

ILLINOIS POWER COMPANY



CLINTON POWER STATION, P.O. BOX 678, CLINTON, ILLINOIS 61727

January 27, 1986

Docket No. 50-461

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Subject: Clinton Power Station  
FSAR Amendment No. 36

Dear Mr. Denton:

Illinois Power Company hereby files Amendment No. 36 dated January, 1986 for the Clinton Power Station Final Safety Analysis Report (CPS-FSAR). FSAR Amendment No. 36 presents changes that update and clarify information. These changes are summarized on the attached pages.

Three (3) signed originals and fifty (50) copies are furnished for amending the FSAR sets provided to the NRC per 10CFR50.30.

Sincerely yours,

D. P. Hall  
Vice President

PRS/ckc

Attachments - Notarization, Summary of Changes, QA Statement

Enclosures

STATE OF ILLINOIS

COUNTY of Dewitt

DONALD P. HALL, Being first duly sworn, deposes and says: That he is Vice President of Illinois Power Company; that the provided amendment to the Clinton Power Station Final Safety Analysis Report has been prepared under his supervision and direction; that he knows the contents thereof; and that to the best of his knowledge and belief said request and the facts contained therein are true and correct.

DATED: This 27<sup>th</sup> day of January, 1986.

Signed: \_\_\_\_\_

D. P. Hall

Subscribed and sworn to before me this 27<sup>th</sup> day of January, 1986.

Alma L. Bean  
Notary Public

My commission expires:

Oct. 1, 1986

CPS Final Safety Analysis Report  
Change to Section 17.2, Amendment 36

Summary

The changes to the CPS Final Safety Analysis Report (FSAR), Section 17.2, Quality Assurance During the Operational Phase, dealt with clarification of both administrative responsibilities and programmatic concerns. The changes included the shifting of responsibility for Non Destructive testing during pre-service and in-service inspection from Plant Staff to NSED, a clarification of the Vice President's responsibilities, and an enlarged description of the measures used to control conditionally released equipment.

Evaluation

The changes to the CPS FSAR do not constitute a reduction in Quality Assurance Program Commitments previously submitted to the NRC. The changes serve to clarify and improve the Illinois Power commitment to quality.

Performed:

J. S. Mullif  
Supervisor-QTS

1-24-86  
Date

Approved:

Nathaniel Cornell  
Manager-QA

1-24-86  
Date

SUMMARY OF FSAR AMENDMENT 36 CHANGES

CHAPTER 1:

Section 1.1:

Update text to reflect cancellation of Unit 2; clarification to rated and design thermal power levels; update scheduled completion and operation dates.

Section 1.2:

Clarifications to the station descriptions, including the addition of a mobile radwaste solidification system; revision to text to reflect current radiological monitoring program and plant design.

Section 1.3:

Update Tables 1.3-1 through 1.3-7 to make consistent with current plant design; delete references to Zimmer 1.

Section 1.4:

Clarification to description of applicant; revision to subsection 1.4.5.2 to provide additional information regarding Hazleton Environmental Sciences Corporation being acquired by Teledyne Isotopes.

Section 1.5:

Clarification to Table 1.5-1.

Section 1.7:

Update Tables 1.7-1 and 1.7-2 to reflect the latest revisions of drawings used for the plant design.

Section 1.8:

Revise and provide additional information on the compliance to Regulatory Guides (R.G.).

- R.G. 1.8 - Provide clarifications to independent review groups.
- R.G. 1.10 - Provide additional information on location of splices or cadwelds for reinforcing bars.
- R.G. 1.16 - Clarifications to project compliance statement.
- R.G. 1.23 - Provide additional information to project position on the instrumentation used for the onsite meteorological program.
- R.G. 1.58 - Provide exception to visual examination requirements.



- R.G. 1.84 - Provide additional information regarding ASME Code Cases being used at Clinton Power Station.
  - R.G. 1.85 - Provide additional information regarding ASME Code Cases being used at Clinton Power Station.
  - R.G. 1.88 - Revise project position for CPS Records Storage Facilities.
  - R.G. 1.105 - Clarification to project position on instrument setpoint adjustments.
  - R.G. 1.108 - Clarification to project position for 24-hour testing of the diesel generator units.
  - R.G. 1.133 - Clarification to compliance statement.
  - R.G. 4.13 - Provide project position.
  - R.G. 7.1 - Provide project position.
  - R.G. 7.3 - Provide project position.
  - R.G. 7.4 - Provide project position.
  - R.G. 8.5 - Revise project position to a later revision.
  - R.G. 8.6 - Clarification to project position.
  - R.G. 8.8 - Correction to revision used on the project.
  - R.G. 8.19 - Clarification to revision used on the project.
- Provide project position for Regulatory Guides 8.20, 8.25, 8.26, 8.27, 8.28, 8.29.

Section 1.9:

Update Figures 1.9-1 (sheet 5), 1.9-3 (sheets 2, 5, 6, 9, 10, 11, 12, 16, and 18) to agree with symbols being used by Sargent and Lundy.

CHAPTER 2:

Section 2.1:

Clarifications to site areas acreages, to reflect Unit 2 cancellation.

Section 2.2:

Provide additional information related to transportation accidents and the release of hazardous materials in the vicinity of the plant.

Section 2.5:

Provide clarifications to compaction methods used during backfilling; provide details of the berm used around the perimeter of the Unit 2 excavation; provide changes to sedimentation monitoring program of the ultimate heat sink;

clarification to inspection of underwater structures; update Figures 2.5-18, 2.5-422, 2.5-428, 2.5-429, 2.5-430, 2.5-431, 2.5-451, 2.5-452, 2.5-453, 2.5-454, 2.5-455, 2.5-456, 2.5-473, 2.5-474, 2.5-475, 2.5-476, 2.5-477, 2.5-478, 2.5-479, 2.5-480, 2.5-481, 2.5-482, 2.5-483, and 2.5-484 to update latest references and revisions to design calculations.

### CHAPTER 3:

#### Section 3.1:

Provide additional information on responses to Criterion 23, Criterion 34, and Criterion 40; provide other text corrections and clarifications.

#### Section 3.5:

Corrections to text and references; update text, Tables 3.5-5, 3.5-8, and 3.5-9, and Figures 3.5-1, 3.5-2, 3.5-3 (sheets 3, 4 and 5) to make FSAR consistent with current analyses and missile barrier design.

#### Section 3.6:

Update text to be consistent with current design; clarification of the use of NUREG/CR-2913 in CPS design; revisions to Table 3.6-3 and Figure 3.6-2 to make FSAR consistent with design.

#### Section 3.7:

Correct text and text references; provide additional information on the soil properties used in seismic analyses; clarification to the assumptions used in balance of plant (BOP) piping analyses; make FSAR consistent with dynamic analyses used in design; clarification of the ASME Code used for buried Seismic Category I piping; clarification to text for design of restraints; update Tables 3.7-7 and 3.7-9 and Figures 3.7-76, 3.7-81 to make FSAR consistent with design.

#### Section 3.8:

Revisions to structural acceptance criteria; clarification to structural acceptance test of the containment; clarification to the thermal loads for the design of galleries; clarification to the loading combinations used in plant design; corrections to text and text references; corrections and revisions to Tables 3.8-4, 3.8-5 and 3.8-9 and Figure 3.8-35 to reflect current design; update text and Figure A.3.8-18 to make FSAR consistent with design.

Section 3.9:

Update number of cycles used in design and fatigue analysis of the CRD housing and in core housing; correct typographical errors; update text to reflect analyses used for the recirculation pump; provide corrections to references and additional descriptions of computer programs used in analyses of BOP systems and components; clarification to preoperational vibration testing and preoperational thermal expansion testing; make FSAR consistent with design for qualification of valves; corrections to Tables 3.9-2, 3.9-2(a) and 3.9-2(b) and make Figure 3.9-8 FSAR consistent with design; correct SRV location in Figure A3.9-2; delete A3.9-26.

