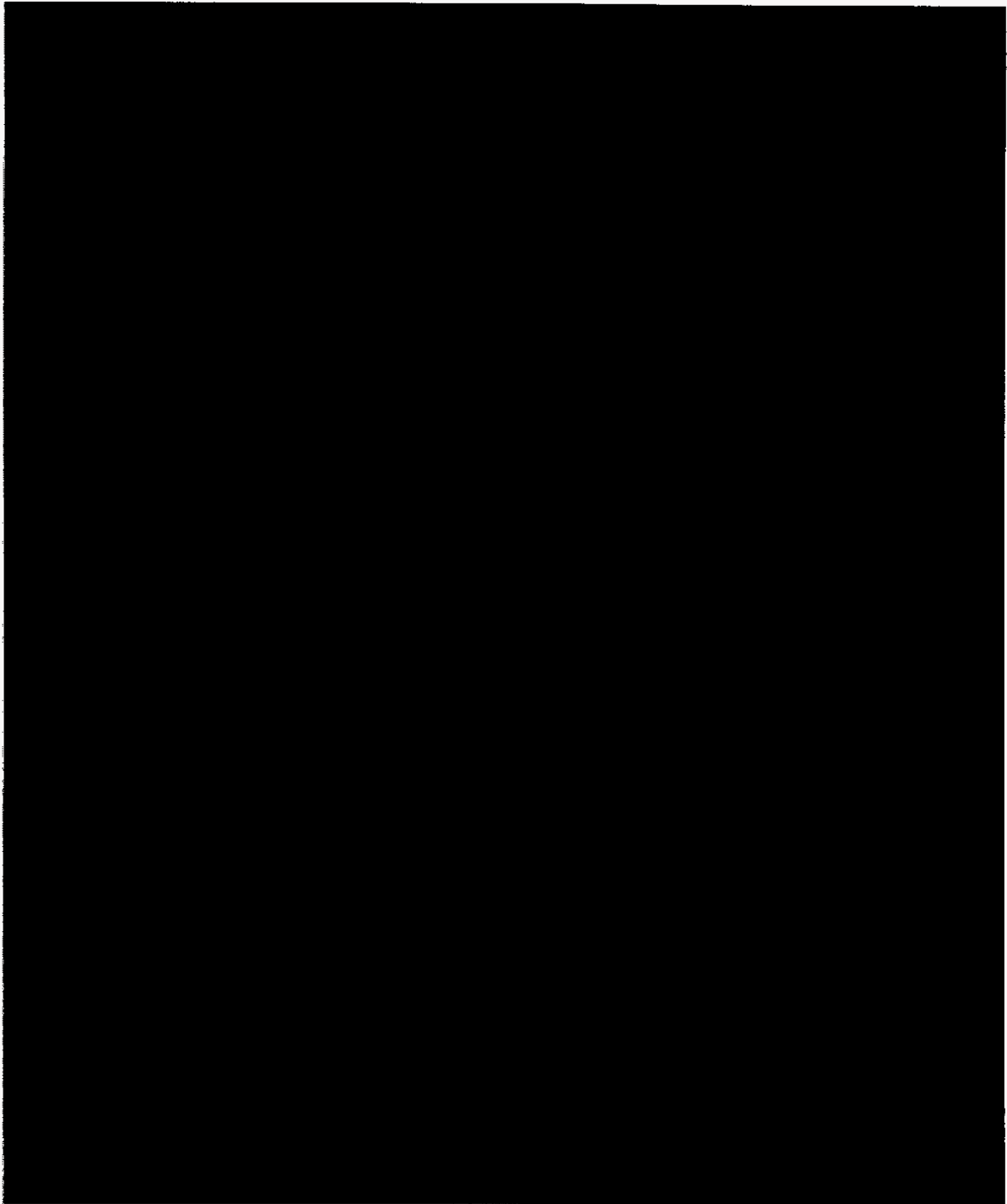


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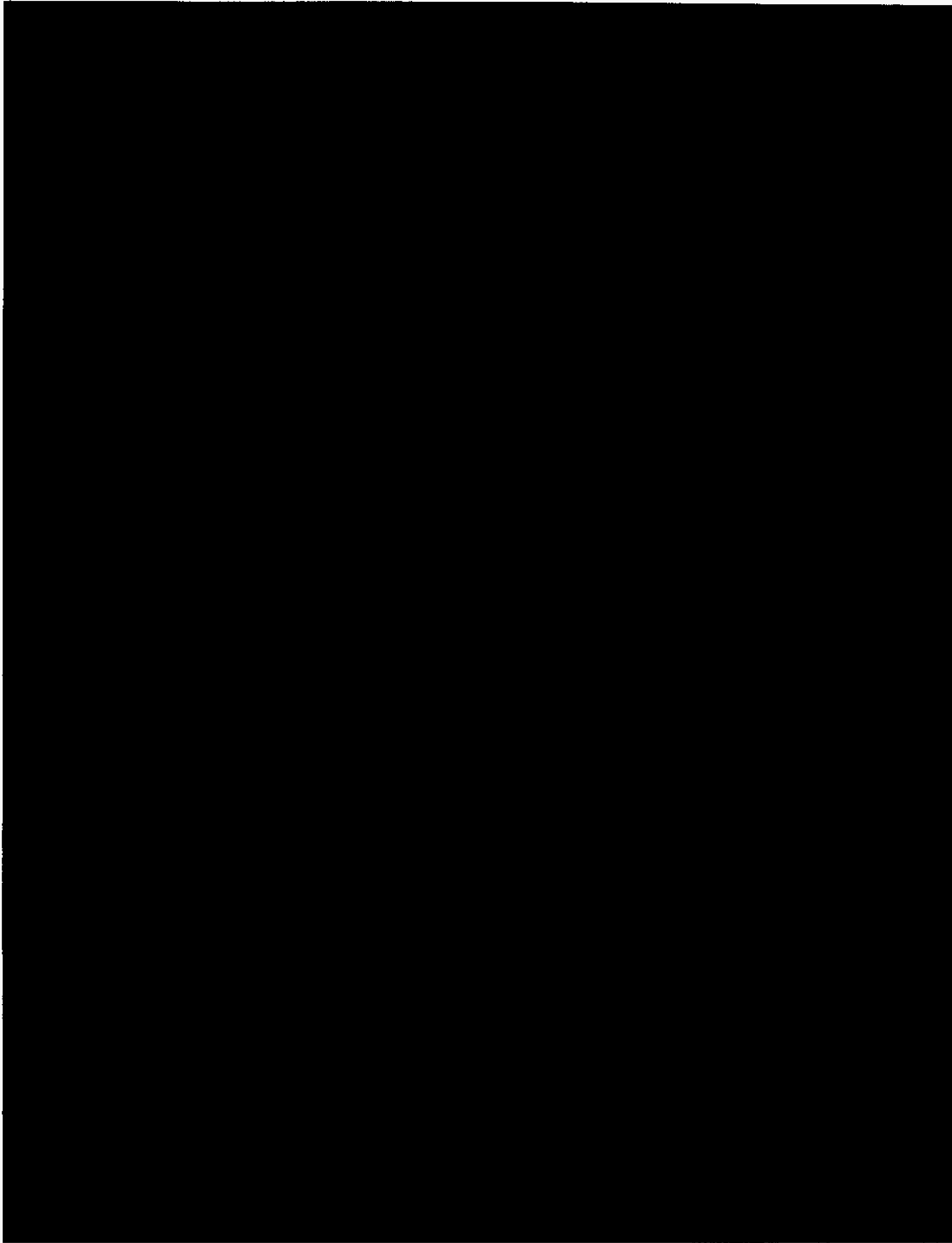


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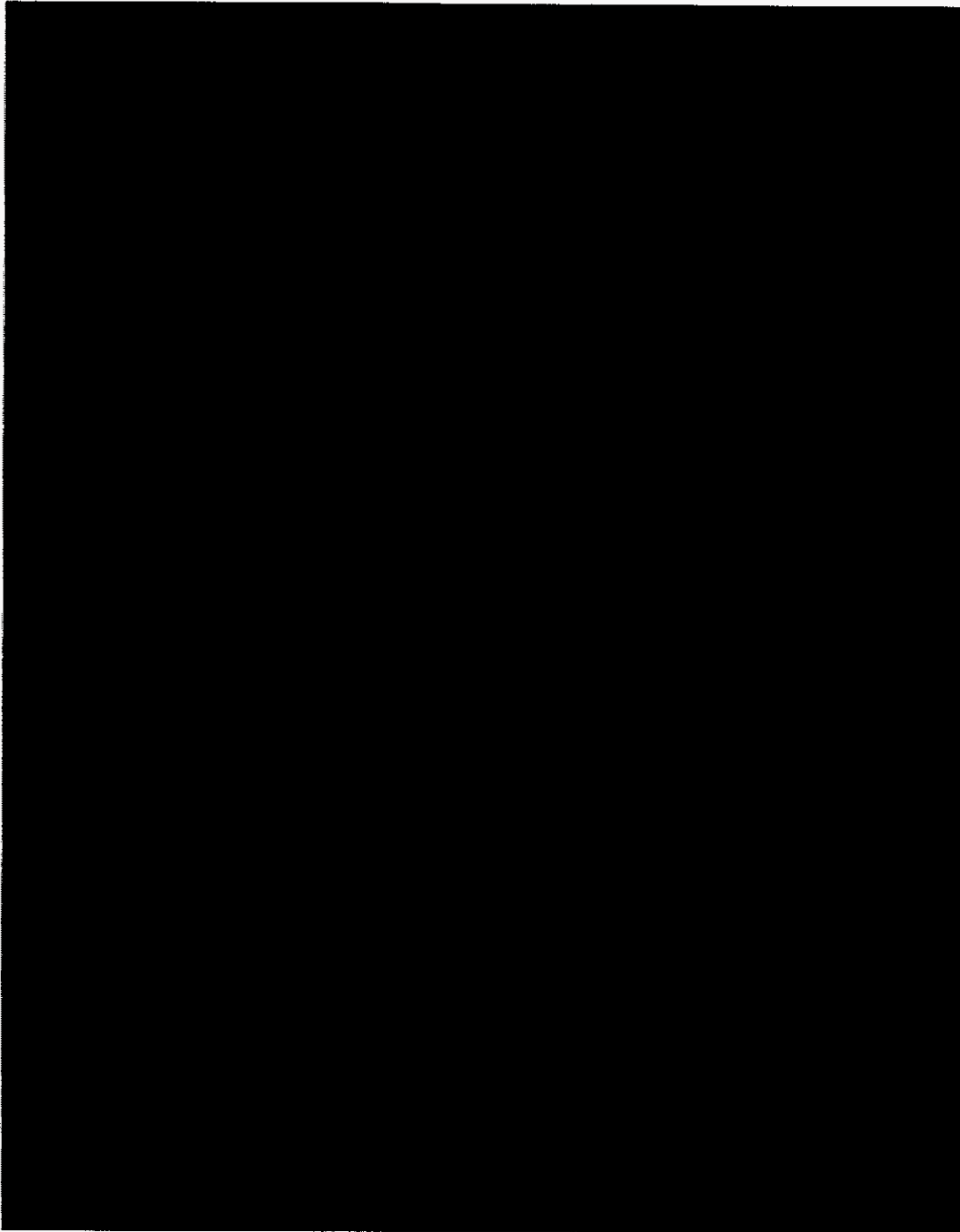
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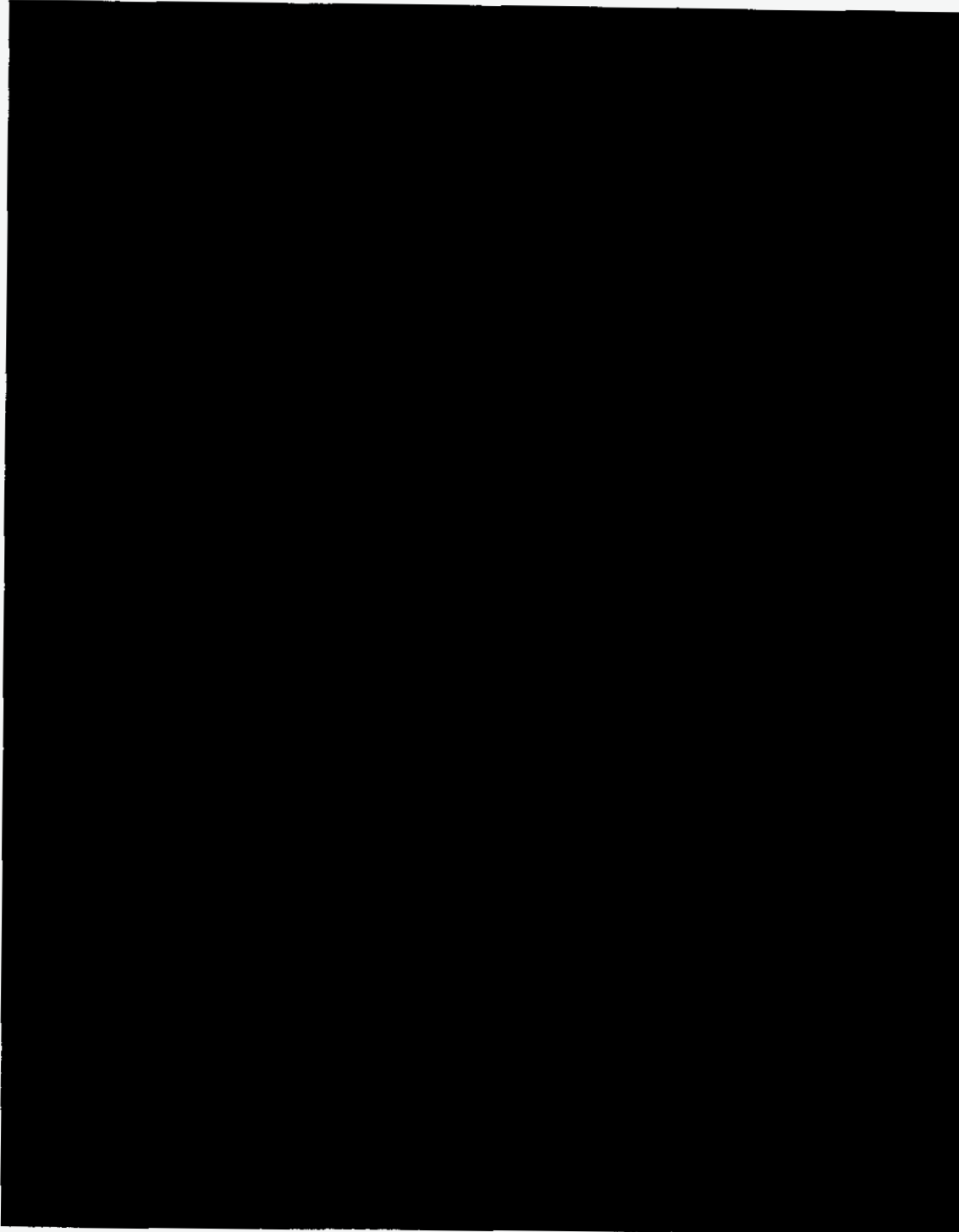


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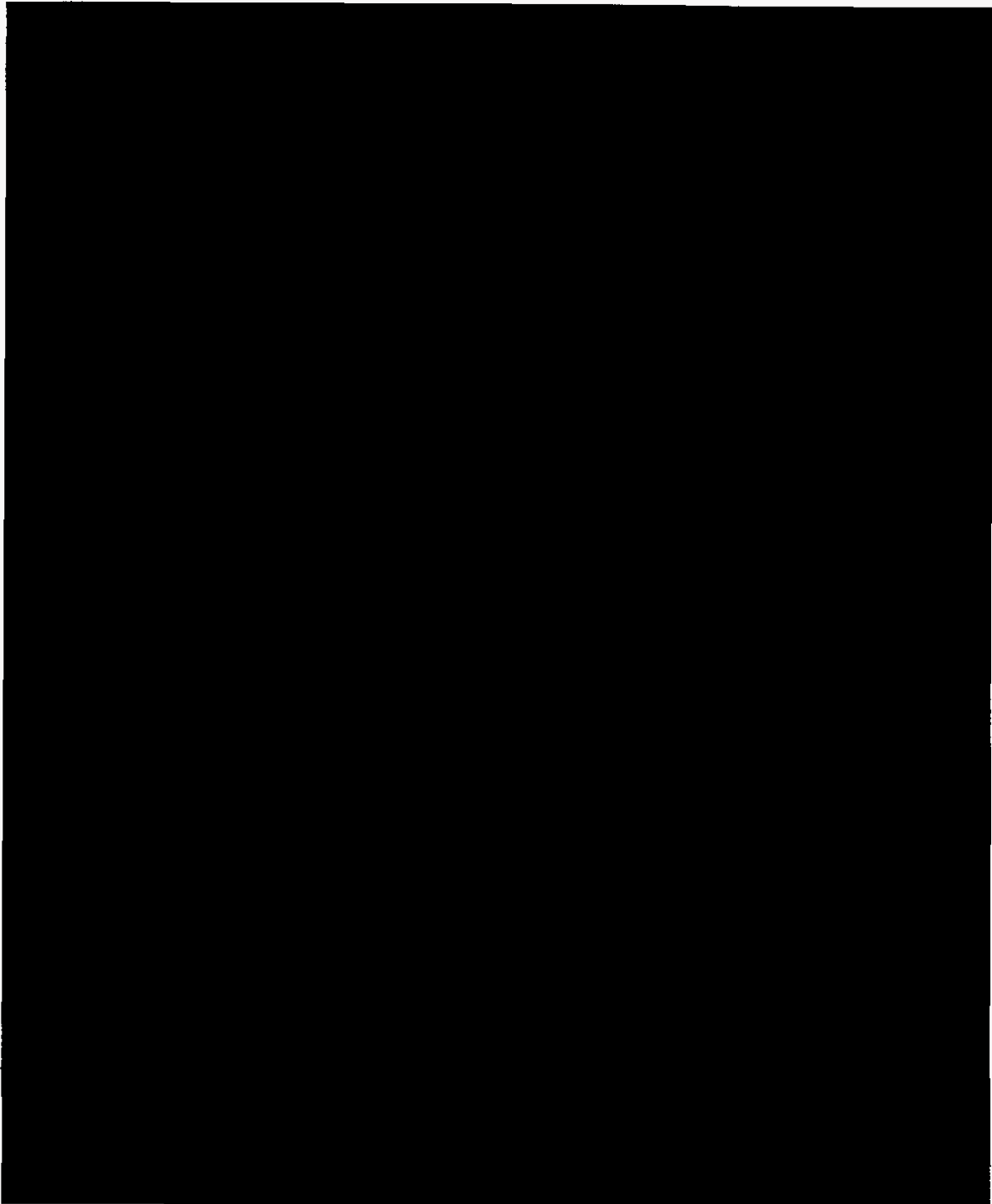
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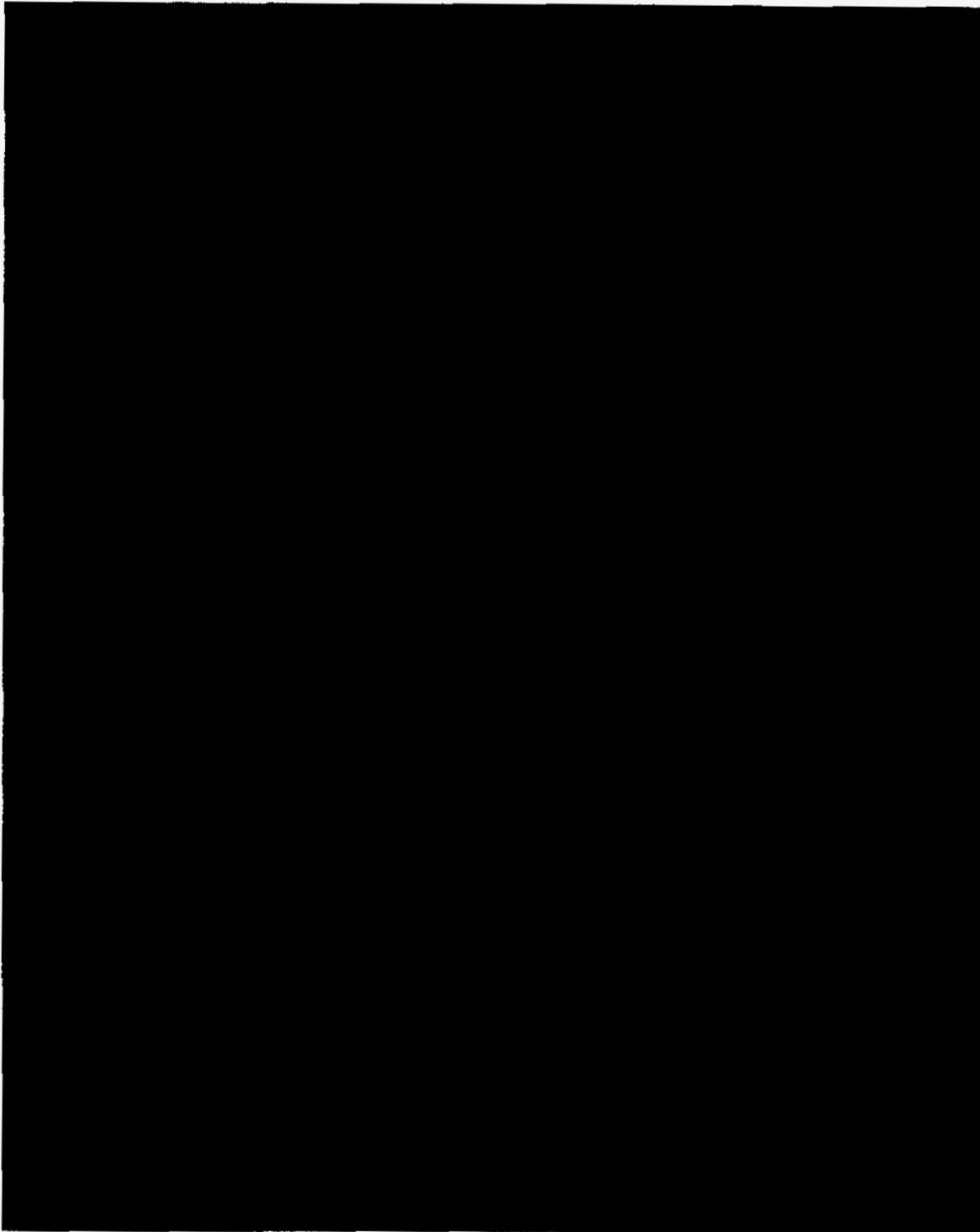
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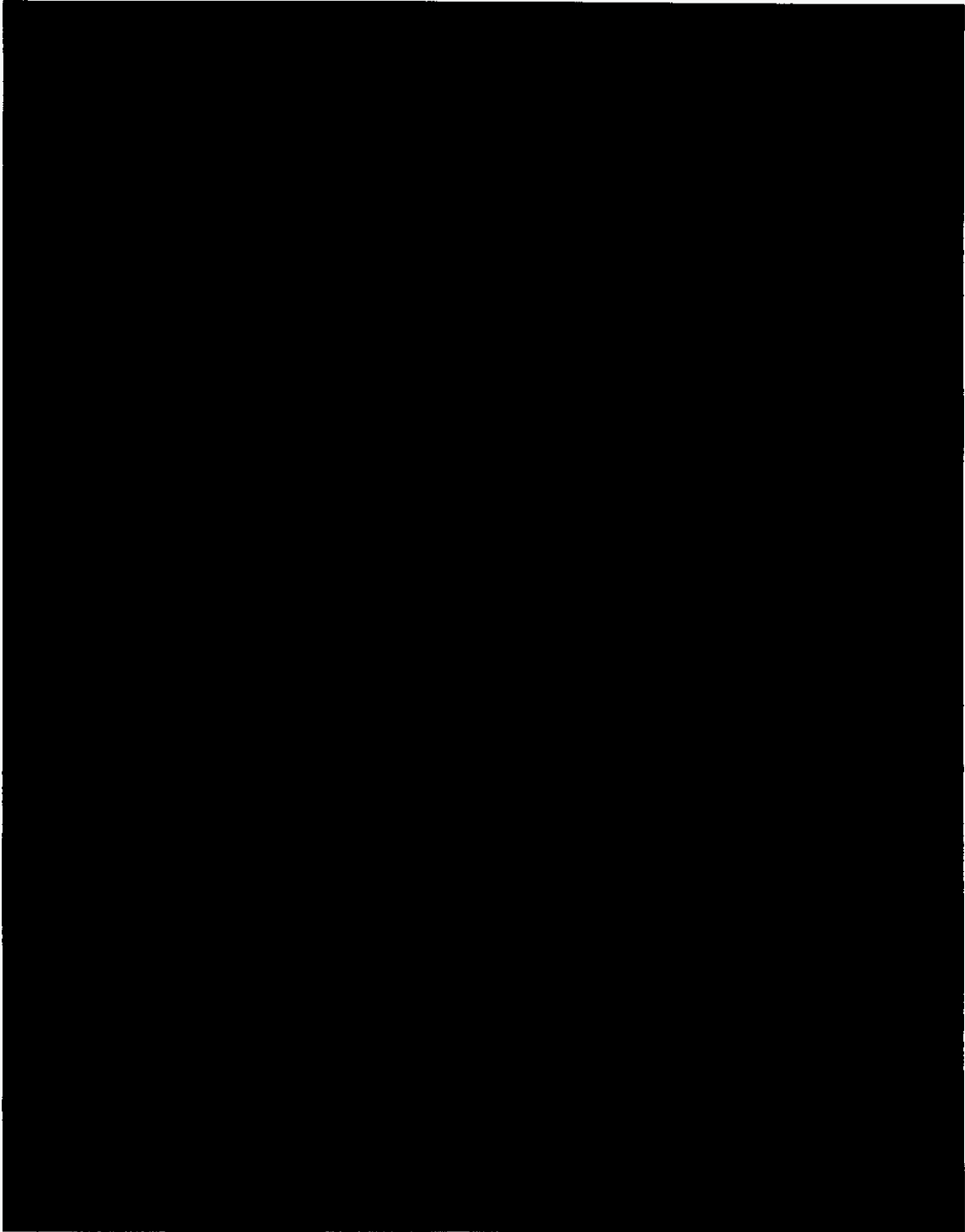


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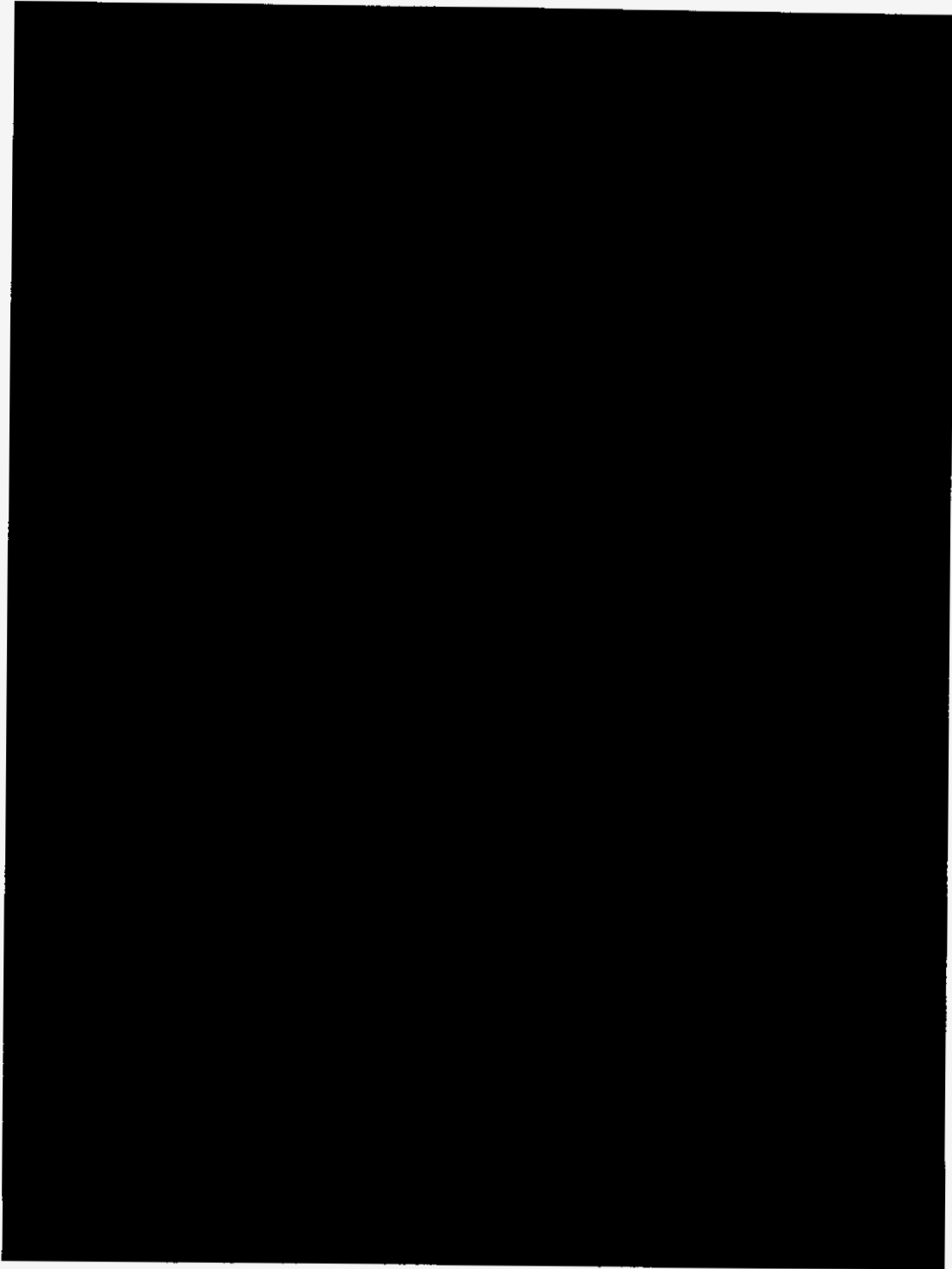


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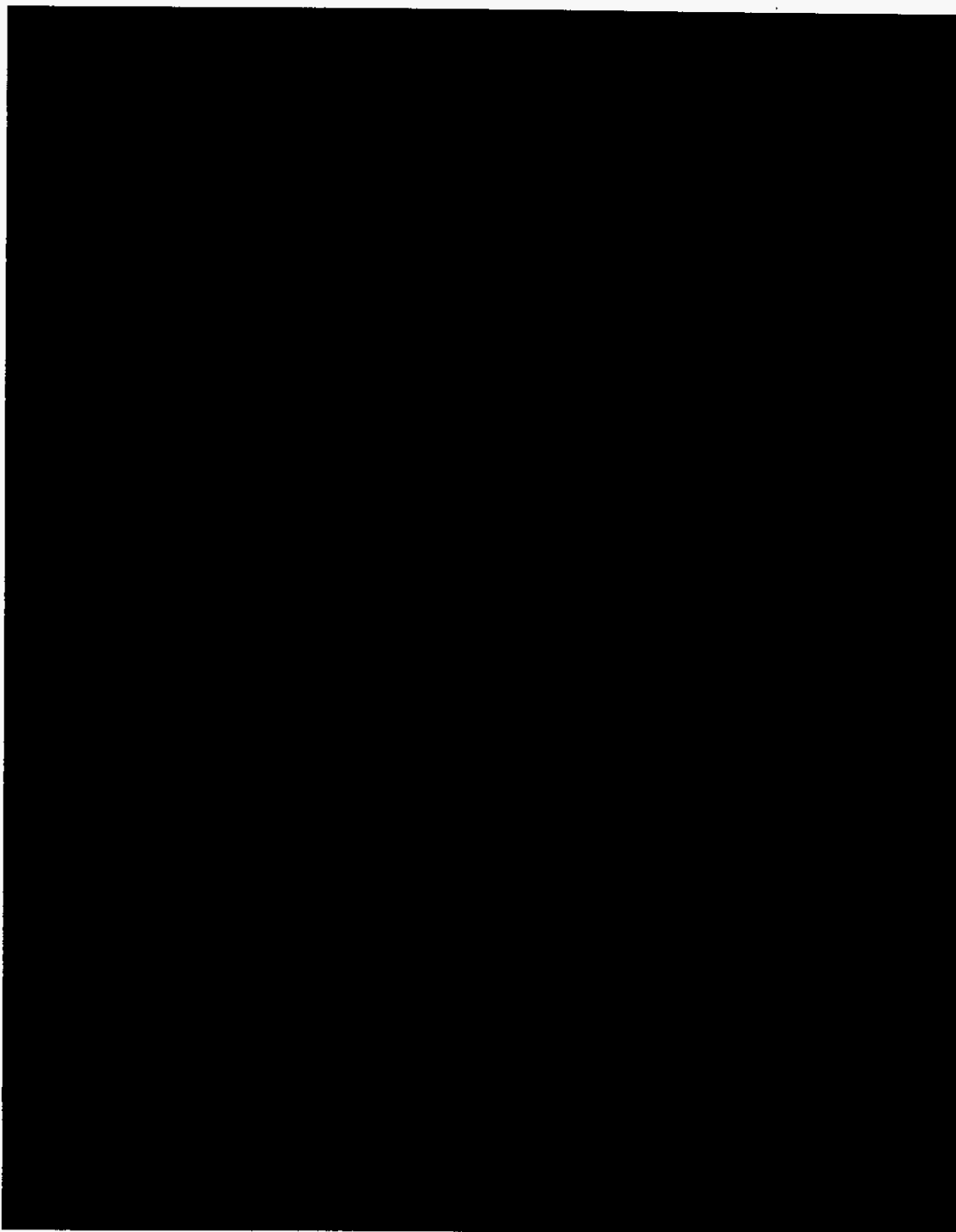


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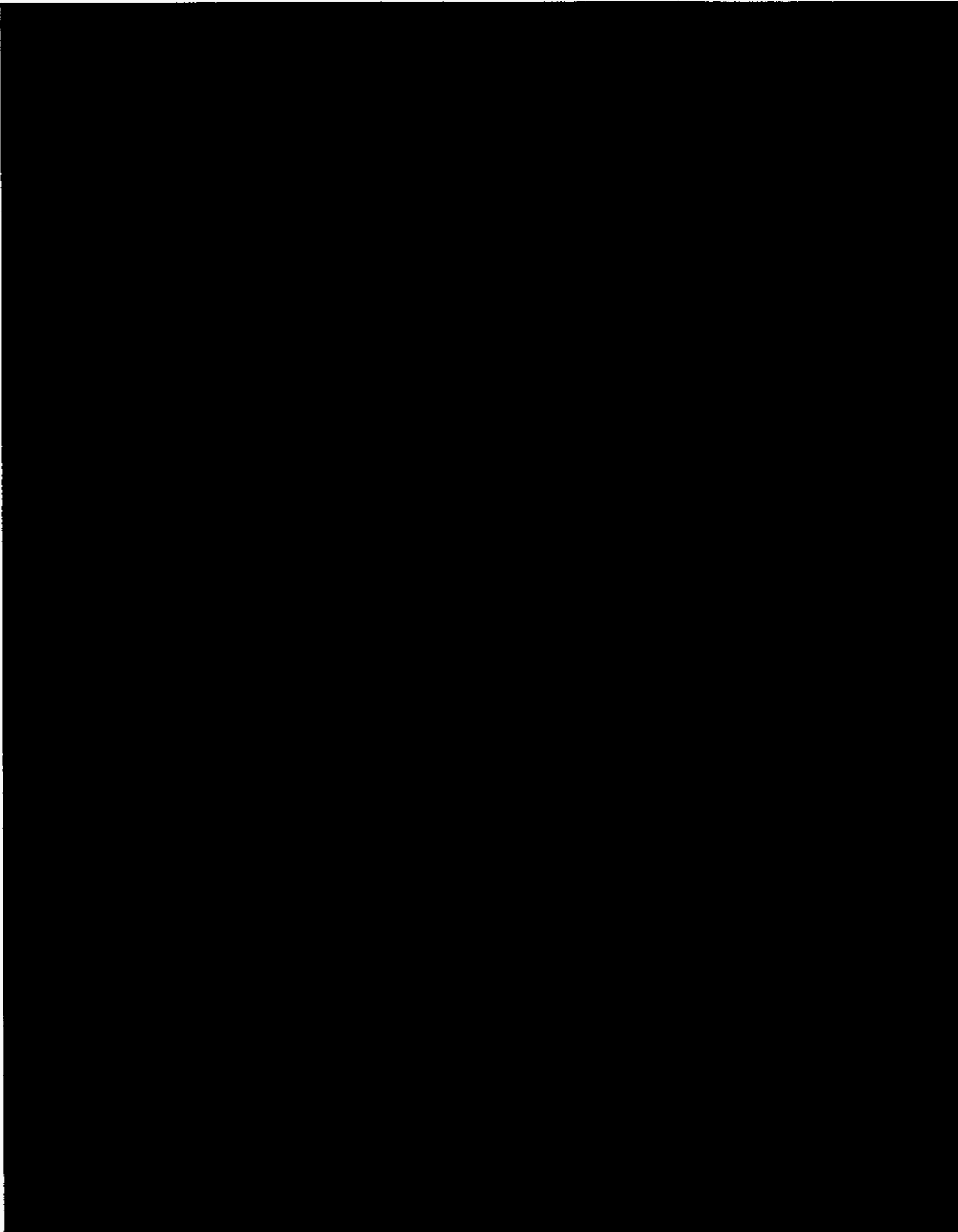
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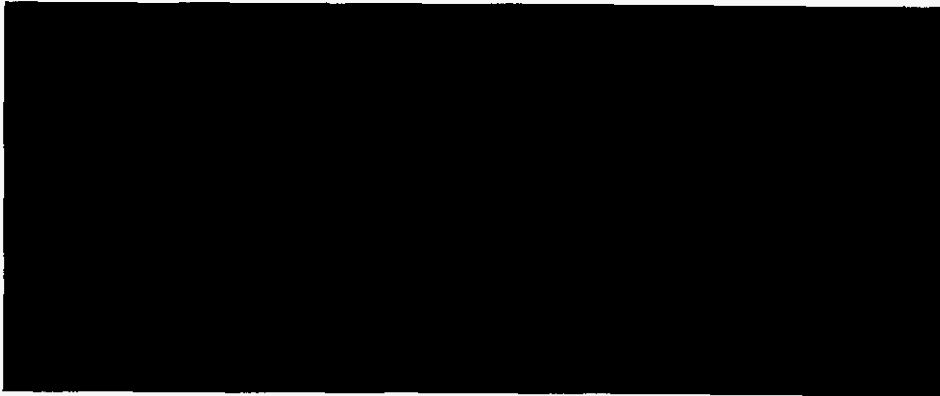
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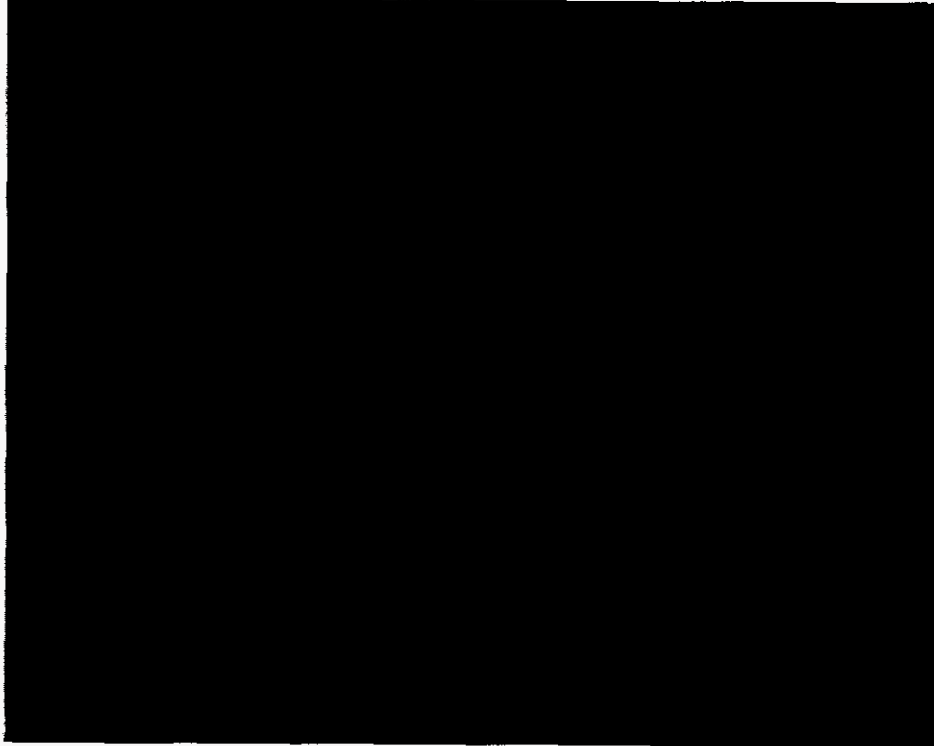
William G. Johnson  
Chairman, President  
and Chief Executive Officer

April 15, 2009

BOARD OF DIRECTORS  
PROGRESS ENERGY, INC.

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We will use the attached presentation in our Board conference call this Friday, April 17, at 1 p.m. (call-in number: 888-363-4735; access code 5814305). The purpose of the call is to discuss our near-term plan and year-end options regarding the Levy nuclear project in Florida.



PO Box 1551  
Raleigh, NC 27607  
t: 919 546 6463  
f: 919 546 3210

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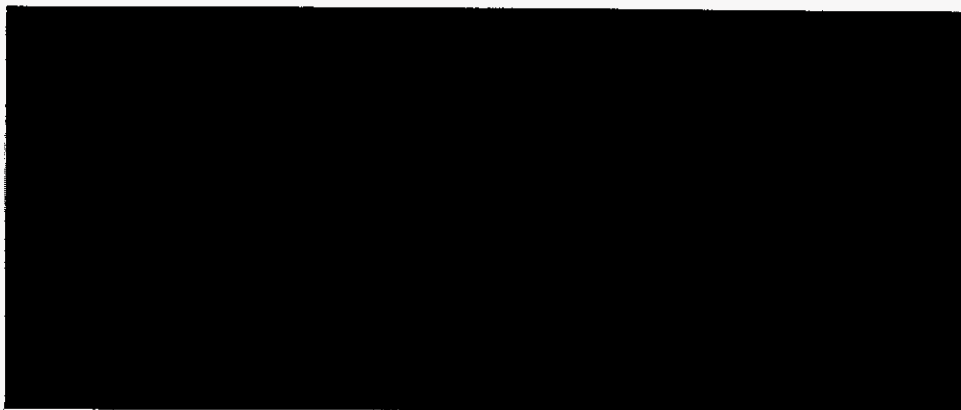
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Board of Directors  
April 15, 2009  
Page 2

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Redacted - Non-responsive

If you have questions before our call, please let me know.

Sincerely,

A handwritten signature in black ink, appearing to read "William J. Jones". The signature is written in a cursive style.

