

BEFORE THE
UNITED STATES NUCLEAR REGULATORY COMMISSION

In the Matter of :
PENNSYLVANIA POWER & LIGHT COMPANY : Docket No. 50-388

PROPOSED AMENDMENT No. 139
FACILITY OPERATING LICENSE NO. NPF-22
SUSQUEHANNA STEAM ELECTRIC STATION
UNIT NO. 2


Licensee, Pennsylvania Power & Light Company, hereby files proposed Amendment No. 139 to its Facility Operating License No. NPF-22 dated March 23, 1984.

This amendment contains a revision to the Susquehanna SES Unit 2 Technical Specifications.

PENNSYLVANIA POWER & LIGHT COMPANY
BY:


R. G. Byram
Sr. Vice President - Nuclear

Sworn to and subscribed before me
this 31 of March, 1995.



Notary Public

Notarial Seal
Martha C. Sedora, Notary Public
Allentown, Lehigh County
My Commission Expires Jan. 15, 1998
Member, Pennsylvania Association of Notaries

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SAFETY ASSESSMENT

ADDITION OF REFERENCE NEDE 24011-P-A-10, "GENERAL ELECTRIC STANDARD APPLICATION FOR REACTOR FUEL" TO SECTION 6.9.3.2

Background

PP&L is planning to insert four General Electric (GE) Lead Use Assemblies (LUAs) in the Susquehanna Steam Electric Station (SSES) Unit 2 Cycle 8 core. The PP&L LUAs will be of the GE-12 fuel design. The GE-12 fuel design includes many features of the accepted GE-10 and GE-11/13 fuel designs, such as two large central water rods, high performance spacers, part length rods, interactive thick corner/thin wall channel with flow trippers, and axial Gd and enrichment loading.

New or improved features included in the GE-12 are:

- 10x10 Fuel Rod Array Configuration
- Additional Part Length Rods (PLRs)
- Minimum Pressure Drop Upper Tie Plate
- Higher Pressure Drop Lower Tie Plate
- Two Large Central Water Rods (Occupies eight fuel rod positions versus seven in the GE-11/13 design)
- Eight High Performance Spacers (Eight versus seven spacers)

GE has completed the fuel licensing qualification and has demonstrated compliance to the fuel licensing acceptance criteria for the GE-12 as specified by Amendment 22 to GESTAR-II.