Section 3.10:

Update text to make FSAR consistent with qualification methods; revision to Tables 3.10-1 and 3.10-2 to reflect current seismic and dynamic qualification of safety-related BOP and NSSS equipment.

Section 3.11:

Update text to make FSAR consistent with qualification methods; correct references in text; revisions to Tables 3.11-1, 3.11-2, 3.11-3, 3.11-4, 3.11-5, and 3.11-20 to provide updated information relating to the environmental qualification of safety-related BOP and NSSS equipment.

CHAPTER 4:

Section 4.4:

Update Table 4.4-9 to reflect current lengths and sizes of safety injection lines.

Section 4.6:

Clarification to text regarding the control rod drive locking mechanism; update text to reflect current scram discharge volume design; update Figures 4.6-5 (sheets 1, 2 and 3) to reflect current design.

CHAPTER 5:

Section 5.2:

Clarifications and corrections to text and text references; update FSAR to make text consistent with the CPS Preservice, Inservice and Augmented Inservice Inspection programs; changes to text to

make FSAR consistent with design; update Table 5.2-1 for applicable code cases for reactor coolant pressure boundary components; update Figures 5.2-16 (sheets 1, 2 and 3) to reflect current design; revision to Figure 5.2-3B to make FSAR consistent with technical specifications.

Section 5.3:

Update reactor vessel material surveillance schedule to make FSAR consistent with technical specifications and requirements of ASTM E-185-82.

Section 5.4:

Update heat transfer rate of the recirculation system; editorial changes and corrections to text and text references; clarification to text and make FSAR consistent with design specifications.

CHAPTER 6:

Section 6.1:

Delete requirement on hydrogen concentration in high purity waters; update material classifications in Table 6.1-1; revise organic material quantities in Table 6.1-2.

Section 6.2:

Clarification to containment volume used in analyses; correction to text references; clarification on containment spray orifice sizing; clarification on containment spray initiation signal; clarification on standby gas treatment system (SGTS) design; clarification on leakage bypassing secondary containment; update fuel building design average temperature; clarification to evaluation against Criterion 55; update text to describe LPCI "A" and "B" reactor coolant pressure boundary isolation; clarification to the description of RHR and RCIC isolation; clarification to text regarding the consequences of a break in LPCS, HPCS and RHR Test and Pump minimum bypass lines; clarification to the design of the RCIC pump minimum flow bypass line; clarification to the evaluation against R.G. 1.11; revise FSAR to reflect design changes to the combustible gas control system; revisions to make hydrogen igniter system description consistent with design; changes to description of containment integrated leak rate test to clarify test acceptance criteria; clarification to suppression pool makeup system permissive signals; delete requirement to leave fuel transfer gate in place when reactor is in RUN mode; update allowable

leakage rates in Table 6.2-1; update minimum service water temperature in Table 6.2-2; editorial correction to Table 6.2-8; update design margins in Tables 6.2-12, 6.2-13, 6.2-25, 6.2-27, 6.2-29, 6.2-31, 6.2-32 and 6.1-39; revise Table 6.2-47 to make FSAR consistent with the technical specifications; update mass and energy release data in Table 6.2-41 to make FSAR consistent with analyses; clarifications to Tables 6.2-43 and 6.2-44; update performance data in Table 6.2-48; update inventories of corrodible material in Table 6.2-49; insertion of new Tables 6.2-50a, 6.2-50b, 6.2-51a and 6.2-51b; clarification to Tables 6.2-52; and 6.2-69; clarification to Figure 6.2-15; updated revisions to Figures 6.2-56, 6.2-60, 6.2-61, 6.2-62 and 6.2-63; deleted Figures 6.2-69 to 6.2-71 to make FSAR consistent with design; updated Figures 6.2-123 (sheets 4, 6, and 9) to make FSAR consistent with design; clarifications to Figures 6.2-125 and 6.2-127; insertion of new Figures 6.2-128a, 6.2-128b, 6.2-129a, 6.2-129b, 6.2-130a, 6.2-130b, 6.2-131a and 6.2-131b; revisions to Figures 6.2-143, 6.2-144, 6.2-145, 6.2-147 (sheets 3 and 4).

Section 6.3:

Correct typographical errors and provide clarifications to make FSAR consistent with CPS design; correct text references; update Figure 6.3-4 to reflect current design; clarification to Figure 6.3-9.

Section 6.4:

Delete reference to Unit 2.

Section 6.5:

Changes to text and Table 6.5-3 to be consistent with design specifications.

Section 6.6:

Inservice inspection program clarification; also, clarification to thin-wall Class 2 RHR piping weld.

Section 6.7:

Clarification to MSIV leak rates; clarify open/close times for system valves; update MSIVLCS initiation pressure.

## CHAPTER 7:

### Section 7.1:

Text clarification and typographical errors; clarifications to R.G. 1.105 and R.G. 1.70 conformance and Table 7.1-1.

### Section 7.2:

Update Reactor Protection System (RPS) 120 Vac and 125 Vac descriptions to reflect current design; correct text references; correction to RPS actuation logic; clarification to the APRM system logic description; clarification for the drywell pressure instrument racks; clarification of the RPS power supplies; update description of the Self-Test System to reflect current design; clarifications to reflect reactor mode switch design; change to reflect accurate number of LPRMs per APRM to inhibit control rod motion; clarification to the design of the RPS power supply; other clarifications to the RPS design basis requirements; clarifications to R.G. 1.29, R.G. 1.47 and R.G. 1.75 conformance; revisions and clarification to general functional requirements to IEEE 279; revise number from 4 to 8 for the number of scram discharge volume high water level channels required for functional performance of the RPS in Table 7.2-3; update Figures 7.2-5 and 7.2-8 to reflect current trip logic; revise Figure 7.2-9 to reflect current NSPS power supplies.

### Section 7.3:

Editorial corrections; clarifications to LPCS (instrumentation and controls) equipment design; addition of automatic initiation signal for the SGTs due to high radiation in continuous containment purge duct; clarification to IEEE 279 conformance for bypasses of the LPCI control system; clarification to diesel fuel oil system equipment qualification; editorial corrections to text and Tables 7.3-1, 7.3-2, 7.3-3, 7.3-4, 7.3-5, and 7.3-6.

### Section 7.4:

Clarify RCIC initiating signals, RCIC control, RCIC testing capability, and RCIC control room information; update SLCS power supply, operation and control room information; clarify RHR safety classification, operation and annunciators; update RSS control and instrumentation of RCIC, RHR, and non-ADS relief valves; clarifications and corrections to R.G. conformances of the RCIC system (instrumentation and controls); delete annunciation of RHR heat exchanger cooling water inlet high temperature.



Section 7.5:

Update power source information to reflect current design.

Section 7.6:

Clarification of the Containment Fuel Transfer Pool Vent Plenum Radiation Monitoring Subsystem testability; update heat tracing design description for the SGTs exhaust high range radiation monitoring system; clarifications to fuel pool cooling system controls; update description for the  $H_2/O_2$  monitoring subsystem of the Containment Atmosphere Monitoring system to reflect current system design; clarifications to the safety relief valve monitoring system description and testability; clarification to NUREG-0737 conformance for the CAM system; update LPRM power range trip information in Table 7.6-5.

Section 7.7:

Clarification to reactor operator information; update power supply information for the neutron monitoring and performance monitoring systems; additional information and clarifications to the operational considerations of the area radiation monitoring system; clarification to the offgas system flow measurement description for the gaseous radwaste system; revision to the building pressure control description for the Fuel Building HVAC System.