WDJ/dj

09NC-OPCPOD3-61-000050

10NC-OPCPOD3-62-000382



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## Landscape Changes

		<u>Potential Implications</u>
<b>Capital market deterioration</b> Share price near or below book value Our sector no longer holding up Debt market concerns (unsecured)	→	Ability to raise capital
<b>Federal energy policy landscape</b> Climate change Nuclear/coal policies Renewables Environmental regulation	→	Timing and support for new nuclear
<b>Broad economic indicators continue to show weakness</b> Prospects for late 2009/early 2010 recovery uncertain Impact on load/energy Customer ability to pay	→	Resource planning impacts/ challenging rate environment
[REDACTED]	→	[REDACTED]
[REDACTED]	→	[REDACTED]
<b>Florida regulatory/legislative climate</b> Price impact Potential legislation	→	Timing and support for new nuclear

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09NC-OPCPOD3-61-000054

10NC-OPCPOD3-62-000385

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## 20-Month Shift Alternative

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- **Alter Levy construction schedule**
  - Shift Unit 1 by 20 months – April 2018
  - Unit 2 completion to follow by 18 months
  - Transmission shift remains flexible
- **Outcome**
  - Accommodates expected LWA outcome
  - Provides additional time for and certainty on:
    - Obama Administration nuclear position
    - Financial market and economic rebound
    - Customer/policymaker support
    - PEF rate case, first NCRC prudence hearing
    - Federal policies on carbon, renewables and coal
    - JO participation
    - NRC COLA process
    - Commodity/labor stabilization
  - Minimizes near-term customer price impact

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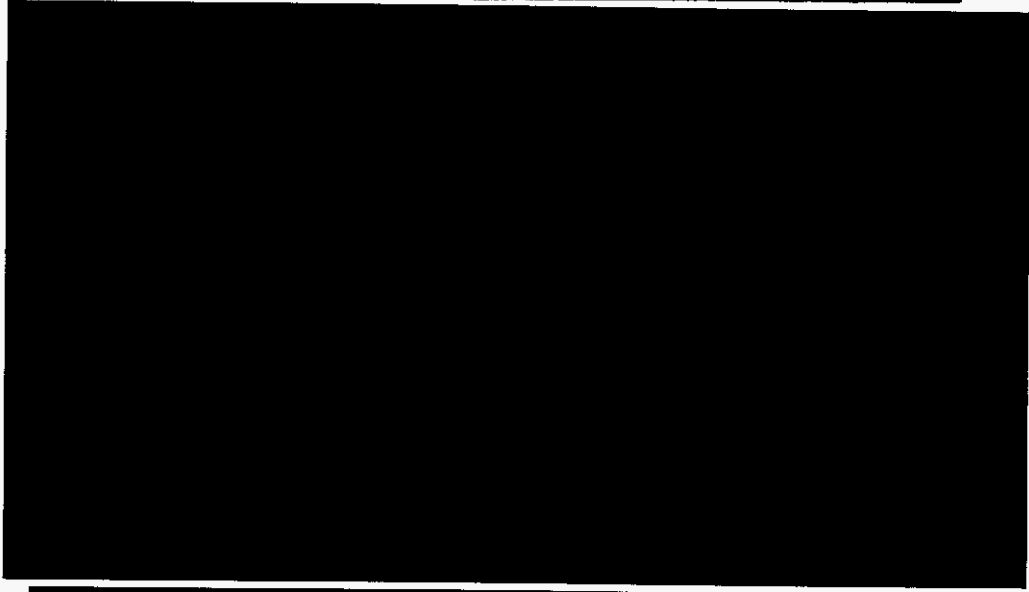
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**Levy Regulatory Milestones and Illustrative Cash Flows**



09NC-OPCPOD3-61-000059

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### **36-Month Shift Alternative**

**(Bold Italics denotes differences from 20 month shift)**

---

- Alter Levy construction schedule
  - *Shift Unit 1 to June 2019 (~36 months)*
  - Unit 2 completion to follow by 18 months
  - Transmission shift remains flexible
- Outcome
  - Accommodates expected LWA outcome
  - Provides additional time for and certainty on:
    - Obama Administration nuclear position
    - Financial market and economic rebound
    - Customer/policymaker support
    - PEF rate case, first NCRC prudence hearing
    - Federal policies on carbon, renewables and coal
    - JO participation
    - NRC COLA process
    - Commodity/labor stabilization
  - Minimizes near-term customer price impact

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09NC-OPCPOD3-61-000060

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10NC-OPCPOD3-62-000391

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*Illustrative Example Only*

**Consolidated Financial Impact** (\$ millions)

**Capital Markets Requirements – 2 Units @ 50%, 36-Month Shift**

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12

09NC-OPCPOD3-61-000062

10NC-OPCPOD3-62-000393

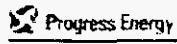
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### Next Steps

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- [REDACTED]
- [REDACTED]
- [REDACTED]
- File nuclear cost recovery petition on May 1
- Make public announcement of schedule shift on May 1
- [REDACTED] [REDACTED] [REDACTED]

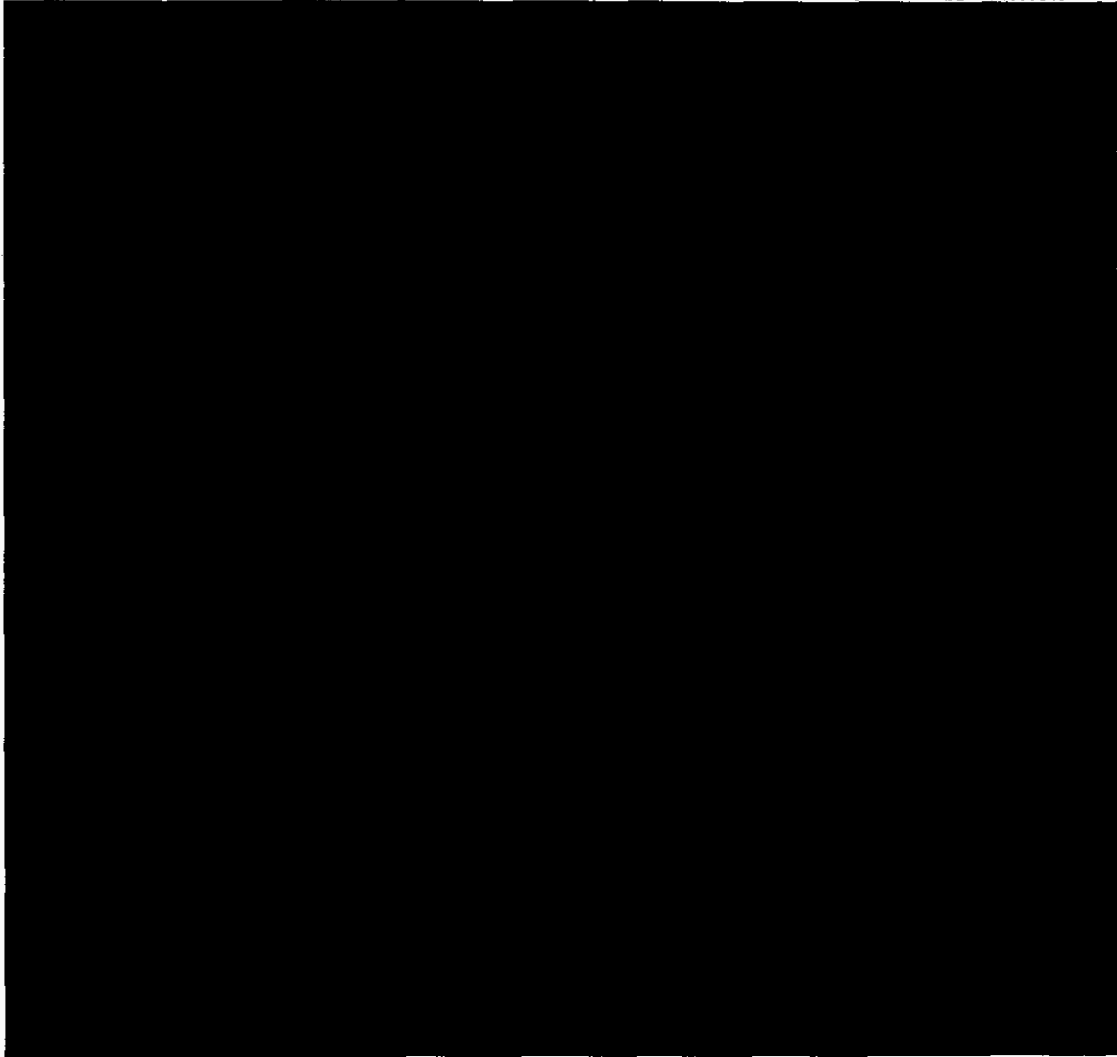
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Crystal River Unit 3

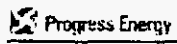
Extended Power Uprate

MASTER NUMBER 20058849



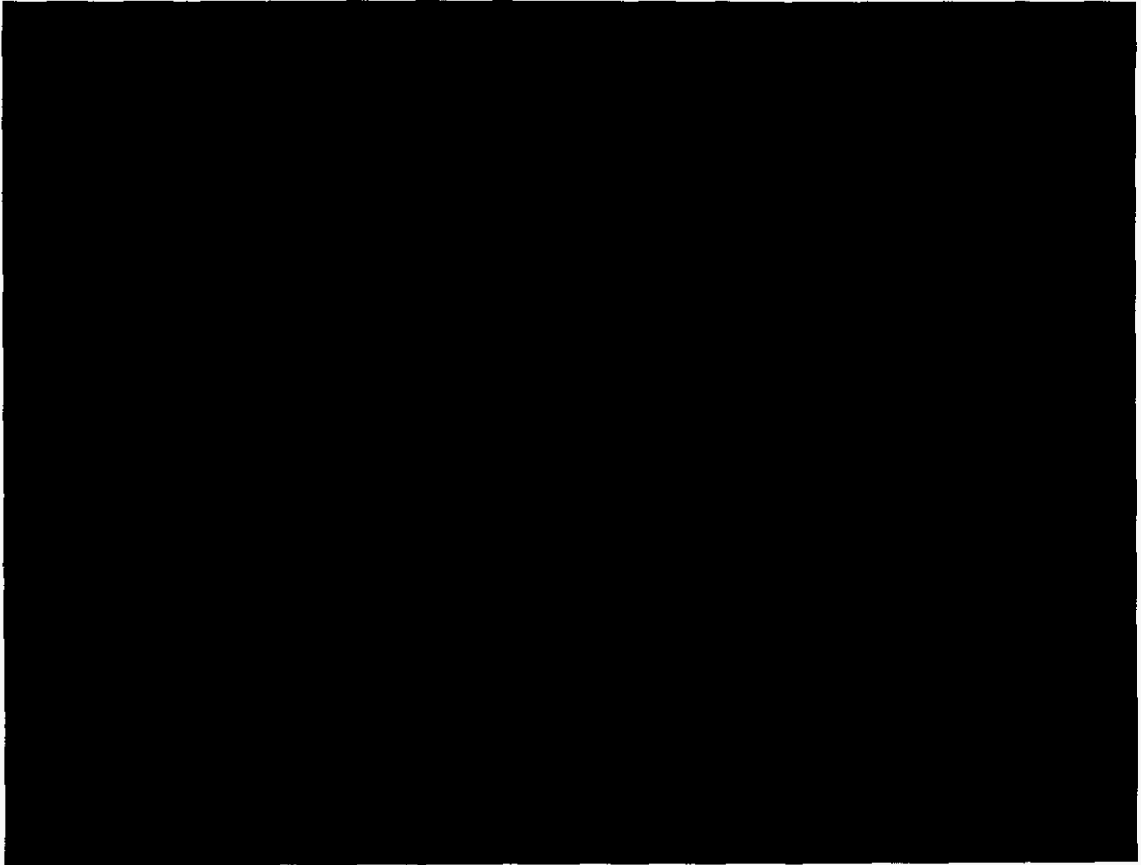
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Crystal River Unit 3

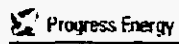
Extended Power Uprate  
MASTER NUMBER 20058849



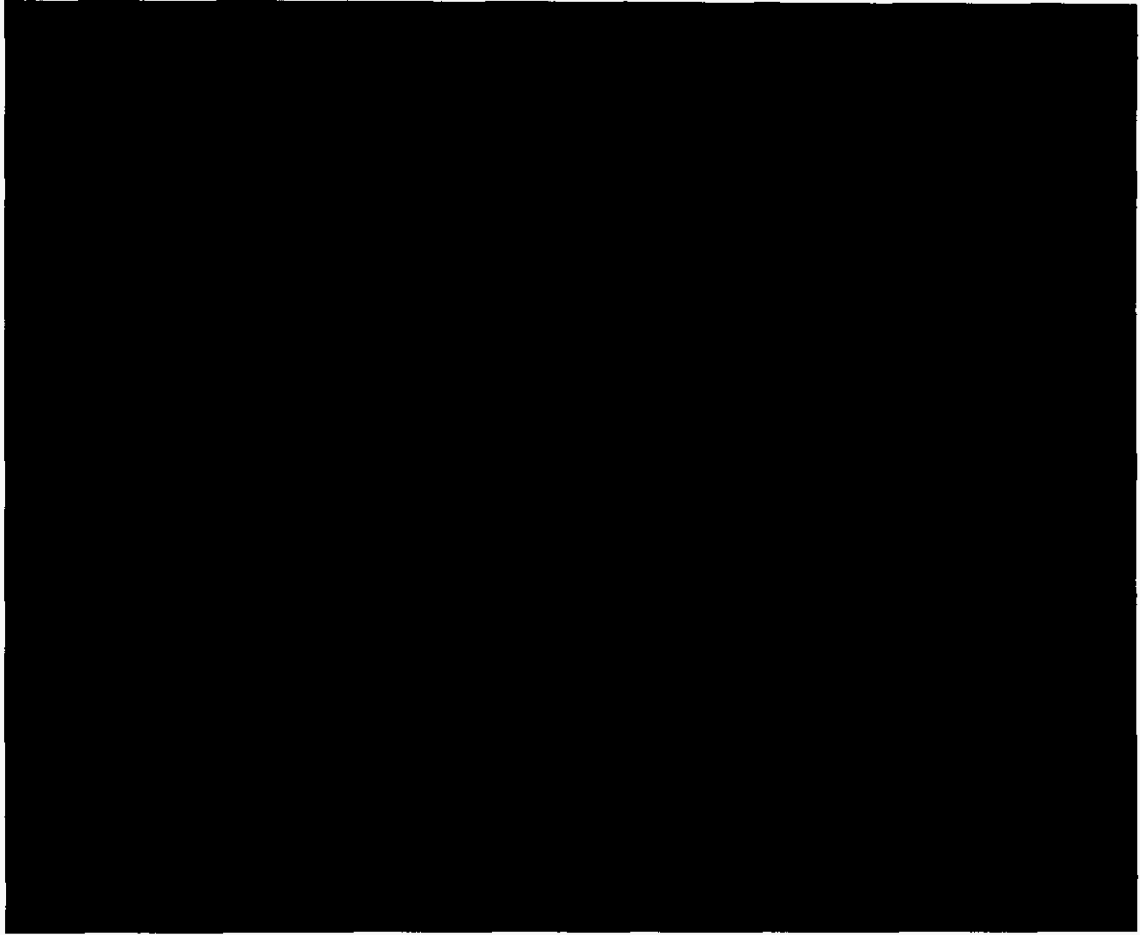
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Crystal River Unit 3



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**4.0 Funding Requirements & Update:**


*CR3 EPU Proposed IPT:*

Project Costs	
Direct Cost	
Contingency	
Burdens / Allocations	
Financial View Total	
AFUDC	
Total Project Cost	
Joint Owner *	
Total Project Cost including AFUDC net Joint Owner	

\*Point of Discharge/Cooling Tower Work is not Joint Owned

Project Costs	
Direct Cost (Surplus Inventory/Incremental Cost)	
Burdens / Allocations	
Financial View Total	

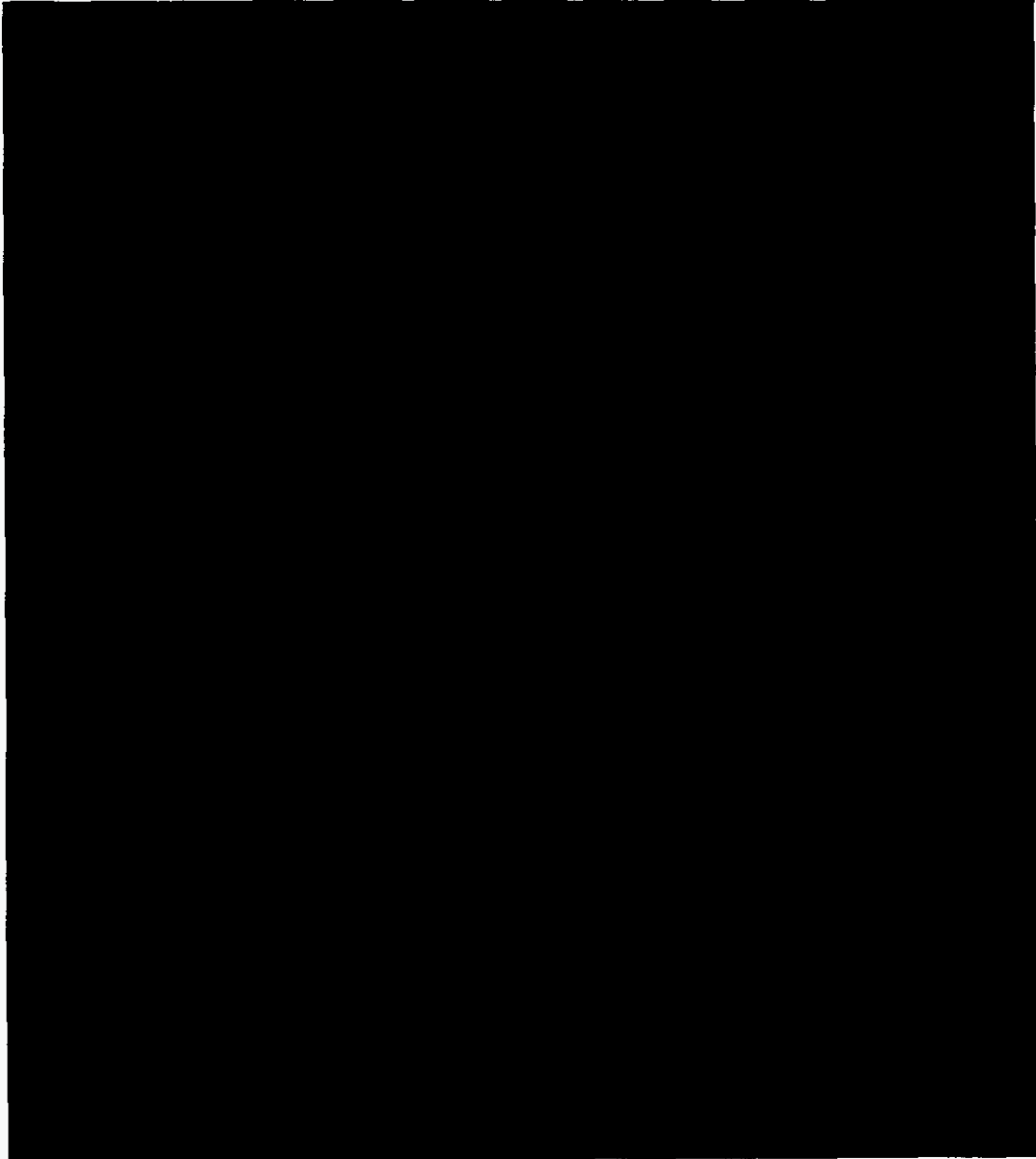


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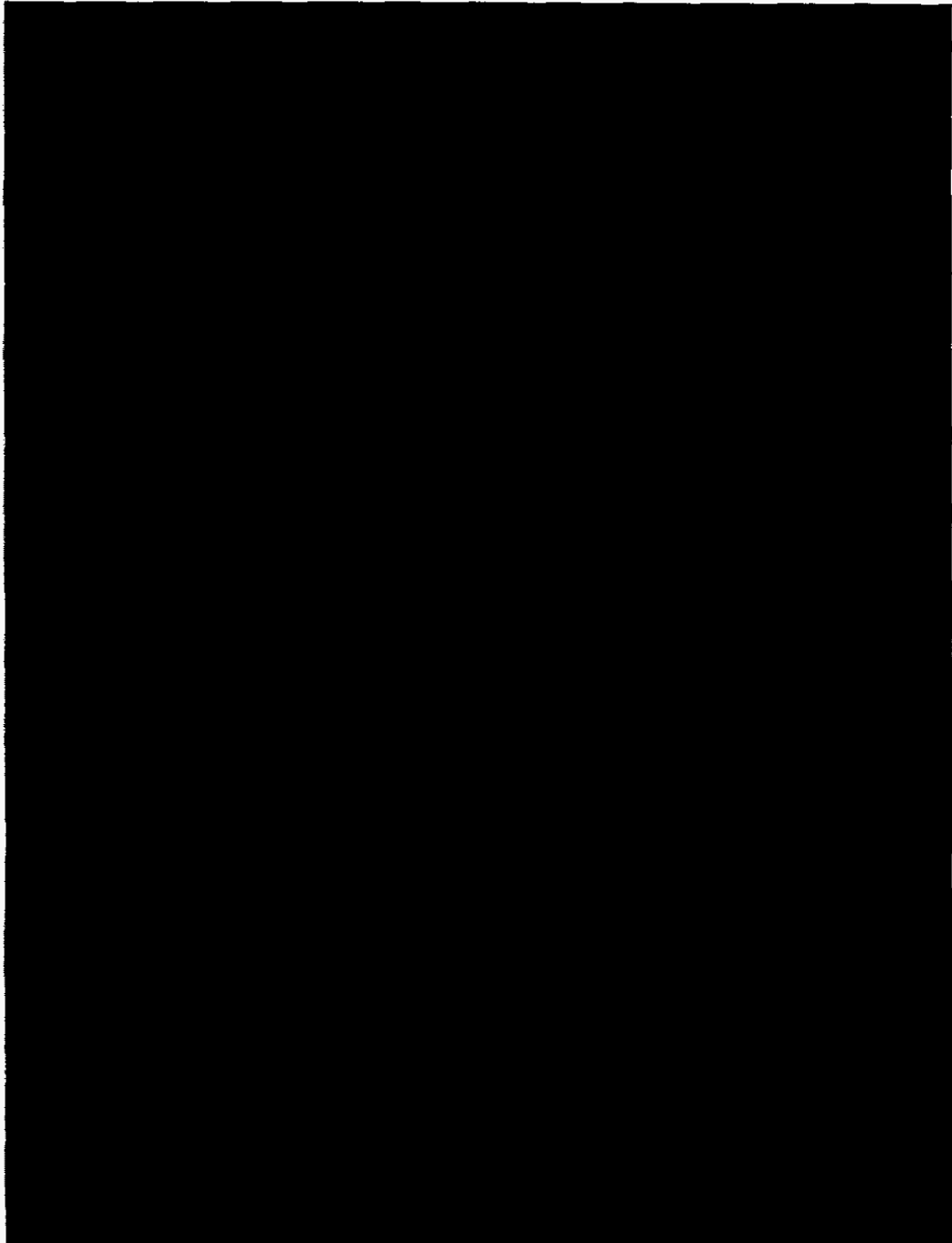


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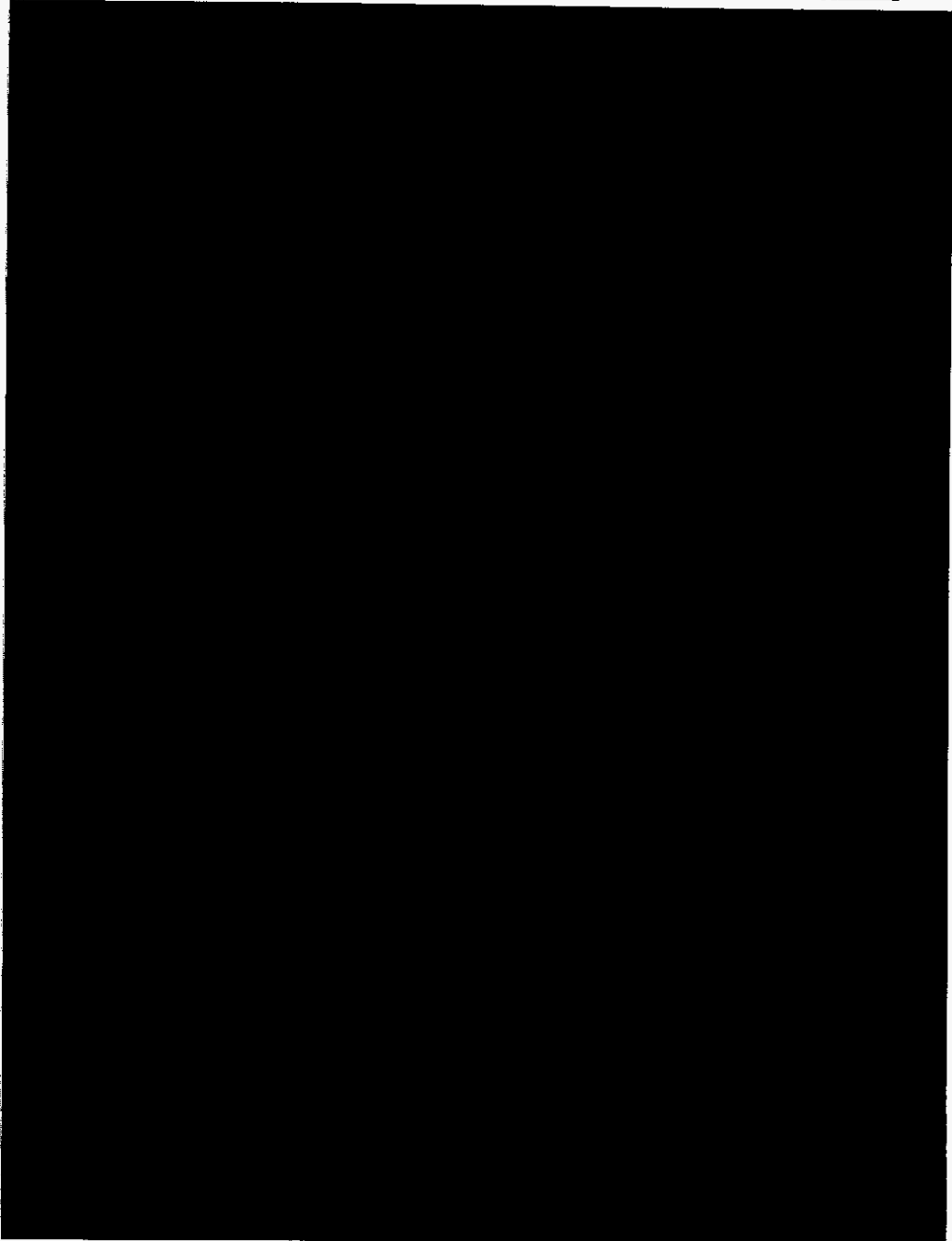
 



Page 14 of 26

09NC-OPCPOD1-4-000015

10NC-OPCPOD3-62-000417



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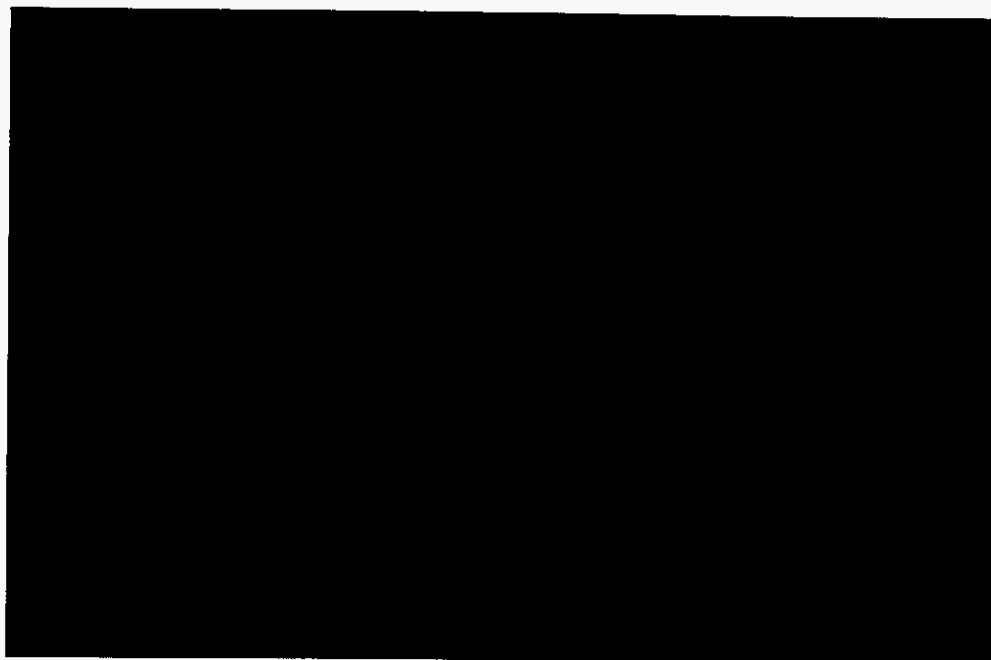
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[REDACTED]

[REDACTED]  
[REDACTED] R [REDACTED] R [REDACTED] 9

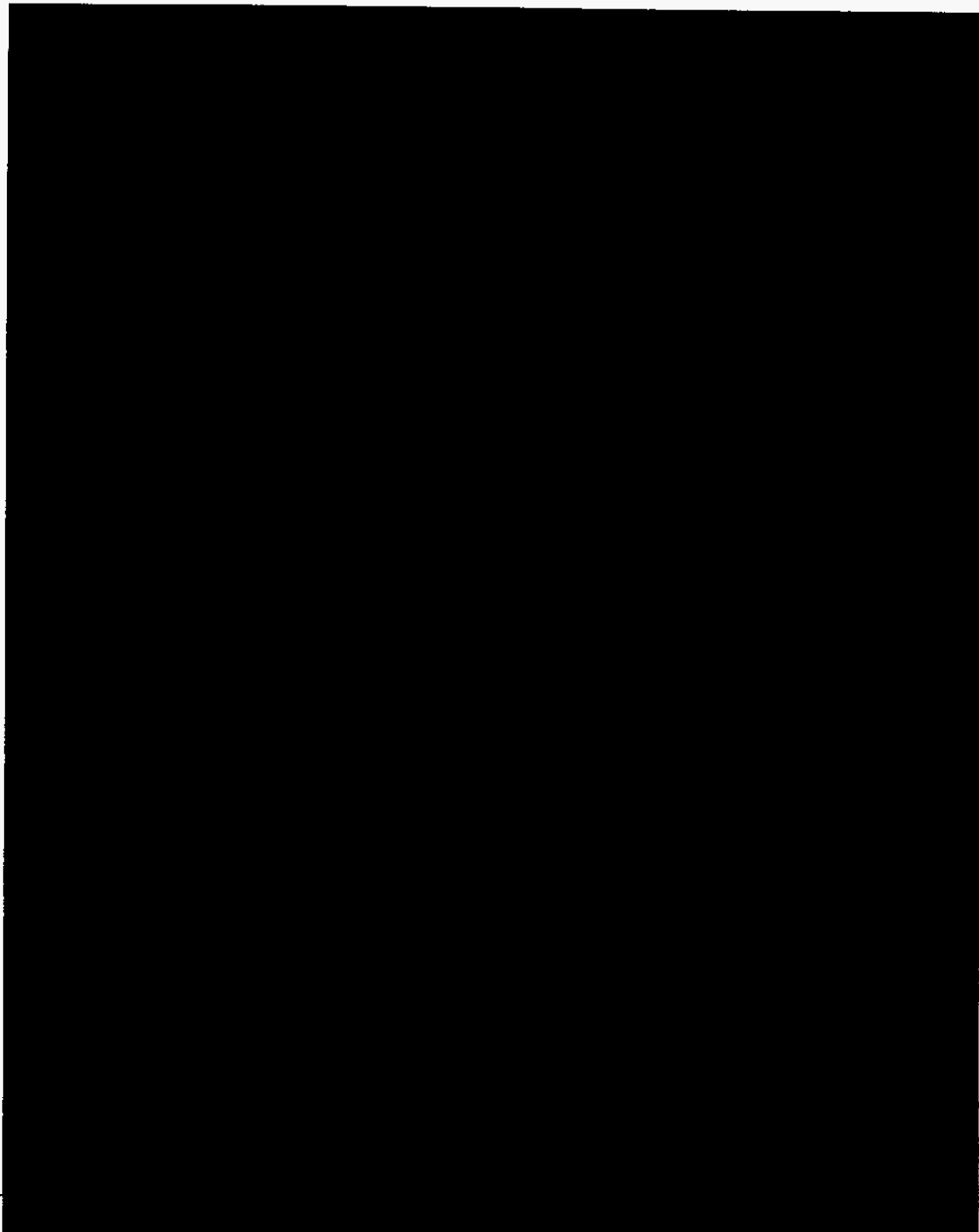


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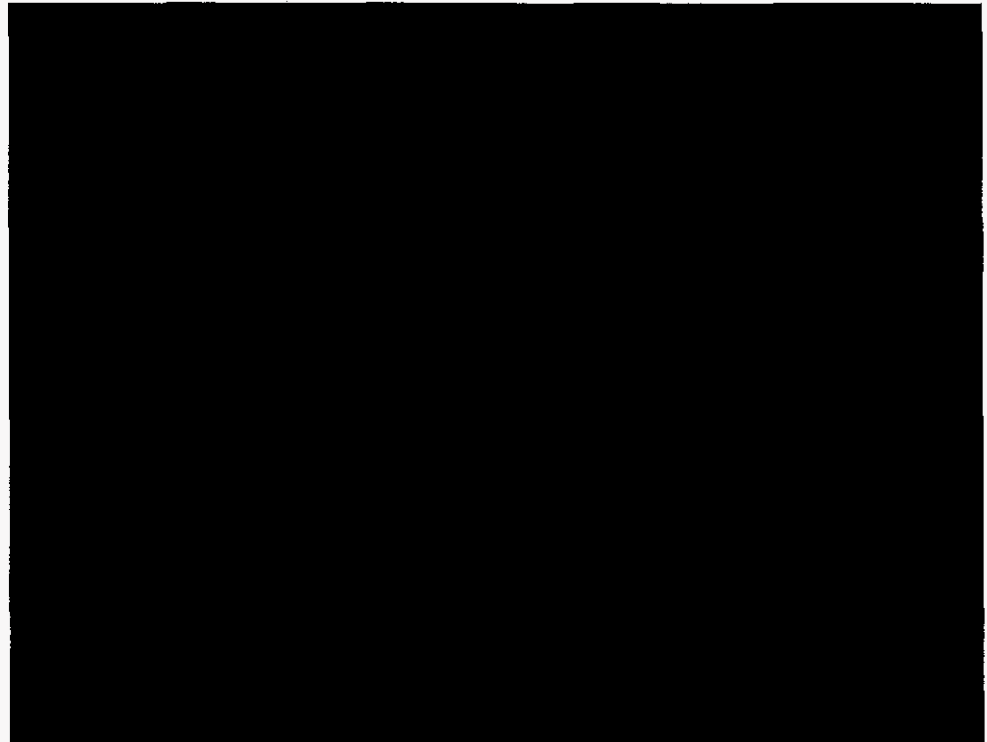
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Extended Power Upgrade  
MASTER NUMBER: 20058849

Two MSR Shell Drain Heat Exchangers	Holtec International	Issued
ISO Phase Bus Duct Cooling Unit	Powell Delta/Unibus	Issued
Turbine Generator Lube Oil Cooler Tube Bundles	Holtec International	Issued
Installation of Secondary Side Insulation	ESI Group, Inc.	Issued
Qual of SG @ EPU Conditions 3030 Mwth	BWC	Issued



## 6.3 Regulatory Strategy:

### 6.3.1 Permitting

There are two primary regulatory 'permits' required: 1) Site Certification from the Florida Department of Environmental Protection (FDEP), and 2) License Amendment from the NRC. PEF received an amended "Conditions of Certification" or COC for Units 3, 4, and 5, in August 2008. CR3 was not issued a separate COC. The COC recognizes PEF's intention to construct a new cooling tower to mitigate thermal impacts from the EPU in order to maintain compliance with the existing NPDES permit.

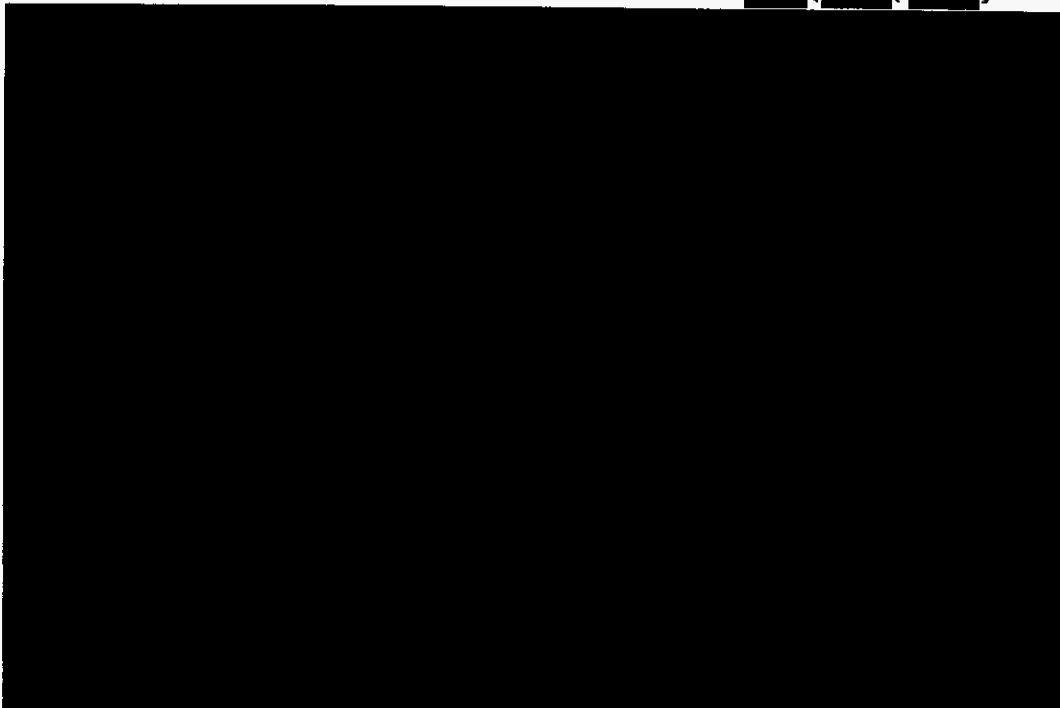
The primary approval for the Extended Power Uprate change in Rated Thermal Power by the NRC will be an extensive license amendment request scheduled to be filed in mid 2009. As other separable items or issues are identified they will be pursued earlier and separately to allow the EPU to be as straight-forward as possible. The initial effort will be to meet with the appropriate NRC staff to determine if formal review and approval is necessary.

The inputs to the EPU LAR as well as any other regulatory approvals are addressed in the overall project schedule and controlled like any other project task.

### 6.3.2 Public Service Commission History

In 2006, PEF filed for a Determination of Need from the Florida Public Service Commission (FPSC). On February 2<sup>nd</sup>, 2007 the FPSC granted the Need Determination. In 2008, the FPSC issued a declaratory statement that determined the Uprate FPL was planning, could be recovered under the provisions of Section 366.93, Fla. Stat., and Rule 25-6.0423, F.A.C. This statement was determined to be applicable to our Uprate as well and allows PEF to recover the carrying costs associated with the Uprate through the Capacity Cost Recovery Clause while under construction and provides for an increase in base rates once the Uprate is placed in-service.

Pursuant to the requirements of the above legislation and Rule, PEF must file testimony each year presenting our actual costs from the prior year for a decision on their prudence as well as actual estimated costs for the current year and projected costs for the coming year. In 2008, PEF asked for recovery of approximately \$24 million in carrying and other costs associated with the Uprate. PEF also requested a base rate increase effective the first billing cycle of 2009 for the MUR portion of the Uprate that was placed in-service in January of 2008. The FPSC approved PEF's requests and determined that costs spent through the end of 2007, had been prudently incurred. In 2009, PEF will again be filing the above referenced items with the FPSC requesting a determination of prudence on 2008 expenditures and in support of our 2010 rates.



**7.0 External Stakeholders:**

- Nuclear Regulatory Commission-License Amendments
- Florida Department of Environmental Protection -- Site Certification and Permits
- Florida Public Service Commission-Recovery Through Special Clauses or Base Rates
- PEF Customers
- CR3 Co-owners
- Local Leaders
- AREVA Engineering Services - NSSS/BOP/Fuels America
- Worley Parsons-Subcontracted to AREVA
- Heat Exchange Services-Subcontracted to AREVA
- Dresser Industries subcontracted to AREVA
- Siemens-Turbine Generator
- Thermal Engineering International - MSRs
- YUBA Heat Exchanger- CDHE/SCHE
- Flow Serve - Pumps and Motors
- B&W Canada-ROTSG Reconciliation
- Barnhart- Heavy Hauling
- Atlantic Construction -- Field Implementation
- MHF - Disposal of Old Components
- Sargent & Lundy - Cooling Tower Study Phase

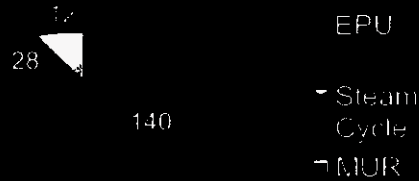
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## Project Overview

### ● EPU Project Overview

- Initial Authorization November 2006, \$493M Financial View BAP
- Completed Measurement Uncertainty Recovery + 12 MWe
- Steam Cycle Efficiency + 28 MWe in 2009
- Extended Power Uprate (EPU) + 140 MWe in 2011
- Point of Discharge (POD) Mitigation concurrent with EPU
- CR3 Increases Output from 900 to 1080 MWe total
- IPP Update in March 2008 to \$461M EAC. Delivers \$2.6 B in fuel savings

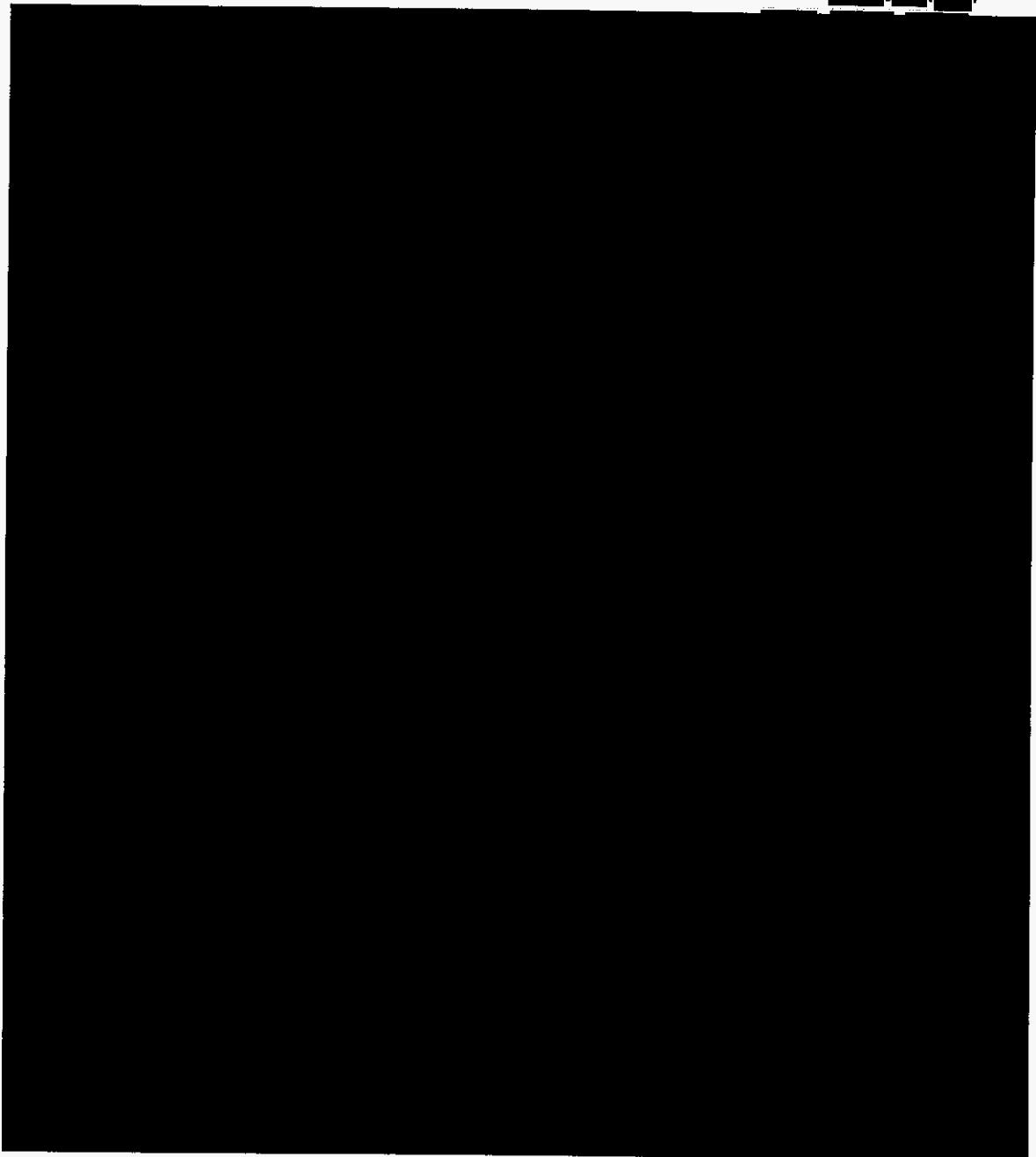
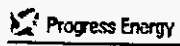
#### CR3 Power Uprate Project



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09NC-OPCPOD1-7-000072





Crystal River Unit 3

Extended Power Uprate  
MASTER NUMBER: 20058849

**Key Performance Indicators and Milestones**

Key Performance Indicators (KPIs) and Milestones will be established and identified on the Project schedule. Milestones and KPIs are controlled by the Project Manager and coordinated through the Project Controls - Functional Lead.



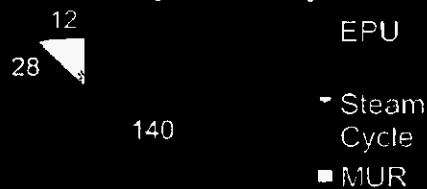
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## Project Overview

### • EPU Project Overview

- Initial Authorization November 2006, [REDACTED] Financial View BAP
- Completed Measurement Uncertainty Recovery [REDACTED] MWe
- Steam Cycle Efficiency + [REDACTED] MWe in 2009
- Extended Power Uprate (EPU) + [REDACTED] MWe in 2011
- Point of Discharge (POD) Mitigation concurrent with EPU
- CR3 Increases Output from [REDACTED] to [REDACTED] MWe total
- IPP Update in March 2008 to [REDACTED] EAC. Delivers [REDACTED] \$ in fuel savings

#### CR3 Power Uprate Project



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09NC-OPCPOD1-7-000072

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## Schedule Performance

- **Schedule Compliance Metric (Activity Started / Completed per project schedule):**
  - 100% - 95% = Green, 95%-90% = , <90% = RED
- **Completed new project and task metrics dashboard that will be used for the EPU Project monthly and for the individual project tasks reports. Examples of these are provided on the following slides.**
- **Metrics include raw cost versus budget, SPI, and EVA analysis per project task and for overall project.**
- **Overall Project SPI is at █%**



4

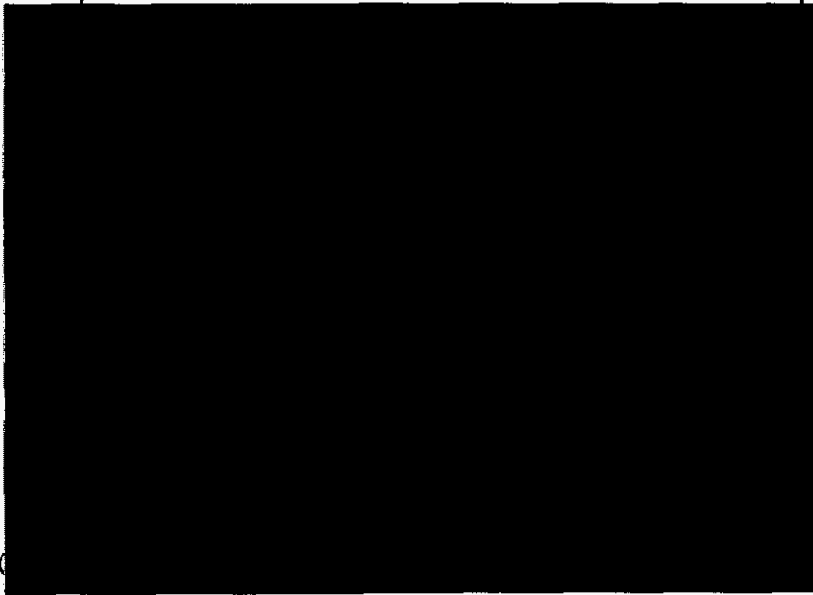




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## Metric Dashboard Panel for Overall Project (Feb 2009)

EPU Task Overview  
www.ending.org/2009

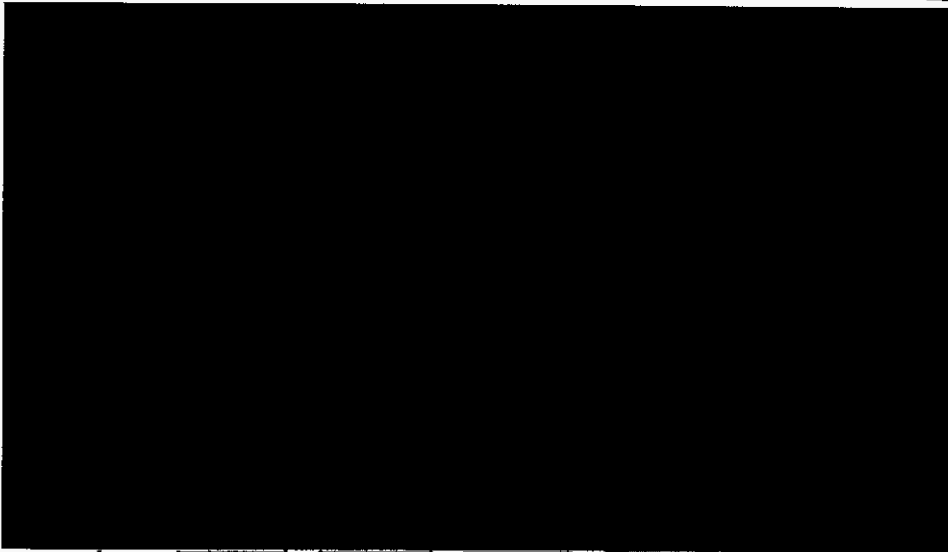


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09NC-OPCPOD1-7-000076

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## Metric Dashboard Panel for Overall Project (Feb 2009)



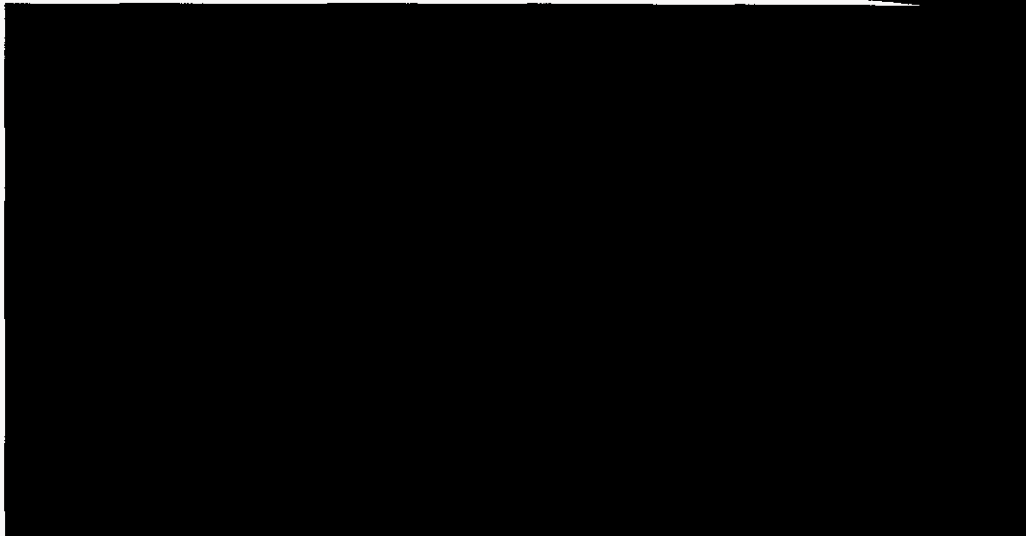
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09NC-OPCPOD1-7-000077

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## Metric Dashboard Panel for Overall Project (Feb 2009)



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## Schedule Performance Major Schedule Performance Issues

- Engineering EC Completion schedule originally called for all ECs to be PGM approved by 12/5/2008. Extended milestone to match the Outage Milestone date of 1/29/2009. Remaining ECs were completed by the milestone date with the exception of the following:
  - ◆ Isophase Bus - PGM approval completed 2/19/09.
  - ◆ ICS Rescale - PGM approval completed 2/19/09
  - ◆ Turbine Generator - PGM approval completed 2/20/09.
  - ◆ Kickoff Meeting for the TBV EC was held on Feb 17<sup>th</sup>, which resulted in an agreement to complete the TBV EC by 6/26/2009.
- \$ on Line ECs also require attention. Fiber optic backbone, temp power for TB, Turbine Crane uprate, and overall 16R EPU summary EC for margin management.
- Turbine component manufacture schedule held for last 3 months, but no improvement from initial slips. With [REDACTED] k [REDACTED], [REDACTED] [REDACTED] / [REDACTED].
- Licensing performance revised Rod ejection analysis LAR submittal 4 weeks. Now scheduled for February 28, 2009. Slipped 4 weeks due to new methodology test question data not applicable or representative of actual conditions at CR3. Left no margin at certain accident scenarios. AREVA revising test question now to support CR3 LAR evaluation.
- Insufficient schedule maturity and level of detail developed for Facilities / logistics pre outage efforts, and also for In Processing work. New detailed level 3 schedules are to be published and used for management of the pre outage logistics and in processing work by Thursday of this week.

