

TRANSMITTAL OF MEETING HANDOUT MATERIALS FOR IMMEDIATE PLACEMENT IN THE PUBLIC DOMAIN

*This form is to be filled out (typed or hand-printed) by the person who announced the meeting (i.e., the person who issued the meeting notice). The completed form, and the attached copy of meeting handout materials, will be sent to the Document Control Desk on the same day of the meeting; under no circumstances will this be done later than the working day after the meeting.
Do not include proprietary materials.*

DATE OF MEETING

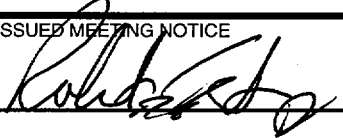
02/10/2000

The attached document(s), which was/were handed out in this meeting, is/are to be placed in the public domain as soon as possible. The minutes of the meeting will be issued in the near future. Following are administrative details regarding this meeting:

Docket Number(s)	<u>50-458</u>
Plant/Facility Name	<u>River Bend Station, Unit 1</u>
TAC Number(s) (if available)	<u>MA6185</u>
Reference Meeting Notice	<u>dated January 27, 2000</u>
Purpose of Meeting (copy from meeting notice)	<u>Entergy Operations, Inc., (EOI) will be discussing</u> <u>implementation plans and other issues relating to its</u> <u>power uprate license amendment request, dtd 7/30/99.</u>

NAME OF PERSON WHO ISSUED MEETING NOTICE

Robert J. Fretz



TITLE

Project Manager

OFFICE

NRR

DIVISION

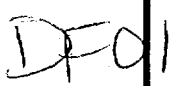
DLPM

BRANCH

PDIV-1

Distribution of this form and attachments:

Docket File/Central File
PUBLIC



River Bend Station Power Upgrade Implementation

Joe Leavines

RBS Licensing Manager

Team/Introductions

- **EOI**
- **GENE**
- **NRC**

Meeting Purpose

- **Discuss Implementation of Flow Only Uprate**
 - **Agree on Phased Implementation Approach**
 - **Agree on feasibility of Online implementation**
 - **Discuss Time Table for LAR Approval**
 - **Discuss Technical Assumptions**
 - **Submitted LAR and Analysis Bounds**
- Flow Only Uprate**

Agenda

- **Purpose of Meeting**
- **Current Project Status**
- **Project Schedule**
- **Overview of Flow Only Implementation**
- **Analytical Evaluation Overview**
- **License Limits**
- **Open Discussion**

Current Project Status

- **On Track for a Fall 2000 Flow Only Implementation**
- **Turbine Mods Continue in RF 9**
 - **New HP Rotor Installed in RF 8**
 - **Larger HP Turbine Nozzle Plates RF 9**
- **Implementation Procedure in Development**
- **Modifications to Support On Line Implementation in Development**

Current Project Status

- **Confirmatory Analysis in progress**
 - Results expected 3/15/00
- **Request Flow Only Uprate**
 - Submittal expected 4/15/00
- **Pressure Increase and SRV Setpoint Changes**
 - Outage of Sufficient Duration or RF 10
 - SRV Changeout 2-3 Week Outage

Overview of Flow Only Implementation

- **Flow Only Power Uprate**
 - **Increase Rx Power to near 105% (CTP)**
 - **No Plant S/D required**
 - **Setpoint changes can be done on-line**
 - **Necessary modifications complete prior to implementation**
 - **Flow Only Uprate Maintains Current Turbine Control Design and Reactor Pressure Control Margin**
 - **COLR ensures fuel design compliance**
 - **Revised for Flow Only Uprate**

Overview of Flow Only Implementation

- **Pressure Increase Supports full 105% (CTP) Uprate**
 - Provides additional TCV margin
 - RF 9 HP Turbine Mod also Increases Margin
 - Requires shutdown to implement SRV setpoint change
 - Outage of Sufficient Duration after LAR Approval
 - No later than RF 10
- **COLR continues to ensure fuel design compliance**

Analytical Overview

- **Review and Approval of Existing LAR**
- **Analytical Evaluation Overview**
- **GE Evaluation**