CHAPTER 8:

Section 8.1:

Update power supply description for the NSPS; update R.G. 1.75 conformance position statements; revision to Table 8.1-2 to update latest design information regarding non-safety AC loads on Class 1E buses.

Section 8.2:

Revise permanent forced outage data in Table 8.2-2.

Section 8.3:

Revisions and clarifications to section to make FSAR consistent with latest design specifications; update FSAR to clarify position statements with Regulatory Guides; revise FSAR to reflect cable separation criteria; also, revision to cable fire protection criteria; clarifications and revisions to Tables 8.3-3 and 8.3-4; deletion of scram solenoids and addition of loads to Table 8.3-5;

clarifications of ampacities described in Table 8.3-12; deletion of Tables 8.3-14, 8.3-15 and 8.3-16 due to redundancy of information in other tables and figures; addition of Table 8.3-17 due to electrical separation; addition of Table 8.3-18 to supply Division 3 protective and supervisory functions; complete revision of Figure 8.3-3 to consolidate plant loads; addition of Figures 8.3-6 and 8.3-8 due to electrical isolation and separation; additional figure revisions to provide latest design information.

## CHAPTER 9:

### Section 9.1:

Clarification regarding decay heat of the fuel core load at the end of the fuel cycle; revise text to clarify environmental qualification of the fuel pool cooling pump motors; update spent fuel cask information; update fuel building crane travel stop description; revise description of the fuel transfer operation interlocks; clarification to fuel handling operations and polar crane information; clarification to Table 9.1-1; revisions to figures to reflect current plant design.

### Section 9.2:

Clarification to plant service water system effluent to the lake; update shutdown service water system testing capability; clarification to component cooling water system description; revise demineralized water system pH requirements; update description of the pretreatment of the demineralized water makeup system; revise Ultimate Heat Sink capacity; corrections to text and text references; delete references to Unit 2; clarify descriptions of safety related components of the condensate storage facilities; update design bases of the turbine building closed cooling water system; update equipment supplied by component cooling water in Table 9.2-7; update Tables 9.2-8, 9.2-11, 9.2-12, 9.2-13, 9.2-14, 9.2-15, 9.2-16, and 9.2-18 to reflect latest design and to make FSAR consistent with analyses; update P&ID's to reflect latest design information.



Section 9.3

Update the emergency breathing air safety design basis; update description of the instrument air system; delete references to Unit 2; clarification of alarm locations for breathing air system; clarification to preoperational tests performed for the drainage systems; clarification to the safety design basis of the Standby Liquid Control System; clarification to the safety evaluation performed regarding boron injection rates; revisions to suppression pool cleanup system; correction to detection range of the gas sampling system radiation detector; clarifications to Tables 9.3-2 and 9.3-3 to reflect current design information and cancellation of Unit 2; update system P&ID's to reflect latest design information.

Section 9.4:

Update HVAC system descriptions and design bases for the control room, fuel building, auxiliary building, turbine building, diesel generator facilities, switchgear heat removal system, CGCS equipment cubicle cooling, containment building, continuous containment purge system, drywell purge system, machine shop area, circulating water screen house, laboratory, service building, and radwaste building to make FSAR consistent with current design information; revise Tables 9.4-1, 9.4-3, 9.4-4, 9.4-5, 9.4-6, 9.4-7, 9.4-9, 9.4-11, 9.4-13, 9.4-15, 9.4-17, 9.4-18, 9.4-19, 9.4-19A, 9.4-20, 9.4-20A, 9.4-21, 9.4-23, 9.4-24, 9.4-25, 9.4-27, 9.4-28, 9.4-29, 9.4-30, 9.4-31, 9.4-32, 9.4-33, and 9.4-34 to make FSAR consistent with design; update system P&ID's to reflect current design.

Section 9.5:

Revision to the Fire Protection System system design bases; revise control room design basis; update water supply system, halon suppression system, carbon dioxide suppression system and fire detection systems and clarification to the number of turbine building smoke vents; provide additional operational information for the control room fire protection system; update qualifications and training for fire protection personnel; clarifications to administrative controls and quality assurance requirement; update communication system description; revise station lighting system descriptions; revise diesel generator fuel oil storage and transfer system description; update diesel engine lubrication system safety design basis and system description;

update description of missile protection for the diesel generator exhausts; update text to reflect Unit 2 cancellation; update latest design information in Tables 9.5-1, 9.5-2, 9.5-3, 9.5-4, 9.5-6 and 9.5-7; update P&ID's to reflect current system design.

## CHAPTER 10:

### Section 10.2:

Correct typographical error for the superheat temperature corresponding to the moisture separator reheaters exhaust; deletion of material not relevant to the gas filled unit in the bulk hydrogen storage facility; clarification to text description of the electrical backup overspeed trip; updated Figures 10.2-4 & 10.2-5 to reflect latest design.

### Section 10.3:

Clarification regarding the main steam supply system safety features; updated Figure 10.3-1 (Sheets, 1, 2, 4, 5) to reflect current plant design.

### Section 10.4:

Clarifications to reflect the requirements regarding biological growth in the circulating water system; delete references to Unit 2; addition of footnotes to clarify influent pH measurements in the condensate cleanup system; change to the metallic impurities limit to reflect current requirements; update Figure 10.4-4 (Sheets 1, 5) to reflect current plant design. Update Figures 10.4-5 (Sheet 1), 10.4-6, and 10.4-7 to reflect current plant design.

### Section 10.5:

Changes to pH measurements for high purity water.

## CHAPTER 11:

### Section 11.1:

Editorial correction; change to reflect routing of the mechanical vacuum pump (MVP) exhaust; change to Table 11.1-1 isotope half-life numbers to make consistent with FSAR Chapter 12; addition of work in title of Table 11.1-5 for clarification; correction of typographical error in Table 11.1-5.

Section 11.2:

Clarification regarding determination of processing effectiveness in the laundry waste subsystem; change to pH to reflect current water quality requirements; correction of typographical error; change to Table 11.2-1 on the adjusted total tritium release in Ci/yr; correction of typographical error in Table 11.2-2; changes to Table 11.2-6 to reflect cancellation of Unit 2; clarification regarding waste sludge decant; deletion of note in Table 11.2-7 (Sheet 5); change to Figure 11.2-1 to show flow to the concentrated waste tank; updated Figure 11.2-2 (Sheets 2-22 and 24-29) to reflect current design.

Section 11.3:

Clarification to technical specification release limits; deletion of sentence which is no longer applicable; change to reflect correct alarm level; clarification regarding bypass of the charcoal adsorber trains; clarification regarding release of radioactive gases to the suppression pool; clarification to offgas system design; clarification and revisions to include more detailed information regarding gaseous radioactivity releases; text revisions and clarifications for estimated doses; clarifications for release rates during normal operation; provide additional text references; revisions to Tables 11.3-1, 11.3-2, 11.3-3, 11.3-4, 11.3-5, 11.3-6, 11.3-8, 11.3-10 and 11.3-11 to make FSAR consistent with current design and offsite dose calculation manual.

Section 11.4:

Update text to reflect revisions to the solid waste management system; addition of clarifying statements regarding liquid waste management systems vs. solid radwaste systems; change to reflect solid radwaste system design criteria; clarification to the radwaste processing equipment description; clarification regarding resin slurry mixing in the spent resin tank; change to reflect that backwash occurrences are intermittent in the fuel pool filter/demineralizer sludge tanks; revision to the dry solid waste packaging equipment; description changed Table 11.4-6 to be consistent with current information and offsite dose calculation manual; updated Figure 11.4-3 (Sheets 1-7) for consistency with current plant design.

Section 11.5:

Deletion of information not applicable to Clinton; inclusion of more detail regarding liquid radwaste discharge monitor setpoints; deletion of subsection on solid radwaste system radiation monitors; change to reflect cancellation of Unit 2.