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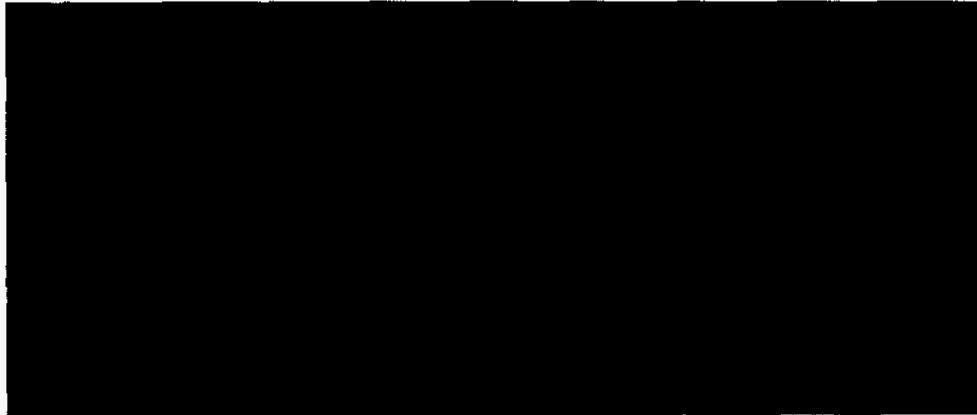
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10NC-OPCPOD3-62-000446

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## Schedule Performance Vendor Oversight Actions

- Established Detailed Vendor Oversight Plans per major contract
- Established scheduled inspection and oversight events at each of the vendor facilities plus weekly schedule review calls and monthly management oversight meetings.



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09NC-OPCPOD1-7-000082

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## Risk Management

- Total Risks Identified to date = 0
  - Red Risks = 0
  - Yellow Risks = 3
  - Green Risks = 1
  - New Risks Uncategorized = 1
- 
- Risk mitigation plans are being developed for each red risk and are being reviewed by the Risk Management Team
    - Risk categories have been redefined and reassigned
    - Meeting membership and dates revised to enable project controls and project management attendance
    - Defined Red Risk Approval at PM level
    - Reviewing all open RED Risk Mitigation strategies for appropriate level of approval and ICF / Schedule input.
    - Planned task Level Shakedown to generate construction phase risk items



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09NC-OPCPOD1-7-000083

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## Costs Results for February 2009

**Financial View Budget** for EPU work for February YTD is [REDACTED] 1 with actuals of [REDACTED] 2 for a favorable variance of [REDACTED].

- [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] and will be re-projected per the Engineering and Procurement contracts. After POD contracts are in place and re-projected some portion of the POD budget will be added to the contingency fund.
- The insulation contract was budgeted at \$ [REDACTED] M for February. No payment is due until pre-outage activities begin. The signed contract is under the budgeted amount.
- Facilities is under budget by approximately [REDACTED]. The associated activities are scheduled for completion and payment March-June.
- Company & Contract Labor positions including indirect support were favorable [REDACTED] k and are be re-cashflowed through second half of 2009;
- The contracted services such as Guidant are approximately [REDACTED] under budget and are being re-cashflowed through second half of 2009.



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09NC-OPCPOD1-7-000086

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## Project Cost Forecast March 2009

### PROJECT PLAN

(Updated in March 2009)

(AFUDC for 2009 was re-forecast; AFUDC for 2010-2010 forecast will be reviewed; Plan is subject to change between Financial View/AFUDC with no change to total of \$461.5M)

### PROJECT LIFE TO DATE ACTUALS



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09NC-OPCPOD1-7-000087



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## Required Modifications

- **Atmospheric Dump Valves (ADV) Being Replaced with Larger, Safety-Related Valves for Secondary Depressurization**
  - **Need to Complete Conceptual Design**
  - **Related Modifications (to EFIC) and Failure Modes and Effects Need to be Completed and Summarized in EPU LAR**
- **Low Pressure Injection Cross Tie Coupled with Hot Leg Injection will Resolve Core Flood Line Break as well as Boron Precipitation**
  - **Conceptual Design from AREVA Complete**
  - **NPC/CR3/NFM&SA Review Underway**
- **Turbine Bypass Valve**
  - **█% design challenge on time (4/1/09)**
  - **Valve manufacturing and development is on schedule**



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09NC-OPCPOD1-7-000091

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## Current Status of EPU Project Works

### ENGINEERING

Completed, Remaining & Ongoing

### PROCUREMENT

All EPU components are in the design and fabrication process at various vendor-shop locations.

### CONSTRUCTION

Detailed implementation task plans (rev 1) are approved and being executed. Heavy Rigging Plans are in engineering review.

### POINT OF DISCHARGE

Design contract has been issued to Mesa Associates and Evaptech. Evaptech will construct cooling towers (above CT basin).

### TOTAL PROJECT % COMPLETE

[REDACTED] | [REDACTED]

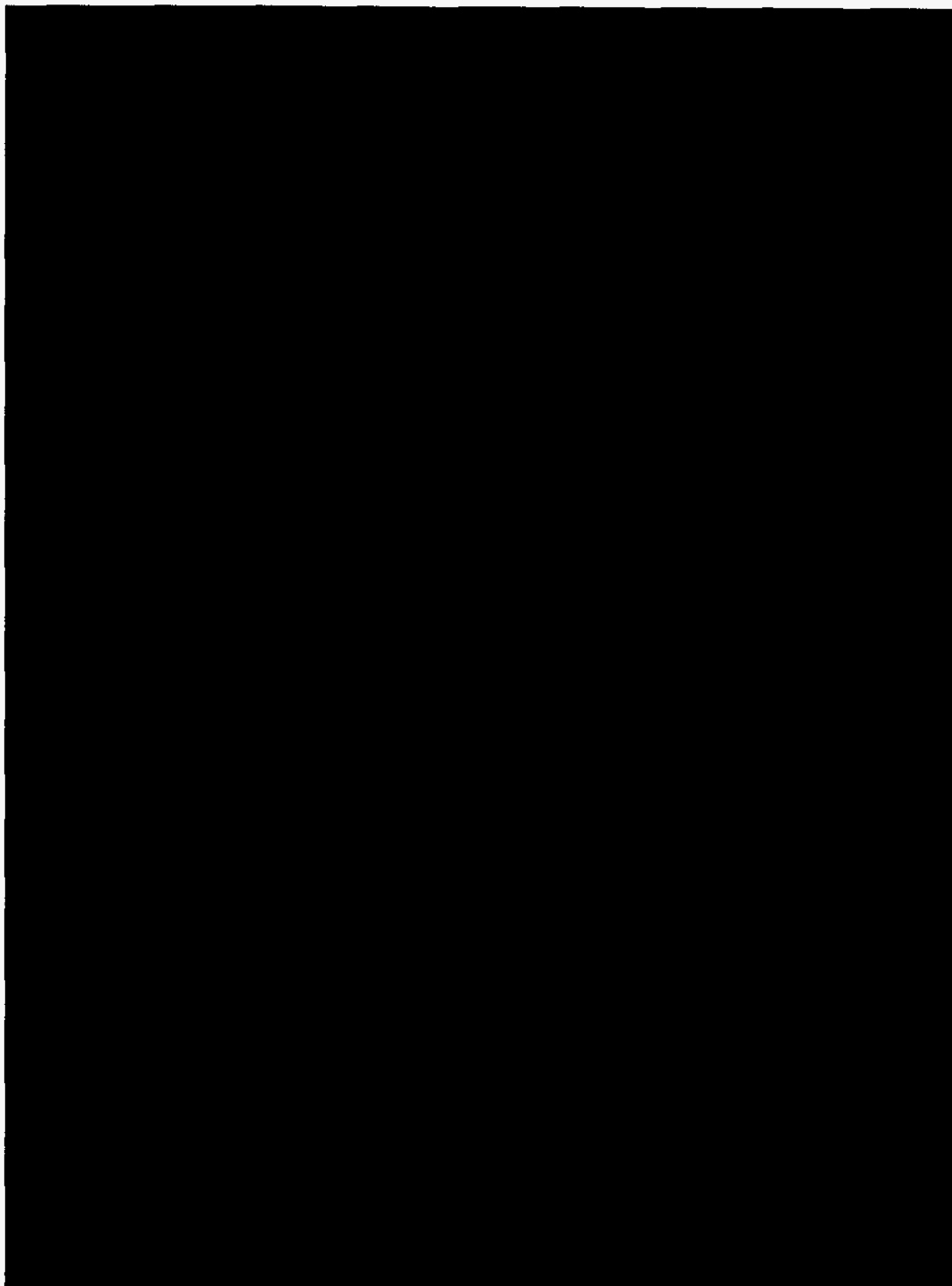
**PROGRESS ENERGY FLORIDA**  
**In re: Nuclear Cost Recovery Clause**  
**Docket 10009-EI**  
**Eighth Request for Confidential Classification**

**Exhibit B**

**BATES NOS.**  
**10NC-OPCPOD3-62-000466**  
**through**  
**10NC-OPCPOD3-62-000514**

**ARE REDACTED IN THEIR ENTIRETY**

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09NC-OPCPOD3-60-000005

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09NC-OPCPOD3-60-000006

10NC-OPCPOD3-62-000519

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**Question # 2**

Referring to Schedule T-8a, please explain how PEF determined that the sole source contract to Areva described on page 22 of 38 was reasonably priced.

**Answer**

[REDACTED]

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**Question # 3**

Referring to pg 23, line 19-24, pg 24, line 1-23, for the uprate project, please provide a listing of all such procurements discussed, with contract value and description of work and/or items so procured.

**Answer**

***Sole Sources:***

<u>Contract</u>	<u>Vendor</u>	<u>Value</u>	<u>Description</u>
101659-61	Areva NP, Inc.	██████████	Engineering Design for MUR
101659-84	Areva NP, Inc.	██████████	EPU NSSS Eng, Fuel Eng, and LAR support
101659-67	Areva NP, Inc.	██████████	EPU phase 1 Design Eval & key issues study
297792-04	Numerical Applications Inc.	██████████	EPU plant parameters & analytical review
157645-23	F&H Contractors	██████████	EPU Construction of Site Admin and trailers

***Fleet Awards:***

<u>Contract</u>	<u>Vendor</u>	<u>Value</u>	<u>Description</u>
44867, Amd 7	Nuflo Technologies	██████████	Leading Edge Flometer (LEFM) MUR
3714, Amd 53 & 57	DZ Atlantic	██████████	LEFM Installation
3714, Amd 61	DZ Atlantic	██████████	EPU Planning, preparation, and staff aug.



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**Question #4**

**Please describe the negotiations leading to the execution of the EPC contract. How did PEF ensure that the contract price was reasonable? Provide and explain your basis for reasonable allocation of risk between the Company and the Consortium.**

**Answer**

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

CONFIDENTIAL

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

**CONFIDENTIAL**

**Question # 5**

Did PEF consider a project implementation plan in which the construction work was bid separately from the engineering and procurement work? Please explain why or why not.

**Answer**

Due to the complexity and size of the Levy project, and the associated myriad interfaces that must occur between the reactor technology vendor (i.e., the vendor performing Nuclear Steam Supply System engineering and specialized equipment procurement) and the constructor, and the attendant risks that result from separately contracting and managing those extremely complex work activities, and the interface and numerous potential disputes between the two vendors under a separate E, P, and C (or EP, and C) approach, PEF concluded that the most efficient and less risky contract structure was an Engineering, Procurement & Construction (EPC) type contract in a "turn-key" approach. This places the burden and risk on the "Consortium" (in this case Westinghouse and Shaw Stone & Webster) to interface directly in the engineering, procurement and construction areas, and places the Consortium fully accountable for any delays and conflicts related to the interface. Moreover, under PEF's EPC contract, [REDACTED] except in a few, limited and very specific circumstances, which further incentivizes the two companies to work together more efficiently and effectively. PEF's approach appears to be consistent with the approach taken by every other utility that has signed a contract for the construction of a new nuclear power plant in the United States. For example, Southern Company executed an EPC contract with Westinghouse and Shaw Stone & Webster, as has SCANA. Similarly, NRG Energy chose to execute an EPC contract with Toshiba for the engineering, procurement and construction of NRG's proposed dual unit South Texas Project.

In addition, because advance reactors such as the Westinghouse AP1000 have not been built, nor any commercial nuclear plant in the United States in the last several decades, PEF concluded that Westinghouse and the constructor would have to work very closely together on design finalization features and approaches that would facilitate a most efficient construction. For example, the AP1000 incorporates over 250 modules, each of which requiring the reactor technology vendor and the constructor to work closely together on how the module would be designed for both operation and shipment to the site, and how the module would interface with connecting systems when installed by the constructor. Under an EPC arrangement, the reactor technology vendor and constructor are held accountable to work out these details directly without being managed as two separate contracts by PEF personnel, and without the utility becoming the arbiter of potentially voluminous disputes between the two contractors.

As a result of these considerations, Progress Energy's Request for Proposal (RFP) sent to potential reactor technology vendors in August 2005 stated that the Company preferred an approach of a "turnkey" power plant. During the RFP process, Westinghouse (WEC) teamed

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6) Question: Referring to Mr. Miller's testimony on page 10 and Exhibit WG-1, Schedule T-6B, please provide a detailed explanation for the 34% variance in the actual cost for Engineering, Design, & Procurement (\$110.7 million) compared to the estimated/actual cost of \$167.5 million. Identify all work papers supporting the rescheduled payment for the Engineering & Design Costs.

**Answer**

The projected spend for Engineering, Design, & Construction of \$167.5 million was based on expectations at the time PEF signed the LOI for long lead equipment and certain design activities. The LOI committed us to a certain payment stream for April, May, and June of 2008 totaling \$ [REDACTED] million for equipment and \$ [REDACTED] million for design work. In anticipation of finalizing the Engineering, Procurement, and Construction (EPC) contract in August, \$ [REDACTED] million was projected for additional long lead equipment payments and \$ [REDACTED] million was included for additional design activities. EPC negotiation was completed in December and the contract signed on December 31, 2008. As a result, the projected additional long lead equipment payments were not made (\$ [REDACTED] million under run) and design activities were minimized (\$ [REDACTED] million) pending EPC finalization.

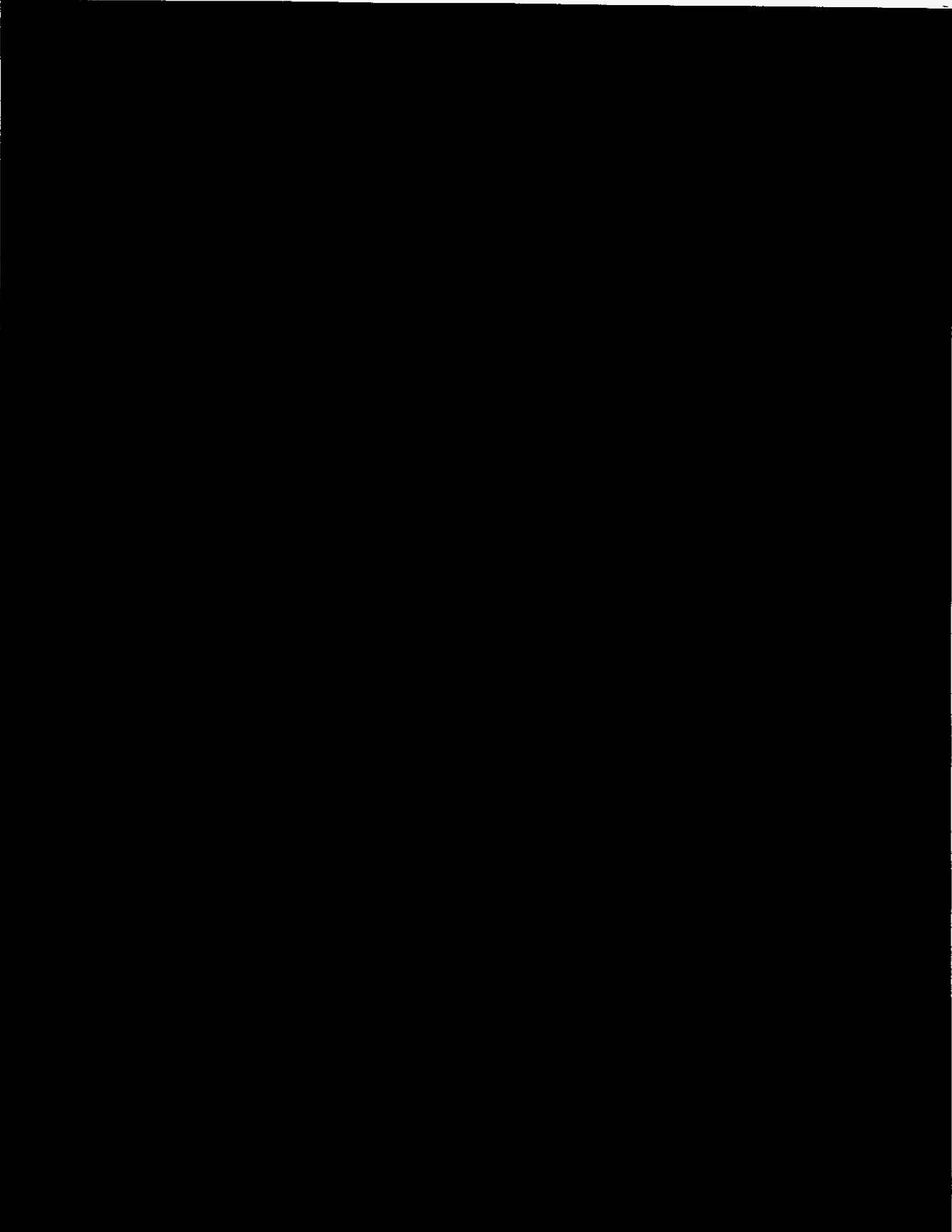
Please also see work papers provided in OPC's First Request for Production of Documents, Question 41.

**PROGRESS ENERGY FLORIDA  
In re: Nuclear Cost Recovery Clause  
Docket 100009-EI  
Eighth Request for Confidential Classification**

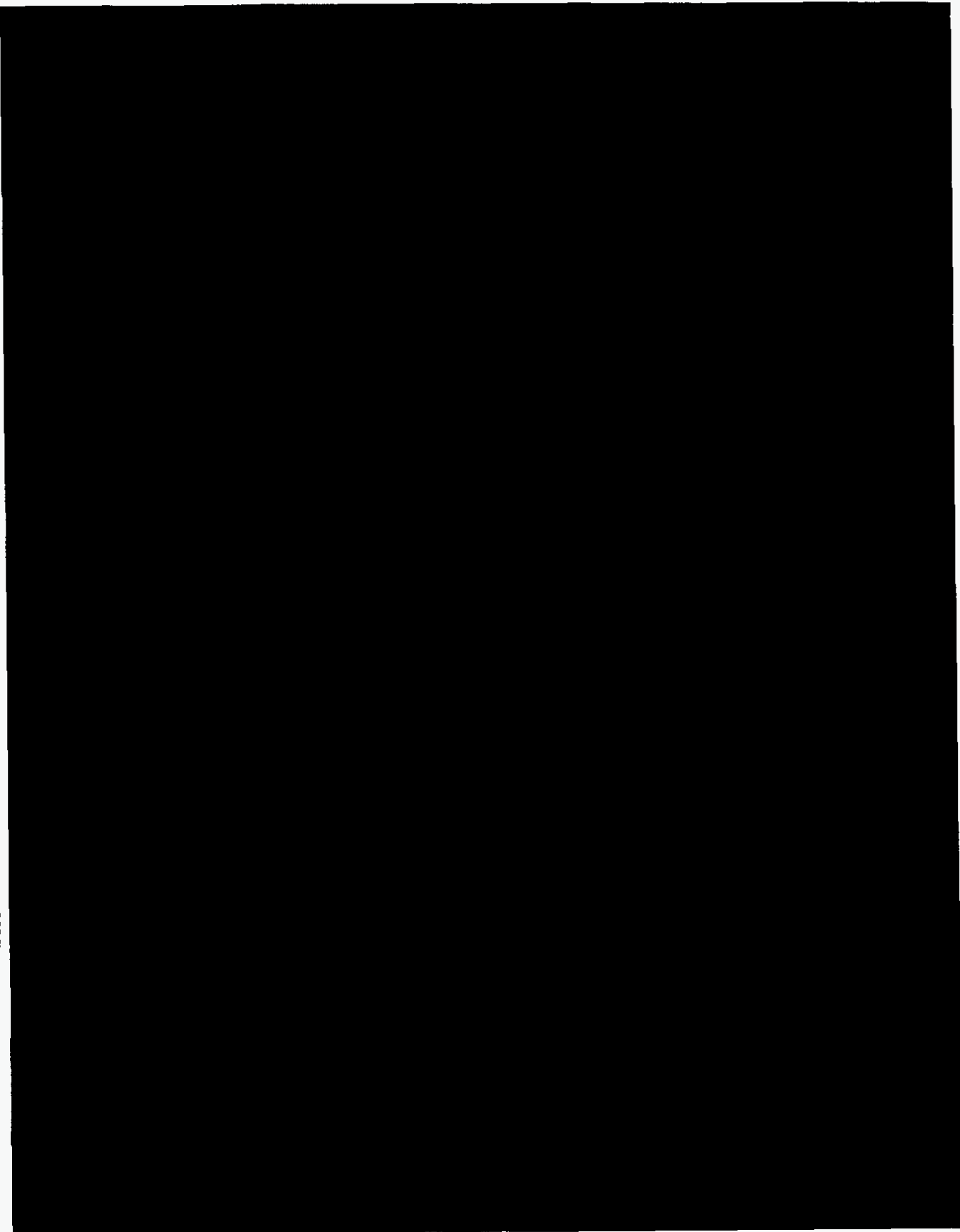
Exhibit B

**BATES NOS.  
10NC-OPCPOD3-62-001365  
through  
10NC-OPCPOD3-62-001368**

**ARE REDACTED IN THEIR ENTIRETY**



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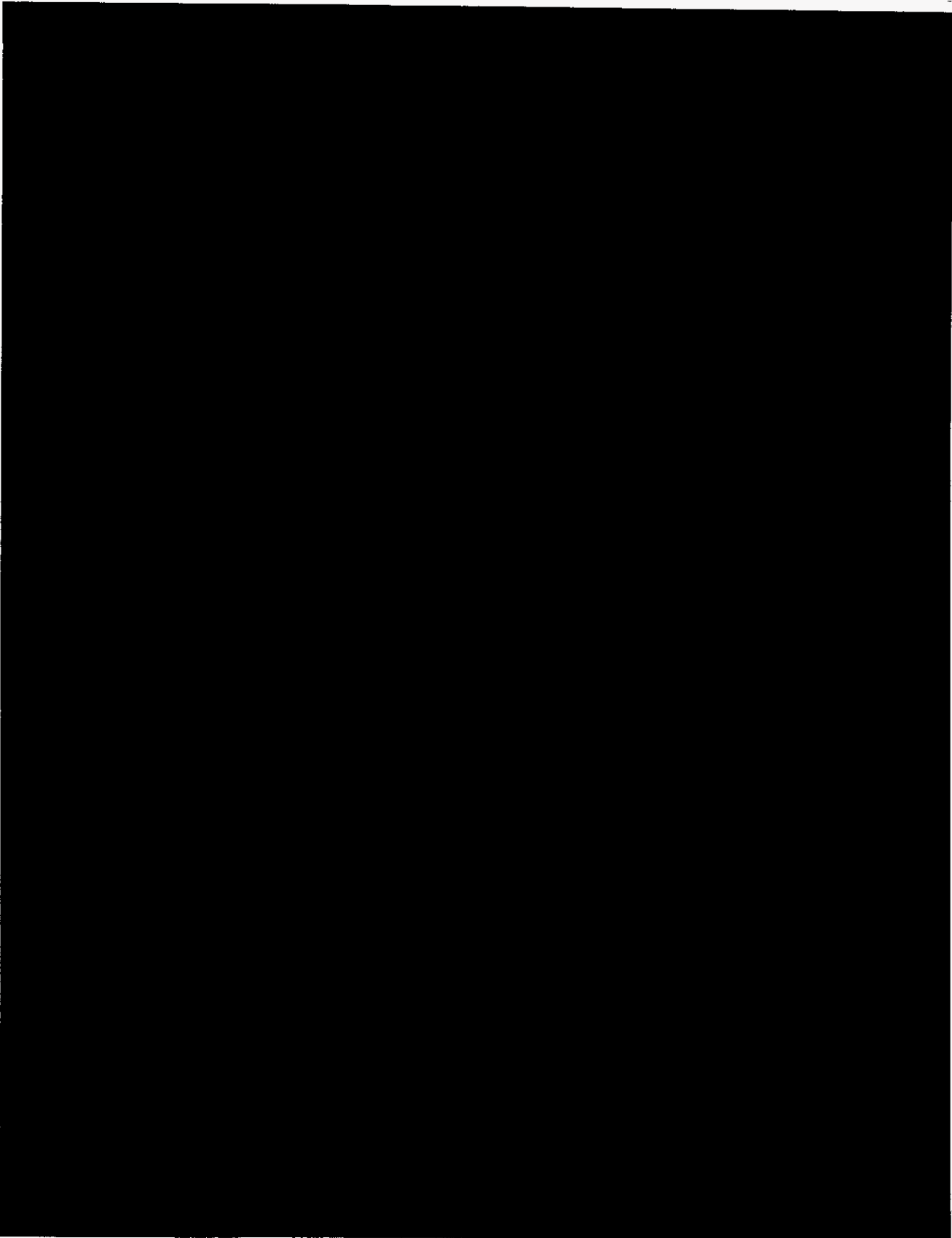


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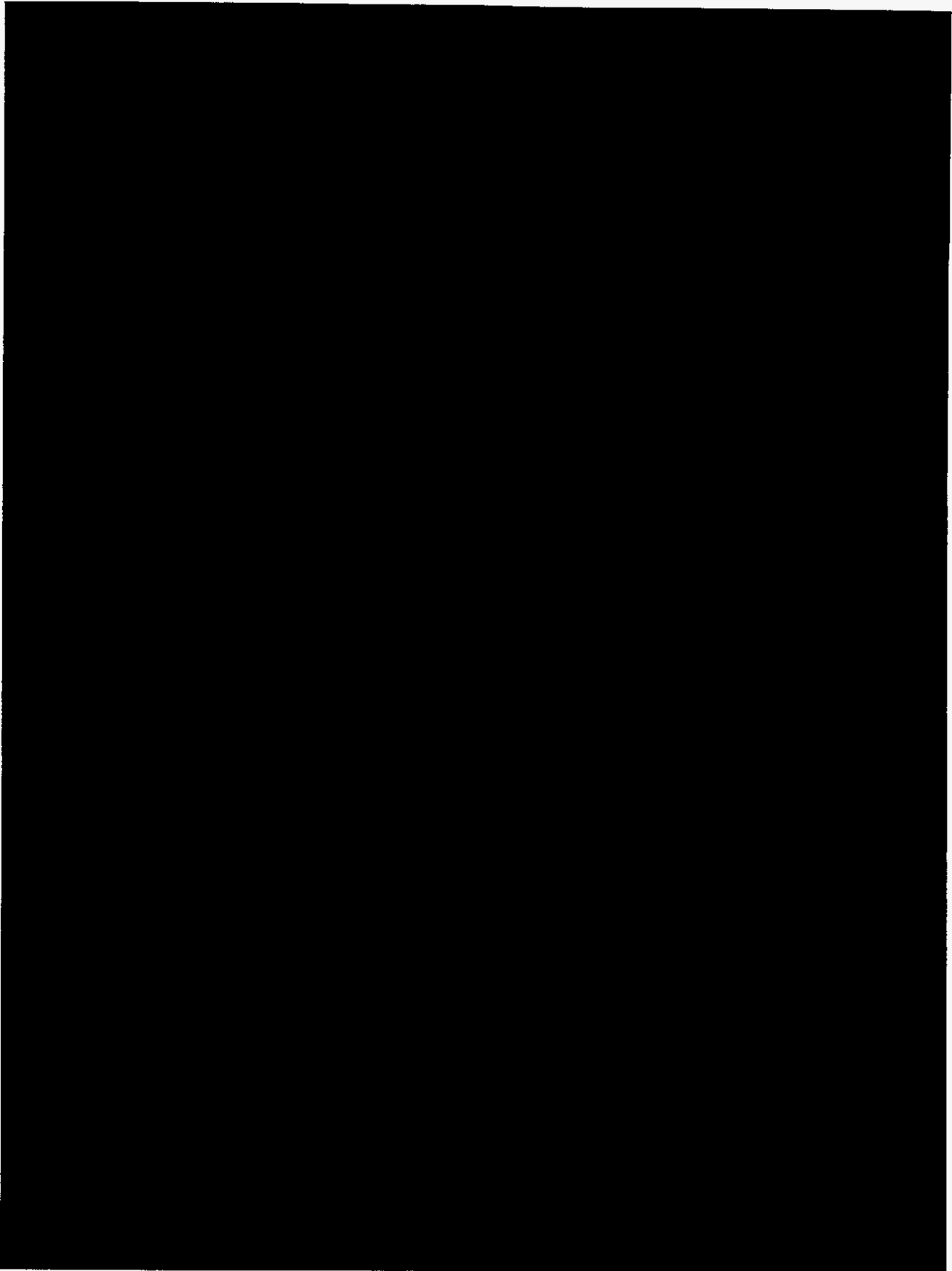
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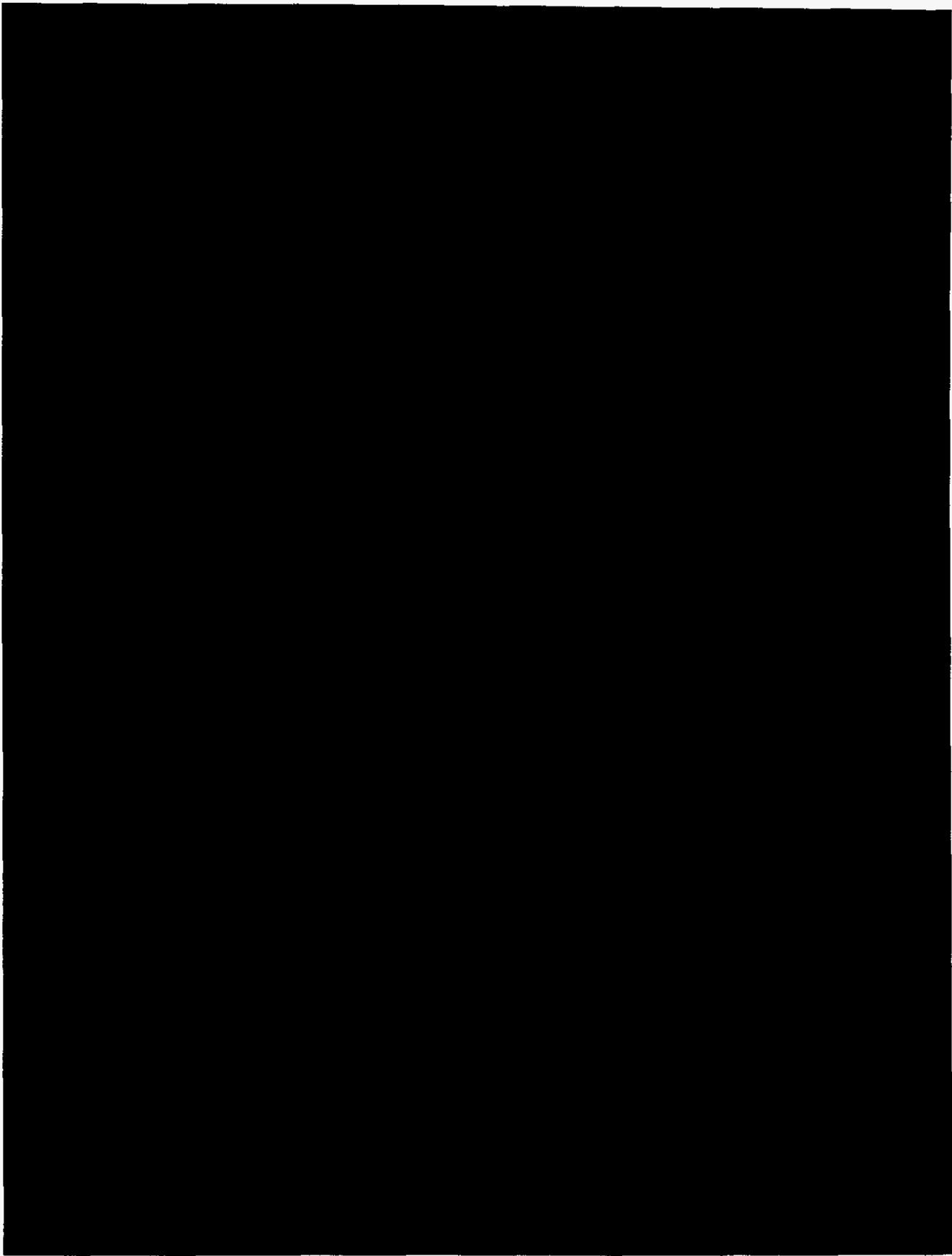


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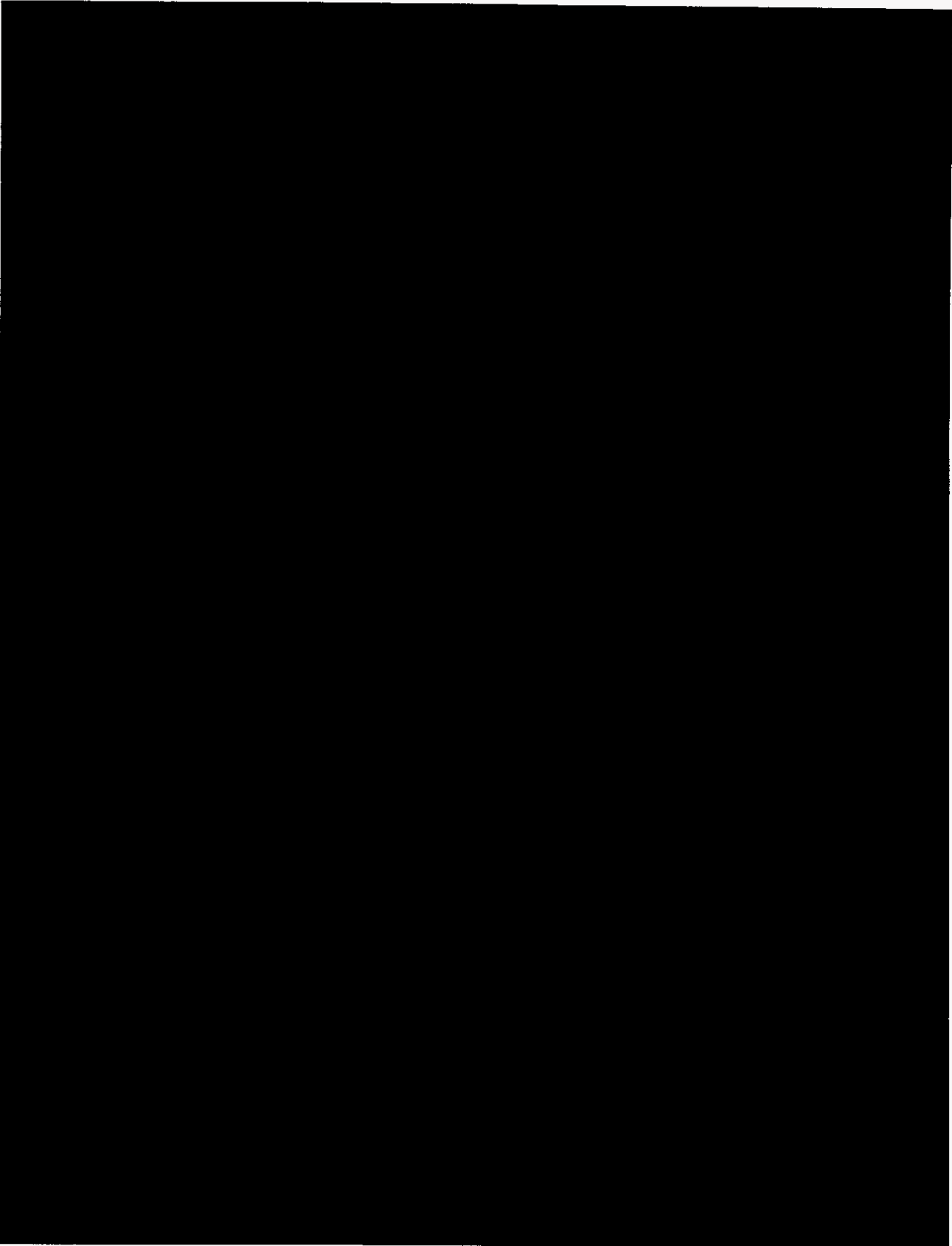


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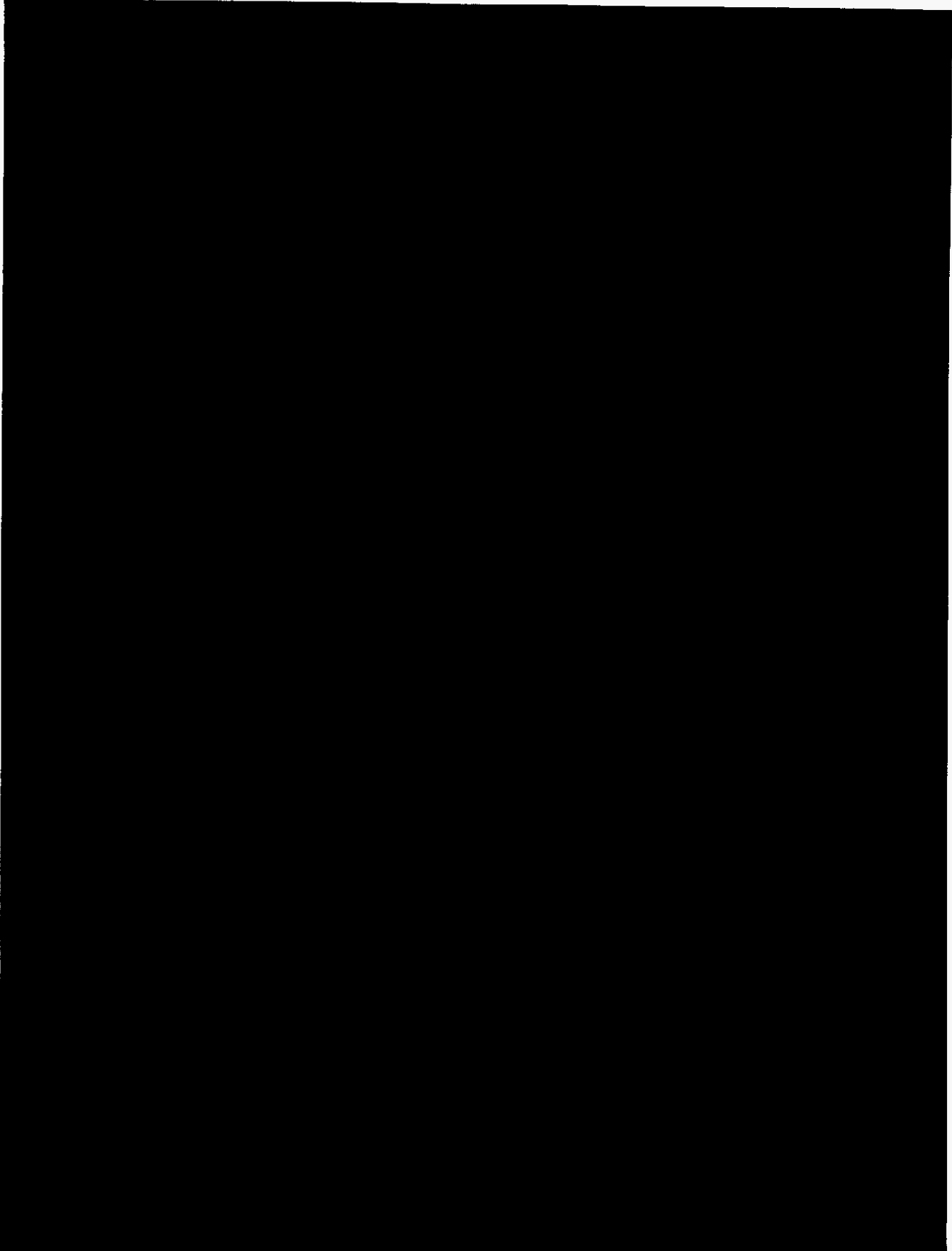


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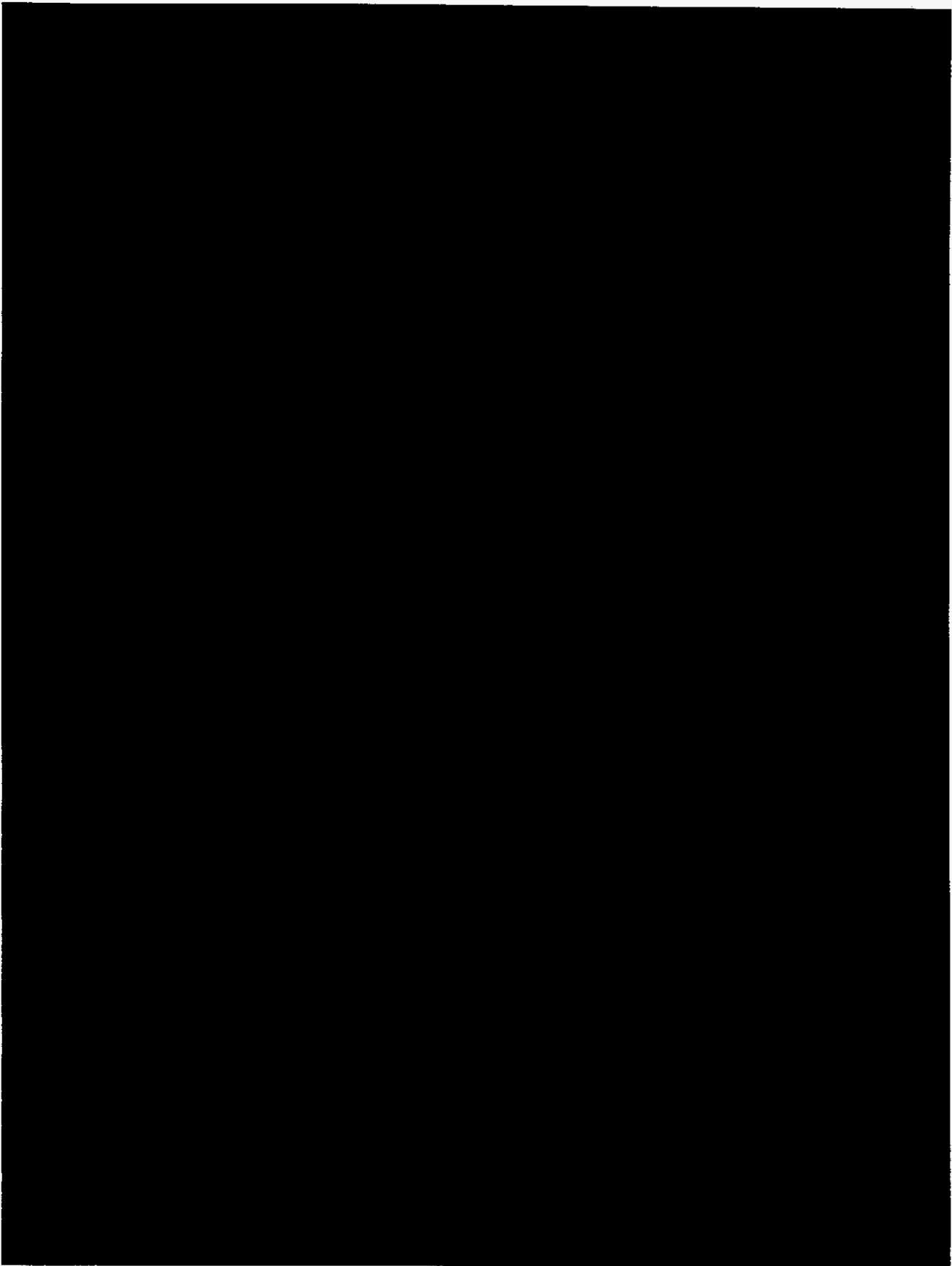
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10NC-OPCPOD3-62-001402



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10NC-OPCPOD3-62-001403

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Levy Nuclear Project Response To:  
Florida Public Service Commission  
Audit Document/Record Request

Utility: Progress Energy Florida  
From: Tripp Coston  
Request Number: DR 5 Date of Request: 4/28/2009  
Audit Purpose: 2009 Project Management and Internal Controls Review

**Item Description:**

- 5a. Please provide any documented analysis of PEF's potential project "off-ramp" points for the Levy project  
[REDACTED]
- 5b. Please provide the estimated costs associated with taking the project "off ramp" at those key points in the Levy project.

Progress Energy response to **Request # 5a** is as follows (Confidential):

The EPC Agreement is the control document and mechanism for project exit points and outlines the significant cost components for an "off-ramp" taken for the Levy project. As part of reasonable and prudent project management, Progress Energy continues to evaluate project risk areas that could prompt an "off-ramp" as an ongoing part of its project management and execution. These risk areas cover market conditions, regulatory policy and support, technical considerations and other factors that have the potential to materially alter project schedule and cost. Key risk areas at the present project stage are assessed in the integrated project plan along with corresponding mitigation for each risk area designed to limit the impact to the project. The IPP and Project Evaluation and Authorization processes also establish thresholds for cost and schedule changes that require approvals by senior management. Should an event occur that suggests a level of impact to the project that mitigation could not reasonably correct, it would be evaluated against options to slow, suspend or halt the project.

Progress Energy response to **Request # 5b** is as follows (Confidential):

Refer to Article 22 of the EPC Agreement which contains specific cost estimates for applicable project suspensions and terminations related to the contract. In addition, other project scope costs would be incurred if the project was suspended or terminated. Specifically, the other project scope costs would include the approved nuclear fuels contract with Westinghouse and any contractual off-ramp costs, on-going project costs including COLA preparation, Site Certification Application, Nuclear Regulatory Commission (NRC) review fees, outside legal counsel and NPD project labor, travel and expenses. Costs outside the EPC and fuel contract referred to here as on-going project costs average approximately \$2.7M per month (COLA preparation vendor \$950K, Site Certification Application vendor support \$250k, NRC review Fees \$500k, outside legal counsel \$500k, NPD Labor \$400k, and NPD expenses/travel \$100K. These costs would continue until the project was successfully terminated or suspended. Additionally, any incremental cost increase for project infrastructure and oversight would experience ramp down time.