Analytical Evaluation Overview

- **Demonstrate Power Uprate Condition Bound**
"Flow Only" Uprate Condition
- **Analyses Reviewed**
 - **Reactor Transients**
 - **ECCS/LOCA Analysis**
 - **Containment Analysis**
 - **High Energy Line Break (HELB) Analysis**
 - **Anticipated Transient Without Scram (ATWS) Analysis**

Analytical Evaluation Overview

- **Conclusion**

- **Power Uprate Conditions Expected To Bound "Flow Only" Uprate**
- **Review Feedwater System Inputs**
- **Confirm Mass & Energy Releases Bounding At Higher Pressure**

Analytical Evaluation Overview

- **Reactor Transient Analysis**
 - **Reload Transients**
 - **Demonstrate Acceptable Thermal Limits & ASME Code Compliance**
 - **Actual Thermal Limits & ASME Code Compliance Determined From Cycle Specific Analysis**
 - **Loss Of One Feedwater Pump**
 - **Demonstrate Scram Avoidance On Reactor Water Level Low (Level 3)**
 - **Less System Head At "Flow Only" Uprate Conditions**
 - **Review Feedwater System Inputs**

Analytical Evaluation Overview

- **Reactor Transient Analysis (cont.)**
 - **Loss Of Feedwater Flow Analysis**
 - **Demonstrate Reactor Water Low Level (Level 1) Avoidance**
 - **Generic Analysis**
 - **Level Reduction Due To Boil Off Key**
 - **Heat Of Vaporization Less As Pressure Increases**
 - **Power Uprate Conditions Should Bound "Flow Only" Uprate Conditions**

Analytical Evaluation Overview

- **ECCS/LOCA Analysis**

- **Current ECCS Analysis Bounds Power Uprate Condition**
- **Break Mass & Energy Releases Should Be Less At "Flow Only" Uprate Conditions**
- **Heat Of Vaporization Less As Pressure Increases**
- **Less System Head At "Flow Only" Uprate Conditions**

Analytical Evaluation Overview

- **Containment Analysis**
 - Break Mass & Energy Releases Should Be Less At "Flow Only" Uprate Conditions
- **High Energy Line Break Analysis**
 - Break Mass & Energy Releases Should Be Less At "Flow Only" Uprate Conditions

Analytical Evaluation Overview

- **Anticipated Transient Without Scram Analysis**
 - **Core Cooling**
 - **Standby Liquid Control System Sufficient**
 - **Less System Head At "Flow Only" Uprate Conditions**
 - **Review Feedwater System Inputs**
 - **Reactor Vessel Integrity**
 - **Peak Pressure Limited By Safety Relief Valves**
 - **SRV Setpoints Unchanged**

Analytical Evaluation Overview

- **Anticipated Transient Without Scram Analysis (cont.)**
 - **Containment Integrity**
 - **Suppression Pool Temperature**
 - **Mass & Energy To Suppression Pool Via Safety Relief Valves Should Be Less At "Flow Only" Uprate Conditions**

License Limits

- **Changes to License/Technical Specifications**
 - **15 Changes in Current LAR Submittal**
 - **9 Changes Related to Increase in SRV Pressure Increase**
 - **6 Remaining Can be Implemented Without Pressure Change**
 - **1 New Change to Allow On-line Implementation of Flow Only Uprate**

License Limits

- **T.S. Changes Required for Flow Only Uprate (Phase One)**
 - **Rated Thermal Power 2894 to 3039 MWt**
 - **Thermal Power Safety Limit 25 to 23.8%**
 - **SLC Boron 10 Enrichment and Conc. Inc**
 - **High MSL Flow Isolation Trip**
 - **Thermal Power Single Loop Ops 83 to 79%**
 - **RCS P and T Limit Changes Due to Inc Neutron Flux**

License Limits

- **Temporary change to implement Flow Only Uprate**
 - T.S. Surveillance 3.3.1.1.2 requires APRMs within 2% of RTP
 - Uprate implementation results in a 5% change in RTP
 - Propose an increase in tolerance to +2 -7% in license condition
 - Limit time to complete re-calibration

Open Discussion

- **Approval Process**
- **Preliminary Technical Review**
- **License Discussion**
- **NRC Review Status**