CHAPTER 12:

Section 12.1:

Clarifications regarding training and responsibility on ALARA policy; deletion of information which is no longer applicable; responsibility change from supervisor to director for implementation of the Radiation Protection Program; Figure 12.1-1 changed to reflect current organization structure.

Section 12.2:

Change due to revised spray method used during transport of the Dryer/Separator.

Section 12.3:

Change due to revised spray method used during transport of the Dryer/Separator.

Section 12.5:

Responsibility change from supervisor to director for implementation of the Radiation Protection Program; changes and clarifications also made to other organizational responsibilities; Figure 12.5-1 revision to reflect current organization.

CHAPTER 13:

Section 13.1:

Changes to reflect departmental responsibility for the Inservice Inspection Program; update of various management position descriptions; clarification of clerical functions; title blocks of Figures 13.1-1A and 13.1-1B corrected; Figure 13.1-3 revised to reflect revision of the Staffing Plan.

Section 13.2:

Revision to Figure 13.2-1 to reflect revision of the Staffing Plan.

Section 13.3:

Clarification to CPS Emergency Plan status.

Section 13.4:

Changes to reflect revision of NRAG and ISEG charters; revision to reflect revision of the Staffing Plan.

Section 13.5:

Deletion of Table 13.5-6 due to revision of CPS procedures.

Section 13.A:

Changes to correct various typographical errors; revisions to reflect changes in personnel; changes due to revised position descriptions.

CHAPTER 14:

Section 14.2:

Revisions to various test abstracts and Table 14.2-1 to incorporate CPS responses to NRC RAIs; correction of various typographical errors; revisions to various test abstracts to reflect system designs.

CHAPTER 15:

Section 15.0:

Changes to Table 15.0-1 to reflect River Bend Station data.

Section 15.2:

Clarification of MCPR during a turbine trip with failure of bypass; correction of typographical error.

Section 15.3:

Clarification of text describing operator action upon trip of one reactor recirculation pump; correction to Table 15.3.1-2 to be consistent with current analyses; correction of typographical error in Table 15.3.2-1.

Section 15.6:

Delete information not applicable to Clinton; clarification for steam system piping break outside containment; changes in tables for consistency with current analyses; change to incorporate design change for automatic ADS initiation; clarification of current assumptions used in evaluating radiological consequences of a LOCA, and changes in tables for consistency with current analyses and offsite dose calculation manual; deletion of information on feedwater line break that is not applicable; changes to Figures 15.6.6-1 & 15.6.6-1 to clarify leakage flow paths.

Section 15.7:

Clarifying information added on fission product releases and deletion of duplicate or non-applicable information; clarifications on operator actions and releases upon failure of main turbine steam air ejector lines; update references; correction of typographical errors in fuel handling accident section; assumptions for fuel handling cask drop accidents changed for consistency with current analyses; revisions to Tables 15.7.1-2, 15.7.1-4a, 15.7.3-1, 15.7.4-1, 15.7.4-7 to make them consistent with the current analyses.

CHAPTER 17:

Section 17.2:

Revision to reflect update of management responsibilities; changes to show responsibility for the control of special processes; revisions to reflect revision of the OQAM. (None of these changes result in a decrease of qualify assurance program commitments.)

APPENDIX A:

Delete references to Unit 2.

APPENDIX B:

Changes due to typographical errors; additional clarifications to make text consistent with analyses.

APPENDIX C:

Correction to references.

APPENDIX D:

Update of references to Perry and Black Fox simulator training; change to incorporate addition of ISEG section to Licensing and Safety; update latest revision number of EPGs; updated shift supervisor responsibilities to include current policies and procedures; changes to show Licensing responsibilities which were previously under the Technical Assessment section; revisions to update items and show completion of work previously designated as open (i.e., incorporation of ADS logic modification changes); update post accident radioactive samples to be consistent with current analyses; typographical corrections and corrected reference numbers; update description for the auxiliary heat removal system; addition to RCIC Steamline Break Detection Logic Diagram to incorporate miscellaneous other isolation inputs; clarification of text for standby gas treatment system.

QUESTIONS AND RESPONSES:

CHAPTER 2:

Deletion of references to Unit 2.

CHAPTER 3:

Change to information regarding shutoff valve location to be consistent with current plant design; changes to clarify high energy systems within guard pipe in the penetration area within containment; revisions to update responses to questions in which design or procedures have since changed or in which analyses that were previously open have been completed; deletion of references which are obsolete or revisions to reference sections which have changed numbers; typographical correction.

CHAPTER 5:

Revision to commitment to submit a summary report for the Preservice Examination Program.

CHAPTER 6:

Deletion of references to Unit 2; update of bypass leakage calculational results based on the 8% allowable value; deletion of table which is no longer applicable; reference to revised Table 6.2-47 (to include test, vent and drain valves) added; change to revise referenced section number; revision to incorporate current Technical Specification requirement.

CHAPTER 7:

Update to reference revised and/or additional section numbers; revision to incorporate completed work/programs/procedures which were previously open; revisions to Table 1 to incorporate additional automatic and/or manual indications for the RCIC system.

CHAPTER 8:

Correction of typographical error and revisions to update figure numbers which are referenced; deletion of material no longer shown in figures regarding relay and circuit breaker settings; revision to circuit breaker maximum trip rating to incorporate current information; inclusion of additional information regarding redundant series fuses or breakers; revision to show location for current Environmental Qualification documentation; figures updated to be consistent with present plant design; correction of typographical errors; more specific details added regarding the 345-kV switchyard power supply; deletion of material



QUESTIONS & RESPONSES (cont'd):

CHAPTER 8 (cont'd):

regarding Unit 2 which is no longer applicable; revision to clarify sequencing of Class IE 4-kV ESF loads; update tables to incorporate numbers which are consistent with current calculations and delete information regarding Unit 2; changes to clarify the response regarding the isolation system used for power circuits; addition of a more detailed response regarding Class IE and non-Class IE circuits; deletion or revision of referenced section which is no longer applicable; revision to incorporate additional information regarding charging of Division 3 battery; revisions to show completion of work previously open; revisions to include additional information to delineate between Divisions 1 and 2, and Division 3 undervoltage protection; changes to incorporate additional information regarding load shedding; change to delete obsolete information and revise information from the voltage analysis to the current design (includes update of maximum and minimum expected voltages table).

CHAPTER 9:

Changes to incorporate additional information and update numbers regarding the onsite communications system; changes to incorporate additional information and update numbers regarding the plant lighting; changes to clarify and incorporate latest numbers regarding fire protection in the D/G building; deletion of references to Unit 2; revisions to explain how current design would handle crimping of the D/G exhaust line and update to Figures 1 and 2 to reflect change; addition of a clarification regarding silica limits in the spent fuel pool cleanup system.

CHAPTER 12:

Change to reflect change in design regarding keeping the dryer and separator moist when in air; revised response regarding neutron and gamma exposure levels to reference appropriate FSAR sections where the information is now included.

CHAPTER 13:

Updates to reflect completion of CPS Emergency Plan and to incorporate changes due to revisions in the plan, or to reference revised section numbers; update to show transfer of responsibility from Supervisor-Plant Radiation Protection to Director-Plant Radiation Protection; revisions to the CPS Emergency Plan for private contractors and consultants referenced in the plan; revisions to incorporate the replacement of the CPS Radiation Monitoring System report keeping system.



QUESTIONS & RESPONSES (cont'd):

CHAPTER 14:

Additional information included regarding heat tracing; additional section referenced and time of testing specified.

CHAPTER 17:

Revised responses to Chapter 17 Q&R's to reference information contained in Chapter 17.