09PMA-DR5LEVY-5a-000001  
10NC-OPCPOD3-62-001575



**PROGRESS ENERGY FLORIDA  
In re: Nuclear Cost Recovery Clause  
Docket 100009-EI  
Eighth Request for Confidential Classification**

Exhibit B

**BATES NOS.  
10NC-OPCPOD3-62-001577  
through  
10NC-OPCPOD3-62-001579**

**ARE REDACTED IN THEIR ENTIRETY**

1 A. PEF is continuing its negotiations with municipal, electric cooperative,  
2 and investor-owned utilities regarding potential joint ownership in the  
3 LNP. Although we cannot predict the ultimate outcome of these  
4 discussions, we remain confident that we will complete negotiations and  
5 execute joint ownership agreements with at least some potential co-  
6 owners. [REDACTED]

7 [REDACTED]  
8 [REDACTED]  
9 [REDACTED]  
10 [REDACTED]

11

12 **VII. PROJECT MANAGEMENT AND COST CONTROL OVERSIGHT**

13 **Q. Has the Company implemented any additional project management**  
14 **and cost control oversight mechanisms for the Levy project, since the**  
15 **testimony you filed on March 2, 2009?**

16 A. Yes, the Company implemented several new policies to implement the  
17 EPC contract upon its execution. For example, an EPC Invoice Validation  
18 and Processing implementation procedure has been developed and  
19 implemented. The new procedure is utilized for each EPC invoice that is  
20 submitted. Prior to payment of invoices under the EPC contract, the costs  
21 go through a thorough review process for completeness, accuracy, and  
22 supporting documentation. All payments are approved utilizing the  
23 Company's Corporate Approval Policy. PEF is continuing to work on

1 A. Yes. As the President and CEO of PEF at the time, I was involved in the  
2 Company's decision to sign the EPC agreement. I approved execution of the EPC  
3 agreement at that time, I was a member of the SMC that also approved the  
4 execution of the EPC agreement, and I worked with the Progress Energy Board  
5 that also decided to approve execution of the EPC agreement in December 2008.

6

7 **Q. Why did the Company execute the EPC agreement in December 2008?**

8 A. We signed the EPC agreement primarily because of the following beneficial  
9 negotiated contract terms and provisions:

10

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

1 Of particular concern to me and the Company at the time was [REDACTED]

2 [REDACTED]

3 [REDACTED]

4 In March 2008, when the Company executed the Letter of Intent ("LOI")  
5 for, among other things, the long-lead items for the project, the objective was to  
6 progress with EPC contract negotiations and reach acceptable conclusions so that  
7 an EPC agreement could be executed. An initial target date for completion of  
8 negotiations was set in the LOI for late summer 2008 but by this time there were  
9 still additional, outstanding issues, including [REDACTED] which needed  
10 to be resolved. By the end of the year, the outstanding contract issues that needed  
11 to be resolved were resolved and, with these issues resolved and the EPC  
12 agreement ready for execution, [REDACTED]

13 [REDACTED]

14 Additionally, execution of the EPC agreement at this time was necessary  
15 to move the project forward on schedule for completion of the units by their 2016  
16 and 2017 in-service dates. The Company had a need determination recognizing  
17 the Company's need for additional base load power commencing in 2016. PEF  
18 was reasonably moving forward with the LNP to meet those in-service dates.

19

20 **Q. Some of the intervenor witnesses claim PEF should have waited until the**  
21 **NRC issued its review schedule for the PEF COLA before signing the EPC**  
22 **agreement. Was that option available to PEF?**

1 A. No. As I have explained, the negotiations were at an end, there were no  
2 additional outstanding contract issues to resolve, and therefore [REDACTED]  
3 [REDACTED] I personally met with  
4 senior executives of both Westinghouse and Shaw, Stone, & Webster and they  
5 told me [REDACTED]  
6 [REDACTED]  
7 [REDACTED]

8 Furthermore, the Company and Consortium had negotiated the terms of  
9 the EPC agreement for about two years and the Company had no reasonable  
10 ground to stall the signing of the EPC agreement now that those negotiations were  
11 complete. In particular, schedule uncertainty was not a valid reason to postpone  
12 execution of the EPC agreement because the EPC agreement contained provisions  
13 to address changes in the schedule. And, because the Consortium had invested  
14 about two years in negotiations with PEF over the terms of the EPC agreement,  
15 [REDACTED] e  
16 [REDACTED]  
17 [REDACTED]  
18 [REDACTED]  
19 [REDACTED]

21 Q. Can you explain what a LWA is, Mr. Lyash?

22 A. Yes. A LWA is a limited work authorization issued by the NRC under 10 CFR  
23 Parts 50 and 52. If a LWA is requested by the utility, it can be reviewed and

1 and no NRC statement that suggests the utility should be concerned with the  
2 review schedule if the utility does not receive it within this thirty-day period. See  
3 Exhibit No. \_\_\_ (JL-1) (Jacobs Dep. Excerpt, pp. 109, 112).

4  
5 **Q. Jacobs argues that the Company was in a weaker negotiating position with**  
6 **the Consortium when the schedule shift occurred because PEF had signed**  
7 **the EPC agreement. Do you agree?**

8 A. Absolutely not. PEF is in a stronger position with the Consortium with respect to  
9 the schedule shift having signed the EPC agreement than if PEF had not signed it.  
10 In fact, had PEF known about the NRC's position with respect to the LWA in  
11 December 2008 and [REDACTED]  
12 [REDACTED]  
13 [REDACTED] PEF would have still executed the EPC  
14 agreement and proceeded to amend the EPC agreement under the EPC's contract  
15 suspension and amendment provisions just like PEF is doing now.

16 Executing the EPC agreement in December 2008 [REDACTED]

17 [REDACTED] The EPC  
18 agreement also provided a clear, known process for a suspension of the work,  
19 subsequent rescheduling, and amendment to the EPC agreement for such events  
20 like the schedule shift. If PEF had not signed the EPC agreement in December  
21 2008 and the schedule shift occurred, [REDACTED]

22 [REDACTED]  
23 [REDACTED]

1 [REDACTED]  
2 [REDACTED]  
3 [REDACTED]  
4 [REDACTED]  
5 [REDACTED]  
6 [REDACTED]  
7 [REDACTED]

8           Additionally, if PEF had not executed the EPC agreement on December  
9 31, 2008 there would have been a schedule shift regardless of the NRC's decision  
10 with respect to the LWA. The EPC agreement included the engineering and  
11 construction schedule for completion of the plants in time for their respective in-  
12 service dates in 2016 and 2017. [REDACTED]

13 [REDACTED]

14 [REDACTED] A schedule delay would inevitably occur  
15 [REDACTED]  
16 [REDACTED]

17 [REDACTED] That delay would likely  
18 have been at least as long as the current schedule shift and probably longer due to  
19 [REDACTED]  
20 [REDACTED]

21 NRC had issued a review schedule that included the LWA.

22           For these reasons PEF would have been in a weaker position with the  
23 Consortium had it not signed the EPC agreement when it did. I know this because

1 I was directly involved in the EPC contract negotiations with the Consortium  
2 senior management, I understand those negotiations and what the Consortium was  
3 and was not willing to do, and I understand what the current EPC agreement  
4 provides. Jacobs was not there for those negotiations. I also understand he has  
5 never negotiated an EPC agreement, never negotiated with either member of the  
6 Consortium, and never even read the PEF EPC agreement. See Exhibit No. \_\_\_\_  
7 (JL-1) (Jacobs Dep. Excerpt, pp. 14, 29, 63, 77-78).

8  
9 **Q. Jacobs also claims that PEF was unreasonable and imprudent in signing the**  
10 **EPC agreement in December 2008 because PEF did not have joint owners**  
11 **signed up before the EPC agreement was executed. Was that even likely to**  
12 **occur?**

13 A. No, in fact, it is unreasonable to expect potential joint owners to agree to joint  
14 ownership participation agreements before an EPC agreement is executed. This is  
15 a matter of common sense. The potential joint owners are being asked to  
16 contribute hundreds of millions of dollars toward the engineering, construction,  
17 and operation of the nuclear power plants, contributions that are in large part  
18 determined by the final terms of an EPC agreement for the design, engineering,  
19 procurement, and construction of the plants. No reasonable person would make  
20 such a commitment without knowing exactly what the terms of the final EPC  
21 agreement are. [REDACTED]

22 [REDACTED]  
23 PEF, therefore, always expected and planned to execute the EPC agreement



1 before finalizing the joint ownership participation agreements. That is what PEF  
2 meant when it frequently said in internal documents that joint ownership was  
3 “closely linked” or “closely tied to” the EPC agreement.  
4

5 **Q. Is PEF required to have joint owners or to demonstrate that there will be**  
6 **joint owners in the LNP?**

7 A. No. There is no joint ownership requirement for the LNP. PEF cannot force  
8 potential joint owners to participate in the LNP. The Commission recognized this  
9 in the Need Determination Order when the Commission encouraged PEF to  
10 pursue joint owners. The Commission did not require joint ownership for the  
11 LNP. PEF has pursued and continues to pursue joint owner participation in the  
12 LNP consistent with the Commission’s encouragement.

13 As PEF explained in the need determination proceeding, there are benefits  
14 to joint ownership for PEF and its customers in sharing the costs and risks of the  
15 LNP with other parties. PEF continues to believe those benefits exist. PEF,  
16 therefore, expects to have some level of joint ownership participation in some  
17 form in the LNP. There is also continued interest by other parties in participation  
18 in the LNP. The level and intensity of that interest changes over time, and has  
19 been affected by recent economic events, but it is still there. [REDACTED]

20 [REDACTED]  
21 [REDACTED]  
22 [REDACTED]  
23 [REDACTED]

1 [REDACTED] Now, however, finalization  
2 of any joint ownership participation agreement will, again, depend on the costs  
3 and schedule in the amended EPC agreement. We expect to reach joint ownership  
4 participation agreements only after we have an amended EPC agreement.

5  
6 **Q. Are the impacts of the economy on the capital markets, financing, and**  
7 **regulatory and legislative uncertainty risks that the Company has considered**  
8 **and will consider in making its decisions with respect to the LNP?**

9 A. Yes. These risks were identified by management as part of the Company's risk  
10 management practices and policies, there were risk mitigation strategies  
11 developed for these risks, and those strategies have been employed by the  
12 Company throughout the course of the LNP so far. Notably, neither the Staff  
13 witnesses nor the intervenor witnesses assert that PEF's risk management  
14 practices and policies, or PEF's application of those policies with respect to the  
15 risk mitigation strategies the Company developed, are not reasonable or not  
16 prudent.

17 These risks cannot be eliminated; they can only be monitored and  
18 managed with appropriate responsive risk mitigation strategies. These risks also  
19 exist, however, for any generation or other utility project and certainly they exist  
20 for any long term, base load generation project like the LNP. It is unreasonable to  
21 expect a utility to eliminate these risks or obtain certainty with respect to these  
22 risks for a nuclear power plant project. If that was the expectation, no utility  
23 would build a nuclear power plant.

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**Q. Jacobs makes several statements about the Progress Energy Board at pages 12-14, 16 and 20 of his testimony. He claims the Board was not adequately informed prior to execution of the EPC agreement, he claims the Board had other reasons for delaying the project besides the schedule shift, and he claims that the Board had a different view than Mr. Miller with respect to the feasibility of completing the nuclear power plants. Can you address these claims?**

**A.** Yes, I can because I was there, Jacobs was not. I was present at each of the Board meetings Jacobs references in his testimony and I know what was discussed. First, he claims the Board was not adequately informed about the NRC COLA review, in particular the LWA, and joint ownership at the December 2008 Board meeting where the execution of the EPC agreement was approved. This is inaccurate and untrue. [REDACTED]  
[REDACTED]  
[REDACTED] The LWA was not specifically addressed apart from the COLA because there was no reason to expect that the NRC was not going to issue the LWA at all prior to January 23, 2009, for all the reasons I have provided above. Jacobs is again relying on hindsight to suggest the Board should have been told in December about an event that did not occur until January.

Jacobs is simply wrong that the status of joint ownership was not discussed. [REDACTED] (at page 110 of Jacobs

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Exhibit No. WRJ(PEF)-3) [REDACTED]  
[REDACTED] Jacobs speculates that the Board changed its position regarding whether or not joint ownership agreements were required before PEF executed the EPC agreement. Exhibit No. \_\_\_\_ (JL-1) (Jacobs Dep. Excerpt, p. 139). As I previously explained, PEF never expected to have joint ownership participation agreements signed before the EPC agreement was executed. Rather, PEF expected that reasonable joint ownership participants would want to know what the final, executed EPC agreement provided before committing to a joint ownership participation agreement. Moreover, as I have noted, [REDACTED]  
[REDACTED]  
[REDACTED]

Second, Jacobs claims certain words in the April 15, 2009 letter from the Progress Energy CEO to the Board indicate that PEF had other reasons for the schedule shift besides the NRC determination with the respect to the Company's LWA request. (See Jacobs Test., p. 12; Exhibit No. WRJ(PEF)-3, pp. 42-43). This claim ignores the plain language of the letter. The letter itself is dated April 15, 2009, which is after the NRC's determination with respect to the LWA.

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED] Exhibit No. \_\_\_\_ (JL-1)

(Jacobs Dep. Excerpt, p. 142).

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[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED] (Id. at p. 143).

Finally, Jacobs claims that Mr. Miller's discussion about the long term benefits of the LNP nuclear power plants in his direct testimony regarding the feasibility of completing the power plants is at odds with the Board's discussions at the April 17, 2009 Board meeting. Jacobs is wrong. [REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

[REDACTED] This discussion is reflected under the "Summary" bullet point that references the fact that "Levy nuclear remains vital to [Progress Energy's] Balanced Solution." (See Exhibit WRJ(PEF)-3, p. 58 of 233). These bullet points introduce issues for discussion; they do not reflect the substance of that entire Board discussion. Progress Energy's Balanced Solution, however, calls for advanced generation resources such as the LNP for all of the reasons described in Mr. Miller's testimony.

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**V. REASONABLENESS AND PRUDENCE OF EXECUTING THE EPC AGREEMENT.**

**Q. Was PEF reasonable and prudent in executing the EPC Agreement when it did in December 2008?**

A. Yes, for several reasons, but two principal ones. [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

[REDACTED] As I explain below, the schedule shift would have necessarily occurred anyway had PEF not signed the EPC agreement.

Second, PEF did properly assess and manage the risks associated with the LNP at the time of EPC contract execution, including the regulatory approval risk including the LWA. Based on what PEF knew at the time of signing the EPC agreement, and not having the benefit of what later occurred as Jacobs does, PEF reasonably expected issuance of a LWA on an acceptable schedule. PEF certainly did not expect, and had no reason to expect, that the NRC would adopt a review schedule that effectively eliminated the issuance of an LWA entirely. Indeed, as late as December 4, 2008, approximately three weeks before the EPC agreement was executed, NRC leadership responsible for the Levy project made statements in public meetings near the Levy site about their expectations for completing an

1 LWA review in approximately two years, as further discussed below. Just  
2 because a risk materializes does not mean PEF should have known it would occur  
3 or that PEF's risk management was in any way improper. That is the case here.  
4 The elimination of all risks prior to execution of the EPC agreement was simply  
5 impossible. And, if as Jacobs suggests, PEF should have either eliminated all  
6 risks or waited until PEF had certainty, PEF would never build the LNP, or any  
7 project for that matter.

8 Third, execution of the EPC agreement at this time was appropriate to  
9 keep the LNP on schedule to meet the in-service dates for the Levy units. The  
10 EPC agreement was the best means to meet the schedule most efficiently and  
11 productively and to ensure more certainty as to schedule and cost as the project  
12 moved forward. Proceeding without an EPC agreement would have required  
13 some other contractual mechanism(s), such as a new Letter of Intent and  
14 continuation of the separate master service agreement work orders with the  
15 Consortium, to keep the project moving forward at all but that certainly would  
16 mean a schedule shift or delay.

17  
18 **Q. What were the contractual benefits that PEF preserved for PEF and its**  
19 **customers by executing the EPC Agreement on December 31, 2008?**

20 **A. These favorable contract terms and conditions included, but are not limited to:**

21 ■ [REDACTED]

■ [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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As a member of the PEF team negotiating the EPC agreement with Westinghouse and Shaw, Stone, & Webster (the "Consortium"), [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Mr. Lyash explains in his testimony that, based on direct discussions with the Consortium's senior management, [REDACTED]



1 [REDACTED]  
2 [REDACTED]  
3 [REDACTED]  
4 [REDACTED]  
5 [REDACTED]  
6 [REDACTED]  
7 [REDACTED]

8 As a result, [REDACTED]

9 [REDACTED]  
10 [REDACTED]  
11 [REDACTED]  
12 [REDACTED]  
13 [REDACTED]  
14 [REDACTED]  
15 [REDACTED]

16 [REDACTED]

17 [REDACTED]

18 [REDACTED] The EPC agreement established the detailed  
19 timeframe for all of the activities necessary to design and build the Levy units.

20 [REDACTED]  
21 [REDACTED]  
22 [REDACTED]  
23 [REDACTED]

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[REDACTED]

[REDACTED]

[REDACTED] given that there was no indication that such a change by the NRC was forthcoming.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

**Q. But Jacobs claims you said in your deposition that PEF would not have signed the EPC agreement if PEF had received the NRC review schedule the NRC issued in February in early December. Is that right?**

**A. No, what I clearly said was that it could not be signed "in the form" that it was signed because the schedule shift necessarily caused changes in the EPC agreement. But recall that** [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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[REDACTED]

**Q. Jacobs also argues PEF is in a weaker position now because it executed the EPC Agreement than PEF would have been if PEF did not execute the EPC Agreement. Do you agree?**

**A. No.** [REDACTED]

1 [REDACTED]  
2 [REDACTED]  
3 [REDACTED]  
4 [REDACTED]  
5 [REDACTED]  
6 [REDACTED]

7 [REDACTED]  
8 [REDACTED]  
9 [REDACTED]  
10 [REDACTED] we would

11 not be in a strong negotiating position, as Jacobs implies, without any support  
12 whatsoever. Indeed, Jacobs never even read our EPC agreement, he has never  
13 negotiated one, and he has never negotiated with either member of the  
14 Consortium. See Exhibit No. \_\_\_ (GM-5) (Jacobs Dep. Excerpt, pp. 14, 29, 77-  
15 78).

16  
17 **Q. Jacobs also claims PEF's bargaining position would have improved had PEF**  
18 **delayed signing the EPC agreement until the LWA and the other risks "were**  
19 **known or clarified." Do you agree?**

20 **A.** No. As I explained above, it is impossible to eliminate all risk or achieve  
21 certainty with respect to all risks on a project, which is what Jacobs suggests PEF  
22 should have done. Risks can only be "known" or "clarified" with certainty when  
23 the risk occurs or the passage of time or events eliminate the risk. Waiting for all

1 **Q. Did the NRC tell PEF not to submit a COLA with a LWA or that PEF's**  
2 **COLA would be rejected if it included a LWA?**

3 A. No, it did not. In fact, the NRC's public stance based on the amendment to the  
4 rule in 2007 and public comments was that the NRC would in fact entertain LWA  
5 requests and, therefore, considered them appropriate. In a May 22, 2007 public  
6 meeting, the NRC indicated that review of an LWA, resulting in issuance of the  
7 FEIS and FSER could in fact be completed in 12 plus or minus 6 months.

8  
9 **Q. Was the LWA identified in the Company's risk management process?**

10 A. Yes, all LNP regulatory approvals, schedule events, and other factors possibly  
11 having an impact on the LNP were identified as a potential risk in the Company's  
12 risk management process, identified in the risk management tool or register,  
13 evaluated for likelihood and impact or consequence, given an impact statement,  
14 and a response or action plan. It is important to remember that this is a "living"  
15 document and process; it constantly changes and the risk matrix is constantly  
16 revised as needed to address subsequent events or changes over time. For  
17 example, leading up to the filing of the COLA with the LWA, the risk assessment  
18 focused on meeting the date targeted for filing the COLA, which was met. After  
19 the COLA was filed in late July 2008, the risk assessment addressed the  
20 regulatory approval risk as the next step in the process.

21 LWA approval was separately identified and evaluated [REDACTED]

22 [REDACTED]

23 [REDACTED]

1 [REDACTED]

2 [REDACTED]

3 [REDACTED]

4 This risk assessment was included in the Company's Integrated Project  
5 Plan, which provided senior management with the details on the project scope to  
6 support funding for the LNP and EPC contract execution. Subsequent to filing  
7 the COLA, the NRC review schedule for the COLA, which included the LWA,  
8 was included for management attention in the monthly Nuclear Plant  
9 Development ("NPD") Performance Reports. The COLA and the interaction with  
10 the NRC was also a standard topic at the weekly Levy Integrated Nuclear  
11 Committee ("LINC") meetings. The LINC provided the means by which senior  
12 management and all Company departments involved in or affected by the LNP  
13 reviewed, addressed the status of the LNP, and identified action items for the LNP  
14 on a weekly basis. Through the LINC and NPD Performance Reports, as with  
15 other project documents, the interactions with the NRC regarding the COLA,  
16 including the LWA, and NRC review schedule were communicated to  
17 management.

18 Notably, Jacobs agreed in his deposition that PEF had identified the  
19 COLA, including the LWA, approval as a risk, and developed and implemented a  
20 reasonable risk mitigation plan for this risk. First, he agreed that after submitting  
21 the COLA to the NRC, the Company did not have control over the project  
22 schedule, rather the NRC did. See Exhibit No. \_\_\_\_ (GM-5) (Jacobs, Dep.  
23 Excerpt, p. 45, L. 3-8). Second, he agreed that he had reviewed the Company's

1 risk management process and that this risk management was part of the project  
2 management processes that he found to be reasonable and prudent. (Id. at p. 45,  
3 L. 16-23). Third, he agreed the Company's risk management process included a  
4 risk matrix that identified the COLA licensing issue, including the LWA, as a  
5 risk, and that the Company developed a risk management action plan for this  
6 licensing risk that involved what most utilities do with respect to that risk,  
7 namely, [REDACTED]

8 [REDACTED]  
9 [REDACTED] (Id. at pp. 45-47). He further agreed that this risk  
10 mitigation action plan was the only reasonable action plan to address the licensing  
11 risk and that the Company would not have done something different. (Id. at p. 48,  
12 L. 2-17). Finally, he agreed that PEF implemented this risk mitigation action plan  
13 with respect to the COLA and LWA and that he did not have an opinion that PEF  
14 did not do something that it should have done with respect to this risk mitigation  
15 strategy. (Id. at P. 48, L. 18-25; p. 49, L. 1-3). In other words, Jacobs recognizes  
16 that PEF did everything that PEF reasonably could have done to address the  
17 potential risk that the NRC did not issue a schedule for the LWA and other items  
18 in the PEF COLA consistent with PEF's requested schedule.

19  
20 **Q. Did the Company prepare the design analysis necessary to develop a sound**  
21 **LWA scope of work?**

22 **A.** Yes, it did. The Company's LWA scope was developed by the Joint Venture  
23 team as part of the COLA application using industry recognized domestic and

1 because excavation is not construction under the NRC's LWA rule and the  
2 dewatering activities are unrelated to the safety-related structures, systems, and  
3 components ("SSC's"), which is the case with respect to the dewatering work on  
4 the LNP. Again, the dewatering work is necessary only for the excavation so the  
5 Company can excavate the hole and keep the ground water out. The NRC's  
6 request that PEF include the dewatering work in the LWA scope in fact indicated  
7 that the NRC was reviewing the LWA, as PEF requested the NRC to do. Further,  
8 when the NRC docketed the Company's COLA, including the LWA, on October  
9 6, 2008, that action indicated that the entire application was sufficient for NRC  
10 review and that there were no inherent problems in applying the design to the site  
11 that prevented NRC review. Jacobs agreed in his deposition that the docketing of  
12 the COLA represented by the October 6, 2008 letter meant that the NRC was  
13 going to undertake to review the COLA application and everything in it, including  
14 the LWA. See Exhibit No. \_\_\_ (GM-5) (Jacobs, Dep. Excerpt, p. 89, L. 1-13).

15  
16 **Q. Did the inclusion of the dewatering items in the scope of the LWA mean that**  
17 **the Company's requested review schedule for LWA issuance would not be**  
18 **granted?**

19 A. No. The inclusion of the dewatering items in the scope of the LWA did not  
20 impact the review schedule at all. It did require re-sequencing of the physical site  
21 work in order to perform it more in parallel, rather than in series, to ensure that  
22 the construction schedule could still be met, which was the case. [REDACTED]

23 [REDACTED]



1 [REDACTED] As the Staff audit report notes, the Company retained Burns & Roe to  
2 assist the Company in its EPC contract negotiations by reviewing the initial price  
3 book and supporting cost library data and initial construction schedule provided  
4 the Company by the Consortium. Burns & Roe noted [REDACTED]

5 [REDACTED]  
6 [REDACTED]  
7 [REDACTED]  
8 [REDACTED]

9 [REDACTED] This is what in fact occurred when the Company adjusted  
10 the construction schedule to include the dewatering work in the LWA scope at the  
11 NRC's request in September 2008. Burns & Roe was not provided the NRC  
12 review schedule and was not commenting on the schedule for regulatory review  
13 and approval of the LWA at all.

14 Inclusion of these items within the LWA still left the NRC approximately  
15 thirty (30) months to review and issue the LWA from the COLA submittal. The  
16 Company identified the site, engaged the necessary COLA contractors and  
17 subcontractors to develop the site design, had the engineering and geological  
18 testing and analysis completed, including the drilling and technical evaluation of  
19 108 soil borings, completed the geotechnical evaluation, prepared the design for  
20 the sub-foundation and foundation, and submitted this information to the NRC in  
21 approximately eighteen (18) months. The Company reasonably believed about 30  
22 months was sufficient time to review what it took the Company about 18 months  
23 to complete and provide to the NRC. This is the principle reason, together with

1 the advice of all our experts and input from the industry regarding the propriety of  
2 an LWA for the LNP, that the Company evaluated the risk of not obtaining the  
3 LWA [REDACTED] And, at no time before January 23, 2009 did the NRC  
4 indicate that it was not going to review the LWA at all, which was the effect of  
5 the NRC's subsequent decision to review the LWA work only on the same time  
6 schedule as the COL.

7  
8 **Q. Did the Company maintain a close interface with the NRC with respect to its**  
9 **LWA and COLA?**

10 A. Yes, it did. The Company began with meetings, presentations, and written  
11 responses to the NRC and its technical reviewers even before it submitted its  
12 COLA with the LWA to explain to the NRC the Levy site, the COLA, and the  
13 LWA. These occurred on January 10, 2008, February 20, 2008, March 5, 2008,  
14 and June 30, 2008. Coinciding with the submittal of the COLA to the NRC the  
15 Company met with the NRC technical reviewers on July 28, 2008 to update the  
16 prior presentations and review the LWA scope. After the COLA was submitted  
17 the Company and the NRC had calls or meetings on September 5, 2008,  
18 September 9, 2008, October 1, 2008, December 3-4, 2008, and January 6, 2009 in  
19 addition to written communications. A list and brief description of some of these  
20 interactions with the NRC regarding the Company's COLA, including the LWA,  
21 is attached as Exhibit No. \_\_\_\_ (GM-7) to my rebuttal testimony. In addition,  
22 PEF's staff regularly communicated with the NRC staff during the time period on  
23 a frequent basis. Finally, prior to execution of the EPC agreement, Mr. Jeff Lyash

1 and Mr. Bill Johnson went to Washington to meet with the NRC leadership. At  
2 no time during or following any of these interactions with the NRC did the NRC  
3 indicate that it would not review the LWA before the COL thereby effectively  
4 eliminating the LWA for the LNP.

5  
6 **Q. By the way, if the Company had assessed the risk of not obtaining the LWA**  
7 **██████████ would the Company's mitigation plan and efforts been any**  
8 **different than it was?**

9 A. No. Even though the Company assessed the risk of not obtaining a LWA ██████████  
10 ██████████ the Company always recognized that the ██████████  
11 ██████████. Accordingly, the Company fully invested in its mitigation plan to  
12 maintain the interaction with the NRC and see to it that the NRC had what it  
13 needed to make that decision. In fact, there is no dispute that those are the  
14 appropriate actions to take and that we were executing our mitigation plan. This  
15 is what you do after you submit the permit or application, is maintain interaction  
16 with the agency and timely respond to inquiries – a point with which Jacobs  
17 agrees. See Exhibit No. \_\_\_\_ (GM-5) (Jacobs, Dep. Excerpt pp. 47-48). And, as  
18 Jacobs also agrees, once the Company submits its permit or application to the  
19 agency for review and approval, the Company loses control over its ability to  
20 move the project forward. (Id. at p. 45. L. 3-8). That control goes to the agency  
21 during the review process. That was certainly true for the Company's COLA and  
22 LWA submittal to the NRC.

1 To determine if completion of the plant is capable of being done or carried  
2 out from a project management perspective, we evaluate whether the plant is both  
3 technically feasible and legally feasible. Jacobs does not dispute that these are in  
4 fact factors in determining the feasibility of completing nuclear power plants. See  
5 Exhibit No. \_\_\_ (GM-5) (Jacobs Dep. Excerpt p. 120).

6 In my direct testimony and, as Jacobs notes, in my deposition I explained  
7 that technical feasibility means can the AP1000 design selected for this site be  
8 deployed at the Levy site. Based on my project management experience working  
9 with this design and its application to the Levy site, the input from the team of  
10 experts we have employed to assist us on this project, and my own nuclear and  
11 mechanical engineering background and experience, I testified that the LNP is  
12 technically feasible. Nothing we have seen or reviewed suggests that the AP1000  
13 design cannot be deployed at the site, indeed, regulatory reviews are proceeding  
14 to do just that. All Jacobs can come up with to claim there is an issue about the  
15 technical feasibility of the plants is [REDACTED]

16 [REDACTED] in its March 2009 report regarding the [REDACTED]  
17 [REDACTED] and prior to the  
18 Company's adoption of its revised risk mitigation program. Jacobs Test., p. 19,  
19 L. 25-32. [REDACTED]  
20 [REDACTED] in the May 2009 Consortium Monthly Project Status Report that  
21 Jacobs references. [REDACTED]

22 [REDACTED]  
23 [REDACTED]

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█ See Exhibit No. \_\_\_\_ (GM-11) to my rebuttal testimony.  
Again, there is always regulatory uncertainty prior to actually obtaining the regulatory license or permit, and therefore some risk that it might not be obtained. This does not mean you do not go forward with the project. If it did, you would never build a nuclear power plant.

I described in detail in my direct testimony the current regulatory status of the LNP, explaining what we have achieved, what we did not achieve – the LWA discussed in detail above, what we have done in response to that change in the NRC review process, and what our expectations are for the future permits, approvals, authorizations, and licenses for the LNP. Jacobs fails to acknowledge the numerous land use authorizations, permits, licenses, or other approvals that have been achieved for the LNP that are included in my direct testimony and the numerous ones that are on schedule that are identified in my testimony and at Exhibit 3 on page 19 of the Staff Report reviewing PEF’s Project Management Internal Controls for the Nuclear Plant Uprate and Construction Projects. See Exhibit Number CC-1 to Staff Testimony. For example, the Administrative Law Judge issued his recommended decision and order to approve PEF’s SCA on May 15, 2009. The point is, despite the NRC decision regarding the LWA, the NRC has deemed PEF’s COLA sufficient for review and established a schedule consistent with PEF’s other requested timelines, including issuance of the COL in 42 months. There is no reason to expect that PEF will not be able to obtain the authorizations, permits, and licenses to construct and operate the Levy units at the Levy site.

1 \* The decision must be evaluated on the basis of actual facts. The  
2 review must be based on facts, not merely on opinions.  
3

4 **Q. What criticism does Jacobs make regarding the EPC contract?**

5 **A.** Jacobs argues that PEF should not have signed the EPC contract on  
6 December 31, 2008 because: (1) PEF had not received a schedule from  
7 the NRC for the review and approval of a requested Limited Work  
8 Authorization (LWA); and (2) Joint Owners had not yet committed to the  
9 project. As I will discuss, both of these contentions are without merit.  
10

11 **Q. Did Jacobs follow the appropriate prudence evaluation standard in  
12 his criticism of the signing of the EPC contract?**

13 **A.** No. Jacobs has used hindsight to evaluate PEF management prudence  
14 in signing the EPC contract in December 2008. Based on what was  
15 known at the time, PEF acted prudently in signing the contract when it did.  
16 As I will discuss below, there were compelling reasons for PEF to sign the  
17 EPC contract by December 31, 2008, which included [REDACTED]

18 [REDACTED]

19 [REDACTED]

20 [REDACTED]

21 Jacobs ignores these benefits to signing the EPC contract – he  
22 does not even acknowledge them in his testimony -- and instead bases his

"Yes, there were commercial reasons or other benefits for PEF signing the EPC agreement on December 31, 2008 rather than January 2009. Those reasons and benefits are stated below.

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

1 In response to Staff request DR 7, regarding cost benefits / risks  
2 associated with signing the EPC contract prior to the NRC issuance  
3 of COL/LWA schedule, PEF expanded on the benefits above,  
4 including the following:

5 [REDACTED]

- [REDACTED]
- [REDACTED]
- [REDACTED]

[REDACTED]

1 Q. In your opinion, were the reasons stated by PEF in its  
2 responses reasonable?

3 A. Yes. The advantages to enter into the EPC contract by December 31,  
4 2008, were substantial both in terms of cost and maintaining the LNP  
5 schedule. Jacobs' testimony does not mention these reasons despite his  
6 having been advised of this information.

7 Further, as I identified in my direct testimony, PEF had thoroughly  
8 reviewed the EPC contract terms and conditions including engaging Price  
9 Waterhouse Coopers to perform an independent review of the contract.

10 PEF's EPC contract strategy was to [REDACTED]  
11 [REDACTED]  
12 [REDACTED] designed to provide incentive  
13 to the contractor to perform efficiently. [REDACTED]  
14 [REDACTED]

15 From a licensing perspective, signing the EPC contract was  
16 evidence of an active engineering, design and procurement program.  
17 PEF reasonably anticipated that this posture would be reflected in



1 communication from the NRC that indicates any such linkage. As further  
2 evidence of the absence of any link between the NRC's LWA decision and  
3 the CH2MHill QA program, the NRC's acceptance of the QA corrective  
4 actions had occurred well prior to PEF's July 2008 filing for the LNP  
5 COLA.

6 Finally, it is important to note that PEF identified the deficiencies  
7 that CH2MHill had in their quality assurance program through its oversight  
8 and audit process, and that they were corrected. These corrective actions  
9 were fully accepted based on the audits conducted between March 2007  
10 and April 2008 that verified the implementation of the revised quality  
11 program.

12  
13 **Q. Jacobs asserts that PEF, by signing the EPC contract, has placed**  
14 **itself in a very weak position to renegotiate the EPC contract. Do**  
15 **you agree?**

16 **A.** No. In my opinion, Jacobs is speculating with no facts to support his  
17 speculation. Contrary to Jacobs' implication, PEF may actually be in a  
18 stronger negotiating position because it signed the EPC contract on  
19 December 31, 2008, and confirmed the benefits of [REDACTED]  
20 [REDACTED]  
21 [REDACTED] The  
22 revised costs to accommodate the schedule of the LNP may be

1 comparable or lower than what they would have been had the EPC  
2 contract not been signed in 2008.

3 Had PEF not signed the EPC contract by December 31, 2008, they  
4 would have faced: [REDACTED]

5 [REDACTED]  
6 [REDACTED]  
7 [REDACTED]  
8 [REDACTED]  
9 [REDACTED]

10 [REDACTED] In my opinion,  
11 having locked in these cost and schedule savings by signing the EPC  
12 contract, PEF was in a stronger position to renegotiate the contract than if  
13 these terms were not previously secured.

14  
15 **Q. Jacobs states that PEF should have had joint owners in place prior  
16 to signing the EPC contract. Do you agree?**

17 **A.** No. Jacobs mischaracterized the meaning of the statements found in the  
18 LINC meeting minutes that "JO work and EPC are closely tied." Rather  
19 than his implication that LNP joint owners were necessary before signing  
20 the EPC, the statement has to do with the desire of potential joint owners  
21 to have the EPC in place before they signed a joint owner agreement.

22 The sequence anticipated from PEF's early 2008 discussions with  
23 the prospective joint owners was that the finalized joint owner agreements

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█ [REDACTED]

█ [REDACTED]

█ [REDACTED]

█ [REDACTED]

█ [REDACTED]

█ [REDACTED]

█ [REDACTED]

█ [REDACTED]

█ [REDACTED]

█ [REDACTED]

█ [REDACTED]

11 MR. REHWINKEL: I'm going to object to

12 the question. I think it mischaracterizes his

13 testimony.

14 You can answer it.

█ [REDACTED]

█ [REDACTED]

█ [REDACTED]

█ [REDACTED]

█ [REDACTED]

█ [REDACTED]

█ [REDACTED]

█ [REDACTED]

█ [REDACTED]

█ [REDACTED]

█ [REDACTED]

█ [REDACTED]

█ [REDACTED]

█ [REDACTED]

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In Re: Nuclear Power Plant Cost Recovery Clause Jacobs, Jr., Ph. D.

July 27, 2009

77

[Redacted transcript content]

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[REDACTED]

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In Re: Nuclear Power Plant Cost Recovery Clause Jacobs, Jr., Ph. D.

July 27, 2009

[REDACTED]

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1 risk matrix, you have to come up with a risk  
2 mitigation or action plan; correct?

3 A Yes.

4 Q What was that risk mitigation or  
5 action plan for the COLA?

6 A [REDACTED]

13 Q And do you believe that to be a  
14 reasonable action plan or mitigation strategy for  
15 that risk?

16 A I think that's what most utilities do,  
17 yes.

18 Q Would you agree with me that that risk  
19 mitigation action plan or strategy would be the  
20 same no matter what risk level you assign to the  
21 COLA or LWA application?

22 A I don't think I would agree with that.  
23 I think if you assigned it a higher risk number  
24 further up the matrix, you would develop more  
25 resources to making sure that those actions

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**PROGRESS ENERGY FLORIDA  
In re: Nuclear Cost Recovery Clause  
Docket 100009-EI  
Eighth Request for Confidential Classification**

Exhibit B

**BATES NOS.  
10NC-OPCPOD3-62-001808  
through  
10NC-OPCPOD3-62-002651**

**ARE REDACTED IN THEIR ENTIRETY**

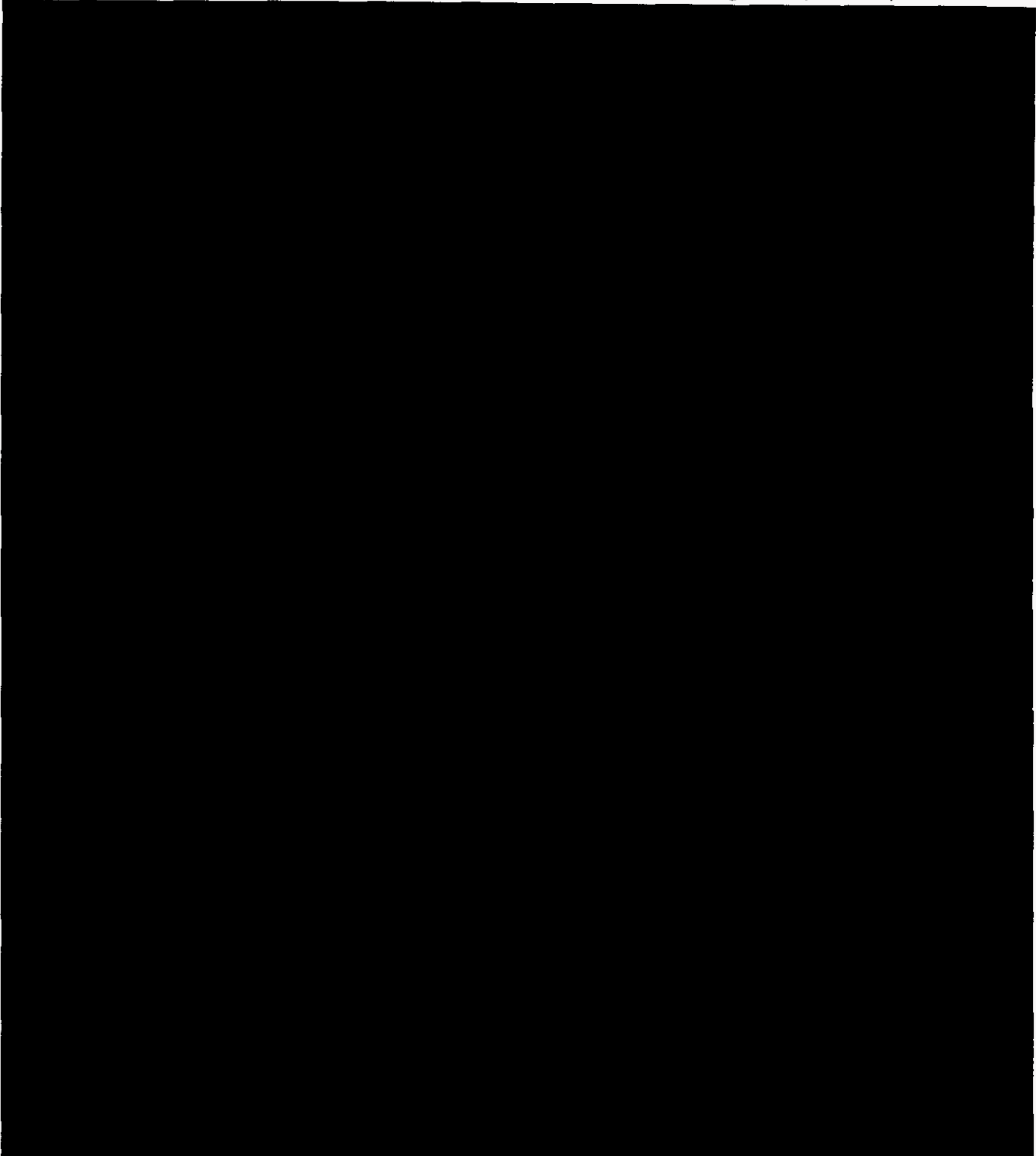
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Levy Integrated Nuclear Committee (LINC)

## Agenda

Meeting: 09-03 / March 19, 2009



Scheduled meetings: 4/21 - 9:00 // 5/29 - 9:00 // 6/19 - 10:00 // 07/16 - 1:00 // 08/27 - 1:00 // 9/25 - 9:00 // 10/27 - 1:00

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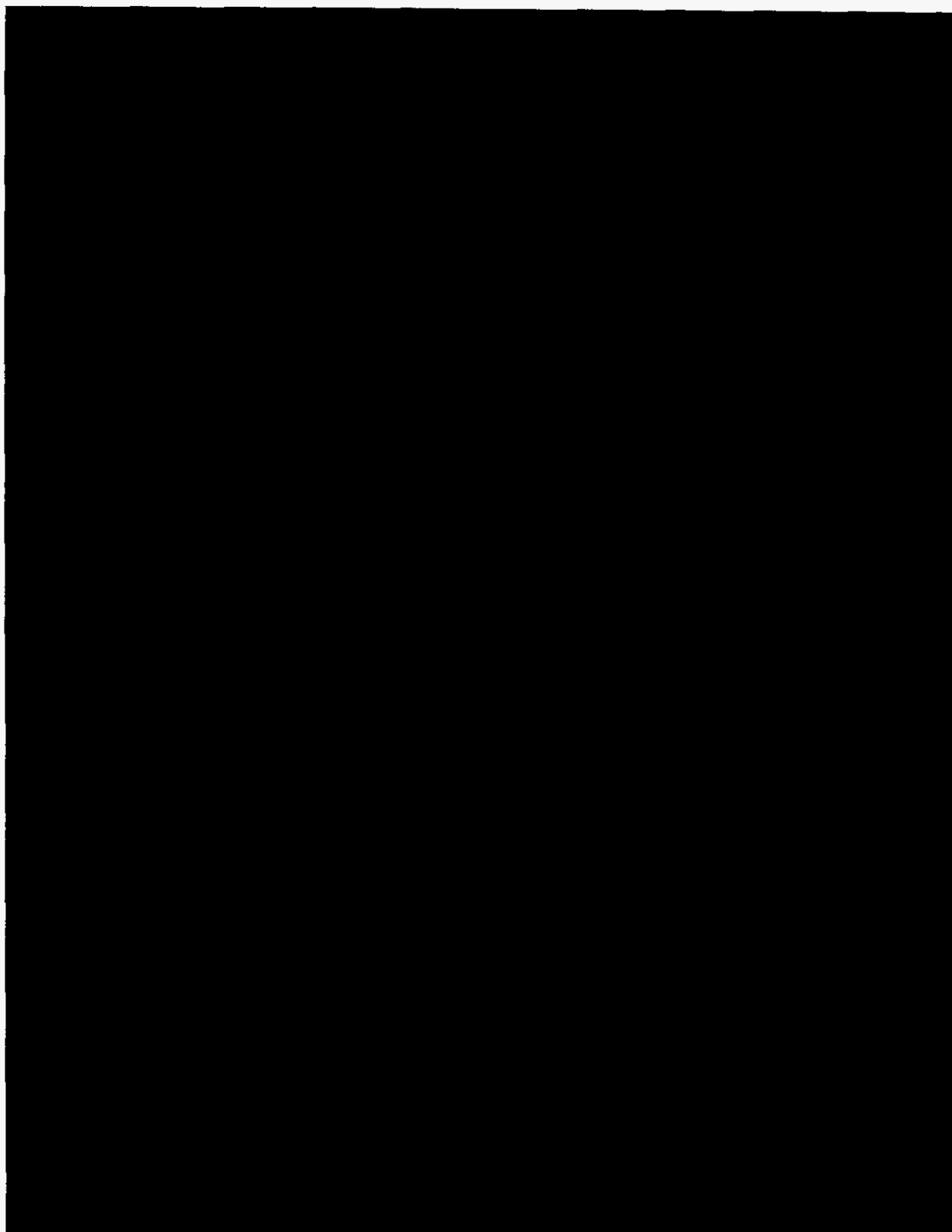
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10PMA-DR1LEVY-17S-000086  
10NC-FPSCPOD1-3-000086  
10NC-OPCPOD3-62-002652

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## Meeting Record



10NC-OPCPOD1-8-000047  
10PMA-DR1LEVY-17S-000087  
10NC-FPSCPOD1-3-000087  
10NC-OPCPOD3-62-002653

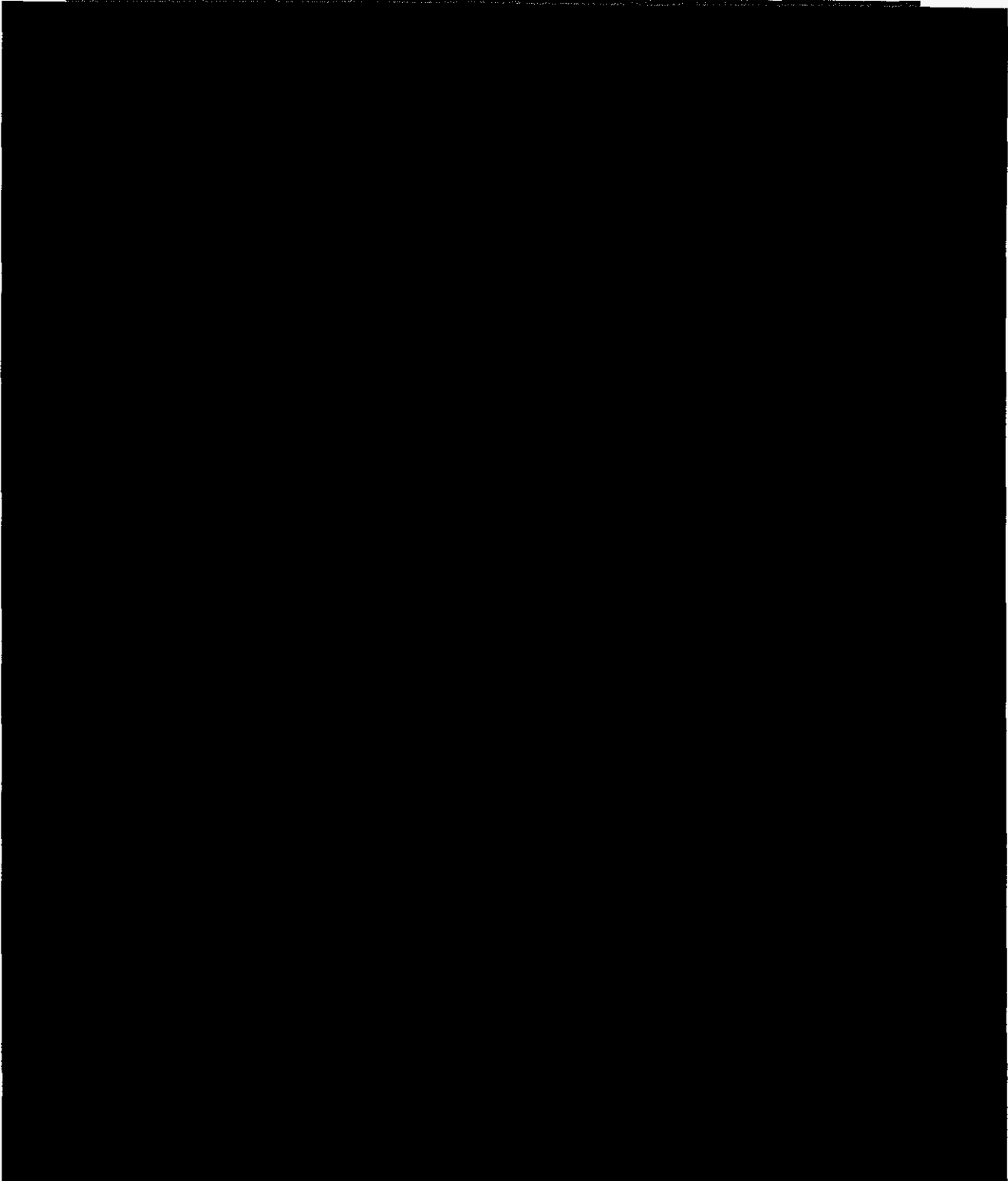
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Levy Integrated Nuclear Committee (LINC)