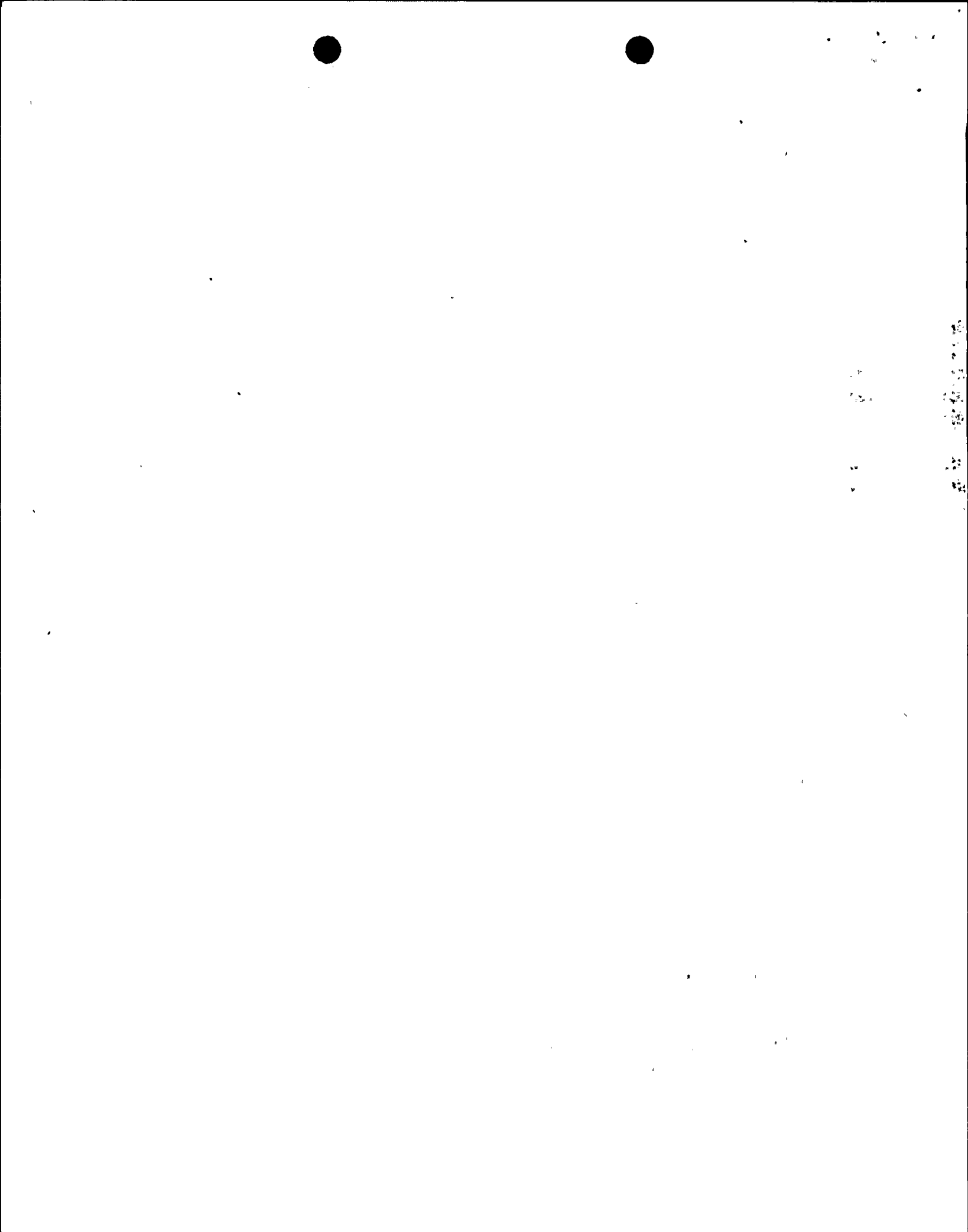
Description of Changes

Add reference #18 to Section 6.9.3.2, " NEDE 24011-P-A-10, General Electric Standard Application for Reactor Fuel, dated February 1991."

Safety Analysis

Analysis

Technical Specification (TS) Section 6.9.3.2 identifies the analytical methods used to determine the core operating limits for the applicable Unit's current operating cycle. These methods are documented in topical reports and revisions and/or supplements of the topical report previously reviewed and approved by the NRC.



To support the insertion of the four General Electric Lead Use Assemblies of GE-12 type in the Unit 2 Cycle 8 core, the GE licensed methodology as described in Topical Report NEDE 24011-P-A-10, "General Electric Standard Application for Reactor Fuel," dated February 1991 needs to be referenced in the SSES Technical Specifications. This GE methodology will be used to calculate the operating limits for the four GE LUAs, which are of a different mechanical design than that of the currently utilized Siemens' 9X9 fuel.

Adding this reference to the list of Technical Specification references will allow the use of this General Electric methodology, that was approved by the NRC, as the approved methodology in demonstrating that all applicable safety limits (e.g., fuel thermal-mechanical limits, core thermal-hydraulic limits, Emergency Core Cooling System limits, nuclear limits such as criticality, transient analysis limits, and accident analysis limits) of the safety analysis are met by the four GE-12 LUAs.

The safety analysis for the four GE LUAs in the Susquehanna SES will use this approved methodology. The use of this GE methodology will not result in a change in safety margin but will ensure that the safety margin will be maintained with the insertion of four GE LUAs of the GE-12 type in the Unit 2 Cycle 8 core.