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L34(36)-86(01-27)-L

ILLINOIS POWER COMPANY



CLINTON POWER STATION, P.O. BOX 678, CLINTON, ILLINOIS 61727

January 27, 1986

Docket No. 50-461

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Subject: Clinton Power Station  
FSAR Amendment No. 36

Dear Mr. Denton:

Illinois Power Company hereby files Amendment No. 36 dated January, 1986 for the Clinton Power Station Final Safety Analysis Report (CPS-FSAR). FSAR Amendment No. 36 presents changes that update and clarify information. These changes are summarized on the attached pages.

Three (3) signed originals and fifty (50) copies are furnished for amending the FSAR sets provided to the NRC per 10CFR50.30.

Sincerely yours,

D. P. Hall  
Vice President

PRS/ckc

Attachments - Notarization, Summary of Changes, QA Statement

Enclosures

13001  
3/50 sets

STATE OF ILLINOIS

COUNTY of Dewitt

DONALD P. HALL, Being first duly sworn, deposes and says: That he is Vice President of Illinois Power Company; that the provided amendment to the Clinton Power Station Final Safety Analysis Report has been prepared under his supervision and direction; that he knows the contents thereof; and that to the best of his knowledge and belief said request and the facts contained therein are true and correct.

DATED: This 27<sup>th</sup> day of January, 1986.

Signed: \_\_\_\_\_

D. P. Hall

Subscribed and sworn to before me this 27<sup>th</sup> day of January, 1986.

Arthur L. Bean  
Notary Public

My commission expires:

Oct. 1, 1986

CPS Final Safety Analysis Report  
Change to Section 17.2, Amendment 36

Summary

The changes to the CPS Final Safety Analysis Report (FSAR), Section 17.2, Quality Assurance During the Operational Phase, dealt with clarification of both administrative responsibilities and programmatic concerns. The changes included the shifting of responsibility for Non Destructive testing during pre-service and in-service inspection from Plant Staff to NSED, a clarification of the Vice President's responsibilities, and an enlarged description of the measures used to control conditionally released equipment.

Evaluation

The changes to the CPS FSAR do not constitute a reduction in Quality Assurance Program Commitments previously submitted to the NRC. The changes serve to clarify and improve the Illinois Power commitment to quality.

Performed: *[Signature]* 1-24-86  
Supervisor-QTS Date

Approved: *[Signature]* 1-24-86  
Manager-QA Date

SUMMARY OF FSAR AMENDMENT 36 CHANGES

CHAPTER 1:

Section 1.1:

Update text to reflect cancellation of Unit 2; clarification to rated and design thermal power levels; update scheduled completion and operation dates.

Section 1.2:

Clarifications to the station descriptions, including the addition of a mobile radwaste solidification system; revision to text to reflect current radiological monitoring program and plant design.

Section 1.3:

Update Tables 1.3-1 through 1.3-7 to make consistent with current plant design; delete references to Zimmer 1.

Section 1.4:

Clarification to description of applicant; revision to subsection 1.4.5.2 to provide additional information regarding Hazleton Environmental Sciences Corporation being acquired by Teledyne Isotopes.

Section 1.5:

Clarification to Table 1.5-1.

Section 1.7:

Update Tables 1.7-1 and 1.7-2 to reflect the latest revisions of drawings used for the plant design.

Section 1.8:

Revise and provide additional information on the compliance to Regulatory Guides (R.G.).

- R.G. 1.8 - Provide clarifications to independent review groups.
- R.G. 1.10 - Provide additional information on location of splices or cadwelds for reinforcing bars.
- R.G. 1.16 - Clarifications to project compliance statement.
- R.G. 1.23 - Provide additional information to project position on the instrumentation used for the onsite meteorological program.
- R.G. 1.58 - Provide exception to visual examination requirements.

- R.G. 1.84 - Provide additional information regarding ASME Code Cases being used at Clinton Power Station.
  - R.G. 1.85 - Provide additional information regarding ASME Code Cases being used at Clinton Power Station.
  - R.G. 1.88 - Revise project position for CPS Records Storage Facilities.
  - R.G. 1.105 - Clarification to project position on instrument setpoint adjustments.
  - R.G. 1.108 - Clarification to project position for 24-hour testing of the diesel generator units.
  - R.G. 1.133 - Clarification to compliance statement.
  - R.G. 4.13 - Provide project position.
  - R.G. 7.1 - Provide project position.
  - R.G. 7.3 - Provide project position.
  - R.G. 7.4 - Provide project position.
  - R.G. 8.5 - Revise project position to a later revision.
  - R.G. 8.6 - Clarification to project position.
  - R.G. 8.8 - Correction to revision used on the project.
  - R.G. 8.19 - Clarification to revision used on the project.
- Provide project position for Regulatory Guides 8.20, 8.25, 8.26, 8.27, 8.28, 8.29.

Section 1.9:

Update Figures 1.9-1 (sheet 5), 1.9-3 (sheets 2, 5, 6, 9, 10, 11, 12, 16, and 18) to agree with symbols being used by Sargent and Lundy.

CHAPTER 2:

Section 2.1:

Clarifications to site areas acreages, to reflect Unit 2 cancellation.

Section 2.2:

Provide additional information related to transportation accidents and the release of hazardous materials in the vicinity of the plant.

Section 2.5:

Provide clarifications to compaction methods used during backfilling; provide details of the berm used around the perimeter of the Unit 2 excavation; provide changes to sedimentation monitoring program of the ultimate heat sink;

clarification to inspection of underwater structures; update Figures 2.5-18, 2.5-422, 2.5-428, 2.5-429, 2.5-430, 2.5-431, 2.5-451, 2.5-452, 2.5-453, 2.5-454, 2.5-455, 2.5-456, 2.5-473, 2.5-474, 2.5-475, 2.5-476, 2.5-477, 2.5-478, 2.5-479, 2.5-480, 2.5-481, 2.5-482, 2.5-483, and 2.5-484 to update latest references and revisions to design calculations.

### CHAPTER 3:

#### Section 3.1:

Provide additional information on responses to Criterion 23, Criterion 34, and Criterion 40; provide other text corrections and clarifications.

#### Section 3.5:

Corrections to text and references; update text, Tables 3.5-5, 3.5-8, and 3.5-9, and Figures 3.5-1, 3.5-2, 3.5-3 (sheets 3, 4 and 5) to make FSAR consistent with current analyses and missile barrier design.

#### Section 3.6:

Update text to be consistent with current design; clarification of the use of NUREG/CR-2913 in CPS design; revisions to Table 3.6-3 and Figure 3.6-2 to make FSAR consistent with design.

#### Section 3.7:

Correct text and text references; provide additional information on the soil properties used in seismic analyses; clarification to the assumptions used in balance of plant (BOP) piping analyses; make FSAR consistent with dynamic analyses used in design; clarification of the ASME Code used for buried Seismic Category I piping; clarification to text for design of restraints; update Tables 3.7-7 and 3.7-9 and Figures 3.7-76, 3.7-81 to make FSAR consistent with design.

#### Section 3.8:

Revisions to structural acceptance criteria; clarification to structural acceptance test of the containment; clarification to the thermal loads for the design of galleries; clarification to the loading combinations used in plant design; corrections to text and text references; corrections and revisions to Tables 3.8-4, 3.8-5 and 3.8-9 and Figure 3.8-35 to reflect current design; update text and Figure A.3.8-18 to make FSAR consistent with design.

Section 3.9:

Update number of cycles used in design and fatigue analysis of the CRD housing and in core housing; correct typographical errors; update text to reflect analyses used for the recirculation pump; provide corrections to references and additional descriptions of computer programs used in analyses of BOP systems and components; clarification to preoperational vibration testing and preoperational thermal expansion testing; make FSAR consistent with design for qualification of valves; corrections to Tables 3.9-2, 3.9-2(a) and 3.9-2(b) and make Figure 3.9-8 FSAR consistent with design; correct SRV location in Figure A3.9-2; delete A3.9-26.