## Meeting Record

Meeting: 09-02 / February 23, 2009

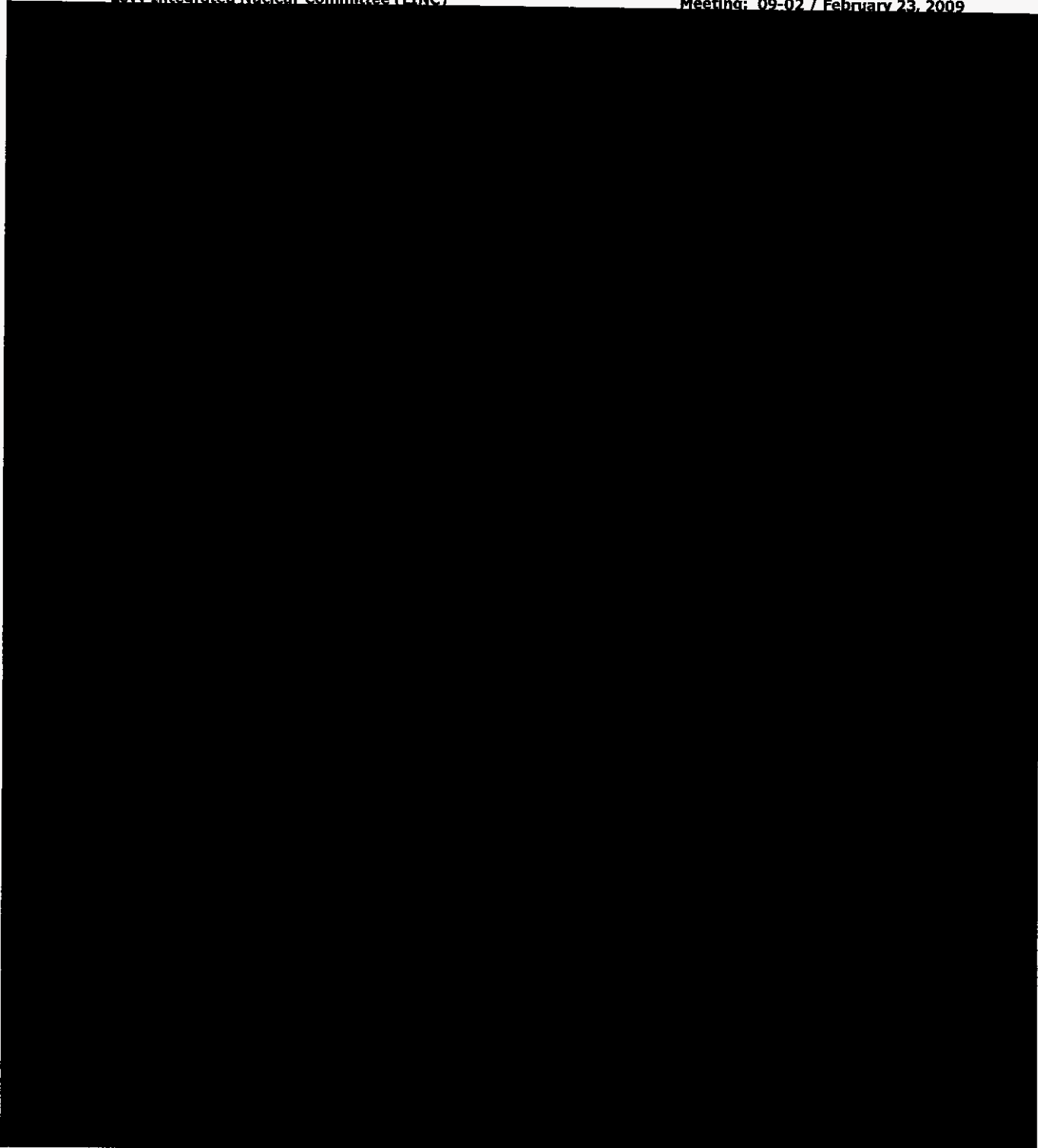




Levy Integrated Nuclear Committee (LINC)

## Meeting Record

Meeting: 09-02 / February 23, 2009



# Financials

• [REDACTED]

• [REDACTED]

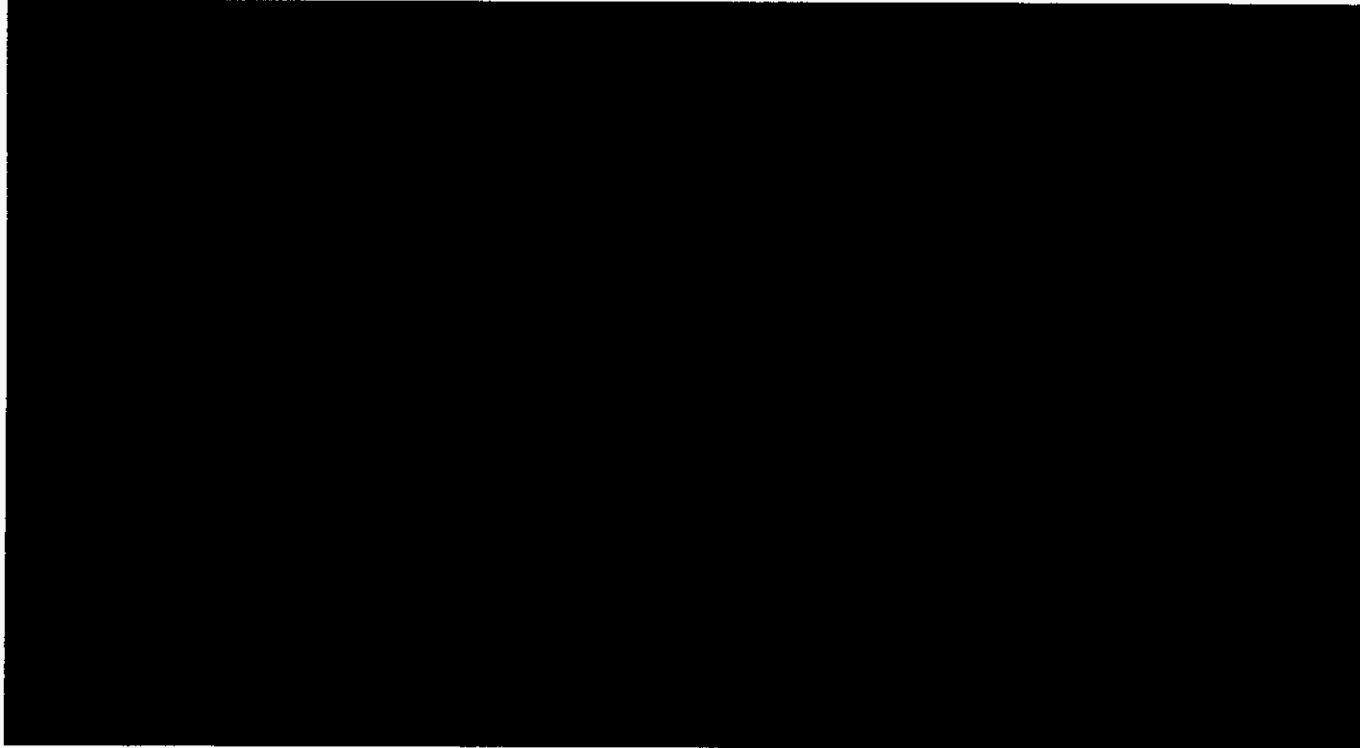
• [REDACTED]

• [REDACTED]



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# Financials



10NC-OPCPOD1-8-000052  
10PMA-DR1LEVY-17S-000092  
10NC-FPSCPOD1-3-000092  
10NC-OPCPOD3-62-002658

## Land Acquisition

- The LPA Group and HDR Engineering short listed from 5 bidders for further negotiations for the Acquisition Program Manager (APM) . Estimated cost [REDACTED]
- Closed on Carter Property (easement and 108 acres) for Central Florida South Substation March 4<sup>th</sup> at [REDACTED]
- Existing Hudson Substation acquiring 5 additional acres at [REDACTED]
- LCFS – Negotiating easements at [REDACTED] (220 ft at 2.5 miles)
- PHP – Negotiating easements at [REDACTED] (40 ft at 1000 ft)



## Engineering

- Interface Agreement between G&TC and TOPD due April 15<sup>th</sup>
- LiDAR study completed and awaiting deliverables
- Conductor selection completed
- Negotiations continue with Commonwealth Engineering for the design of Crystal River Energy Complex (CREC) [REDACTED]
- 500kV design basis documents
  - XFMR Specs 100% completed
  - Substation Specs 80%
  - Transmission Line 50%
  - Protect & Controls started



**PROGRESS ENERGY FLORIDA**  
**In re: Nuclear Cost Recovery Clause**  
**Docket 100009-EI**  
**Eighth Request for Confidential Classification**

Exhibit B

**BATES NOS.**  
**10NC-OPCPOD3-62-002664**  
**through**  
**10NC-OPCPOD3-62-002667**

**ARE REDACTED IN THEIR ENTIRETY**

## Work Plan / Planned Spend for 2009

- Evaluate options for building location and finalize
- Complete the 30% design and bid package for design/build contractor
  - ◆ Complete civil design and apply for permits
- Select design/build contractor and award contract
- Finalize all permitting
- Finalize balance of design required for start of construction
- Current approved budget [REDACTED]

**PROGRESS ENERGY FLORIDA**  
**In re: Nuclear Cost Recovery Clause**  
**Docket 10009-EI**  
**Eighth Request for Confidential Classification**

Exhibit B

**BATES NOS.**  
**10NC-OPCPOD3-62-002675**  
**through**  
**10NC-OPCPOD3-62-002748**

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**PROGRESS ENERGY FLORIDA**  
**In re: Nuclear Cost Recovery Clause**  
**Docket 100009-EI**  
**Eighth Request for Confidential Classification**

**Exhibit B**

**BATES NOS.**  
**10NC-OPCPOD3-62-002757**  
**through**  
**10NC-OPCPOD3-62-003325**

**ARE REDACTED IN THEIR ENTIRETY**

# SMC Briefing Purpose

## Levy Analysis Objectives

- Maintain Levy as a viable option
- Defer commitment until greater certainty
- Manage financial impact of Levy
- Identify alternative resource opportunities

## Arrived at two alternatives

- 20-month shift of Levy unit 1, 18-month separation
- Preserve Levy – COLA Only

## Discuss preserve construction alternative

- [REDACTED]
- Resource plan, Financial elements, Customer Price
- Regulatory path, Joint Owner, EPC action

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## Discuss Next Steps

# Preserve Construction Alternative

## Alter Levy construction schedule

- Shift Unit 1 by 20 months – April 2018
- Unit 2 completion to follow by 18 months
- Transmission with comparable shift (flexible)

## Benefits

- Accommodates expected LWA outcome
- Considers customer price sensitivity
- [REDACTED]
- Retains production tax credits
- Provides transmission flexibility
- Maintains regulatory timing

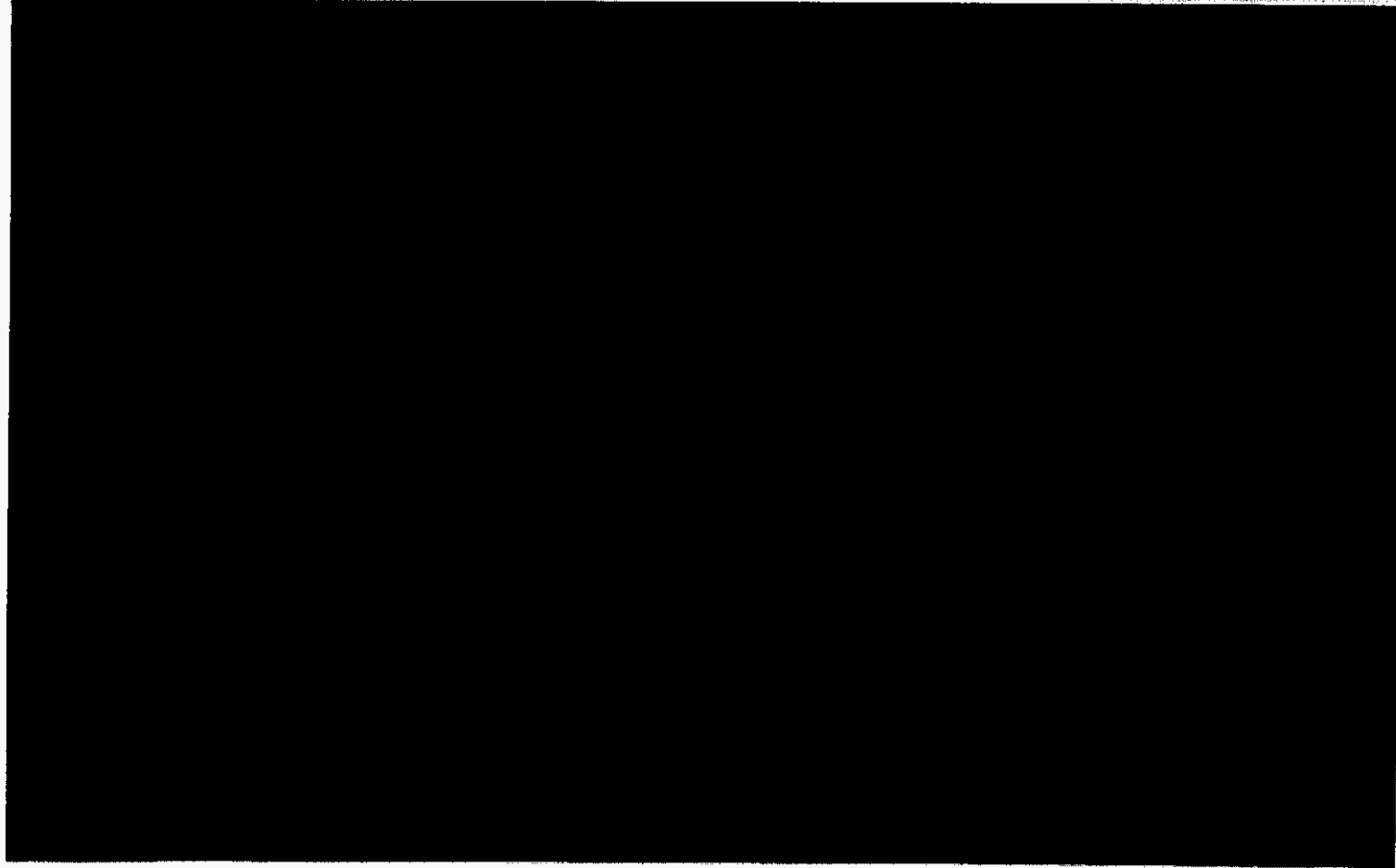
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# **Current Plan - EPC Cash Flow**

**Derived from EPC Agreement - Exhibit F**



09NC-OPCPOD3-61-000005  
10PMA-DR3LEVY-1-000412  
10NC-OPCPOD1-9-000290  
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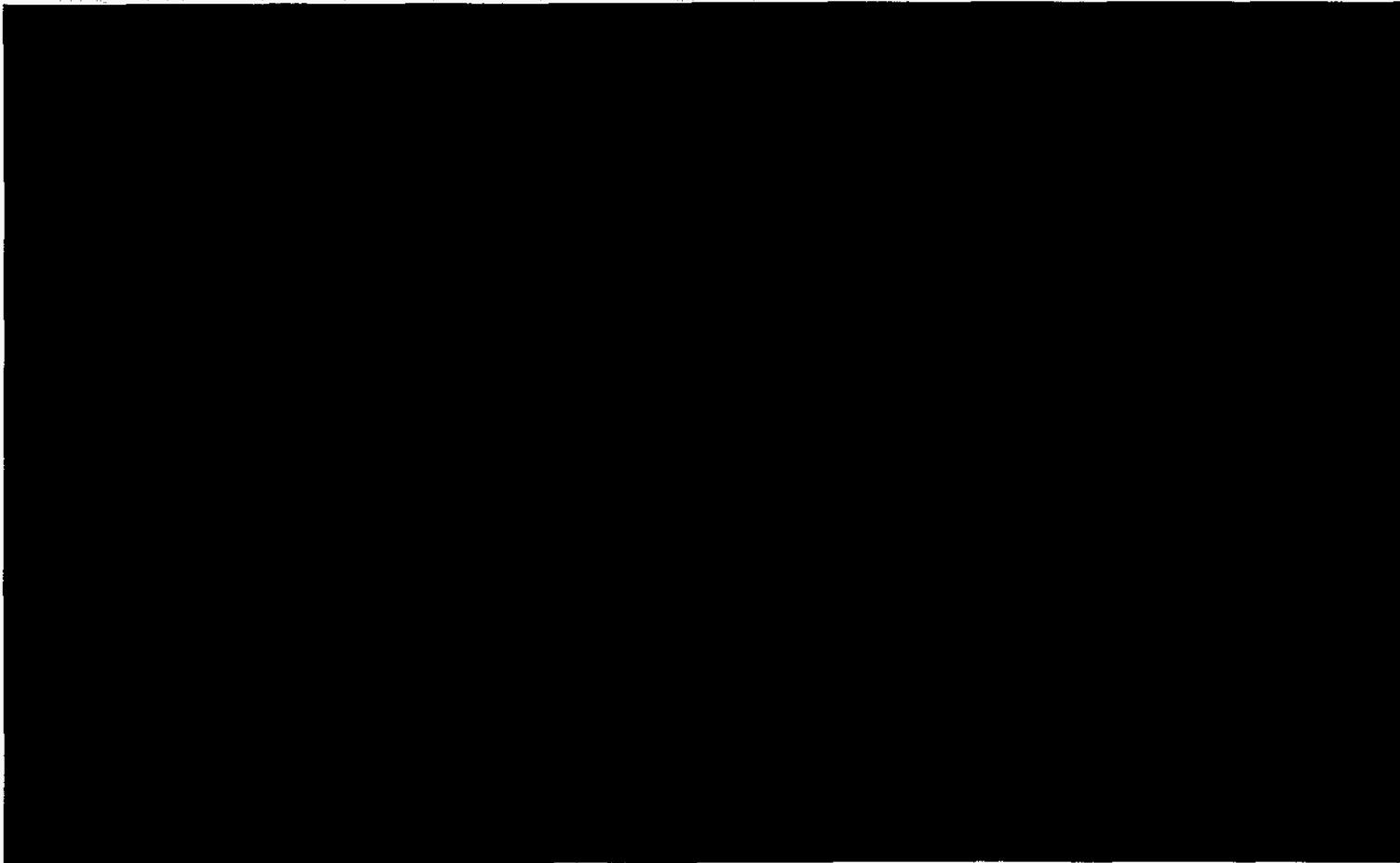


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# 20 Month Shift – Targeted EPC Cash Flow

Derived from CapEx Changes

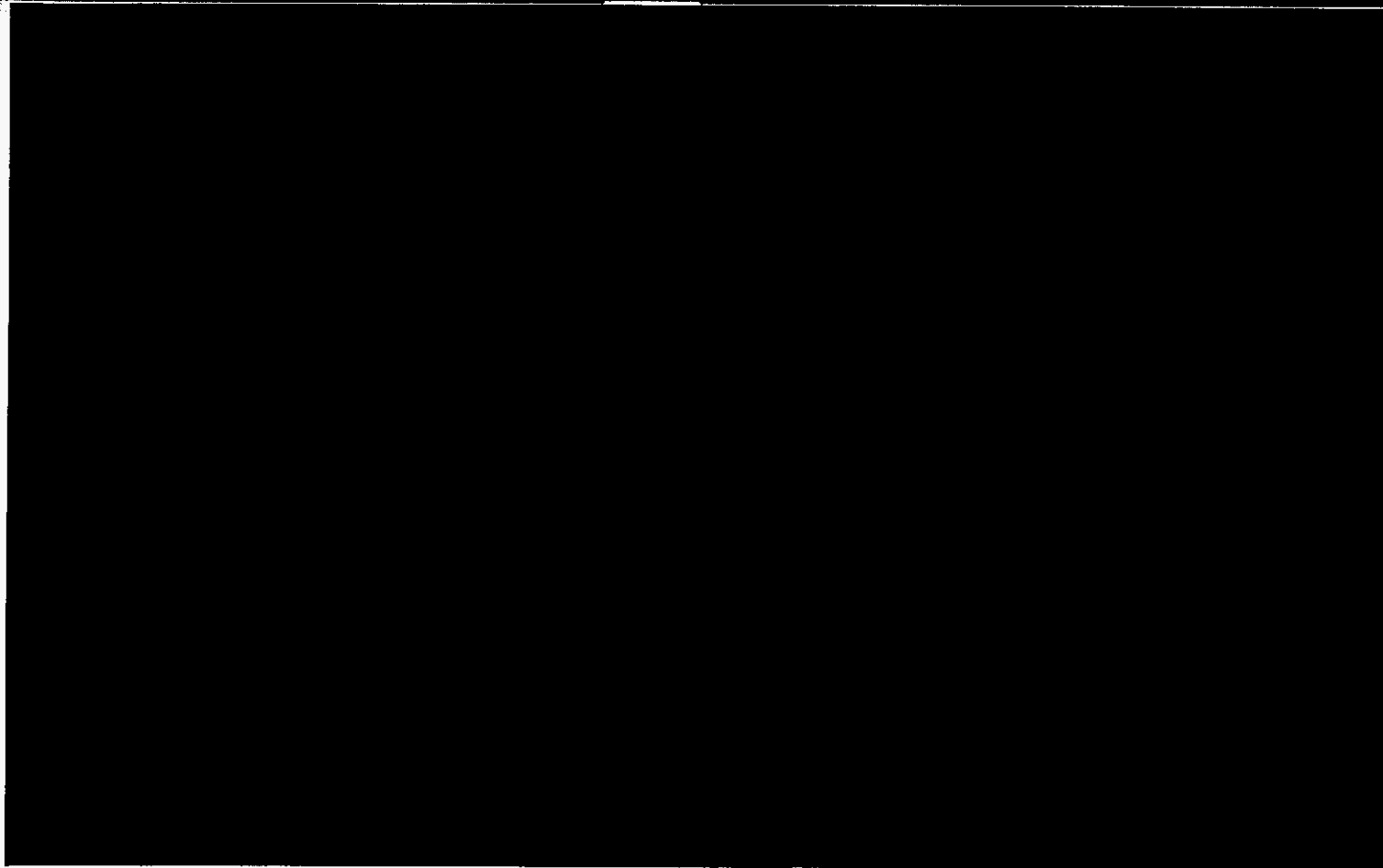


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10NC-OPCPOD1-9-000293  
10NC-OPCPOD1-6-015112  
10NC-OPCPOD3-62-003333

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**20 Month Shift - Levy Regulatory Milestones  
And Estimated Total Project Cash Flow (assumes 12 month stagger)**

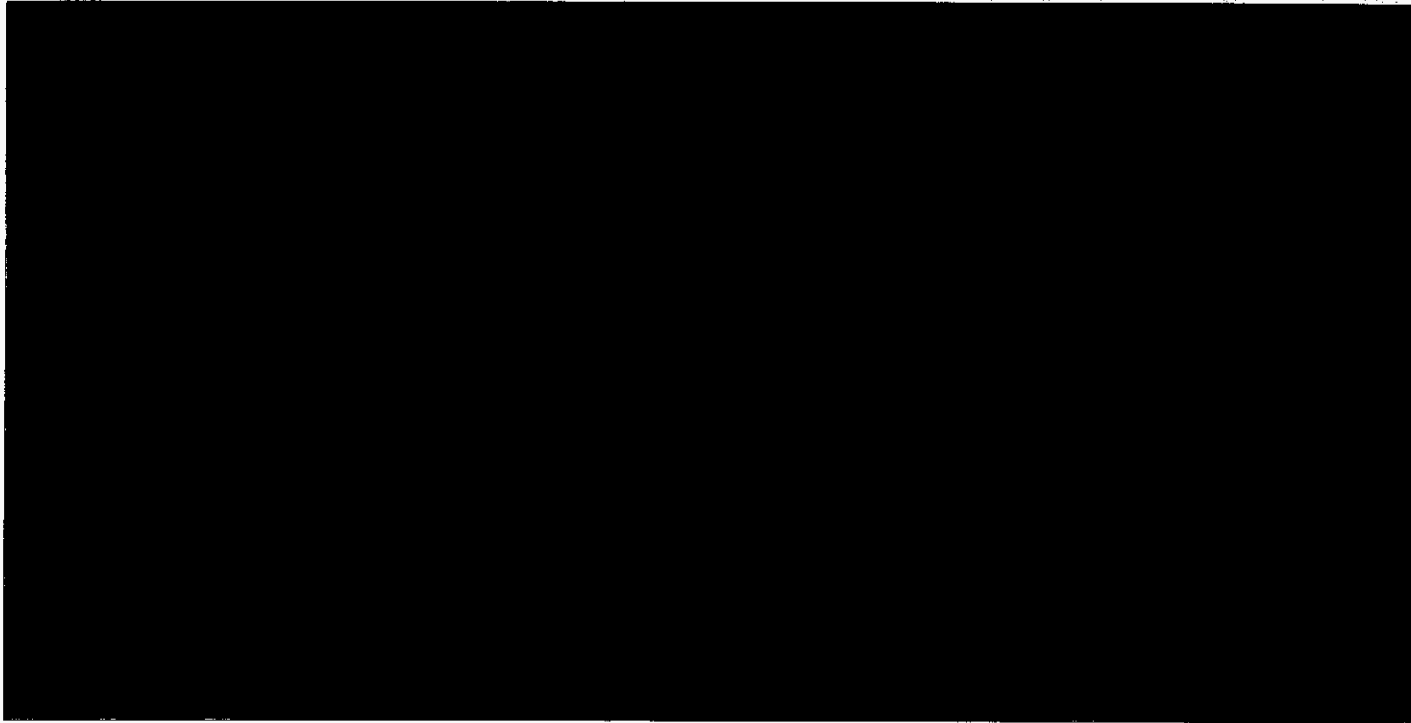


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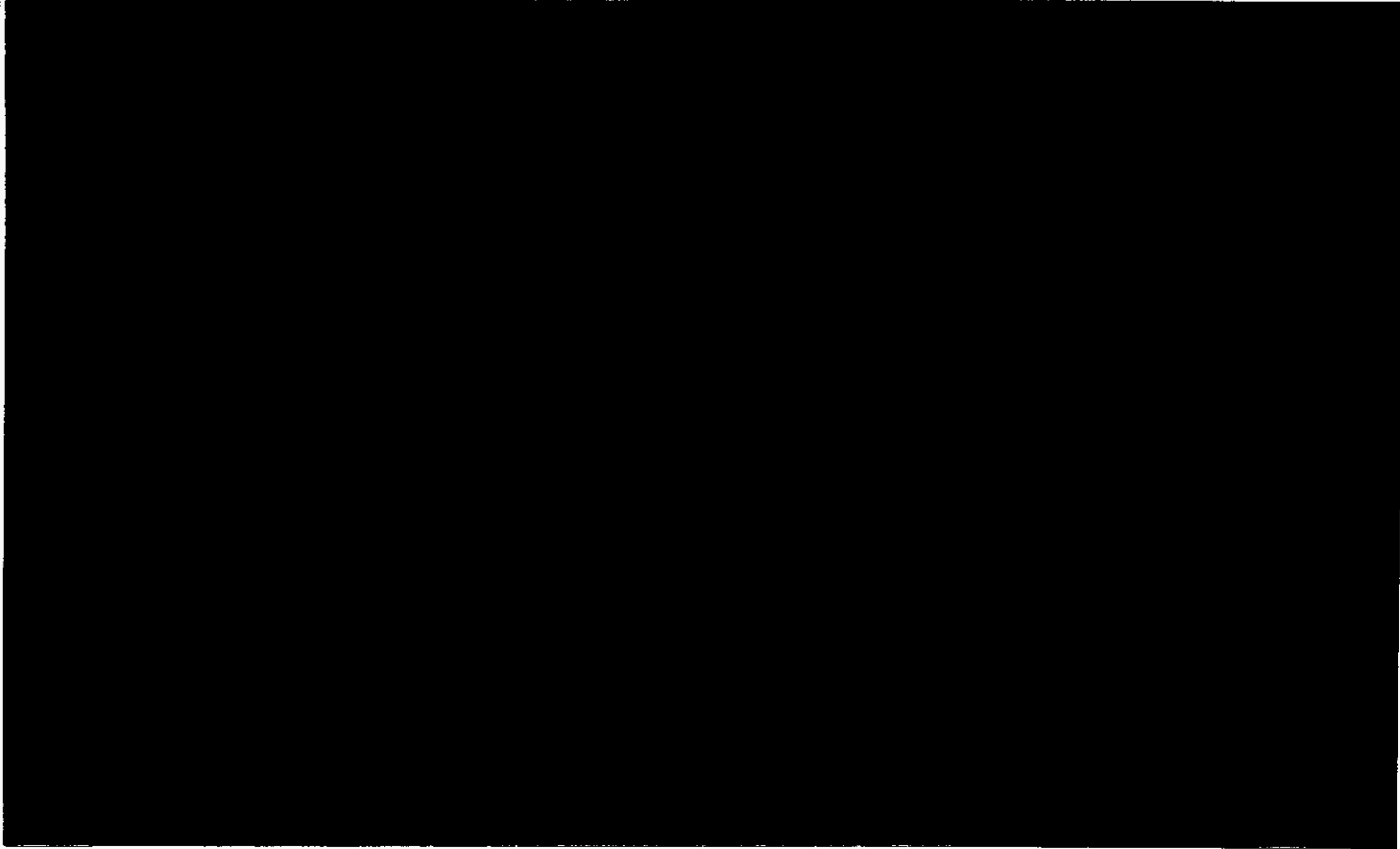
# 20 Month Shift Target Price Consideration

Recommended Pre-COLA Scope *(and estimated direct cost)*



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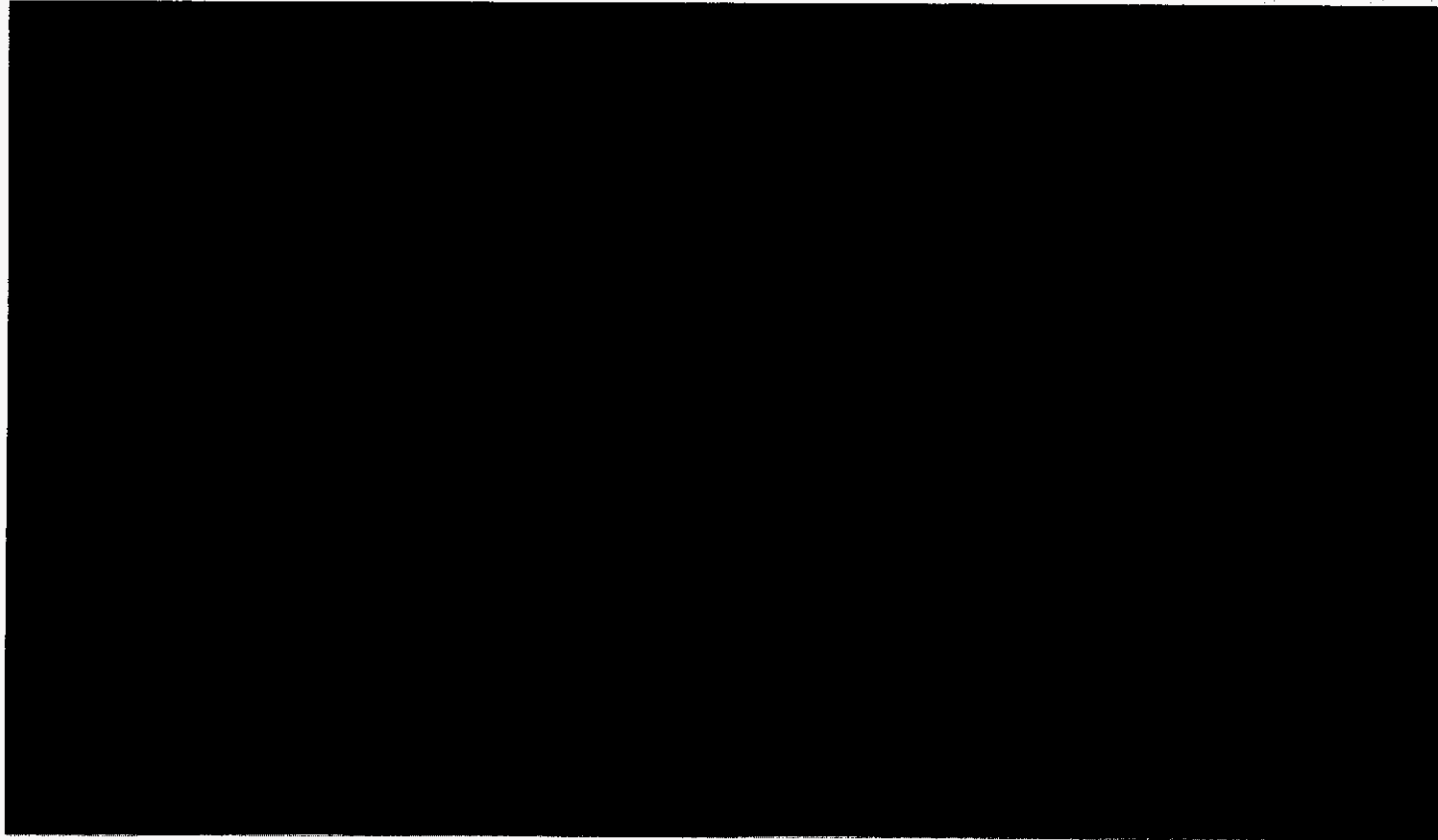
# PEF Resource Options



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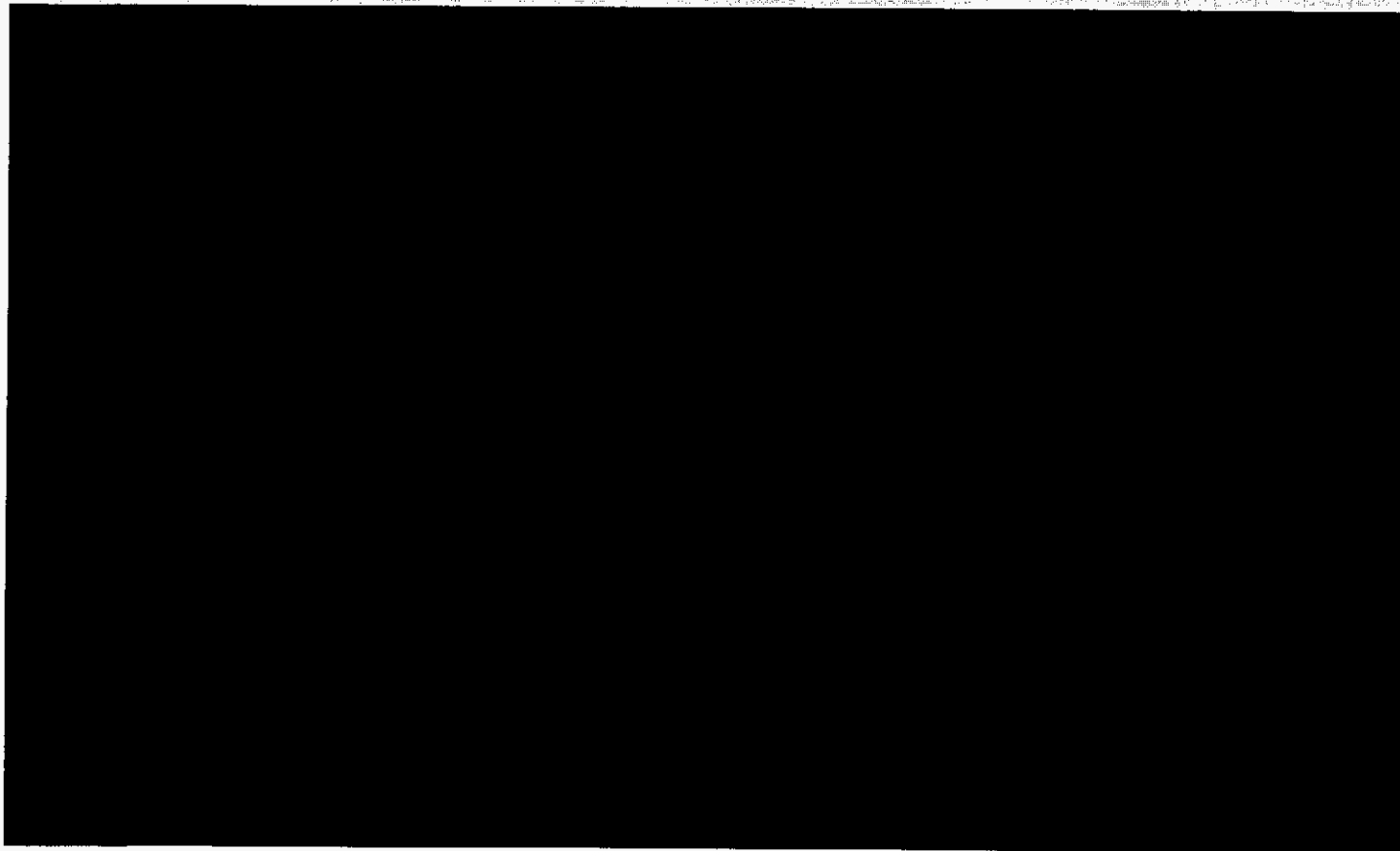
*DRAFT FOR DISCUSSION ONLY!  
SCENARIOS NOT FULLY REVIEWED AND ANALYZED THROUGH PEP'S IRP PROCESS.  
NOT APPROVED BY MANAGEMENT*

# LNP Sensitivities (2018/2020)



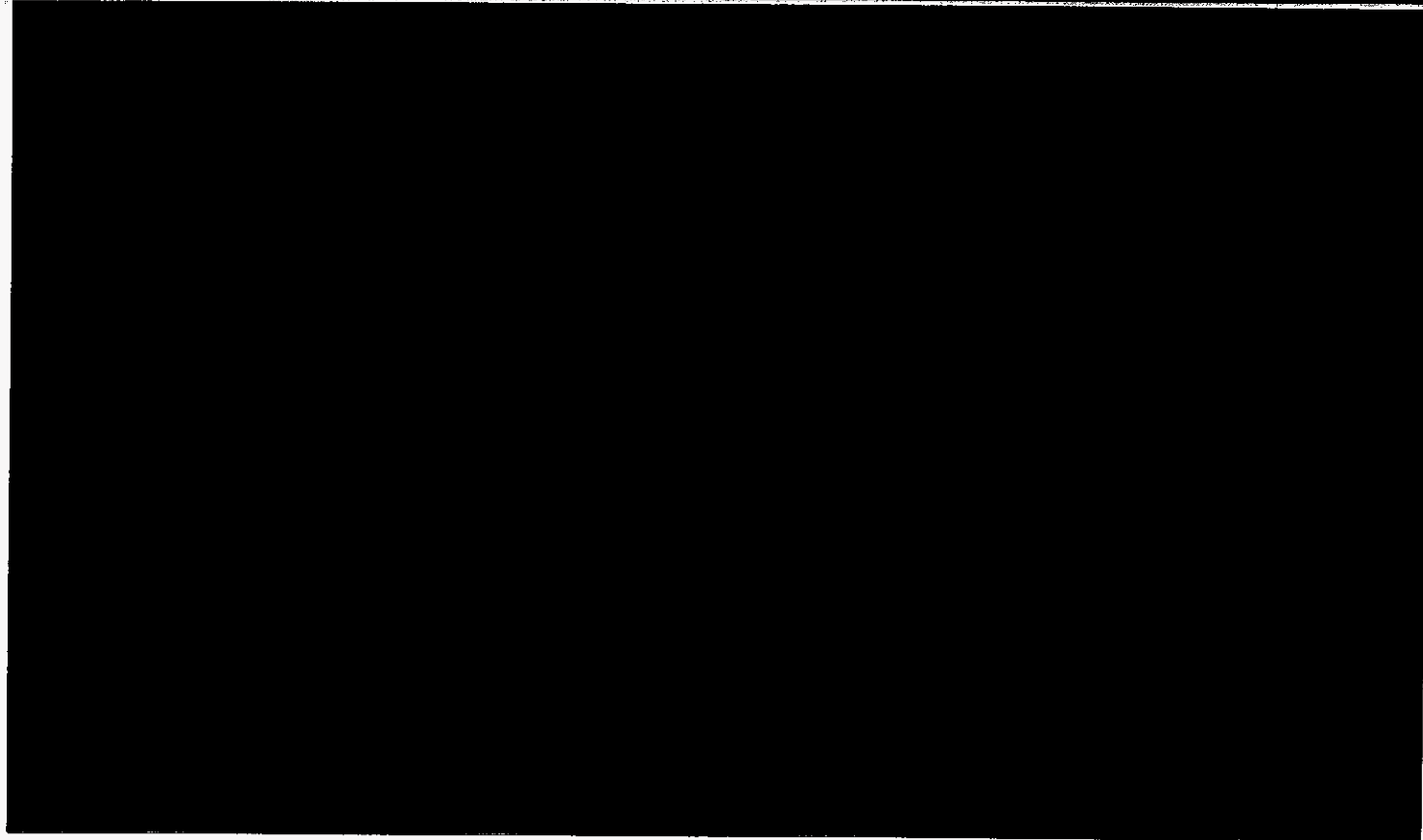
# Financial Forecast Total Capital Spending

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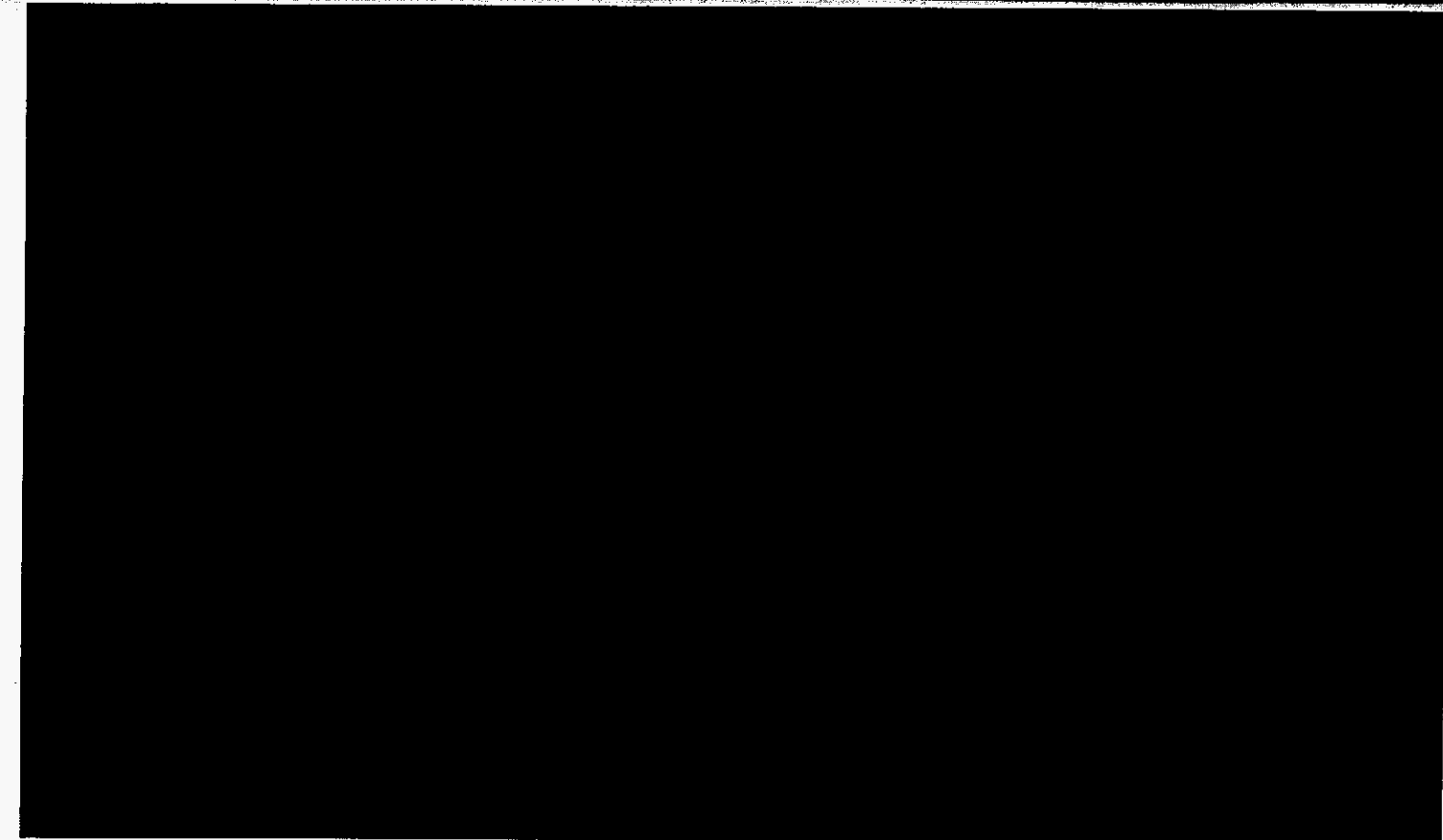
# Financial Forecast Capital Plan Deltas

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# Financial Forecast Earnings and EPS