Conclusion

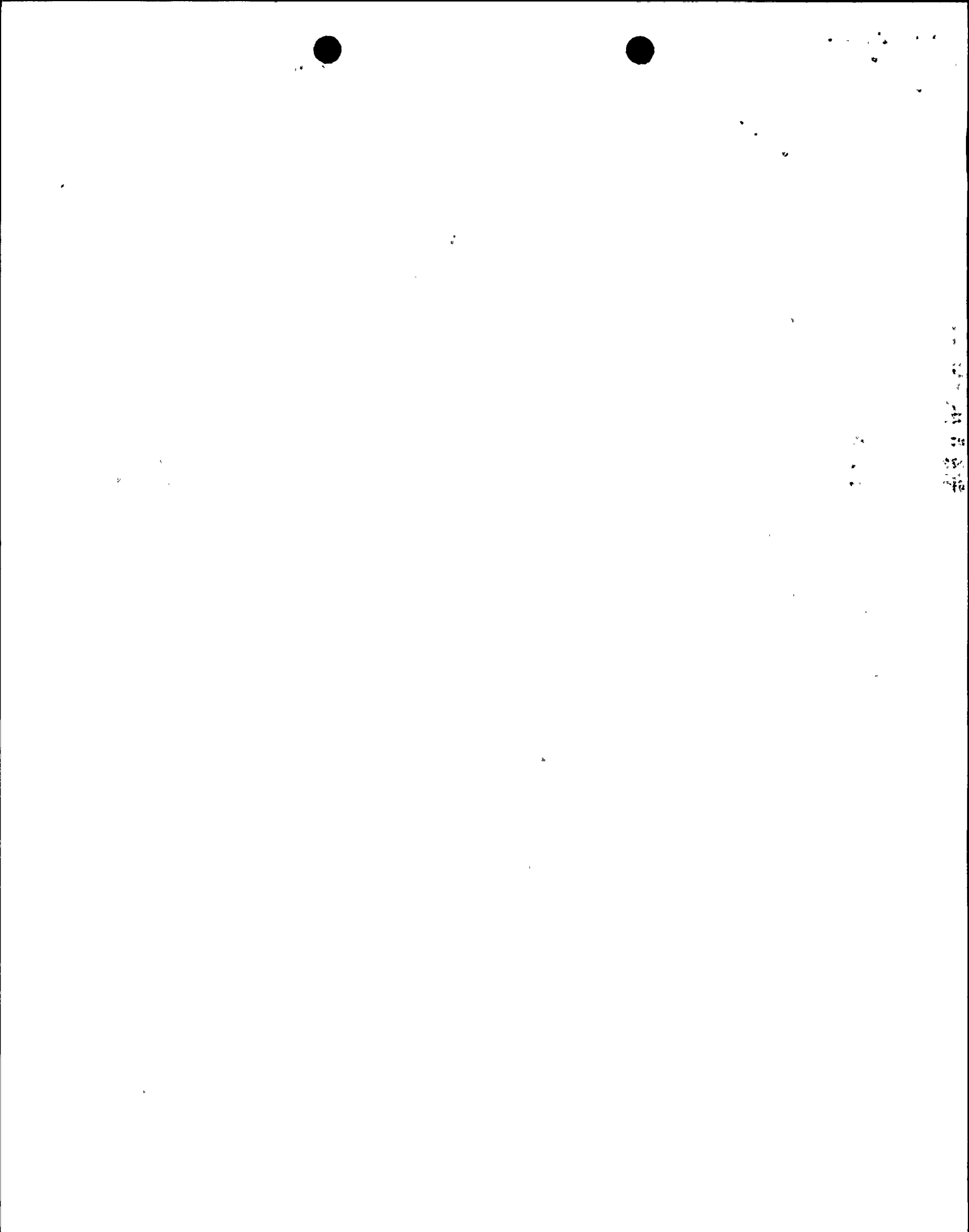
The use of this methodology will ensure that the safety margin is maintained with the insertion of the of the four GE Lead Use Assemblies. Additionally, operator impact will be relatively unaffected in that operators will continue to monitor the core normally through the use of POWERPLEX. The operating limits for the LUAs will be a specific input to POWERPLEX and the Core Operating Limits Report.

NO SIGNIFICANT HAZARDS CONSIDERATIONS

The proposed change does not:

- I. Involve a significant increase in the probability or consequences of an accident previously evaluated.

Incorporation of this proposed change of adding reference NEDE-24011-P-A-10, "General Electric Standard Application for Reactor Fuel" to the list of references in Unit 2 Technical Specifications will allow the use of the GE methodology to calculate the operating limits for the four GE Lead Use Assemblies which are of a different mechanical design than the Siemens 9X9 fuel. This NRC approved methodology will be referenced as the approved methodology in showing that all applicable safety limits of the safety analysis are met by the four GE-12 LUAs. Results of incorporating this change will not significantly increase the probability or the consequences of an accident previously evaluated.



- II. Create the possibility of a new or different kind of accident from any accident previously evaluated.

As stated above, the incorporation of this change will allow the use of the GE methodology to be referenced as the approved methodology to show that all applicable limits of the safety analysis are met by the four GE-12 LUAs. Therefore, the incorporation of this change will not create the possibility of a new or different kind of accident from any accident previously evaluated.

- III. Involve a significant reduction in a margin of safety.

The use of the GE methodology will not result in a change in safety margin, but will ensure that the safety margin is maintained with the insertion of the four GE LUAs of the GE-12 type in Unit 2 Cycle 8. Therefore, the incorporation of these changes will have no impact on current safety margins, nor will they involve a significant reduction in the margin to safety.

ENVIRONMENTAL CONSEQUENCES

This request is consistent with the Susquehanna design basis, in that the supplemental methodology yields the same results as that which is currently approved. Therefore, no environmental consequences that have not been previously considered are anticipated.

IMPLEMENTATION

PP&L is planning to incorporate this proposed change into the reload design for the upcoming Unit 2 Refueling and Inspection Outage, as a result we ask that the NRC complete its review no later than August 9, 1995.