Section 3.10:

Update text to make FSAR consistent with qualification methods; revision to Tables 3.10-1 and 3.10-2 to reflect current seismic and dynamic qualification of safety-related BOP and NSSS equipment.

Section 3.11:

Update text to make FSAR consistent with qualification methods; correct references in text; revisions to Tables 3.11-1, 3.11-2, 3.11-3, 3.11-4, 3.11-5, and 3.11-20 to provide updated information relating to the environmental qualification of safety-related BOP and NSSS equipment.

CHAPTER 4:

Section 4.4:

Update Table 4.4-9 to reflect current lengths and sizes of safety injection lines.

Section 4.6:

Clarification to text regarding the control rod drive locking mechanism; update text to reflect current scram discharge volume design; update Figures 4.6-5 (sheets 1, 2 and 3) to reflect current design.

CHAPTER 5:

Section 5.2:

Clarifications and corrections to text and text references; update FSAR to make text consistent with the CPS Preservice, Inservice and Augmented Inservice Inspection programs; changes to text to



make FSAR consistent with design; update Table 5.2-1 for applicable code cases for reactor coolant pressure boundary components; update Figures 5.2-16 (sheets 1, 2 and 3) to reflect current design; revision to Figure 5.2-3B to make FSAR consistent with technical specifications.

Section 5.3:

Update reactor vessel material surveillance schedule to make FSAR consistent with technical specifications and requirements of ASTM E-185-82.

Section 5.4:

Update heat transfer rate of the recirculation system; editorial changes and corrections to text and text references; clarification to text and make FSAR consistent with design specifications.

CHAPTER 6:

Section 6.1:

Delete requirement on hydrogen concentration in high purity waters; update material classifications in Table 6.1-1; revise organic material quantities in Table 6.1-2.

Section 6.2:

Clarification to containment volume used in analyses; correction to text references; clarification on containment spray orifice sizing; clarification on containment spray initiation signal; clarification on standby gas treatment system (SGTS) design; clarification on leakage bypassing secondary containment; update fuel building design average temperature; clarification to evaluation against Criterion 55; update text to describe LPCI "A" and "B" reactor coolant pressure boundary isolation; clarification to the description of RHR and RCIC isolation; clarification to text regarding the consequences of a break in LPCS, HPCS and RHR Test and Pump minimum bypass lines; clarification to the design of the RCIC pump minimum flow bypass line; clarification to the evaluation against R.G. 1.11; revise FSAR to reflect design changes to the combustible gas control system; revisions to make hydrogen igniter system description consistent with design; changes to description of containment integrated leak rate test to clarify test acceptance criteria; clarification to suppression pool makeup system permissive signals; delete requirement to leave fuel transfer gate in place when reactor is in RUN mode; update allowable

leakage rates in Table 6.2-1; update minimum service water temperature in Table 6.2-2; editorial correction to Table 6.2-8; update design margins in Tables 6.2-12, 6.2-13, 6.2-25, 6.2-27, 6.2-29, 6.2-31, 6.2-32 and 6.1-39; revise Table 6.2-47 to make FSAR consistent with the technical specifications; update mass and energy release data in Table 6.2-41 to make FSAR consistent with analyses; clarifications to Tables 6.2-43 and 6.2-44; update performance data in Table 6.2-48; update inventories of corrodible material in Table 6.2-49; insertion of new Tables 6.2-50a, 6.2-50b, 6.2-51a and 6.2-51b; clarification to Tables 6.2-52; and 6.2-69; clarification to Figure 6.2-15; updated revisions to Figures 6.2-56, 6.2-60, 6.2-61, 6.2-62 and 6.2-63; deleted Figures 6.2-69 to 6.2-71 to make FSAR consistent with design; updated Figures 6.2-123 (sheets 4, 6, and 9) to make FSAR consistent with design; clarifications to Figures 6.2-125 and 6.2-127; insertion of new Figures 6.2-128a, 6.2-128b, 6.2-129a, 6.2-129b, 6.2-130a, 6.2-130b, 6.2-131a and 6.2-131b; revisions to Figures 6.2-143, 6.2-144, 6.2-145, 6.2-147 (sheets 3 and 4).

Section 6.3:

Correct typographical errors and provide clarifications to make FSAR consistent with CPS design; correct text references; update Figure 6.3-4 to reflect current design; clarification to Figure 6.3-9.

Section 6.4:

Delete reference to Unit 2.

Section 6.5:

Changes to text and Table 6.5-3 to be consistent with design specifications.

Section 6.6:

Inservice inspection program clarification; also, clarification to thin-wall Class 2 RHR piping weld.

Section 6.7:

Clarification to MSIV leak rates; clarify open/close times for system valves; update MSIVLCS initiation pressure.

CHAPTER 7:

Section 7.1:

Text clarification and typographical errors; clarifications to R.G. 1.105 and R.G. 1.70 conformance and Table 7.1-1.

Section 7.2:

Update Reactor Protection System (RPS) 120 Vac and 125 Vac descriptions to reflect current design; correct text references; correction to RPS actuation logic; clarification to the APRM system logic description; clarification for the drywell pressure instrument racks; clarification of the RPS power supplies; update description of the Self-Test System to reflect current design; clarifications to reflect reactor mode switch design; change to reflect accurate number of LPRMs per APRM to inhibit control rod motion; clarification to the design of the RPS power supply; other clarifications to the RPS design basis requirements; clarifications to R.G. 1.29, R.G. 1.47 and R.G. 1.75 conformance; revisions and clarification to general functional requirements to IEEE 279; revise number from 4 to 8 for the number of scram discharge volume high water level channels required for functional performance of the RPS in Table 7.2-3; update Figures 7.2-5 and 7.2-8 to reflect current trip logic; revise Figure 7.2-9 to reflect current NSPS power supplies.

Section 7.3:

Editorial corrections; clarifications to LPCS (instrumentation and controls) equipment design; addition of automatic initiation signal for the SGTs due to high radiation in continuous containment purge duct; clarification to IEEE 279 conformance for bypasses of the LPCI control system; clarification to diesel fuel oil system equipment qualification; editorial corrections to text and Tables 7.3-1, 7.3-2, 7.3-3, 7.3-4, 7.3-5, and 7.3-6.

Section 7.4:

Clarify RCIC initiating signals, RCIC control, RCIC testing capability, and RCIC control room information; update SLCS power supply, operation and control room information; clarify RHR safety classification, operation and annunciators; update RSS control and instrumentation of RCIC, RHR, and non-ADS relief valves; clarifications and corrections to R.G. conformances of the RCIC system (instrumentation and controls); delete annunciation of RHR heat exchanger cooling water inlet high temperature.

Section 7.5:

Update power source information to reflect current design.

Section 7.6:

Clarification of the Containment Fuel Transfer Pool Vent Plenum Radiation Monitoring Subsystem testability; update heat tracing design description for the SGTs exhaust high range radiation monitoring system; clarifications to fuel pool cooling system controls; update description for the  $H_2/O_2$  monitoring subsystem of the Containment Atmosphere Monitoring system to reflect current system design; clarifications to the safety relief valve monitoring system description and testability; clarification to NUREG-0737 conformance for the CAM system; update LPRM power range trip information in Table 7.6-5.

Section 7.7:

Clarification to reactor operator information; update power supply information for the neutron monitoring and performance monitoring systems; additional information and clarifications to the operational considerations of the area radiation monitoring system; clarification to the offgas system flow measurement description for the gaseous radwaste system; revision to the building pressure control description for the Fuel Building HVAC System.