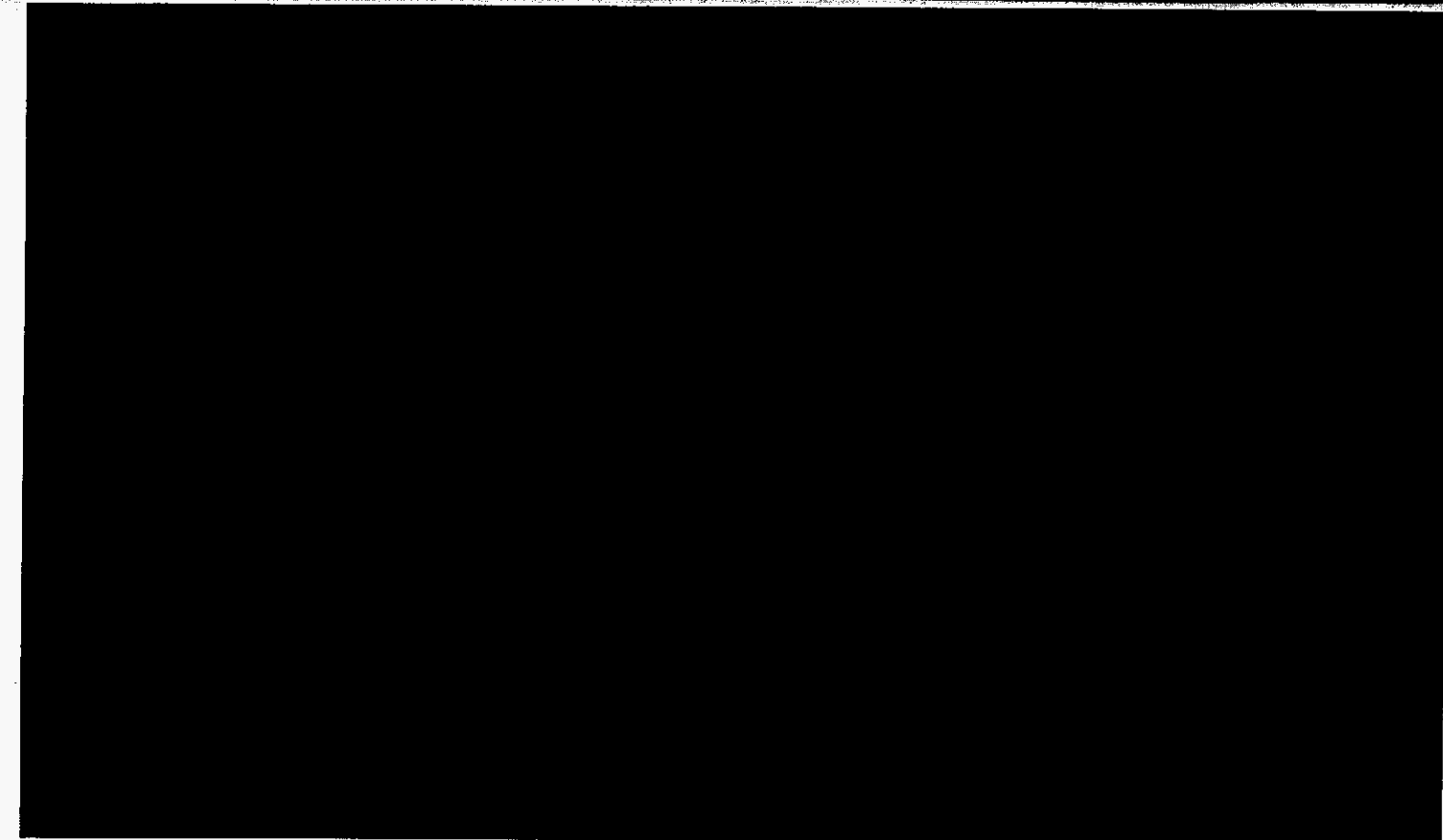
**CONFIDENTIAL**





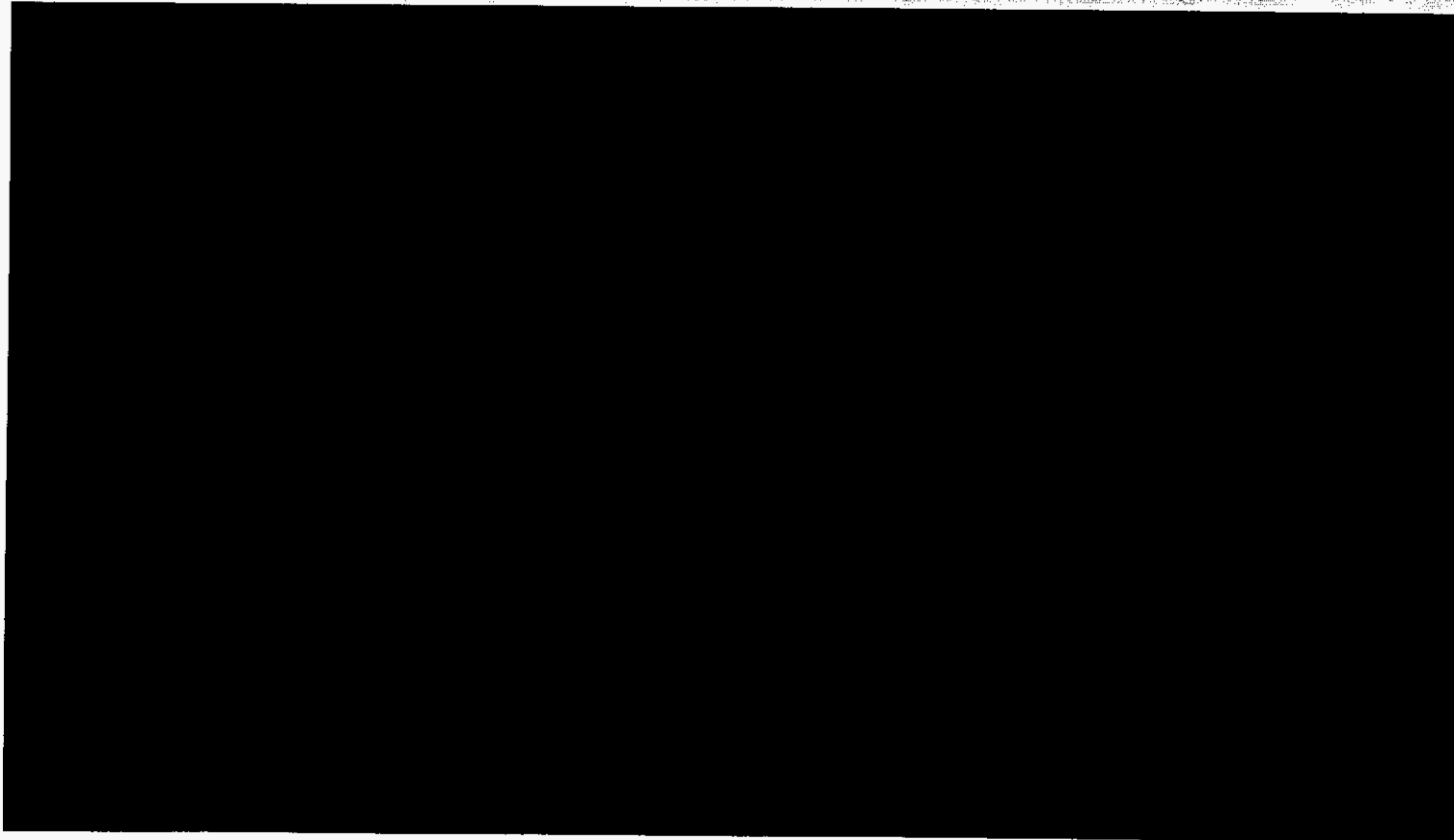
# Financial Forecast Earnings and EPS

**CONFIDENTIAL**



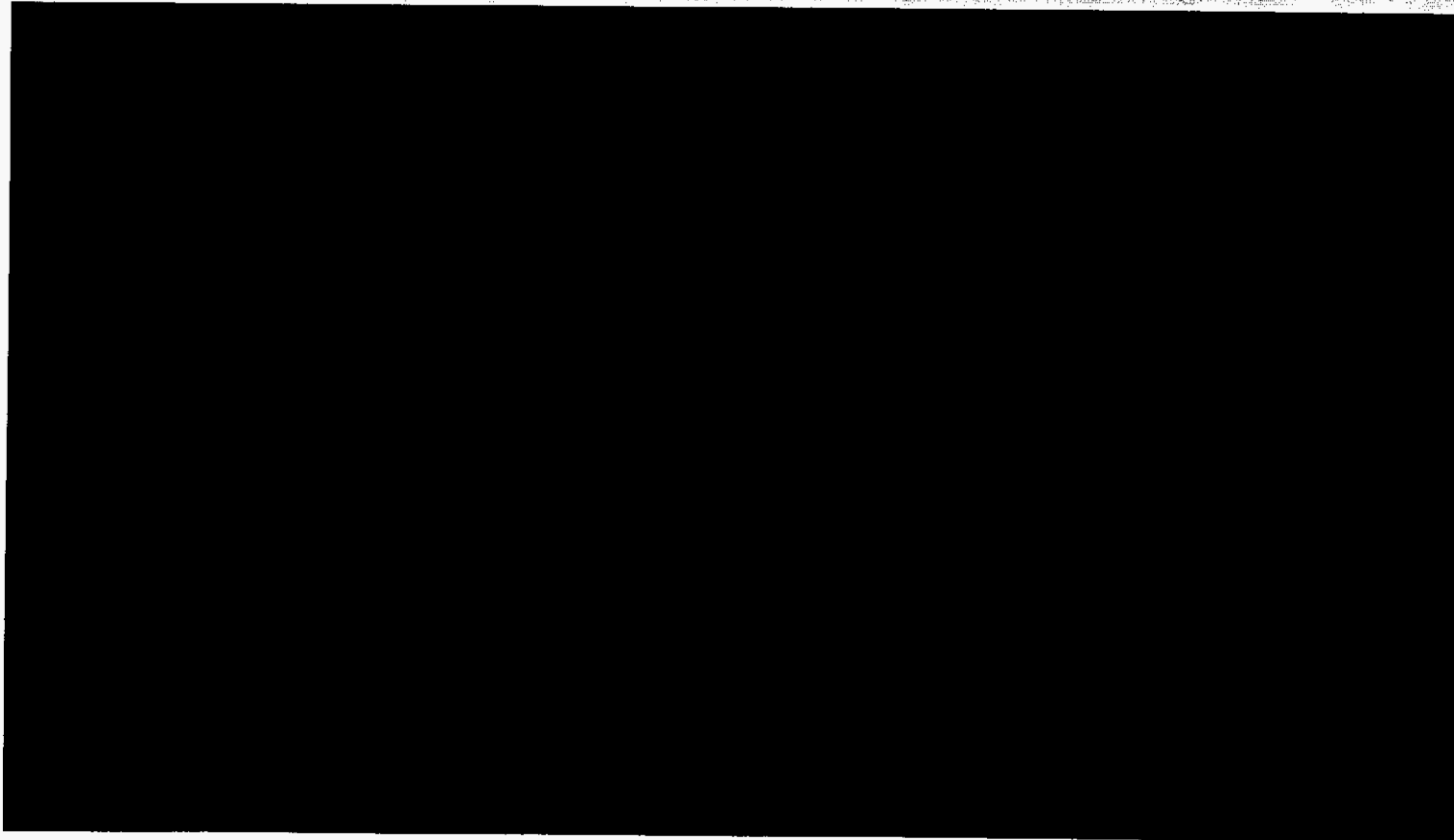
# Financial Forecasts Capital Markets Requirements

**CONFIDENTIAL**



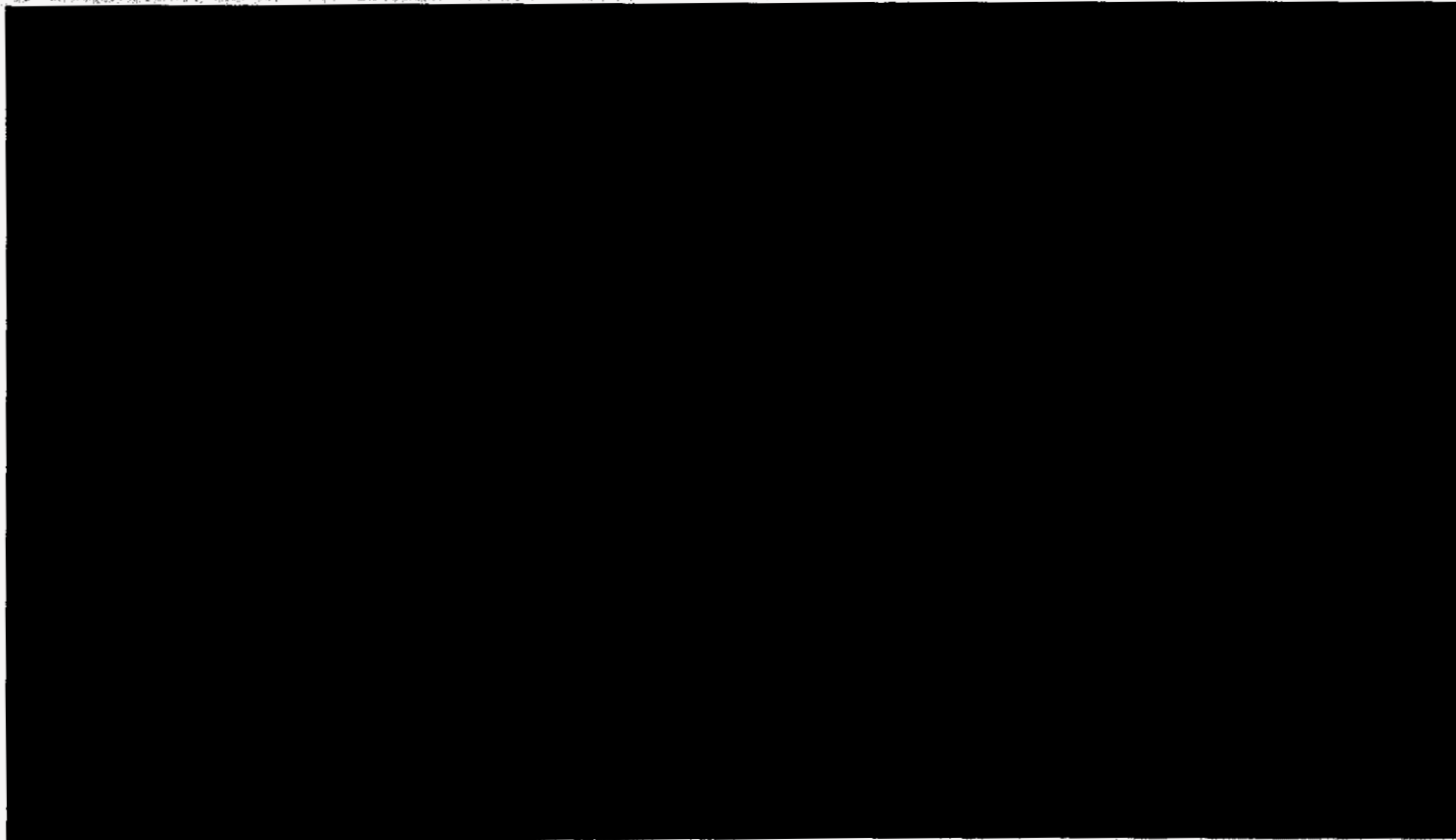
# Financial Forecasts Capital Markets Requirements

**CONFIDENTIAL**



# Financial Forecasts EPS Impacts of Lower Share Price

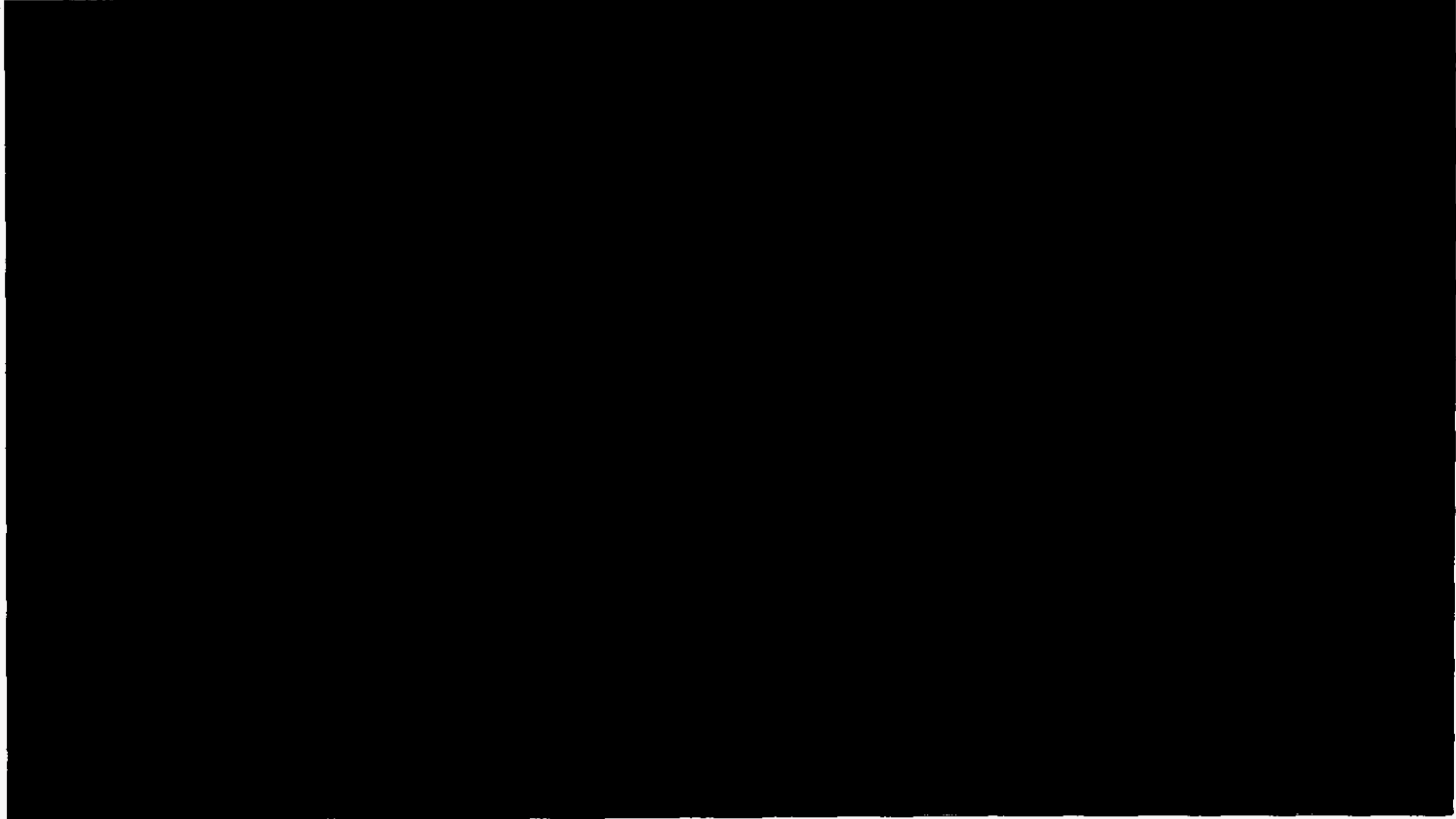
**CONFIDENTIAL**



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# Illustrative Example of Bill Impact



09NC-OPCPOD3-61-000021  
10PMA-DR3LEVY-1-000428  
10NC-OPCPOD1-9-000306  
10NC-OPCPOD1-6-015125  
10NC-OPCPOD3-62-003346

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# Go Forward Criteria

## SMC Briefing Purpose

### Levy Analysis

- W 20-month shift sensitivity
- W 36-month shift sensitivity

### 36-month sensitivity

- W [REDACTED]
- W Project to date ~\$370 million

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### Review expected customer pricing issues

- W Carbon, RPS, [REDACTED] Redacted - Privileged

*Note: Analysis for this schedule shift is an estimate and the actual result will depend, in part on subsequent negotiations with the Consortium to amend the EPC agreement*

# SMC Briefing Purpose

## Levy Analysis

- 20-month shift sensitivity
- 36-month shift sensitivity

## 36-month sensitivity

[Redacted]

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- Project to date ~\$370 million

## Review expected customer pricing issues

Carbon, RPS, [Redacted]

Redacted - Privileged

*Note: Analysis for this schedule shift is an estimate and the actual result will depend , in part on subsequent negotiations with the Consortium to amend the EPC agreement*



09NC-OPCPOD3-61-000029  
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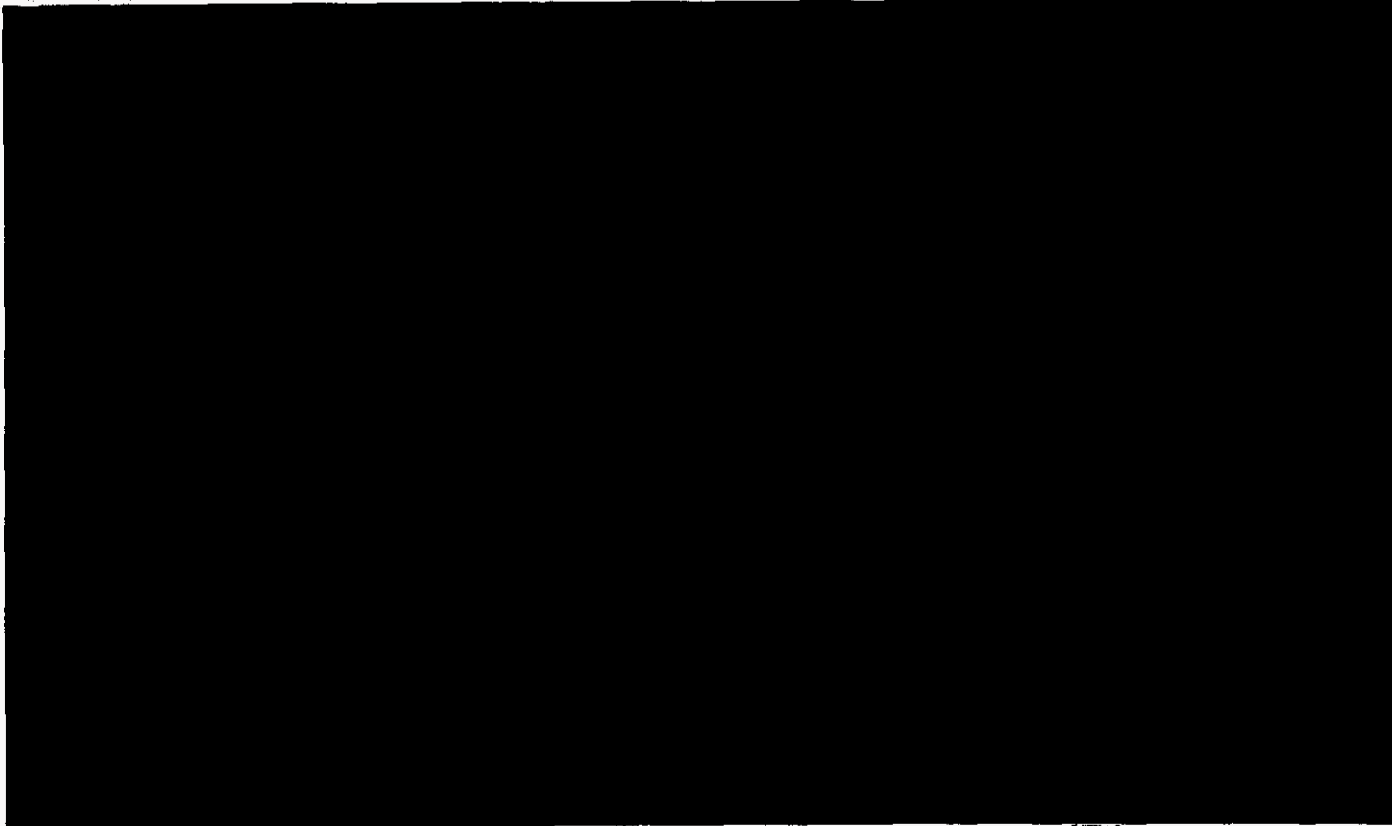
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13-62-003355



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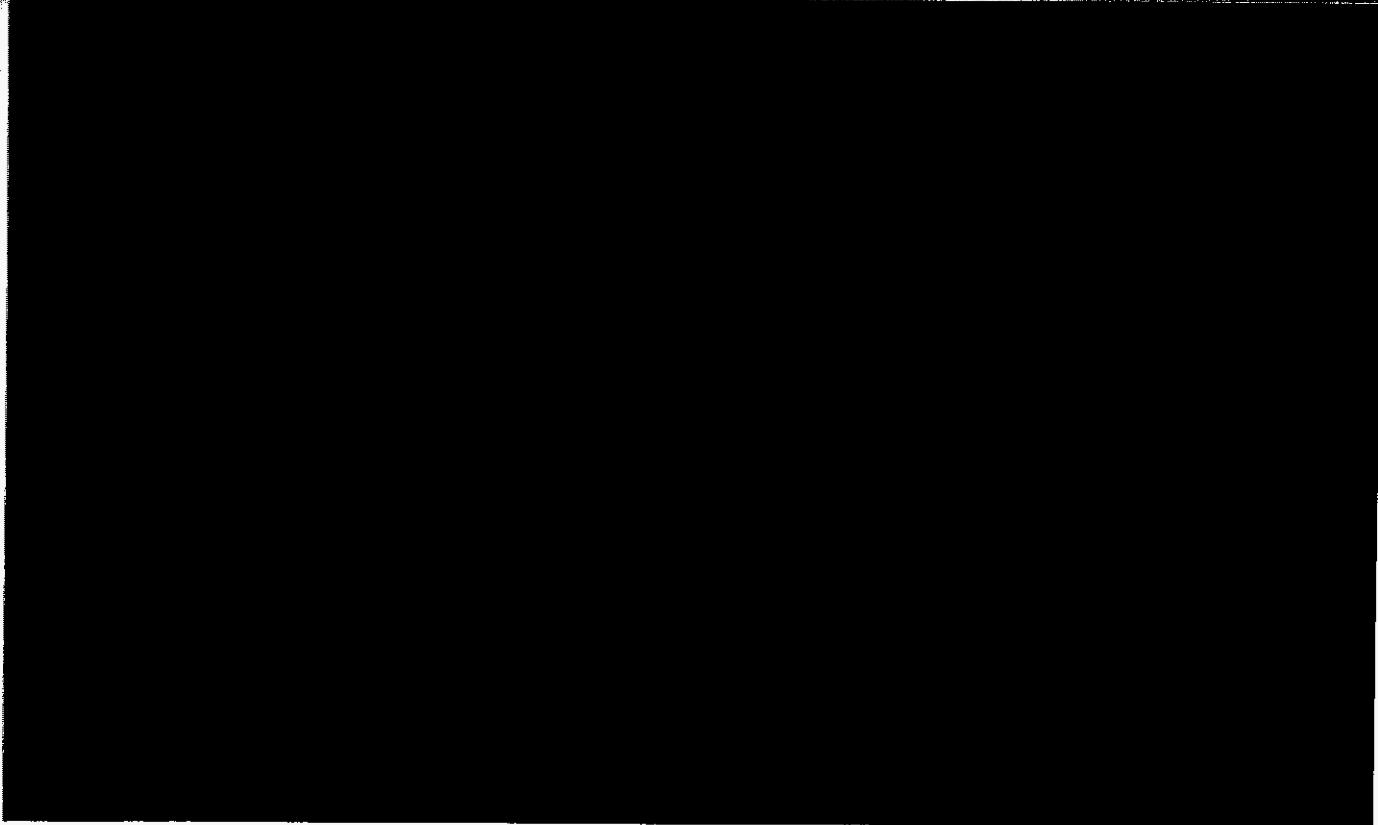
# 36 Month Shift – Targeted EPC Cash Flow

Derived from CapEx Changes



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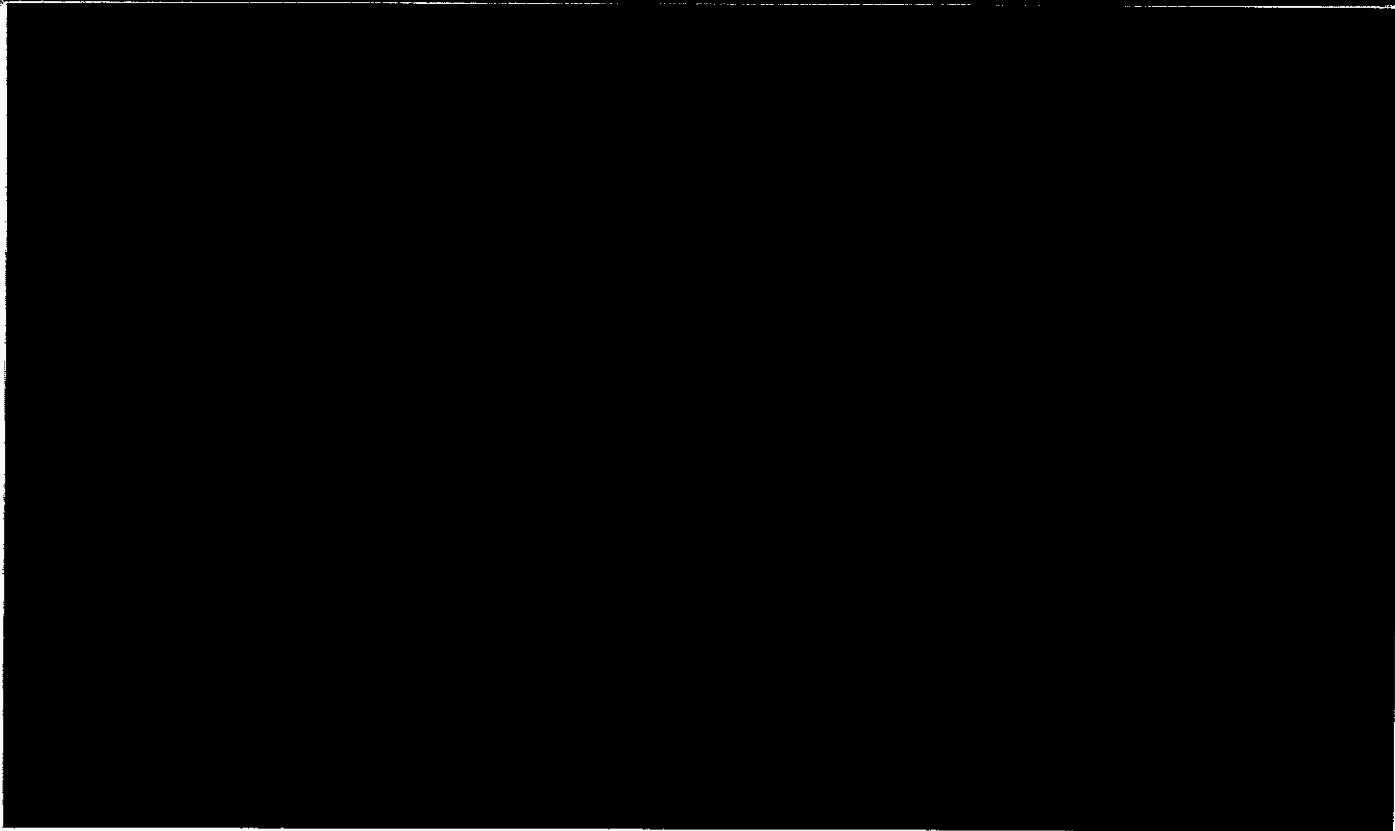
# **36 Month Shift - Levy Regulatory Milestones And Estimated Total Project Cash Flow (assumes 12 month stagger)**



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# EPC Cash Flow

Comparison of Scenarios – Current, 20 Month Shift, 36 Month Shift



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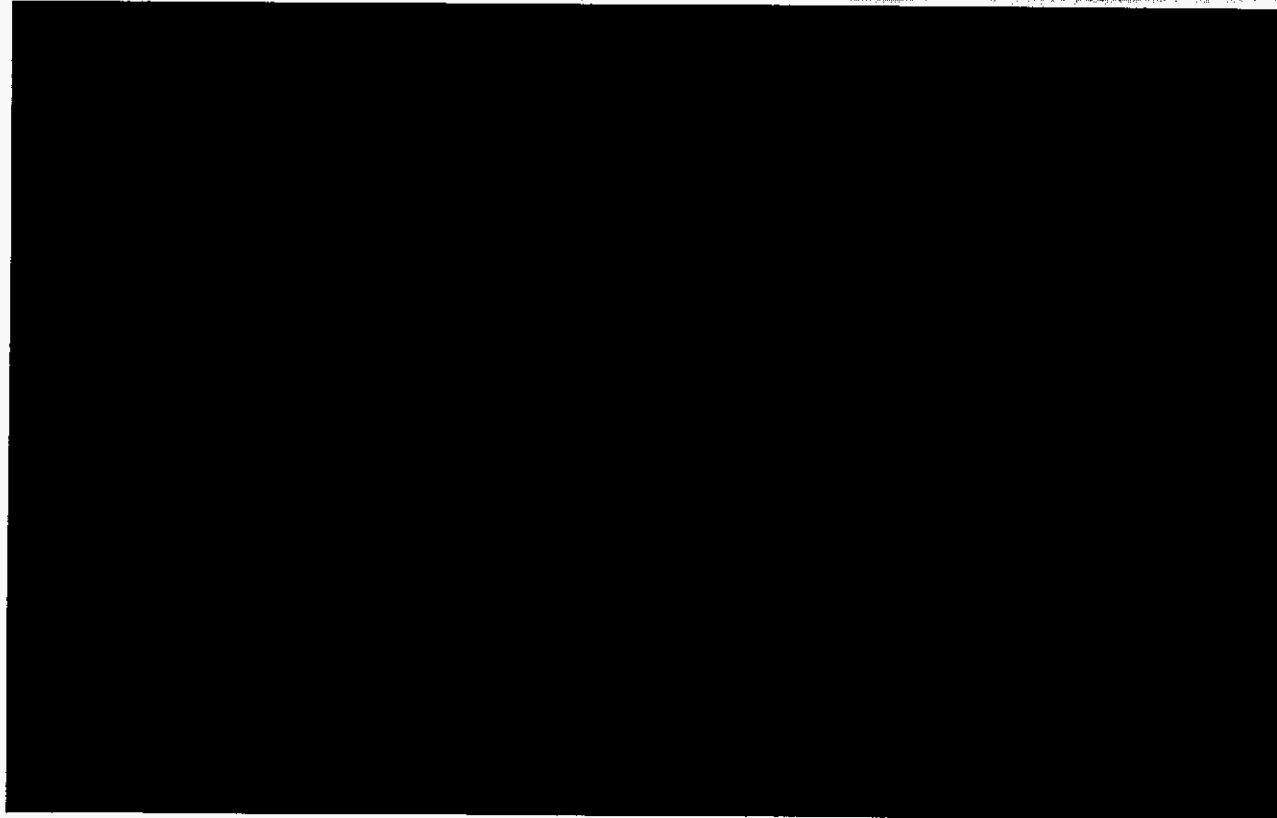
# Total Levy Project Costs through 2011

## 36 Month Shift Scenario

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# 36-Month Shift - PEF Resource Options

## Additional 16-month Capacity Need



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# Financial Forecast

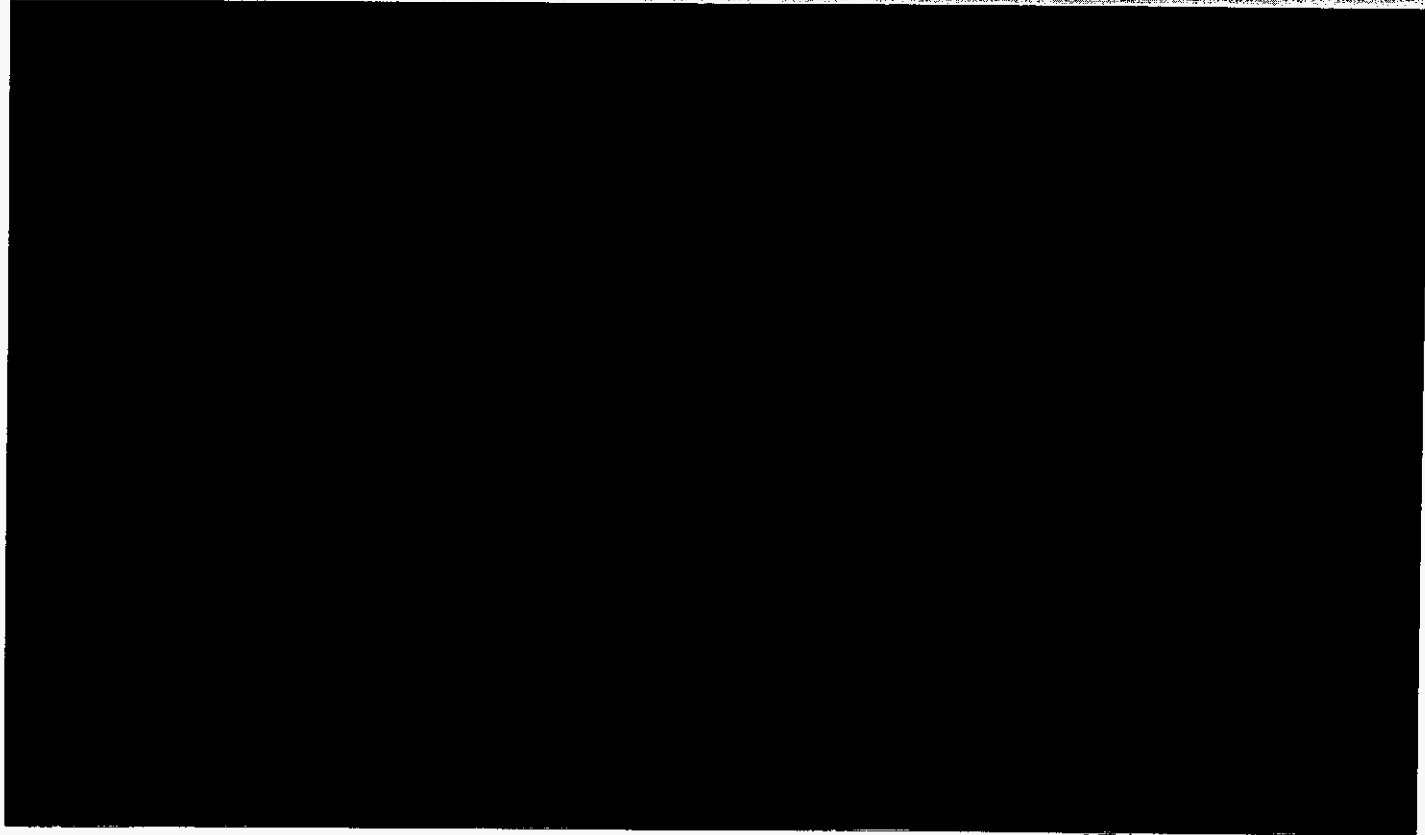
## Capital Plan Deltas



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# Financial Forecasts

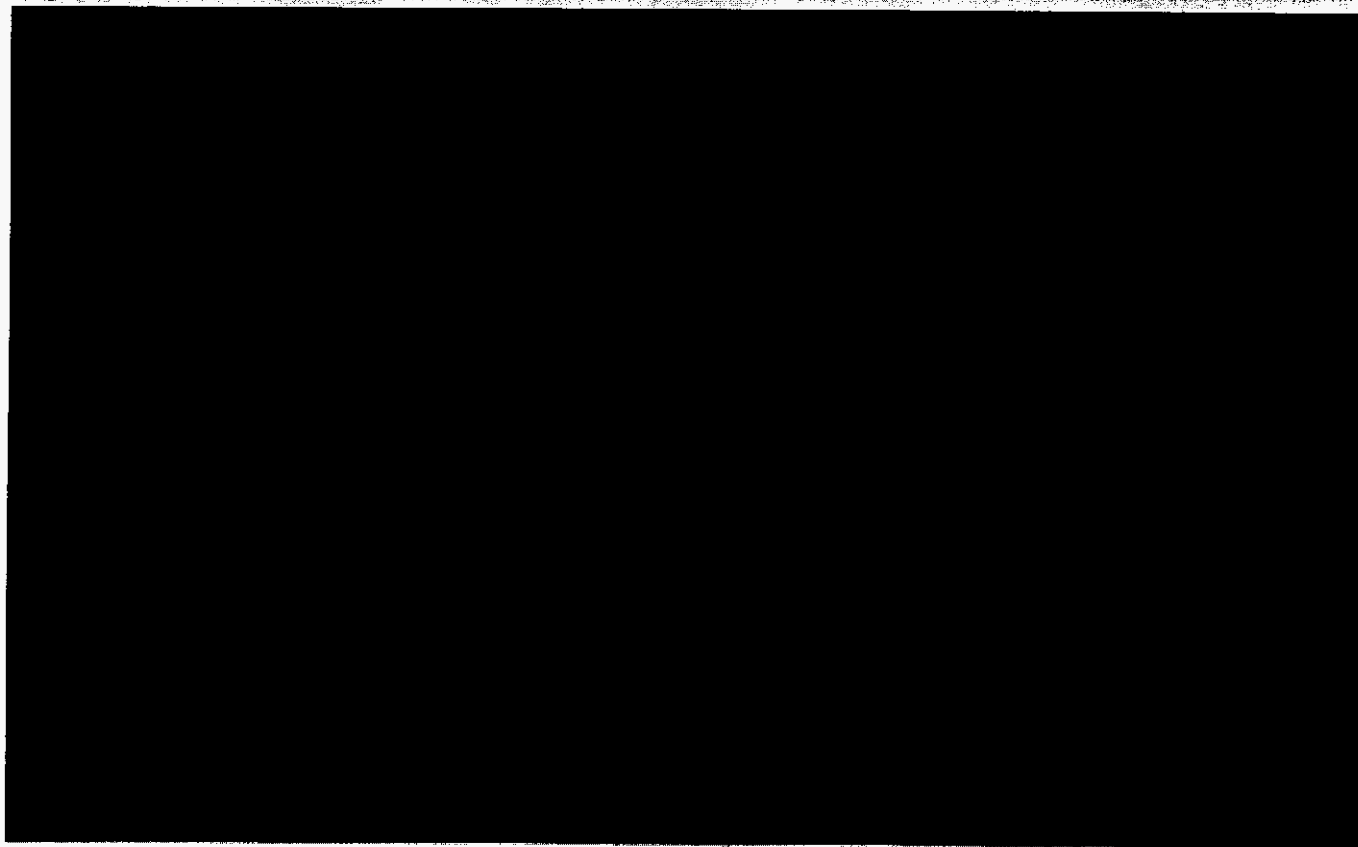
## Capital Markets Requirements



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## **Customer Bill Impact**

**Low Case – with Carbon, RPS; Impact of 80% versus 50%**

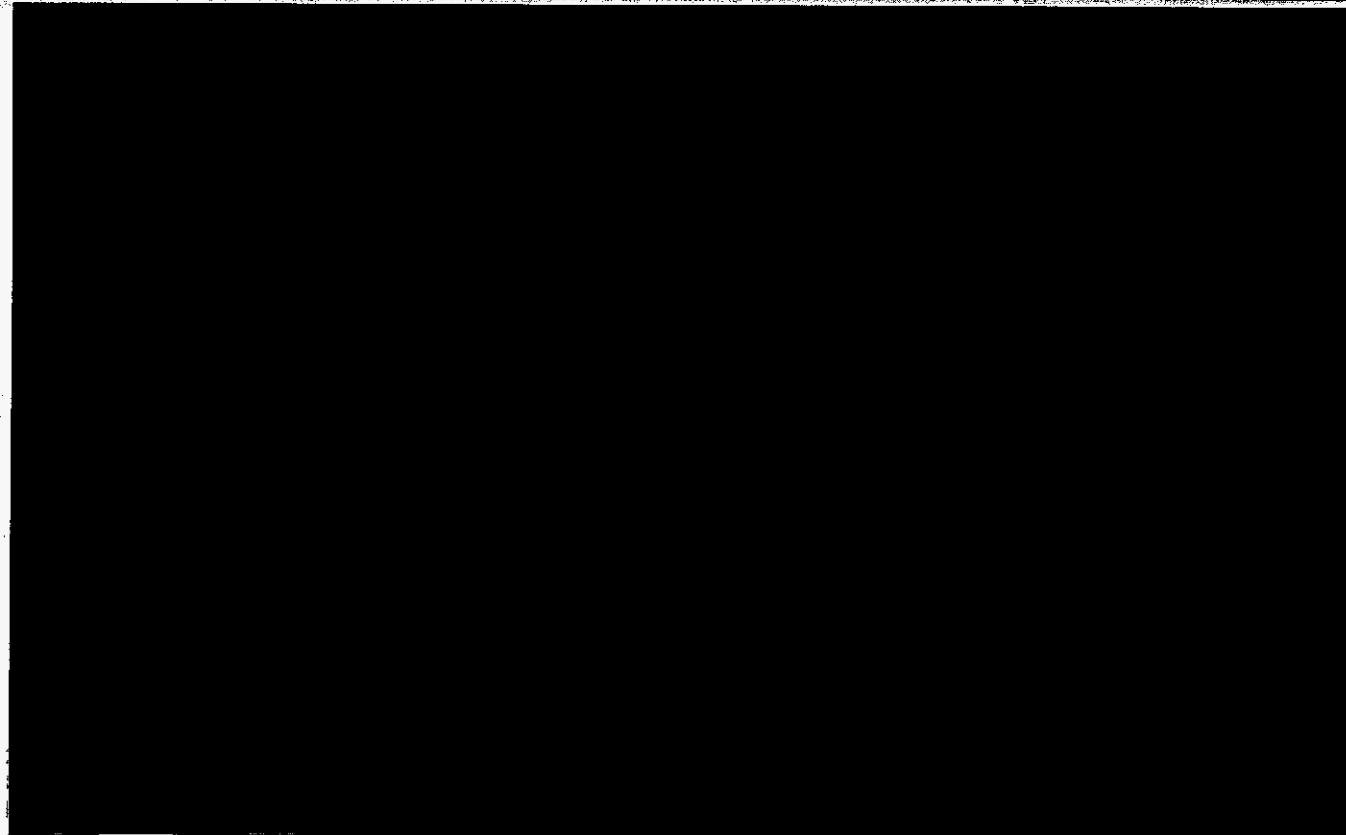




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## **Customer Bill Impact**

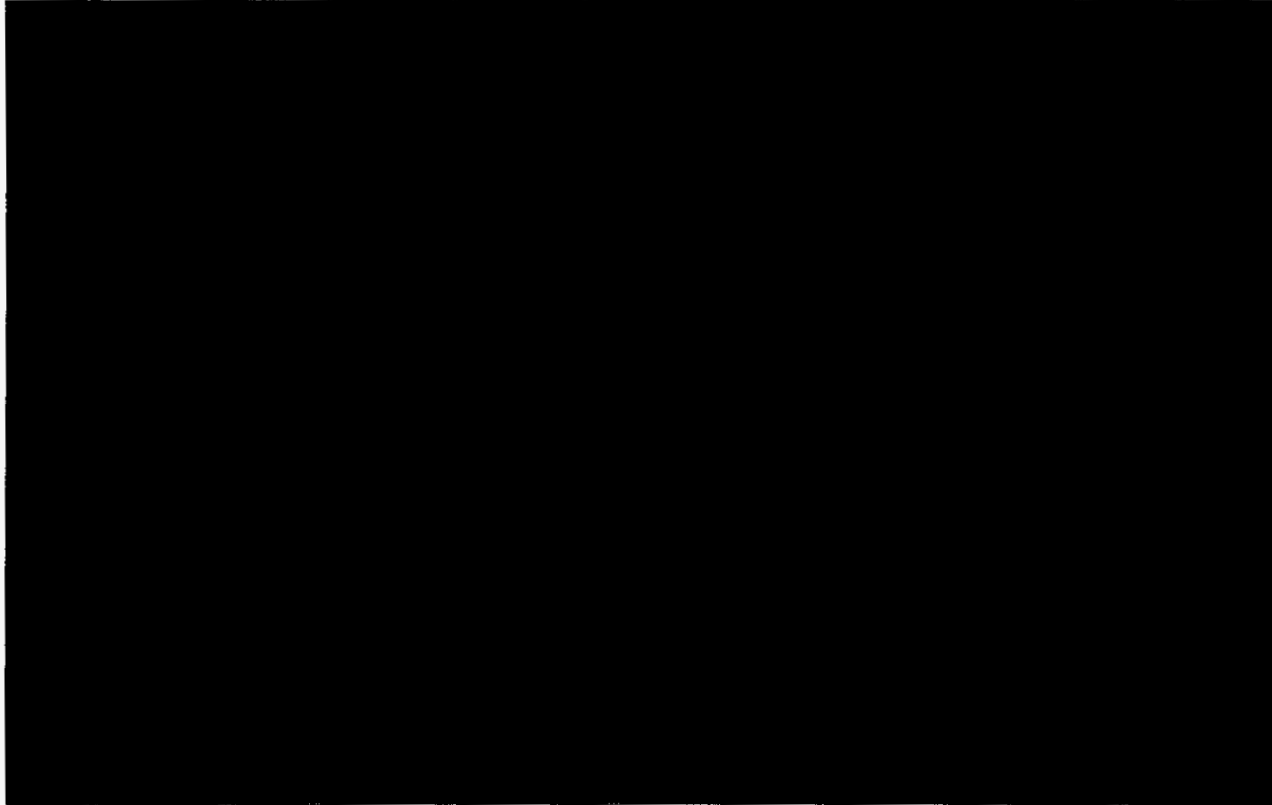
**High Case – with Carbon, RPS ; Impact of 80% versus 50%**



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# **Customer Bill Impact**

## **Nuclear Cost Recovery During Construction**



## 36 Month Shift – Issues

### Additional time to gain certainty

- w Federal policy, financial markets, COLA progress
- w Improves near-term customer price impact

### Some opportunity to advance work

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### Communicate change to WEC/Shaw

- w Renegotiate EPC, [REDACTED] Redacted - Privileged

### Uncertainty of total project cost estimate (without feedback from WEC/Shaw)

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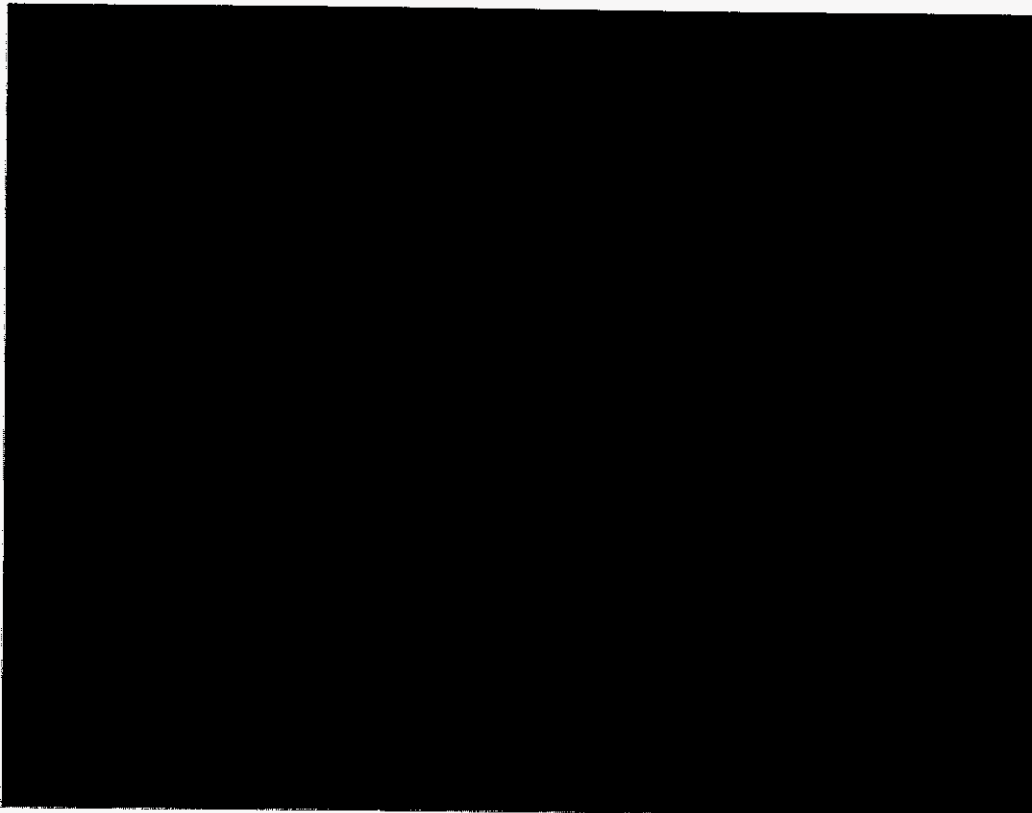
William D. Johnson  
Chairman, President  
and Chief Executive Officer

April 15, 2009

**BOARD OF DIRECTORS  
PROGRESS ENERGY, INC.**

**CONFIDENTIAL**

We will use the attached presentation in our Board conference call this Friday, April 17, at 1 p.m. (call-in number: 888-363-4735; access code 5814305). The purpose of the call is to discuss our near-term plan and year-end options regarding the Levy nuclear project in Florida.