CHAPTER 8:

Section 8.1:

Update power supply description for the NSPS; update R.G. 1.75 conformance position statements; revision to Table 8.1-2 to update latest design information regarding non-safety AC loads on Class 1E buses.

Section 8.2:

Revise permanent forced outage data in Table 8.2-2.

Section 8.3:

Revisions and clarifications to section to make FSAR consistent with latest design specifications; update FSAR to clarify position statements with Regulatory Guides; revise FSAR to reflect cable separation criteria; also, revision to cable fire protection criteria; clarifications and revisions to Tables 8.3-3 and 8.3-4; deletion of scram solenoids and addition of loads to Table 8.3-5;

clarifications of ampacities described in Table 8.3-12; deletion of Tables 8.3-14, 8.3-15 and 8.3-16 due to redundancy of information in other tables and figures; addition of Table 8.3-17 due to electrical separation; addition of Table 8.3-18 to supply Division 3 protective and supervisory functions; complete revision of Figure 8.3-3 to consolidate plant loads; addition of Figures 8.3-6 and 8.3-8 due to electrical isolation and separation; additional figure revisions to provide latest design information.

## CHAPTER 9:

### Section 9.1:

Clarification regarding decay heat of the fuel core load at the end of the fuel cycle; revise text to clarify environmental qualification of the fuel pool cooling pump motors; update spent fuel cask information; update fuel building crane travel stop description; revise description of the fuel transfer operation interlocks; clarification to fuel handling operations and polar crane information; clarification to Table 9.1-1; revisions to figures to reflect current plant design.

### Section 9.2:

Clarification to plant service water system effluent to the lake; update shutdown service water system testing capability; clarification to component cooling water system description; revise demineralized water system pH requirements; update description of the pretreatment of the demineralized water makeup system; revise Ultimate Heat Sink capacity; corrections to text and text references; delete references to Unit 2; clarify descriptions of safety related components of the condensate storage facilities; update design bases of the turbine building closed cooling water system; update equipment supplied by component cooling water in Table 9.2-7; update Tables 9.2-8, 9.2-11, 9.2-12, 9.2-13, 9.2-14, 9.2-15, 9.2-16, and 9.2-18 to reflect latest design and to make FSAR consistent with analyses; update P&ID's to reflect latest design information.

Section 9.3

Update the emergency breathing air safety design basis; update description of the instrument air system; delete references to Unit 2; clarification of alarm locations for breathing air system; clarification to preoperational tests performed for the drainage systems; clarification to the safety design basis of the Standby Liquid Control System; clarification to the safety evaluation performed regarding boron injection rates; revisions to suppression pool cleanup system; correction to detection range of the gas sampling system radiation detector; clarifications to Tables 9.3-2 and 9.3-3 to reflect current design information and cancellation of Unit 2; update system P&ID's to reflect latest design information.

Section 9.4:

Update HVAC system descriptions and design bases for the control room, fuel building, auxiliary building, turbine building, diesel generator facilities, switchgear heat removal system, CGCS equipment cubicle cooling, containment building, continuous containment purge system, drywell purge system, machine shop area, circulating water screen house, laboratory, service building, and radwaste building to make FSAR consistent with current design information; revise Tables 9.4-1, 9.4-3, 9.4-4, 9.4-5, 9.4-6, 9.4-7, 9.4-9, 9.4-11, 9.4-13, 9.4-15, 9.4-17, 9.4-18, 9.4-19, 9.4-19A, 9.4-20, 9.4-20A, 9.4-21, 9.4-23, 9.4-24, 9.4-25, 9.4-27, 9.4-28, 9.4-29, 9.4-30, 9.4-31, 9.4-32, 9.4-33, and 9.4-34 to make FSAR consistent with design; update system P&ID's to reflect current design.

Section 9.5:

Revision to the Fire Protection System system design bases; revise control room design basis; update water supply system, halon suppression system, carbon dioxide suppression system and fire detection systems and clarification to the number of turbine building smoke vents; provide additional operational information for the control room fire protection system; update qualifications and training for fire protection personnel; clarifications to administrative controls and quality assurance requirement; update communication system description; revise station lighting system descriptions; revise diesel generator fuel oil storage and transfer system description; update diesel engine lubrication system safety design basis and system description;



update description of missile protection for the diesel generator exhausts; update text to reflect Unit 2 cancellation; update latest design information in Tables 9.5-1, 9.5-2, 9.5-3, 9.5-4, 9.5-6 and 9.5-7; update P&ID's to reflect current system design.

## CHAPTER 10:

### Section 10.2:

Correct typographical error for the superheat temperature corresponding to the moisture separator reheaters exhaust; deletion of material not relevant to the gas filled unit in the bulk hydrogen storage facility; clarification to text description of the electrical backup overspeed trip; updated Figures 10.2-4 & 10.2-5 to reflect latest design.

### Section 10.3:

Clarification regarding the main steam supply system safety features; updated Figure 10.3-1 (Sheets, 1, 2, 4, 5) to reflect current plant design.

### Section 10.4:

Clarifications to reflect the requirements regarding biological growth in the circulating water system; delete references to Unit 2; addition of footnotes to clarify influent pH measurements in the condensate cleanup system; change to the metallic impurities limit to reflect current requirements; update Figure 10.4-4 (Sheets 1, 5) to reflect current plant design. Update Figures 10.4-5 (Sheet 1), 10.4-6, and 10.4-7 to reflect current plant design.

### Section 10.5:

Changes to pH measurements for high purity water.

## CHAPTER 11:

### Section 11.1:

Editorial correction; change to reflect routing of the mechanical vacuum pump (MVP) exhaust; change to Table 11.1-1 isotope half-life numbers to make consistent with FSAR Chapter 12; addition of work in title of Table 11.1-5 for clarification; correction of typographical error in Table 11.1-5.

Section 11.2:

Clarification regarding determination of processing effectiveness in the laundry waste subsystem; change to pH to reflect current water quality requirements; correction of typographical error; change to Table 11.2-1 on the adjusted total tritium release in Ci/yr; correction of typographical error in Table 11.2-2; changes to Table 11.2-6 to reflect cancellation of Unit 2; clarification regarding waste sludge decant; deletion of note in Table 11.2-7 (Sheet 5); change to Figure 11.2-1 to show flow to the concentrated waste tank; updated Figure 11.2-2 (Sheets 2-22 and 24-29) to reflect current design.

Section 11.3:

Clarification to technical specification release limits; deletion of sentence which is no longer applicable; change to reflect correct alarm level; clarification regarding bypass of the charcoal adsorber trains; clarification regarding release of radioactive gases to the suppression pool; clarification to offgas system design; clarification and revisions to include more detailed information regarding gaseous radioactivity releases; text revisions and clarifications for estimated doses; clarifications for release rates during normal operation; provide additional text references; revisions to Tables 11.3-1, 11.3-2, 11.3-3, 11.3-4, 11.3-5, 11.3-6, 11.3-8, 11.3-10 and 11.3-11 to make FSAR consistent with current design and offsite dose calculation manual.

Section 11.4:

Update text to reflect revisions to the solid waste management system; addition of clarifying statements regarding liquid waste management systems vs. solid radwaste systems; change to reflect solid radwaste system design criteria; clarification to the radwaste processing equipment description; clarification regarding resin slurry mixing in the spent resin tank; change to reflect that backwash occurrences are intermittent in the fuel pool filter/demineralizer sludge tanks; revision to the dry solid waste packaging equipment; description changed Table 11.4-6 to be consistent with current information and offsite dose calculation manual; updated Figure 11.4-3 (Sheets 1-7) for consistency with current plant design.



Section 11.5:

Deletion of information not applicable to Clinton; inclusion of more detail regarding liquid radwaste discharge monitor setpoints; deletion of subsection on solid radwaste system radiation monitors; change to reflect cancellation of Unit 2.

CHAPTER 12:

Section 12.1:

Clarifications regarding training and responsibility on ALARA policy; deletion of information which is no longer applicable; responsibility change from supervisor to director for implementation of the Radiation Protection Program; Figure 12.1-1 changed to reflect current organization structure.

Section 12.2:

Change due to revised spray method used during transport of the Dryer/Separator.

Section 12.3:

Change due to revised spray method used during transport of the Dryer/Separator.

Section 12.5:

Responsibility change from supervisor to director for implementation of the Radiation Protection Program; changes and clarifications also made to other organizational responsibilities; Figure 12.5-1 revision to reflect current organization.

CHAPTER 13:

Section 13.1:

Changes to reflect departmental responsibility for the Inservice Inspection Program; update of various management position descriptions; clarification of clerical functions; title blocks of Figures 13.1-1A and 13.1-1B corrected; Figure 13.1-3 revised to reflect revision of the Staffing Plan.

Section 13.2:

Revision to Figure 13.2-1 to reflect revision of the Staffing Plan.

Section 13.3:

Clarification to CPS Emergency Plan status.

Section 13.4:

Changes to reflect revision of NRAG and ISEG charters; revision to reflect revision of the Staffing Plan.

Section 13.5:

Deletion of Table 13.5-6 due to revision of CPS procedures.

Section 13.A:

Changes to correct various typographical errors; revisions to reflect changes in personnel; changes due to revised position descriptions.

CHAPTER 14:

Section 14.2:

Revisions to various test abstracts and Table 14.2-1 to incorporate CPS responses to NRC RAIs; correction of various typographical errors; revisions to various test abstracts to reflect system designs.

CHAPTER 15:

Section 15.0:

Changes to Table 15.0-1 to reflect River Bend Station data.

Section 15.2:

Clarification of MCPR during a turbine trip with failure of bypass; correction of typographical error.

Section 15.3:

Clarification of text describing operator action upon trip of one reactor recirculation pump; correction to Table 15.3.1-2 to be consistent with current analyses; correction of typographical error in Table 15.3.2-1.

Section 15.6:

Delete information not applicable to Clinton; clarification for steam system piping break outside containment; changes in tables for consistency with current analyses; change to incorporate design change for automatic ADS initiation; clarification of current assumptions used in evaluating radiological consequences of a LOCA, and changes in tables for consistency with current analyses and offsite dose calculation manual; deletion of information on feedwater line break that is not applicable; changes to Figures 15.6.6-1 & 15.6.6-1 to clarify leakage flow paths.

Section 15.7:

Clarifying information added on fission product releases and deletion of duplicate or non-applicable information; clarifications on operator actions and releases upon failure of main turbine steam air ejector lines; update references; correction of typographical errors in fuel handling accident section; assumptions for fuel handling cask drop accidents changed for consistency with current analyses; revisions to Tables 15.7.1-2, 15.7.1-4a, 15.7.3-1, 15.7.4-1, 15.7.4-7 to make them consistent with the current analyses.

CHAPTER 17:

Section 17.2:

Revision to reflect update of management responsibilities; changes to show responsibility for the control of special processes; revisions to reflect revision of the OQAM. (None of these changes result in a decrease of qualify assurance program commitments.)

APPENDIX A:

Delete references to Unit 2.

APPENDIX B:

Changes due to typographical errors; additional clarifications to make text consistent with analyses.

APPENDIX C:

Correction to references.

APPENDIX D:

Update of references to Perry and Black Fox simulator training; change to incorporate addition of ISEG section to Licensing and Safety; update latest revision number of EPGs; updated shift supervisor responsibilities to include current policies and procedures; changes to show Licensing responsibilities which were previously under the Technical Assessment section; revisions to update items and show completion of work previously designated as open (i.e., incorporation of ADS logic modification changes); update post accident radioactive samples to be consistent with current analyses; typographical corrections and corrected reference numbers; update description for the auxiliary heat removal system; addition to RCIC Steamline Break Detection Logic Diagram to incorporate miscellaneous other isolation inputs; clarification of text for standby gas treatment system.

QUESTIONS AND RESPONSES:

CHAPTER 2:

Deletion of references to Unit 2.

CHAPTER 3:

Change to information regarding shutoff valve location to be consistent with current plant design; changes to clarify high energy systems within guard pipe in the penetration area within containment; revisions to update responses to questions in which design or procedures have since changed or in which analyses that were previously open have been completed; deletion of references which are obsolete or revisions to reference sections which have changed numbers; typographical correction.

CHAPTER 5:

Revision to commitment to submit a summary report for the Preservice Examination Program.

CHAPTER 6:

Deletion of references to Unit 2; update of bypass leakage calculational results based on the 8% allowable value; deletion of table which is no longer applicable; reference to revised Table 6.2-47 (to include test, vent and drain valves) added; change to revise referenced section number; revision to incorporate current Technical Specification requirement.

CHAPTER 7:

Update to reference revised and/or additional section numbers; revision to incorporate completed work/programs/procedures which were previously open; revisions to Table 1 to incorporate additional automatic and/or manual indications for the RCIC system.

CHAPTER 8:

Correction of typographical error and revisions to update figure numbers which are referenced; deletion of material no longer shown in figures regarding relay and circuit breaker settings; revision to circuit breaker maximum trip rating to incorporate current information; inclusion of additional information regarding redundant series fuses or breakers; revision to show location for current Environmental Qualification documentation; figures updated to be consistent with present plant design; correction of typographical errors; more specific details added regarding the 345-kV switchyard power supply; deletion of material

QUESTIONS & RESPONSES (cont'd):

CHAPTER 8 (cont'd):

regarding Unit 2 which is no longer applicable; revision to clarify sequencing of Class IE 4-kV ESF loads; update tables to incorporate numbers which are consistent with current calculations and delete information regarding Unit 2; changes to clarify the response regarding the isolation system used for power circuits; addition of a more detailed response regarding Class IE and non-Class IE circuits; deletion or revision of referenced section which is no longer applicable; revision to incorporate additional information regarding charging of Division 3 battery; revisions to show completion of work previously open; revisions to include additional information to delineate between Divisions 1 and 2, and Division 3 undervoltage protection; changes to incorporate additional information regarding load shedding; change to delete obsolete information and revise information from the voltage analysis to the current design (includes update of maximum and minimum expected voltages table).

CHAPTER 9:

Changes to incorporate additional information and update numbers regarding the onsite communications system; changes to incorporate additional information and update numbers regarding the plant lighting; changes to clarify and incorporate latest numbers regarding fire protection in the D/G building; deletion of references to Unit 2; revisions to explain how current design would handle crimping of the D/G exhaust line and update to Figures 1 and 2 to reflect change; addition of a clarification regarding silica limits in the spent fuel pool cleanup system.

CHAPTER 12:

Change to reflect change in design regarding keeping the dryer and separator moist when in air; revised response regarding neutron and gamma exposure levels to reference appropriate FSAR sections where the information is now included.

CHAPTER 13:

Updates to reflect completion of CPS Emergency Plan and to incorporate changes due to revisions in the plan, or to reference revised section numbers; update to show transfer of responsibility from Supervisor-Plant Radiation Protection to Director-Plant Radiation Protection; revisions to the CPS Emergency Plan for private contractors and consultants referenced in the plan; revisions to incorporate the replacement of the CPS Radiation Monitoring System report keeping system.

QUESTIONS & RESPONSES (cont'd):

CHAPTER 14:

Additional information included regarding heat tracing; additional section referenced and time of testing specified.

CHAPTER 17:

Revised responses to Chapter 17 Q&R's to reference information contained in Chapter 17.