P.O. Box 1551  
Raleigh, NC 27602

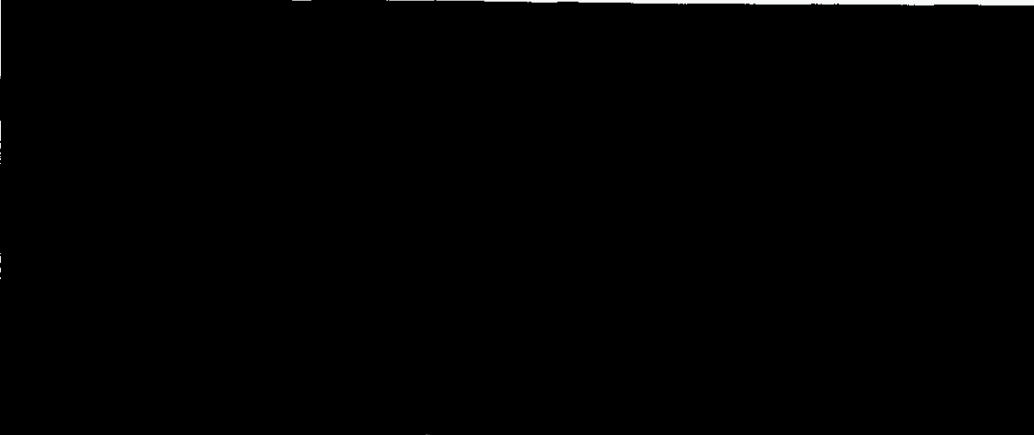
T - 919.546.6463  
F - 919.546.3210

09NC-OPCPOD3-61-000049  
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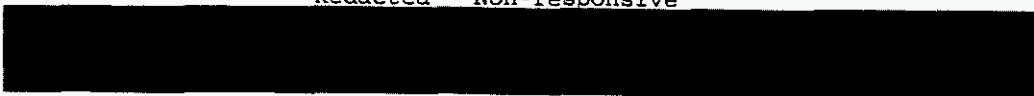
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Board of Directors  
April 15, 2009  
Page 2

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Redacted - Non-responsive



If you have questions before our call, please let me know.

Sincerely,

A handwritten signature in black ink, appearing to read "William A. James", is written in a cursive style.

WDJ/dj

09NC-OPCPOD3-61-000050  
10PMA-DR3LEVY-1-000457  
10NC-OPCPOD1-9-000335  
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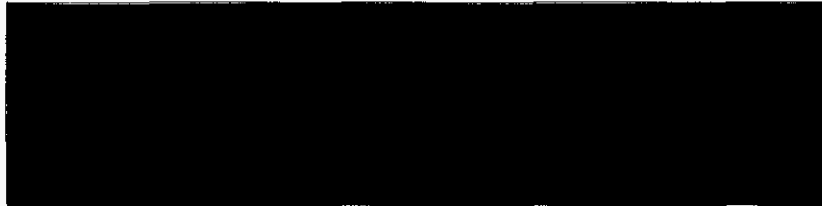
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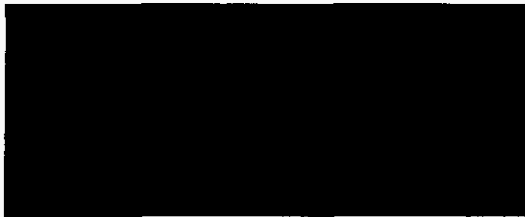
## Conditions to Proceed with Levy Project

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### Levy Project Success Factors

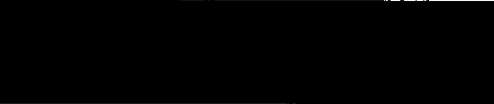



### Levy Project Must Support Our Financial Success Factors



# Landscape Changes

---

		<u>Potential Implications</u>
<b>Capital market deterioration</b> Share price near or below book value Our sector no longer holding up Debt market concerns (unsecured)	→	<b>Ability to raise capital</b>
<b>Federal energy policy landscape</b> Climate change Nuclear/coal policies Renewables Environmental regulation	→	<b>Timing and support for new nuclear</b>
<b>Broad economic indicators continue to show weakness</b> Prospects for late 2009/early 2010 recovery uncertain Impact on load/energy Customer ability to pay	→	<b>Resource planning impacts/ challenging rate environment</b>
	→	
<b>Florida regulatory/legislative climate</b> Price impact Potential legislation	→	<b>Timing and support for new nuclear</b>

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## 20-Month Shift Alternative

---

- Alter Levy construction schedule
  - Shift Unit 1 by 20 months – April 2018
  - Unit 2 completion to follow by 18 months
  - Transmission shift remains flexible
- Outcome
  - Accommodates expected LWA outcome
  - Provides additional time for and certainty on:
    - ◆ Obama Administration nuclear position
    - Financial market and economic rebound
    - ◆ Customer/policymaker support
    - ◆ PEF rate case, first NCRC prudence hearing
    - ◆ Federal policies on carbon, renewables and coal
    - ◆ JO participation
    - ◆ NRC COLA process
    - ◆ Commodity/labor stabilization

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- Minimizes near-term customer price impact

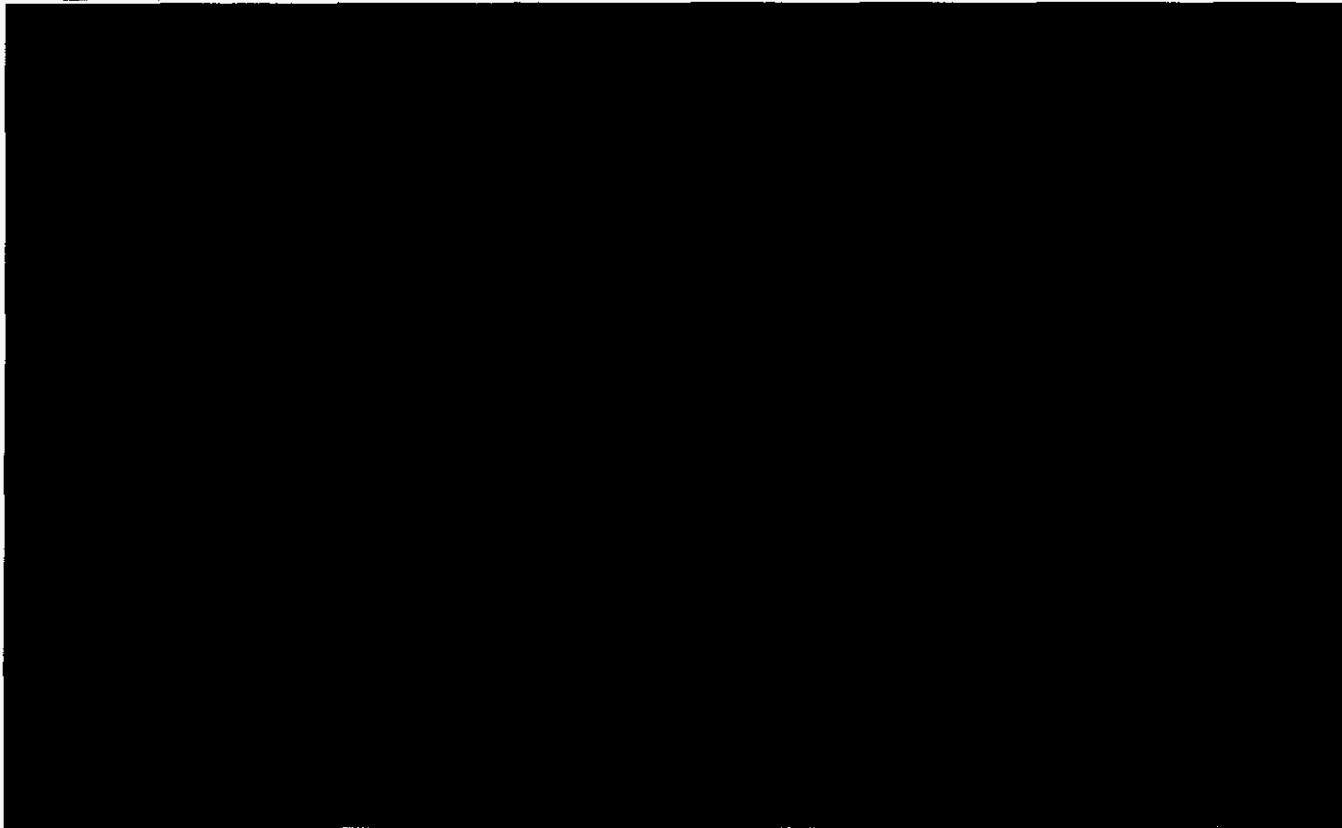


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**Levy Regulatory Milestones and Illustrative Cash Flows**

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09NC-OPCPOD3-61-000059  
10PMA-DR3LEVY-1-000466  
10NC-OPCPOD1-9-000344  
10NC-OPCPOD1-6-015163  
10NC-OPCPOD3-62-003384

## 36-Month Shift Alternative

(***Bold italics denotes differences from 20 month shift***)

---

- Alter Levy construction schedule
  - ***Shift Unit 1 to June 2019 (~36 months)***
  - Unit 2 completion to follow by 18 months
  - Transmission shift remains flexible
- Outcome
  - Accommodates expected LWA outcome
  - Provides additional time for and certainty on:
    - ◆ Obama Administration nuclear position
    - ◆ Financial market and economic rebound
    - ◆ Customer/policymaker support
    - ◆ PEF rate case, first NCRC prudence hearing
    - ◆ Federal policies on carbon, renewables and coal
    - ◆ JO participation
    - ◆ NRC COLA process
  - Commodity/labor stabilization

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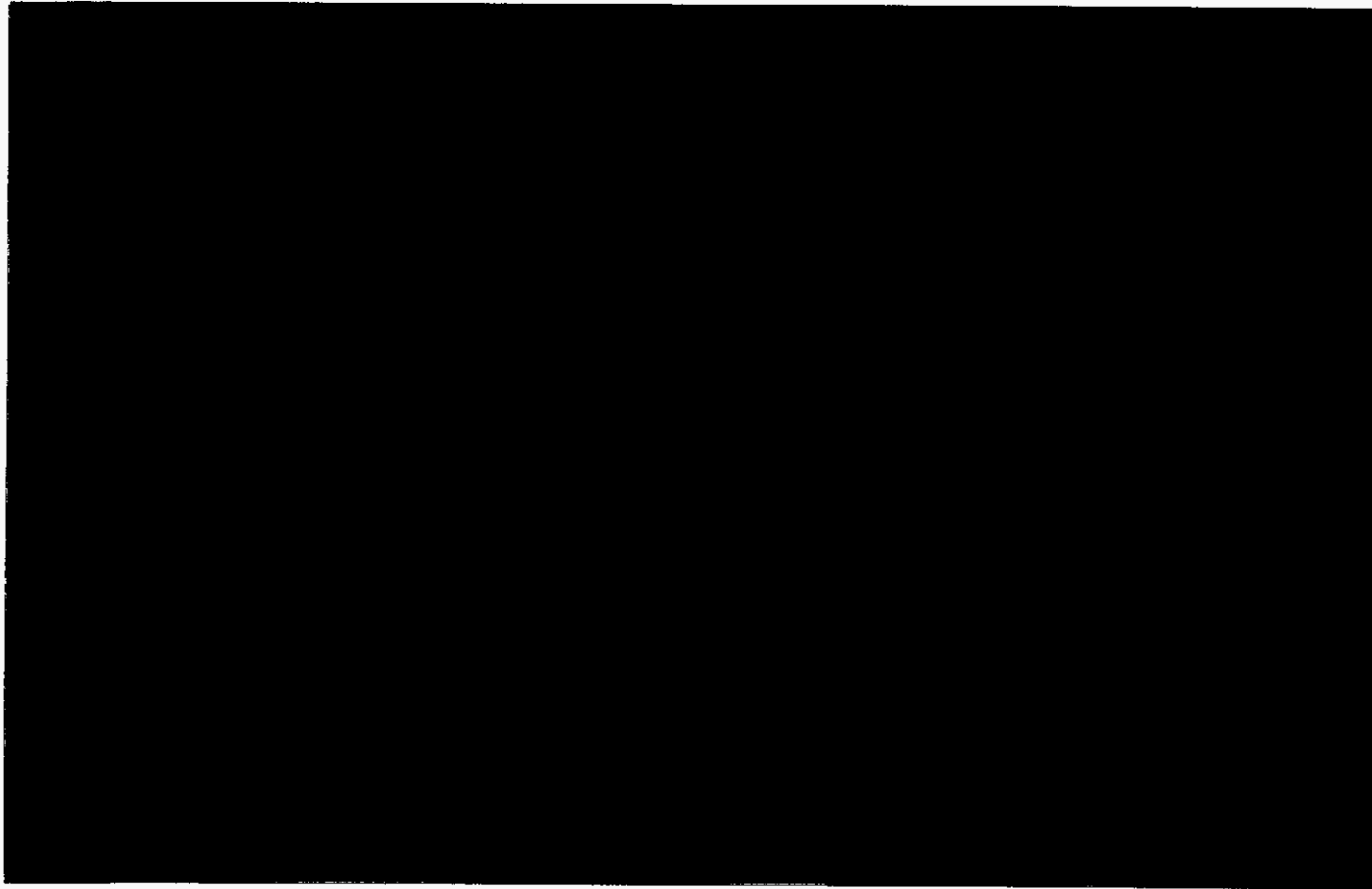
- Minimizes near-term customer price impact

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*Illustrative Example Only*

**Consolidated Financial Impact** (\$ millions)



09NC-OPCPOD3-61-000062  
10PMA-DR3LEVY-1-000469  
10NC-OPCPOD1-9-000347  
10NC-OPCPOD1-6-015166  
10NC-OPCPOD3-62-003387

## Next Steps

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- File nuclear cost recovery petition on May 1
- Make public announcement of schedule shift on May 1



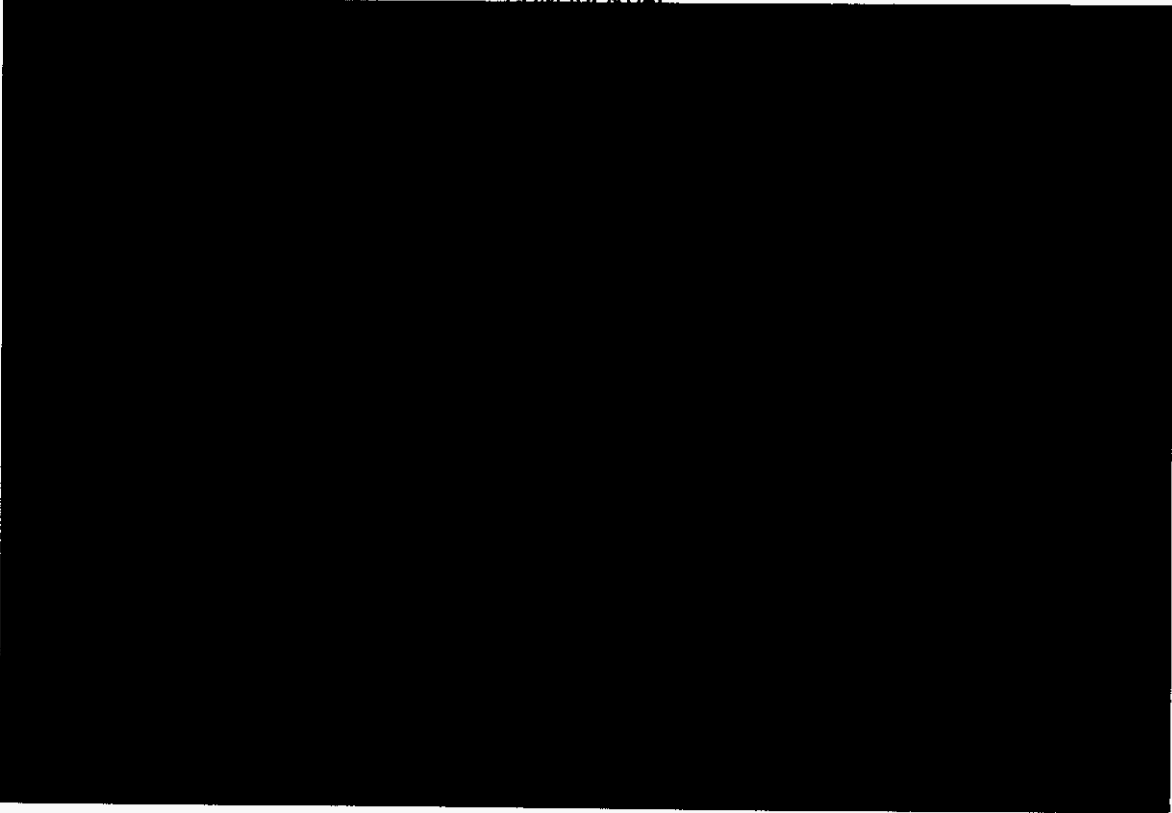
**PROGRESS ENERGY FLORIDA**  
**In re: Nuclear Cost Recovery Clause**  
**Docket 100009-EI**  
**Eighth Request for Confidential Classification**

Exhibit B

**BATES NOS.**  
**10NC-OPCPOD3-62-003395**  
**through**  
**10NC-OPCPOD3-62-003397**

**ARE REDACTED IN THEIR ENTIRETY**

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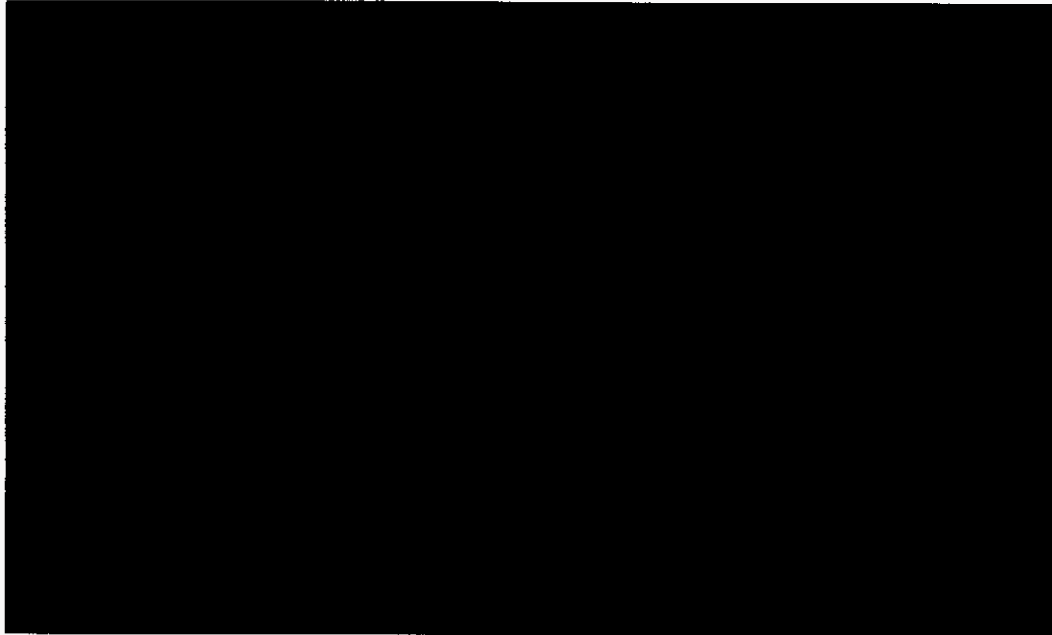


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10NC-OPCPOD1-6-015205  
10NC-OPCPOD3-62-003407

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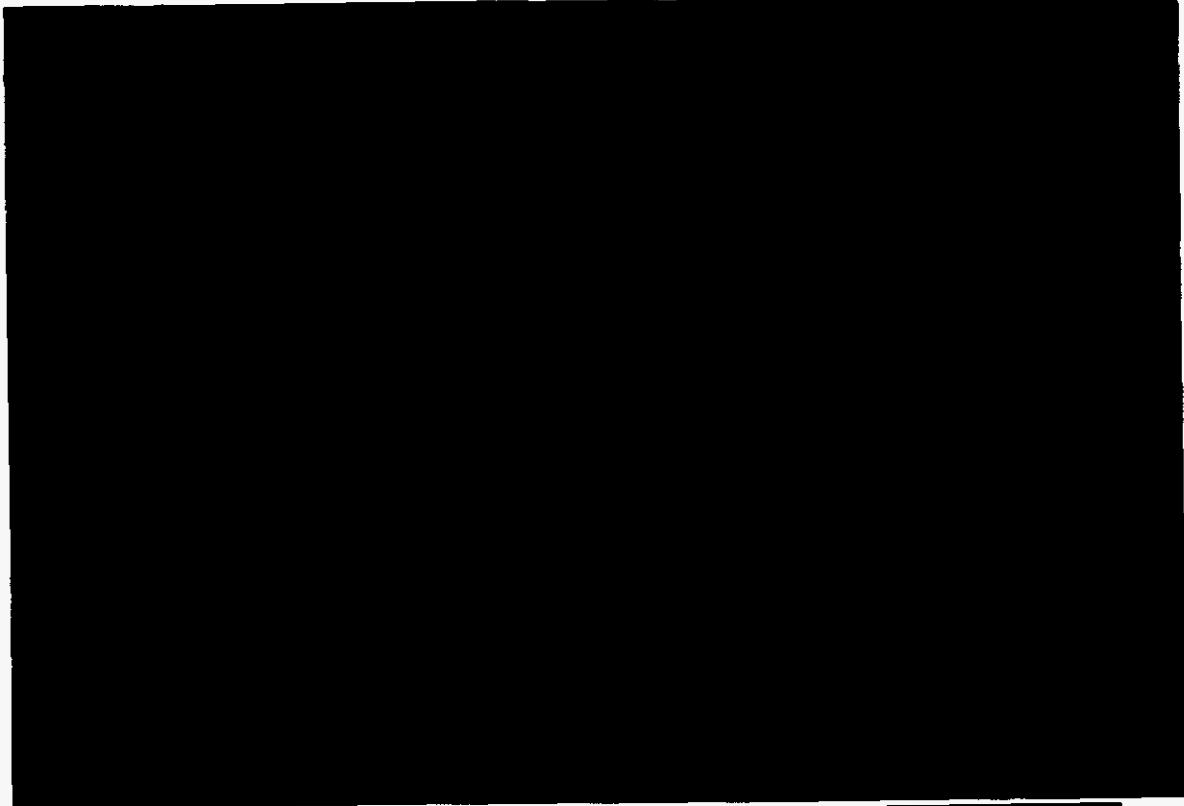
**EPC Agreement  
Suspension Provisions**

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09NC-OPCPOD3-61-000080  
10NC-OPCPOD1-9-000385  
10NC-OPCPOD1-6-015206  
10NC-OPCPOD3-62-003408

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09NC-OPCPOD3-61-000081  
10NC-OPCPOD1-9-000366  
10NC-OPCPOD1-6-015207  
10NC-OPCPOD3-62-003409



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**EPC Cash Flow**

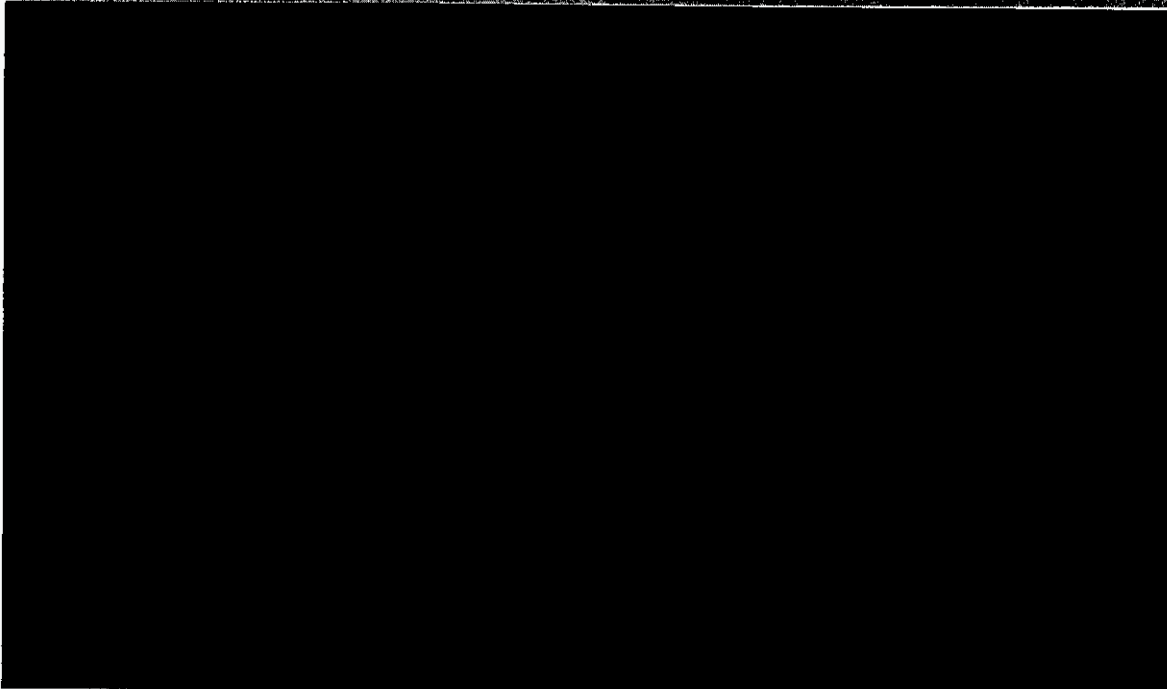
Derived from Current EPC Agreement - Exhibit F

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09NC-OPCPOD3-61-000085  
10NC-OPCPOD1-9-000370  
10NC-OPCPOD1-6-015211  
10NC-OPCPOD3-62-003413

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**36 Month Shift Scenario**  
**For Discussions Purposes *(dates are approximate)***



09NC-OPCPOD3-61-000086  
10NC-OPCPOD1-9-000371  
10NC-OPCPOD1-6-015212  
10NC-OPCPOD3-62-003414

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Draft Pegasus-Global Notes of Interview 3/29

John Elnitsky-VP NPD  
Sue Hardison-GM, Corporate Development and Group Business Services  
Bob Kitchen-Mgr, Nuclear Plant Licensing  
Vann Stephenson, Mgr, Nuclear Plant Engineering  
Ken Karp, GM Levy Baseload Transmission Projects

**A. Management followed reasonable business process in making its decision**

**Transmission Planning/Process regarding Levy:**

Report on the transmission projects at PPR meetings. When 20 month LWA schedule shift announced, asked to look at scope, resequencing of planned activities and staffing and looked at various options of how PEF could slow things down and reasonably curtail spending in this area. The most significant change was the decision to move from an acquisition program manager-outside organization retained to identify and assist in land acquisition to an in-house self managed approach. In addition, engineering and the sequencing of the activities in support of land acquisition were reviewed in light of the new schedule which affected the scope of work the transmission department had underway. The decision to change to a self-managed approach resulted in significant dollar savings.

Of an approximate 2009 [REDACTED] budget, by the end of the year, had only spent roughly [REDACTED] consisting primarily of pre-construction costs regarding regulatory and licensing. Of the [REDACTED] budgeted for land acquisition, only approximately [REDACTED] was expended, largely relating to the decision to move from a Program Acquisition Manager to internal management of this effort. The transmission group's main objective in 2010 is to provide support for licensing and COLA activities from the transmission perspective.

**Background**

1. Organization changes/re-organization. (Discuss whether senior institutional knowledge base was retained throughout project even with changes).
  - a. Few changes have occurred from the initial negotiation team and therefore institutional knowledge has been retained even with the few management changes that have occurred. (I.e. Danny Rodrick left the company and his role was replaced by John Elnitsky).
  - b. PMT-John's standard process for reviewing projects and so when he was brought in used this. CR uprate-had PPR. Monthly progress reviews (may not be called) Generation and Construction which had everything but Levy. Formed in 2008

next chain of command, still with that overlap of involvement from one level to the next.

16. Explain NPD – perspective, roles, responsibilities, contract management, and function.
  - a. An integrated and consolidated organization to execute a project of this magnitude. Construction management and financial oversight under Hardison which provides alignment and the right amount of independence and review. There are weekly staff meetings between John Elnitsky and Jeff Lyash with feedback on those issues that need further review and evaluations before they are brought before the entire SMC. Thus, Jeff Lyash serves as another step regarding the information needed for review and evaluations of that information required before going to the next level of management, in this case, the SMC, for making an informed decision.
17. Explain the PMT, perspective, roles, responsibilities, contract management, and function.
  - a. PMT –really John’s staff. PPR-renaming of LINC. Same participants and is the transition from LINC and essentially the same group. PMT is John’s direct reports and key interface support organizations-cheri, Dave conely, Sue Hardison, procurement (Olson) nuclear oversight and project insurance (Melinda burrs). PPR is a higher level review-VP and up personnel. Vinny Dolan, Alex Glenn, treasurer (tom Sullivan). SMC-Mark Molan-CFO-Bob Johnson-Bob McArthur and Lloyd Yates. Thus, really the “C” suite contingent.
18. What oversight does management have on contracts and what does it retain on contracts once executed?
  - a. Sargent & Lundy – CH2MHill – WorleyParsons –the JV contract is primarily for assistance in preparation of the COLA and activities related thereto.
19. NRC negotiations and filings.
  - a. COLA in reference to Vogtle as the lead plant is a –positive in that Vogtle has a contract and they are “digging a hole” rather than TVA which was the prior lead plant whose focus is more to restore Watts Bars and Browns Ferry. Progress sees no negative impact on transition. Another benefit is that Progress is at the end of RAI process and has closed any open items that were on the Bellefonte docket. Further, there is good communication through NuStart with multiple calls each week with WEC and the utilities.

**Factors Considered in making decision**

20. Reasons for signing the EPC (referring to what was stated in Miller/Lyash 2009 testimony)

[REDACTED]

[REDACTED]

- b. The JV came into the picture to help develop the license application. License application was their scope of work. The JV's focus is assist in the preparation of the license application and response to RAIs and follow-up studies (i.e. the geotechnical studies)
- 21. FPSC – regulatory impacts to schedule shift decision (Rate case decision)
  - a. April 9, 09 SMC Meeting
  - b. April 17, BOD Meeting
- 22. Six Scenarios Analysis: reasons/procedures in choosing scenarios, etc.

[REDACTED]

- 23. Oct. 15, 2009 SMC presentation
  - a. 10/15/09: Back to April with partial suspension-knowing what knew then-20 months of work to be done after the license? Told WEC/SWW-give us the 6 scenarios-s 24 mo-20 mo shift LWA and amount of float with CP-36  
[REDACTED]  
[REDACTED] Lay out direction to work with vendors [REDACTED] What work done, who has work underway-what can we stop and not stop. Then to Oct brief-other factors in external environment, SMC national economy-load growth in FL, federal climate change, credit ratings, DCD and what happening and several NRC discussions on shield building and final environmental impact statement. ASLB 3 contentions and related to safety and attached to final safety evaluation report, SMC starts to say we want some additional options and why not also consider as options to either cancel the project and or cancel the EPC and finish COLA or go to long term partial suspensions. 4 options-continuing sort of with base plan 36 month shift or something that preserves longer term option. Scenario and what can do-more than what the scenarios provide-Oct 15-if want to push and move risk to after license and knew into 2012 by that point-needed another approach and cannot just say we can pick one scenario.
  - b. Oct 15 meeting-go ahead to move with a different negotiation strategy-how do you get into a long term suspension. Contracting strategy-approach consortium and one option is to cancel the project and told Consortium that so that Consortium can provide to PEF what that means

and what that commits. 10/15 NRC rejects shield modification and has to redo it. Held press conference and Shaw stock went down 20%. [REDACTED]

[REDACTED] Given where we are with economy in FL and load growth projects and shield building issue-inclination cancel and just go do COLA and just do PO.

[REDACTED]

[REDACTED]

iii. Jan 2010-more negotiation-set of principles around long term suspension and writing language.

- 24. Feb. 15, 2010 SMC presentation
- 25. March 8, 2010 SMC presentation
- 26. March 17, 2010 BOD presentation
- 27. Amendment 3 to EPC

[REDACTED] Amendment 3: [REDACTED]

[REDACTED]

**B. Management reasonably and prudently implemented management decision.**

- 28. Lyash testimony and Garry Miller testimony on reasons for signing the EPC
- 29. March 2009 Burns and Roe Review and Validation of AP1000 Cost and Schedule. How did PEF decide what findings and observations to act on? How did PEF utilize report?
  - a. Over 1/2 of their open items were involved with the schedule. WEC will resolve in the next round. Some of the risk indentified did in fact arise, [REDACTED] Progress has tracked the B&R identified items and took ownership of them to resolve them. Actions have been recorded in the tracking matrix which continues to be reviewed and evaluated.
- 30. If the project were to be abandoned, what alternative actions are in place to replace the loss of the Levy station? For example, how are baseload capacity/demand considered and what the impact may be to the customer during the delay t Levy?

[REDACTED]
- 31. How did the PTCs play into the decision making process, including the deadlines set forth in the requirements for PTCs?
  - a. PTCs-safety concrete is to be poured by 2014-which would certainly be a challenge since the COLA is not expected now until 2012 or even possibly 2013, which would push first nuclear concrete way beyond this date. Progress in essence took on a 2-year penalty due to the inability to begin with an LWA.
- 32. The timeline submitted to staff highlights meetings with consortium, discuss what transpired in these meetings and how this information was utilized in the decision-making process and how communicated to the Board?
  - a. Consortium meetings-per the contract-set up monthly project execution meetings with Consortium. [REDACTED]

[REDACTED]

[REDACTED] By May core topics at the Consortium meetings involved vendor visits and long lead items. The focus of the meetings during the course of summer centered as to the progress the Consortium was making on the scenario analysis and how vendor information was being received. By August, with the congruence of the enterprise risks, meetings shifted to renegotiation of the T&Cs. Communication with the Consortium switched to weekly calls.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] his preserves the value for customers by maintaining the EPC versus cancellation.

- b. Lyash and Johnson had extensive conversations with WEC/SWW beginning in October 2009 regarding the Amendment including the convergence of enterprise risk being exacerbated by financial markets, COLA timing, DCD uncertainty, etc. relative to Progress' confidence in the schedule-there comes a time that have to pick a point based on what is known at the time.

- 33. Regarding the absolute costs per the March 17 Board meeting presentation, how did the board arrive at these costs as the best option and how was this considered relative to the best option for the Progress Energy Shareholder, Progress Energy as a company generally, and for the rate payers?

- a. Why not just cancel the contract? The decision to sign the EPC was found to be prudent. Progress considered that one of the primary reasons for signing the contract when it did was [REDACTED]

[REDACTED] As noted in the last prudency hearing, there was a 2-year protracted negotiation to get the contract signed. Others such as Southern and SCANNA had already signed and others such as Duke and Dominion were stepping up to the plate. In 2008 the Obama Administration noted that Climate Change was at the top of the agenda. By not canceling the contract, Progress preserves its right to restart when it can. [REDACTED]

[REDACTED] Looking at the time lines-Southern will complete before PEF pours their 1<sup>st</sup> safety concrete. The China plant will be complete before PEF's first nuclear concrete. Will allow leverage of lessons learned and [REDACTED]

[REDACTED] These actions will be able to be taken without having to renegotiate a new contract which will improve their risk advantage. Preserving this flexibility will have little affect on near term costs over 3 years-little difference in canceling right out. Very little difference from cash flow situation over next 3 years. What does it cost you to go to partial



suspension? [REDACTED]  
[REDACTED] Incremental storage costs in addition to the [REDACTED] (early estimate on PO disposition)-but this is still significantly lower than if [REDACTED]  
[REDACTED] Having a contract is a big deal. Downside-why PEF not doing what Dominion doing-compete technologies-terminate and then compete technology? [REDACTED]  
[REDACTED] End of 2012 and 2013 multiple technologies that have been through the process. Amending COLA for technology maybe OK once approved. Abandoning nuclear and looking at different option? Nuclear part of long term solution in FL. Gas in near term for filler. Load growth and gas prices-long term fuel diversity need for equation. [REDACTED]  
[REDACTED] without Levy shift-application of clean air interstate review and will be part of on-going analysis and discussion with state-[REDACTED] Investment dollars-what can we look to? Oil fired units for lost capacity.

Draft Pegasus Global Holdings Interview Notes of Jeff Lyash March 31, 2010

1. What was the reason for the establishment of the LINC?
  - a. The LINC was established to coordinate all project activities. LINC became the Project Performance Review Committee
2. Explain the roles of the Nuclear Oversight Committee of the Board.
  - a. Discusses issues relative to the company nuclear projects and the nuclear industry. Discusses status of DCD review. Carries this knowledge to the full Board although there are no formal recommendations from this Board committee to the full Board. Any concerns can also be raised to the full Board.
3. How is information on LNP presented to the Board?
  - a. At each Board meeting, information is presented giving a status of the project, including issues of the EPC agreement from its initial negotiations, to the most recent issues involving potential termination, amendments, and/or other dispositions of LNP.
  - b. The Board has a full understanding of the issues before it and when it is time to make a decision, the Board is building off a strong base of knowledge and not just a summary level.
4. Does the Board composition allow for an understanding of the issues put before it relative to LNP?
  - a. Yes. The Board is comprised of members who have experience in the area of finance and in the nuclear industry. For example, the Board Committee for Operations and Nuclear Oversight is comprised of experienced individuals in the nuclear area. These individuals include Charles W. Pryor, Jr. Chairman of Urenco Investments, Inc, which is a global provider of value added services and technology to the nuclear generation industry. Mr. Pryor was previously with Westinghouse. In addition, the Nuclear Oversight Committee includes Alfred C. Tollison, Jr., retired Chairman and Chief Executive Officer of the Institute of Nuclear Power Operations, an industry sponsored non-profit organization. Both members provided feedback to the full Board.
5. What were the key considerations in regard to negotiation of the T&Cs for the EPC Agreement?
  - a. [REDACTED]
  - b. [REDACTED]
  - c. [REDACTED]
  - d. [REDACTED]
  - e. [REDACTED]
  - f. [REDACTED]
  - g. [REDACTED]
  - h. [REDACTED]
  - i. [REDACTED]
  - j. [REDACTED]
  - k. [REDACTED]
  - l. [REDACTED]
  - m. [REDACTED]
  - n. [REDACTED]
  - o. [REDACTED]
  - p. [REDACTED]
  - q. [REDACTED]
  - r. [REDACTED]
  - s. [REDACTED]
  - t. [REDACTED]
  - u. [REDACTED]
  - v. [REDACTED]
  - w. [REDACTED]
  - x. [REDACTED]
  - y. [REDACTED]
  - z. [REDACTED]
6. How was the Board informed of the T&Cs being negotiated?
  - a. The SMC made presentations to the Board relative to the status of the negotiations.

Oversight Committee can schedule its own meetings. For example, before the March 17, 2010 Board meeting, the ONC went to LNP for the day and met with Jim Ellis to discuss operating nuclear fleet performance and new plant construction and INPO oversight and training of internal staff.

- b. Lyash and Johnson responsible at SMC meeting to brief the SMC and to prepare and bring issues to the Board meeting.
11. Explain the EPC Agreement negotiation process
  - a. Before December '08 there was a core negotiating team. The purpose of the negotiation was discussed with the SMC at each SMC meeting. As got to "rough spots" or particular items, would raise these in the SMC meeting to try and assure a path to be taken and a commitment to proceed ahead with some SMC expectation. At several points during the negotiation would involve Johnson and Mullens on how to get past a particular point and expectation relative to WEC/SWW position.
    - In December '08, a substantial foundation of work had been done and there was a fundamental knowledge by the SMC and the Board as to what had transpired over the past year and what positions had been taken. The knowledge was not merely history, but discussion on [REDACTED]
  - c. [REDACTED]
12. What discussion was held with respect to Production Tax Credits?
  - a. Had to look at all options and how all objectives could be met. The PTCs were not that large in the overall picture of schedule and were not large enough to keep the schedule given the discussion of other factors impacting schedule. Also, PEF believes that the PTCs will change as the industry picks up and thus the requirements for PTCs are also likely to change.
13. What is the status of the Federal Loan Guarantees?
  - a. PEF has applied for Phase 1 and maintains its right to reengage. PEF made the decision not to pursue Phase II at this time due to the DOE position regarding 1<sup>st</sup> lien against assets, a position to which PEF could not agree.
14. How is the SMC and the Board monitoring the DCD?
  - a. The DCD status is an issue that is discussed at most if not all SMC and Board meetings. The WEC design certification and the reference COLA are being monitored closely. Issues with containment building design and sump issues are all reviewed with respect to any potential impacts to the COL approval. Lyash sits on a NEI New Plant Oversight Committee along with representatives from SCANNA and Southern Companies which meet and discuss these issues.
15. How was the Board's March 17 2010 decision made?
  - a. As discussed previously, the Board has been continually been informed of the status and progress of the LNP and the nuclear industry and issues facing the industry that also impact PEF and the LNP. Given the DCD issue, the decision was made to [REDACTED]

[REDACTED]

- b. In January, PEF informed WEC of all the areas where PEF thought WEC was weak in their negotiation and provided WEC with what they would agree to and what they would not.

In the March 17 Board meeting, the discussion [REDACTED]  
[REDACTED]  
[REDACTED] Disposition of POs that flowed from the contract was also a significant portion of the discussion.

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

16. What has changed since PEF entered into the EPC Agreement with WEC?

- a. LWA-major impact on schedule
- b. Demand Side Management
- c. Market Conditions
- d. PSC Decision on rates
- e. PEF considered it the right thing to do to delay the project and execute Amendment 3- fair for PEF and fair for its customers. Move the capital expenditures until after the COLA and capture the benefit that can be learned from others who are moving ahead with the AP1000s now. Gain flexibility by putting some risks behind that will be resolved once clearer picture is obtained regarding carbon pricing and how Florida comes out of the recession. There will be clarity on the economy and energy policy and the amount to invest now with decision is small in comparison to the benefits that are expected to be received based on what we know now. [REDACTED] PEF is committed to the AP1000. If PEF had not agreed that it could maintain the benefits it had under the EPC Agreement, it would have terminated the contract, however, PEF's evaluation showed otherwise and PEF used the existing termination provision to its advantage.
- f. Risks are evolutionary and not static and PEF is responding to the evolution and it is anticipated to respond to different opportunities as well as look to put in place mitigation plans to respond to risks as they evolve.
- g. The T&Cs in the current agreement give PEF options to accommodate evolving issues that have arisen to date.

17. What is the importance of the CVPRR

- a. It is important, but not a litmus test for feasibility of project and there are so many other factors to be considered and get clearer with time. You cannot relook at the decision whether or not to continue a nuclear plant looking at an annual. CVPRR-nuclear

**PROGRESS ENERGY FLORIDA  
In re: Nuclear Cost Recovery Clause  
Docket 100009-EI  
Eighth Request for Confidential Classification**

Exhibit B

**BATES NOS.  
10NC-OPCPOD3-64-0000001  
through  
10NC-OPCPOD3-64-000024**

**ARE REDACTED IN THEIR ENTIRETY**

**PROGRESS ENERGY FLORIDA  
In re: Nuclear Cost Recovery Clause  
Docket 100009-EI  
Eighth Request for Confidential Classification**

Exhibit B

**BATES NOS.  
10NC-OPCPOD3-73-0000001  
through  
10NC-OPCPOD3-73-0000005**

**ARE REDACTED IN THEIR ENTIRETY**

**BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

In Re: Nuclear Power Plant Cost Recovery )  
Clause. )  
\_\_\_\_\_ )

Docket No. 100009-EI

Submitting for filing: June 14, 2010

**REDACTED**  
**PROGRESS ENERGY FLORIDA'S RESPONSES TO CITIZENS' THIRD SET OF INTERROGATORIES TO PROGRESS ENERGY FLORIDA (Nos. 34-63)**

Progress Energy Florida, Inc., ("PEF" or the "Company"), responds to Office of Public Counsel's ("OPC" or "Citizens") Third Set of Interrogatories (Nos. 34-63), as follows:

**INTERROGATORIES**

**Question 34**

**What are the specific issues to be addressed in the CR3 LAR's?**

**Response:**

Subject to PEF's general objections filed on June 3, 2010, and without waiving same, the EPU LAR requests authorization to operate CR3 at a higher Rated Thermal Power (3014 MWt). The NRC license limits the thermal output of the reactor core (as opposed to electrical output of the facility). In support of that increase, the CR3 EPU LAR provides the Nuclear Regulatory Commission ("NRC") reviewers a comprehensive evaluation of the impacts of the proposed increase in power level. In order to support the increase in power level it was necessary to rerun all of the fuels, safety and transient analysis for CR3, which are summarized in the LAR. Some of these require changes in inputs or mitigating system performance. In addition, the increase in power necessitates an increase in system flows and other thermal-hydraulic parameters. Therefore it is necessary to upgrade (replace or modify) numerous components in the plant. The LAR summarizes these changes in detail. Those changes associated with increased power production but not as significant with regard to transient performance are less detailed. Those changes directly associated with transient performance are discussed in more detail. The LAR also includes an extensive assessment of the environmental impact of the higher power level, testing requirements, operational impacts and other facets of facility performance.

The LAR is organized into several distinct sections, the largest of which deals with the subjects noted above. It is broken down into over 100 sections and is approximately 2000 pages in length.

**Question 35**

**Please describe any technical challenges or difficulties related to the CR3 LARs.**

**Response:**

Subject to PEF's general objections filed on June 3, 2010, and without waiving same, there are two major modifications that are nuclear safety significant and will have increased scrutiny by the NRC.

The Low pressure Injection Cross Tie, LPI Xtie, with Hot Leg injection for Boron precipitation modification is being performed to lower fuel clad peak temperature, limit the time of core uncover, and reduce fuel clad oxidation following a hypothetical Core Flood Line Break accident. At the existing power level this is not a concern and the existing design and licensing bases are adequate. However at EPU conditions with higher decay heat power levels, and a single failure of the opposite train diesel, all LPI flow ends up flowing out the break and not to the core, and the existing design is not adequate.

The LPI crosstie will allow some flow to be delivered to the core and the resultant accident analysis and limits are maintained. This modification has been implemented at two other B&W reactor design plants and is considered low regulatory risk, but is required to be approved in order to achieve EPU power levels. The Hot leg injection for boron precipitation control taps off of the LPI XTie line and actively mitigates fuel assembly flow blockage by introducing low concentration borated water to the top of the core to dilute any precipitants that may cause blocking.

This benefits both boron precipitation concerns and Generic Safety Issue, GSI 191 sump debris and other precipitants from blocking fuel channels. This modification will remove a long standing single failure which currently has a docketed exemption with the NRC, which would also come under scrutiny if this modification were not performed. This yields positive results for Nuclear Safety and Dose consequences and there is no anticipated regulatory concern with this modification.

The second Modification, which will require greater scrutiny by the NRC, is the Atmospheric Dump Valve and Fast Cooldown System. This modification will also lower fuel clad peak temperature, limit the time of core uncover, and reduce fuel clad oxidation during hypothetical small break loss of coolant accidents. Without this modification, again the hypothetical accident analysis would result in unacceptable results and EPU would not be approved. This modification will also involve a digital control system which has its own unique regulatory requirements for submittals and review cycle.



The Atmospheric Dump valves and Fast Cooldown system will lower secondary pressure which in turn will lower primary system pressure allowing for higher HPI flow and some Core Flood Injection yielding acceptable results. This modifications requires both ADVs to be safety related, Operable at all times, and single failure proof. This modification also requires the instrument air and back up bottled air to be safety related. The power supplies and back batteries are required to be safety related as well. The digital control system and software will be safety related and require approval under the NRC's Interim Staff Guidance, ISG-6 guidance for Digital System upgrades.

**Question 36**

**Does the CR3 uprate LAR filing have any impact on the license extension filing at the NRC?**

**Response:**

Subject to PEF's general objections filed on June 3, 2010, and without waiving same, no the CR3 uprate LAR filing does not impact the license extension filing. PEF has been careful to keep these two projects separate. Both projects will be under review at the same time which will require coordination efforts by both PEF and the NRC. The two projects have very limited technical overlap however. In those areas (primarily environmental qualification and reactor vessel materials) both projects performed the associated analytical work without presuming the success of other project. The rules associated with license extensions explicitly address changes occurring during or subsequent to the review and approval. This will allow integration when both are approved. PEF is not requesting the recovery of any license extension costs through the EPU project.

**Question 37**

**What plant modifications or procedure changes are expected to result from the CR3 LAR review process?**

**Response:**

Subject to PEF's general objections filed on June 3, 2010, and without waiving same, plant modifications are summarized in Appendix E of the EPU LAR, which will be provided as requested by Citizen's Production of Documents Request 55 when it is filed with the NRC. A summary of these plant modifications is included in previous testimony and in response to OPC's Third POD question 56.

Procedure changes are directly associated and changed in conjunction with the plant modifications. Those that are not associated with physical changes to the plant will be associated with an overall uprate package that will address and authorize a wide variety of document changes including, but not limited to, procedures. The list of impacted procedures will grow as the design process proceeds. The current list is provided in response to OPC POD 56.

**Question 38**

**Franke page 7, lines 16 – 17. Please describe the additional safety equipment to be installed and the purpose and function of the “fast cool down system.”**

**Response:**

Subject to PEF's general objections filed on June 3, 2010, and without waiving same, the purpose and function of the fast cool-down system (FCS) is addressed in the response to question 35 (listed as subpart a).

OPC has requested to be copied on the EPU LAR when submitted. Attachment [ ], Appendix E, Enclosure 2 is a detailed conceptual design description of the FCS. The additional equipment involves replacement of valves MSV-25 and -26 with larger valves. An alternate controller is being added to control at a lower secondary pressure (nominally 350 psig as opposed to the current value of nominally 1025 psig). Associated indications and controls are being added along with improvements to DC power and air supplies associated with valve operation and control.

**Question 39**

**Franke page 14, lines 18 – 19. Please describe the lessons learned from prior LARs and how these lessons learned were incorporated into the CR3 uprate LAR.**

**Response:**

Subject to PEF's general objections filed on June 3, 2010, and without waiving same, the lessons learned focused on the evolving expectations of the NRC Staff with regards to the EPU. At the suggestion of the NRC, CR3 used the LAR from R.E. Ginna Nuclear Power Plant's EPU as a model in preparing our submittal. We were also able to use the NRC's Requests for Additional Information ("RAIs") to Ginna in order to identify specific areas in which the NRC reviewers focused. At the time CR3 began developing the EPU LAR, Ginna was the only plant that had submitted an LAR that was prepared using the NRC's new EPU Review Standard, RS-001. While CR3 was preparing the EPU LAR, two additional plants, Monticello Nuclear Generating Plant and Point Beach Nuclear Plant submitted LARs also using RS-001. Both plants withdrew their LARs during acceptance review after receiving RAIs expecting their engineering work to be substantially more complete at submittal than previous EPUs. CR3 was able to use these plants' experiences in developing its LAR. As a consequence of awaiting further development of the engineering solutions, PEF's LAR submittal will better match the NRC's evolving expectations.

**Question 40**

**What are the current scheduled or expected commercial operation dates for LNP Unit 1 and Unit 2?**

**Response:**

Subject to PEF's general objections filed on June 3, 2010, and without waiving same, in the May, 2010 filing, the Company announced that it will postpone the major construction activities on the proposed Levy County nuclear project until after the COL is obtained. The target date to have the COL is in the 4th Quarter, 2012. Based on this date, and as documented in the IPP, the current assumed in-service dates are June 2021 for Levy Unit 1 and December 2022 for Levy Unit 2.

**Question 41**

**What joint ownership level must be achieved for the LNP to proceed? Please explain your response.**

**Response:**

Subject to PEF's general objections filed on June 3, 2010, and without waiving same, there is no predetermined level of joint ownership that must be achieved for the LNP to proceed. As PEF explained beginning with the need determination for the LNP, there are benefits to joint ownership for PEF and its customers in sharing the costs and risks of the LNP with other parties. PEF continues to believe these benefits still exist and, therefore, PEF will continue to pursue joint ownership participation in some form for the LNP. There is continued interest by other parties in participation in the LNP. PEF expects that interest to continue. PEF has benchmarked 100, 80, and 50 percent ownership scenarios and has provided those results in this and other filings and while those are helpful indicators of the economics of various ownership levels, there is no predetermined level of participation in the LNP.

**Question 42**

Please explain in detail how “The karst related and other geotechnical site risks are receding.” (Lyash, page 45, lines 9-10).

**Response:**

Subject to PEF's general objections filed on June 3, 2010, and without waiving same, to prepare the COL application, subsurface geotechnical and geophysical investigations were performed at the Levy Nuclear Plant (LNP) site in accordance with the requirements of NRC Regulatory Guides (RG) 1.206 and 1.132. These investigations are summarized in the LNP COL application. Based on these investigations and the proposed conceptual design for the LNP plant foundation, it was concluded that the subsurface conditions at LNP are adequate to support the AP1000 plant in accordance with the NRC regulatory requirements as documented in the LNP COL application.

The LNP subsurface investigations show that the underlying rock formation (Avon Park) has random pockets of low recovery zones, in fills, and possibly small voids. These zones were labeled as “Karst” features. As a conservative design feature, the LNP AP1000 Nuclear Island (NI) mat foundation is supported on a 35 feet thick Roller Compacted Concrete (RCC) mat that has free spanning capability although this mat will set on a smooth competent Avon Park limestone rock formation. In addition, the underlying rock formation will be grouted to a depth of 75 feet to facilitate dewatering of the NI excavation. This grouting would fill any small voids in the 75 feet directly beneath the NI foundation. However, no credit (conservative) was taken for the improvement in the subsurface conditions resulting from the grouting for the RCC Bridging mat design.

During the COL application acceptance review, COL application Request for Additional Information (RAIs), and during the NRC Geotechnical Audits, the NRC requested extensive additional information on the extent, location, and characteristics of the “Karst” features and on the geotechnical characterization for the LNP site. In these requests for additional information, the NRC appeared to be more focused on ‘fully’ mapping the ‘Karst’ features without crediting the robust design of the RCC Bridging mat that could span conservatively postulated “Karst” features.

In response to the NRC RAIs and during the NRC geotechnical audits, the site investigations, geotechnical evaluations, Avon Park limestone formation characteristics, and the basis for determining the size of the design karst features (void) were further clarified to the NRC. In addition, to better characterize the properties of the in fill material and to further investigate the low recovery zones, a limited scope Offset Boring Program (OBP) was implemented.



Information from the OBP showed that recovery in the isolated 'low recovery' zones are dramatically improved when a larger diameter core drill is used and care is taken to ensure that the hard rock in the core barrel does not grind the soft rock layers during the drilling process resulting in the previous low recovery zones. It was also determined that infill zones at LNP site are weathered rock and not deposited soft clay or silt layers. In addition, inspection of regional fracture pattern on exposed Avon Park formations showed that weathering is generally along the fractures. NRC reviewed the RAI responses and the OBP results presented during the third geotechnical audit held in September 2009. During the exit meeting for the audit, NRC informed Progress Energy that their concerns related to subsurface conditions at LNP including karst were receding based on the high quality of the RAI responses, the favorable OBP results, and their inspection of the fracture patterns in the exposed Avon Park formation. In addition the NRC's project Manager for Levy notified Progress Energy's Licensing Manager that the NRC was no longer tracking the Karst risk as a significant issue. This NRC feedback also led Progress Energy to downgrade the 'Karst' risk from significant to low. It also formed the basis for Mr. Lyash's statement that "the karst related and other geotechnical site risks are receding".

**Question 43**

**Is it PEF's belief that the cost of capital used in its CPVRR is sufficient to attract enough money to build LNP through the commercial operation date of Unit 2? If not, what rates would be appropriate?**

**Response:**

Subject to PEF's general objections filed on June 3, 2010, and without waiving same, PEF does not have an opinion as to whether its 6.75% cost of capital used in its CPVRR is or is not sufficient to attract enough money to build LNP through 2022, the current estimated commercial operation date of Unit 2. PEF does not plan to enter the capital markets at this time to finance the LNP in total. Rather, PEF plans to enter the capital markets as may be necessary to obtain capital on reasonable terms as the LNP proceeds. The 6.75% cost of capital used in PEF's CPVRR is PEF's current weighted average cost of capital and, therefore, it is appropriate for that reason to use that cost of capital at this time.

**Question 44**

**Do you believe that all of the 36 month 'minimum LNP schedule shift' was caused by the NRC? If no, what are the other causes of this shift?**

**Response:**

Subject to PEF's general objections filed on June 3, 2010, and without waiving same, PEF responds as follows. The NRC's Limited Work Authorization ("LWA") determination did impact the LNP schedule resulting in a minimum 20 month schedule shift. The NRC's revised review schedule for the LNP Combined Operating License Application ("COLA") extends the target dates for the Final Safety Evaluation Report ("FSER") and final environmental impact statement ("FEIS") beyond the FSER and FEIS target dates in the initial NRC review schedule for the LNP COLA. These shifts in the initial target dates for the FSER and FEIS are the result of the COLA review process taking longer than both the NRC and PEF originally anticipated in the initial NRC review schedule for the LNP COLA. These delays reflect the risks inherent in initial target dates for COLA reviews by the NRC. The intervention by three interveners in PEF's NRC COLA review and the admission of parts of three contentions for hearing by the NRC Atomic Safety and Licensing Board ("ASLB") – one of which has now been dismissed but re-filed by the interveners – further impacted the LNP schedule. The ASLB order 4/7/10 states: "In addition, based on the input from the parties as to their availability during the period of December 2011 and January 2012, the Board instructs the parties and the NRC Staff to hold the time period of January 16-27, 2012 open for the conduct of the evidentiary hearing." Again, the hearings are part of the COLA review process and intervention requiring contested hearings on certain contentions is a risk inherent in the process and, although the risk was not "caused" by the NRC, the hearing schedule is within the control of the ASLB and the NRC. As explained in Mr. Elnitsky's testimony at page 21, the ASLB identified the trigger date for the start of the contested hearings as the issuance of the FEIS and the ACRS letter recommending approval of the FSER. As a result of the schedule shift in the issuance of the FEIS, the requirement to conduct contested hearings, and the inability to start the contested hearings with the issuance of the FEIS alone, there is an expected delay in the issuance of the LNP COL from late 2011 to late 2012, at the earliest. Issuance of the LNP COL impacts the LNP schedule because the Company cannot start construction work prior to issuance of the COL.

Additionally, PEF's LNP COL depends on the NRC's review and approval of a revision to the Westinghouse AP1000 Design Certification for the nuclear reactor design that will be constructed and operated at the Levy site. As explained by Mr. Elnitsky at pages 19-20 and Mr. Lyash at pages 10-11 of their testimony, revisions to the NRC Design Certification for the AP1000 Design Control Document ("DCD") are presently pending before the NRC. The NRC revised and extended the review schedule for the AP1000 DCD Revision and initiated review of

the modifications to the shield building design to complete review of the AP1000 DCD revisions. PEF has not reviewed the AP1000 DCD revisions or the shield building modifications to determine whether or not they were "caused" by the NRC, Westinghouse, or any other party or event. Nevertheless, some revisions and modifications are expected as part of the NRC review process for the approval of the nuclear reactor DCDs. Because these revisions to the AP1000 DCD must be approved before the LNP COL can be issued there is, however, a greater risk that the NRC review schedule for the LNP COL will be adversely impacted.

As explained by Mr. Elnitsky at page 21 and Mr. Lyash at page 11 of their testimony, both the above-described impacts to the PEF LNP COLA review schedule and the AP1000 DCD revisions review schedule result in an expected LNP schedule shift of at least three years.

**Question 45**

**Is it your belief that but for the NRC delay of LWA, LNP would still be with its 2008 schedule?**

**Response:**

Subject to PEF's general objections filed on June 3, 2010, and without waiving same, PEF cannot respond to this hypothetical with certainty because PEF cannot possibly know the events and circumstances that may have occurred had the NRC not made its determination with respect to the LWA when it did in January 2009. For example, the NRC may have issued the LNP COLA review schedule with the LWA and later determined that the LWA could not be issued. What PEF does know is that the NRC LWA determination resulted in a minimum schedule shift of at least 20 months. PEF also knows that since May 2009, when the Company announced a schedule shift of at least twenty months due to the NRC LWA determination, there have been increasing enterprise risks that affect the Company's evaluation of the revised LNP schedule. These enterprise risks are included in the Company's risk management of the LNP and they are constantly monitored as part of the Levy Project risk management. These enterprise risks include risks associated with schedule shifts due to licensing and permit review and approval delays. The enterprise risks associated with the licensing and permit review and approval and the impact on the LNP schedule are described in detail in the testimony of Mr. Elnitsky at pages 16-22 and in the testimony of Mr. Lyash at pages 7-11. The enterprise risks also include potential risks associated with the economy, the Company's sales, load, and financial position, federal and state energy and environmental policy, legislation, and regulation, and federal and state support for nuclear generation development. These enterprise risks and their affect on the Company's evaluation of their impact on the LNP schedule are described in the testimony of Mr. Elnitsky at pages 22-25 and 28-30 and in the testimony of Mr. Lyash at pages 12-40.

**Question 46**

**Have you determined estimated costs for the alternative you have chosen (continuation with COL and minimum continuation of the EPC contract) followed by project cancellation after receipt of COL? What were the results of those evaluations as compared to project completion and immediate project cancellation? If you did not evaluate this alternative, why not?**

**Response:**

Subject to PEF's general objections filed on June 3, 2010, and without waiving same, no. As stated in the April 30, 2010 testimony of John Elnitsky at pages 29-30, while the Company did evaluate a full project cancellation scenario, continuation options provided the best fit to the Company's stated objectives with regard to the Levy Project, primarily:

- a) Significant reduction of near term customer price impact;
- b) Continuance of nuclear generation as a viable option for future fuel and carbon emission cost savings as compared to an all natural gas-fired generation plan;
- c) Preservation of the beneficial terms and conditions of the EPC contract; and
- d) Movement of risk and significant cash outflow past COL receipt.

The alternative presented in Question 46, project cancellation after receipt of COL, would not have met these stated objectives and as such, was not evaluated.

**Question 47**

**What are the ratepayer impacts after 2012 of completing the project on a 100% ownership basis using the current path chosen?**

**Response:**

Subject to PEF's general objections filed on June 3, 2010, and without waiving same:

Rates (\$1000/Kwh):											
Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Residential	\$7.98	\$23.78	\$6.51	\$13.70	\$21.47	\$29.35	\$38.47	\$43.42	\$25.69	\$18.47	\$0.94

Notes

1. Rates reflected above are 'free-fall' based on expected cash flows and as such do not contemplate any rate mitigation efforts.
2. Rates in 2013 and 2014 include the amortized portion of the rate mitigation deferral of \$60 million and \$57.3 million, respectively.
3. Residential Rates within the NCRC clause, excluding the revenue requirements in base rates as assets are placed into service.

**Question 48**

**What are the ratepayer impacts if the LNP is cancelled after receipt of the COL?**

**Response:**

Subject to PEF's general objections filed on June 3, 2010, and without waiving same, please see response to Question 46 herein.



**Question 49**

**Did PEF consider pursuing the option of canceling the EPC contract and obtaining an early site permit (ESP)? If so, why was such an option eliminated? If not, why not?**

**Response:**

Subject to PEF's general objections filed on June 3, 2010, and without waiving same, no, the Company did not pursue the option of cancelling the EPC contract and obtaining an ESP. As described in the February and March SMC presentations included in response to OPC #3 POD #71, the Company performed a detailed assessment of contract options and determined that the best course was to suspend. The current plan is to reassess the construction schedule after approval of the COL with a target in-service date of 2021. Our assessment is that the time required to prepare and obtain NRC approval of an ESP followed by the time to resubmit and obtain NRC approval of a COLA would be at least 7 years. In addition, given the current status of NRC and USACE environmental reviews of our COL, a transition to an ESP would effectively represent a step backward in the process of obtaining a FEIS and FSER, would add inefficiency and cost to the process, and would not complete required licensing actions in support of an in-service date of 2021.

**Question 50**

**At page 68, lines 13-15, Mr. Lyash states that “(a) firm commitment by joint owners to the LNP is not expected until there is greater certainty with respect to the cost, timing and enterprise risks associated with the LNP”. When do you expect this ‘certainty’ to occur such that you can expect joint owners to make firm commitments?**

**Response:**

Subject to PEF's general objections filed on June 3, 2010, and without waiving same, PEF cannot provide a specific date and time when there will be greater certainty with respect to the cost, timing, and enterprise risks associated with the LNP described in detail in Mr. Lyash's testimony such that joint owners can be expected to make firm commitments to the LNP. PEF does expect, however, that with its current approach there will be greater certainty than currently exists with respect to the cost, timing, and enterprise risks as the LNP moves forward although PEF cannot specifically identify the timing of this increasing level of certainty with respect to the LNP. PEF plans, however, to stay in communication with potential joint owners as the LNP proceeds to later determine if and when joint owners are willing to make firm commitments to the LNP.

REDACTED

Question 51

Galloway at page 37, lines 3-4. Witness Galloway states that a benefit of the preferred approach is "allowing PEF the benefit of alternate technologies that may be available at that time." What alternate technologies might these be? How would these technologies relate to continuing the COLA process and LNP?

Response:

Subject to PEF's general objections filed on June 3, 2010 and without waiving same, Dr. Galloway's statement in her testimony at page 37, lines 3-4 regarding "allowing PEF the benefit of alternate technologies that may be available at that time," is one of eight benefits that Dr. Galloway identifies as a result of the Company's decision to execute Amendment 3 to the EPC agreement. With respect to this one of the eight benefits identified, Dr. Galloway is referring to various nuclear design technologies currently under review by the NRC at this time for certification, including the AP1000. [REDACTED]

[REDACTED] PEF is not currently considering any alternative design technologies and is currently committed to proceeding with the AP1000 design technology as indicated in its COLA. However, as stated by Dr. Galloway on page 36 of her testimony, PEF's decision results in several benefits, including preservation of the right to consider potential, alternative nuclear design technologies in the future based on information that may become available at that time. [REDACTED]

**Question 52**

**With what other AP-1000 projects has Witness Galloway compared prices? What were those prices on a basis comparable to the LNP project?**

**Response:**

PEF incorporates by reference its general and specific objections to OPC interrogatory number 52. Subject to these objections and without waiving same, PEF states that Dr. Galloway did not compare prices of the LNP to other AP1000 projects, nor did she indicate that she did in her testimony. Prices for the LNP and other AP1000 projects will vary with factors unique to such project so Dr. Galloway did not compare prices. As stated by Dr. Galloway in her testimony, Dr. Galloway has worked on and is familiar with other mega-projects including the Vogtle AP1000 project. In her experience, Dr. Galloway is familiar with the industry price mechanisms, e.g. fixed/firm, time and materials, and the use of these pricing mechanisms to allocate risk between the parties. It is the use of these pricing mechanisms to allocate risk consistent with best industry practices that Dr. Galloway references in her testimony (see, e.g., page 43, lines 3-17). Please see the response to Question 53 also, which is incorporated herein by reference.

Question 53

REDACTED

Galloway at page 41, lines 11-21. With what other AP-1000 project contracts is Witness Galloway familiar? Are the terms and conditions of the LNP project better, worse or the same as the other contracts? Please provide a comparison table listing the individual terms and conditions of these contracts and comparing them to the LNP contract.

Response:

PEF incorporates by reference its general and specific objections to OPC interrogatory number 53. Subject to these objections and without waiving same, PEF states that Dr. Galloway's testimony at page 41, lines 11-21 is, as stated clearly there, based on Dr. Galloway's experience in the industry and best industry practices on other large capital projects with long-lead items and not specifically limited to her experience in the industry with other AP1000 projects. Dr. Galloway is, however, familiar with the AP1000 contract for the Vogtle AP1000 project. Dr. Galloway is also familiar with other engineering, procurement, and construction ("EPC") or similar contracts for large capital projects or mega-projects like the LNP. Dr. Galloway is bound by confidentiality agreements not to disclose the specific terms of many of these mega-project contracts including the AP1000 contract for the Vogtle project. Based on Dr. Galloway's industry experience with such contracts, including the experience with another AP1000 contract however, Dr. Galloway can say that the terms and conditions of the EPC agreement for the LNP are consistent with and are at least as good as if not better than the terms and conditions of other EPC or similar agreements for AP1000 and other mega-projects. For example, the LNP EPC agreement contains the following terms, conditions, and/or provisions that are particularly beneficial for PEF and its customers:

[REDACTED]

REDACTED

- [REDACTED]
- [REDACTED]

These beneficial provisions are explained at pages 37-41 of Dr. Galloway's testimony. Additionally, at pages 34-37, Dr. Galloway explains how Amendment 3 to the LNP EPC agreement preserved these beneficial terms and conditions of the EPC agreement and the nuclear option.

REDACTED

Question 54

Galloway at page 42, lines 9-11. What "well defined...execution schedule" is Witness Galloway aware of or referring to?

Response:

Subject to PEF's general objections filed on June 3, 2010, and without waiving same, at page 42, lines 9-11 Dr. Galloway is describing the keys to obtaining a fixed/firm price contract for megaprojects and states, "The execution of the LNP is scheduled to extend over a number of years. The keys to obtaining a firm price on such a megaproject are a well defined scope, quality level, and execution schedule. The EPC Agreement includes all these key objectives." As noted in Dr. Galloway's testimony at page 37 line 16 through page 38 line 6, [REDACTED]

[REDACTED]. In addition, Dr. Galloway specifically addresses the EPC Agreement milestones and execution schedule on page 38 lines 7-10 of her testimony where she describes how [REDACTED]. This is what Dr. Galloway is referring to in her testimony at page 42, lines 9-11.

Pursuant to Rule 1.340(c), please also refer to the EPC Agreement Bates range 10PMA-LEVY-EPC-000001 through 000541, at Sections 3.2, 3.3 and 3.4 and Exhibits A, D, E, previously filed in this docket and subject to PEF's April 1, 2010 Request for Confidential Classification, FPSC Document No. 02378-10.

**Question 55**

**Galloway at page 42, lines 20-22. How does the LNP EPC agreement "... provide a metric to enable cost increase predictability and protection for the Owner and the Consortium?**

**Response:**

Subject to PEF's general objections filed on June 3, 2010, and without waiving same, Dr. Galloway discusses how the EPC Agreement contains cost increase protection and predictability metrics in her testimony at page 37 line 16 through page 38 line 12.

Pursuant to Rule 1.340(c), please also refer to Sections 6.1 through 8.10, 11.8, 13.1, 13.2, and Exhibits F-1, F-2, G, H and J of the EPC Agreement Bates range 10PMA-LEVY-EPC-000001 through 000541 previously filed in this docket and subject to PEF's April 1, 2010 Request for Confidentiality, FPSC Document Number 02378-10.



**Question 56**

**Elnitsky at page 12, line 12. Witness Elnitsky states that “(this) process had to be followed for each of the thirteen long lead material items.” Are all other procurement contracts and purchase orders related to long lead equipment terminated?**

**Response:**

Subject to PEF's general objections filed on June 3, 2010, and without waiving same, the thirteen referenced long-lead material items encompass all the equipment referred to by the Company as “long lead material items.” No procurement contracts or purchase orders have been “terminated” at this time. The Company suspended activity on long lead material effective April 30, 2009. Work continued on long lead material items that were put in place prior to the notification of partial suspension in April 2009. Based on available information at the time, and at the request of the Consortium, the Company approved selected activity on certain long-lead items in late July 2009. At this time, the Company is engaged in active negotiations with the Consortium to assess the most effective disposition for each of the long lead material items.

**Question 57**

**Elnitsky at page 13, line 23. Do detailed price estimates exist for a 60 month delay scenario? If so, please provide those estimates or any other estimates beyond 36 months.**

**Response:**

Subject to PEF's general objections filed on June 3, 2010, and without waiving same, the reference from page 13, line 23 is with regards to the Six Scenario Analysis and Associated Cash Flow Analysis Report provided by the Consortium to Progress Energy on August 13, 2009. This report did not include a 60-month delay scenario and the Company did not request this scenario of the Consortium during that time. However, the Company developed and approved an estimate for a 60 month delay scenario. The 60 month delay scenario estimate is provided for in Section 3 of the IPP (referenced in OPC #3 POD #60) and also the detailed estimate for a 60 month delay scenario is provided in OPC #3 POD #73.

**Question 58**

**Elnitsky at page 14, line 5. Does the schedule analysis apply to time extensions beyond 36 months (other than by extrapolation)? Please provide such schedule shift analysis.**

**Response:**

Subject to PEF's general objections filed on June 3, 2010, and without waiving same, no. The Company requested scenario analysis from the Consortium of options for a 24 month schedule shift and 36 month schedule shift. No extensions beyond 36 months were requested, this is documented in the Six Scenario Analysis and Associated Cash Flow Analysis Report provided by the Consortium to Progress Energy on August 13, 2009. The Company did not begin to examine schedule shifts beyond 36 months until the fourth quarter of 2009 as the project faced increasing enterprise risks. The enterprise risks are discussed in detail in the April 30, 2010 Testimony of Jeff Lyash filed in this docket.

**Question 59**

**Is it the Company's position that the 36 month plus delay is sole caused by the NRC?**

**Response:**

Subject to PEF's general objections filed on June 3, 2010, and without waiving same, please see response to Question 44.

**Question 60**

**Elnitsky at page 22, lines 4-5. How far beyond 36 months does PEF believe the “minimum schedule shift” is?**

**Response:**

Subject to PEF's general objections filed on June 3, 2010, and without waiving same, while the Company has not identified a specific timeframe, analysis has been provided to utilize a 60 month schedule shift as a base case. The Company currently expects the NRC to issue the Levy COL in late 2012. At that time the Company will update its assessment of the project and schedule to ensure that it continues to be in the best interests of customers and shareholders.

Question 61

REDACTED

Elnitsky at page 27, lines 11-16. Please provide further breakdown of the four costs listed.

Response:

Subject to PEF's general objections filed on June 3, 2010, and without waiving same:

- a) Costs of [REDACTED] related to the COLA include primarily company labor and third-party engineering required to respond to NRC Requests for Additional Information (RAI's), completing annual COLA revisions, other continuing COLA activities with the NRC, and NRC fees related to the Levy COLA.
  
- b) Purchase Order Disposition Costs were estimated at a rough order of magnitude of [REDACTED] based primarily on high-level information from the Consortium and industry experience with other long lead equipment cancellation costs in the early period of a contract.
  
- c) Transmission and Other Owner's Costs of [REDACTED] included company labor for engineering, contract management, financial management, legal and other support costs of approximately [REDACTED]; wetland mitigation costs estimated at [REDACTED]; Transmission engineering and construction for limited work and strategic transmission route and substation land acquisitions of approximately [REDACTED]; and approximately [REDACTED] for other strategic land and land easements for the Levy site.
  
- d) Estimated costs for the EPC Agreement during the 2010-2012 period of [REDACTED] include approximately [REDACTED] for limited work to support PMO activities, minimal engineering support, supplier oversight of long-lead material activity for both items ordered prior to the April 2009 partial suspension and anticipated minimal levels for items likely to proceed during continued partial suspension; approximately [REDACTED] for payments of both material ordered prior to the April 2009 partial suspension and anticipated minimal levels of long-lead material for items likely to proceed during continued partial suspension; and [REDACTED].

REDACTED

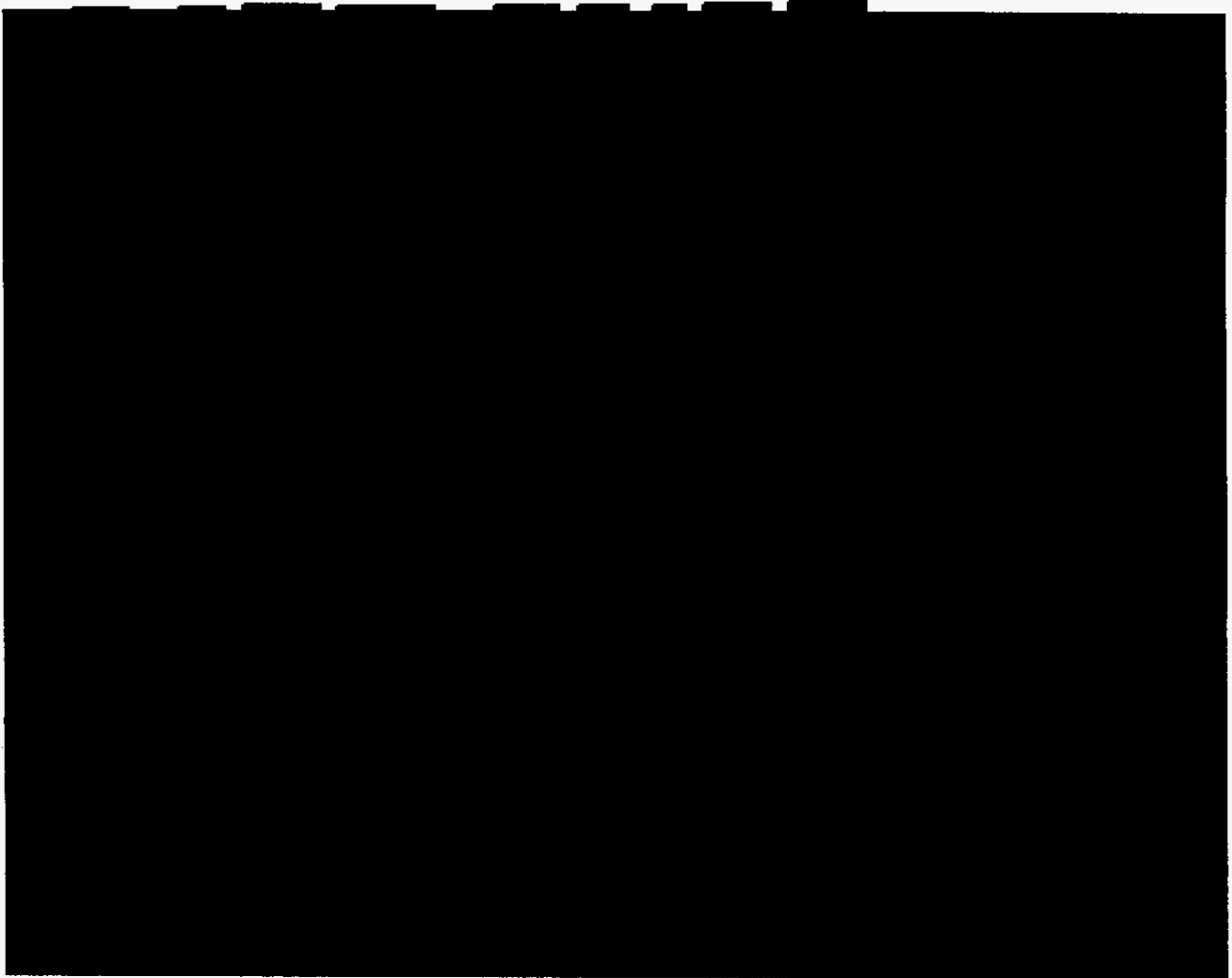
Question 62

Elnitsky at page 30, line 20. Please provide a listing and discussion of the “beneficial terms of the EPC agreement”.

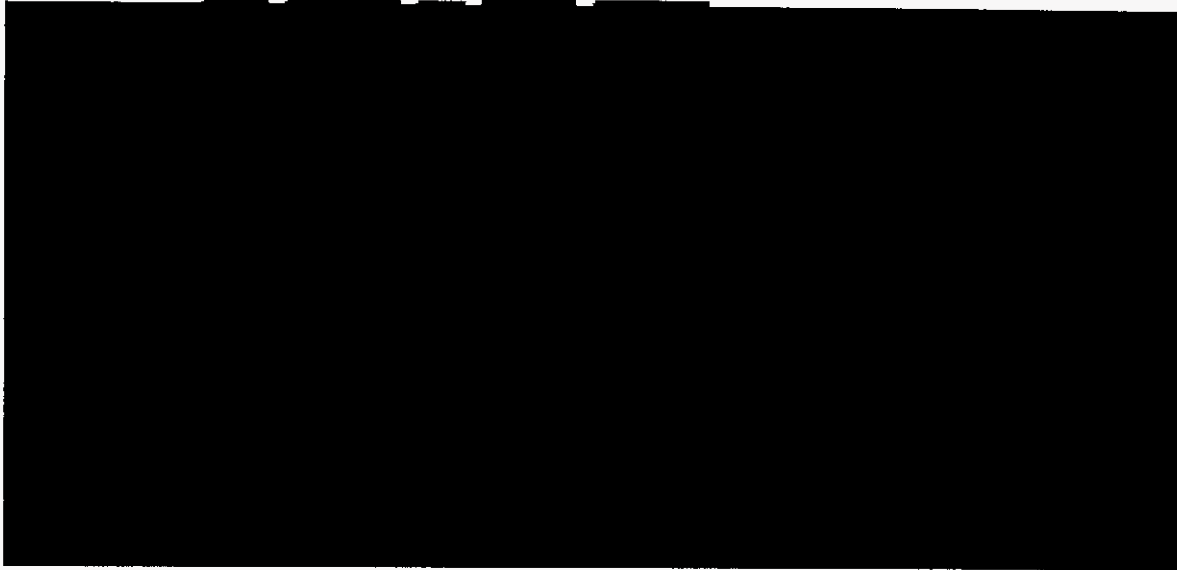
Response:

Subject to PEF's general objections filed on June 3, 2010, and without waiving same:

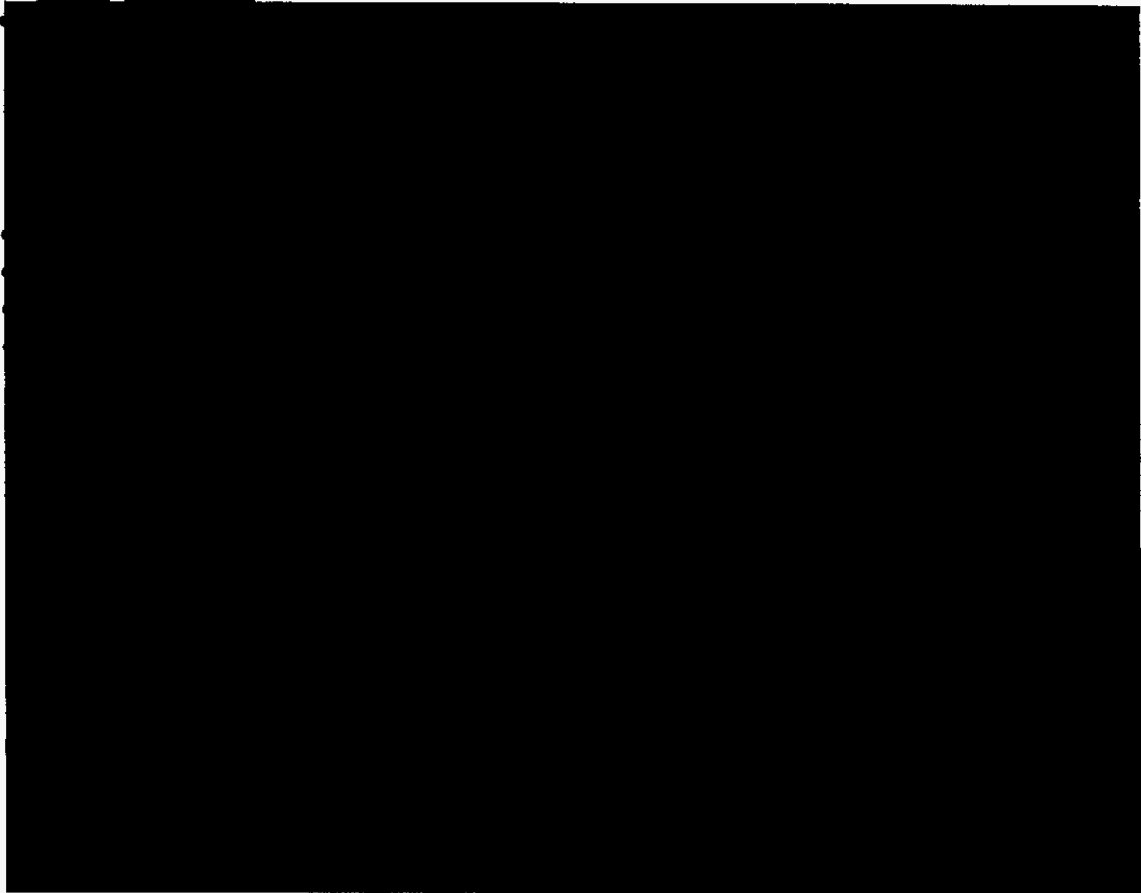
**Beneficial Terms and Conditions Negotiated with the EPC Contract Executed in 2008:**



REDACTED



**Valuable Terms and Conditions Utilized in 2009:**





**Beneficial Terms and Conditions due to Negotiated with Amendment #3 in 2010:**



REDACTED

**Question 63**

**For all Long Lead Material please provide the following:**

- a. A description of the scenarios and options considered for disposition;**
- b. A description of the scenario and option selected and the basis for this selection;**
- c. Cancellation Costs;**
- d. Storage Costs;**
- e. Incremental Costs;**
- f. Sunk Costs;**

**Response:**

Subject to PEF's general objections filed on June 3, 2010, and without waiving same, the Company is in the process of assembling a disposition package for each of the Long Lead Material PO's. There are three options that are currently being considered: Continuation, Suspension and Cancellation. The Senior Management Committee, (SMC), will approve the PO disposition recommendation in multiple phases. The first phase consists of POs in which the disposition decisions margins are relatively clear cut based on available information. The second phase consists of the PO's in which decisions margins are less clearly defined. Additional information has been requested on the PO's that are in phase 2. Once this information is received, the package will be finalized and a recommendation will be made to the SMC for approval.

In addition, see response to OPC's Third Document Requests question 59. The latest draft of the methodology and all disposition packages will be made available to OPC in the Tallahassee office of PEF at a mutually convenient time.

AFFIDAVIT

STATE OF FLORIDA

COUNTY OF GULF *Hills*

BEFORE ME, the undersigned authority duly authorized to administer oaths, personally appeared JON FRANKE, who being first duly sworn, deposes and says that the foregoing responses to Citizens' Third Set of Interrogatories to Progress Energy Florida (Nos. 34, 35, 36, 37, 38, 39) in Docket No. 100009-EI, are true and correct to the best of my knowledge, information and belief.

*[Handwritten Signature]*  
\_\_\_\_\_  
(Signature) JON FRANKE

THE FOREGOING INSTRUMENT was sworn to and subscribed before me this 1<sup>st</sup> day of June, 2010 by JON FRANKE. He is personally known to me, or has produced his \_\_\_\_\_ driver's license, or his \_\_\_\_\_ as identification.

*[Handwritten Signature]*  
\_\_\_\_\_  
(Signature)

(AFFIX NOTARIAL SEAL)

(Printed Name)  
NOTARY PUBLIC, STATE OF \_\_\_\_\_

\_\_\_\_\_  
(Commission Expiration Date)

\_\_\_\_\_  
(Serial Number, If Any)

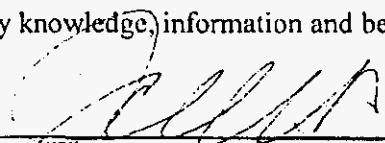


**AFFIDAVIT**

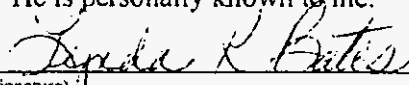
STATE OF FLORIDA

COUNTY OF PINELLAS

BEFORE ME, the undersigned authority duly authorized to administer oaths, personally appeared JOHN ELNITSKY, who being first duly sworn, deposes and says that the foregoing responses to Citizens' Third Set of Interrogatories to Progress Energy Florida (Nos. 40, 42, 44, 45, 46, 49, 56, 57, 58, 59, 60, 61, 62, 63) in Docket No. 100009-EI, are true and correct to the best of my knowledge, information and belief.

  
\_\_\_\_\_  
(Signature) JOHN ELNITSKY

THE FOREGOING INSTRUMENT was sworn to and subscribed before me this 11th day of June, 2010 by JOHN ELNITSKY. He is personally known to me.

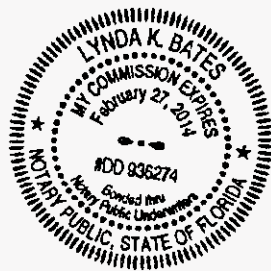
  
\_\_\_\_\_  
(Signature)

Lynda K. Bates  
(Printed Name)  
NOTARY PUBLIC, STATE OF

2/27/2014  
(Commission Expiration Date)

(AFFIX NOTARIAL SEAL)

\_\_\_\_\_  
(Serial Number, If Any)

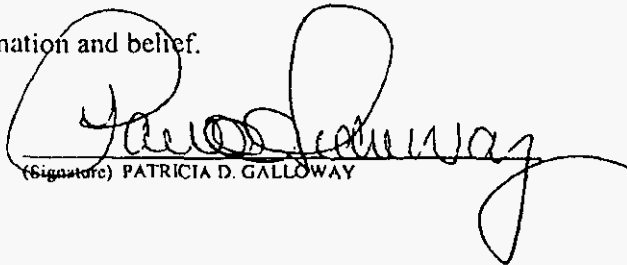


**AFFIDAVIT**

STATE OF WASHINGTON

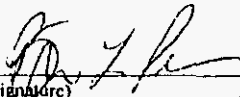
COUNTY OF

BEFORE ME, the undersigned authority duly authorized to administer oaths, personally appeared PATRICIA D. GALLOWAY, who being first duly sworn, deposes and says that the foregoing response to Citizen's Third Set of Interrogatories to Progress Energy Florida, Nos. 51, 52, 53, 54 and 55 in Docket No. 100009-EI, are true and correct to the best of my knowledge, information and belief.

  
(Signature) PATRICIA D. GALLOWAY

THE FOREGOING INSTRUMENT was sworn to and subscribed before me this 8th day of June, 2010 by PATRICIA D. GALLOWAY. She is personally known to me, or has produced her \_\_\_\_\_ driver's license, or her \_\_\_\_\_ as identification.

(AFFIX NOTARIAL SEAL)

  
(Signature)  
Brenda L. Pearson  
(Printed Name)  
NOTARY PUBLIC, STATE OF Washington  
July 1, 2012  
(Commission Expiration Date)  
\_\_\_\_\_  
(Serial Number, If Any)

**AFFIDAVIT**

STATE OF FLORIDA

COUNTY OF PINELLAS

BEFORE ME, the undersigned authority duly authorized to administer oaths, personally appeared THOMAS G. FOSTER, who being first duly sworn, deposes and says that the foregoing responses to Citizens' Third Set of Interrogatories to Progress Energy Florida (Nos. 47, 48) in Docket No. 100009-EI, are true and correct to the best of my knowledge, information and belief.

\_\_\_\_\_  
(Signature) THOMAS G. FOSTER

THE FOREGOING INSTRUMENT was sworn to and subscribed before me this \_\_\_\_ day of \_\_\_\_\_, 2010 by THOMAS G. FOSTER. He is personally known to me, or has produced his \_\_\_\_\_ driver's license, or his \_\_\_\_\_ as identification.

\_\_\_\_\_  
(Signature)

(AFFIX NOTARIAL SEAL)

\_\_\_\_\_  
(Printed Name)

NOTARY PUBLIC, STATE OF \_\_\_\_\_

\_\_\_\_\_  
(Commission Expiration Date)

\_\_\_\_\_  
(Serial Number, If Any)

**AFFIDAVIT**

STATE OF NORTH CAROLINA

COUNTY OF WAKE

BEFORE ME, the undersigned authority duly authorized to administer oaths, personally appeared JEFF LYASH, who being first duly sworn, deposes and says that the foregoing responses to Citizens' Third Set of Interrogatories to Progress Energy Florida (Nos. 41, 43, 50) in Docket No. 100009-EI, are true and correct to the best of my knowledge, information and belief.

\_\_\_\_\_  
(Signature) JEFF LYASH

THE FOREGOING INSTRUMENT was sworn to and subscribed before me this \_\_\_\_ day of \_\_\_\_\_, 2010 by JEFF LYASH. He is personally known to me, or has produced his \_\_\_\_\_ driver's license, or his \_\_\_\_\_ as identification.

\_\_\_\_\_  
(Signature)

(AFFIX NOTARIAL SEAL)

\_\_\_\_\_  
(Printed Name)

NOTARY PUBLIC, STATE OF \_\_\_\_\_

\_\_\_\_\_  
(Commission Expiration Date)

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(Serial Number, If Any)