UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-4005

December 19, 2003

R. T. Ridenoure
Division Manager - Nuclear Operations
Omaha Public Power District
Fort Calhoun Station FC-2-4 Adm.
P.O. Box 550
Fort Calhoun, NE 68023-0550

SUBJECT: SUMMARY OF MEETING WITH FORT CALHOUN STATION

Dear Mr. Ridenoure:

This refers to the meeting conducted in the Region IV office December 10, 2003. The participants discussed your current plant status, Fall 2003 refueling outage, current issues, and project highlights for future outages at the Fort Calhoun Station.

The attendance list and presentation booklet are enclosed with this summary (Enclosures 1 and 2, respectively).

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Should you have any questions concerning this matter, we will be pleased to discuss them with you.

Sincerely,

Kriss M. Kennedy, Chief
Project Branch C
Division of Reactor Projects

Docket: 50-285
License: DPR-40

Enclosures:
1. Attendance List
2. Fort Calhoun Station Presentation

cc w/enclosures:
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Omaha Public Power District
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Electronic distribution by RIV:
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DRP Director **(ATH)**
DRS Director **(DDC)**
Senior Resident Inspector **(JGK)**
Branch Chief, DRP/C **(KMK)**
Senior Project Engineer, DRP/C **(WCW)**
Staff Chief, DRP/TSS **(PHH)**
RITS Coordinator **(NBH)**
Jim Isom, Pilot Plant Program **(JAI)**
RidsNrrDipmLipb

ADAMS: ☒ Yes ☐ No Initials: KMK
☒ Publicly Available ☐ Non-Publicly Available ☐ Sensitive ☒ Non-Sensitive

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RIV:SPE:DRP/C	C:DRP/C			
WCWalker;df	KMKennedy			
KMK for	KMK			
12/19 /03	12/19 /03			

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NRC PUBLIC MEETING ATTENDANCE

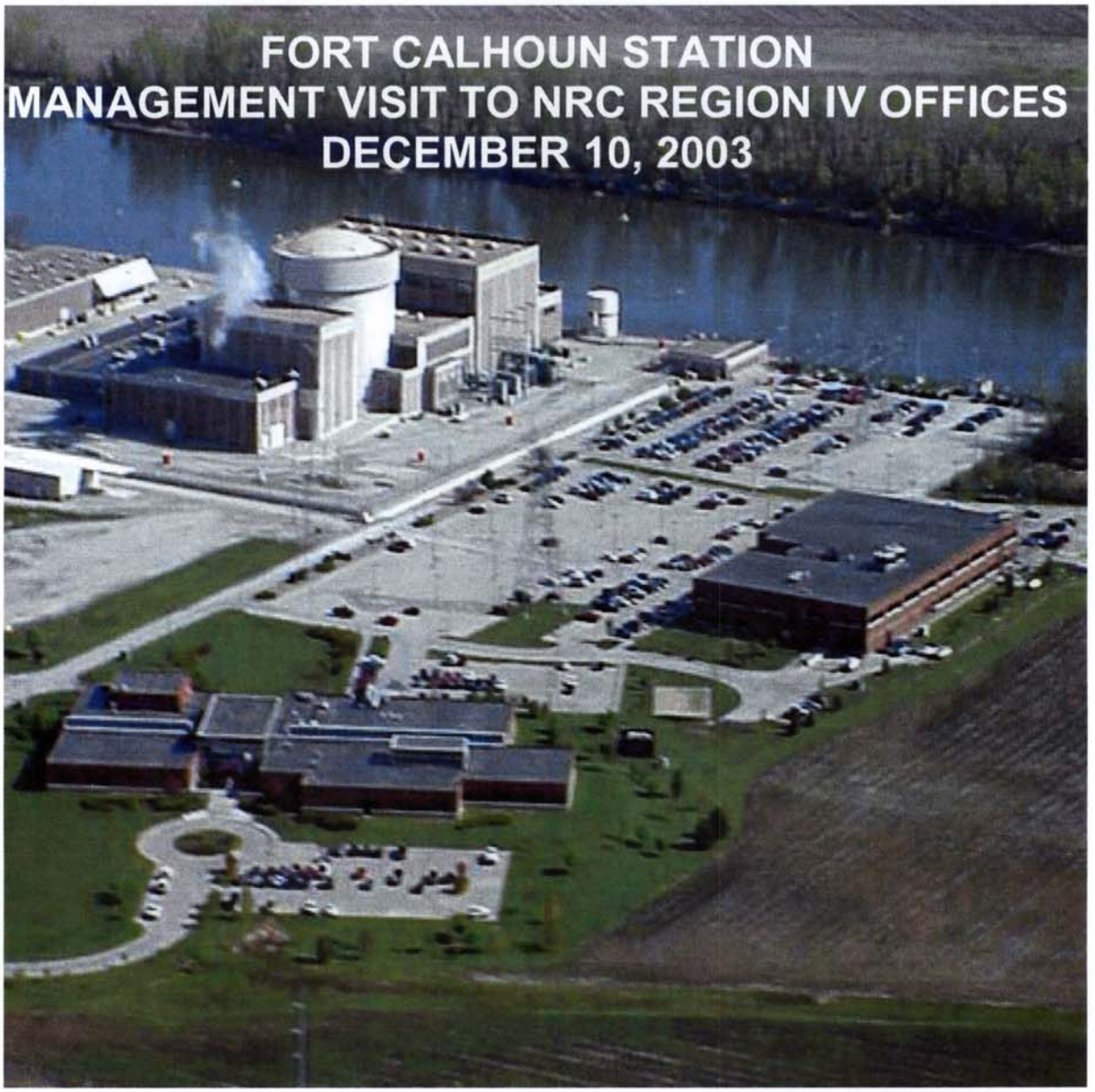
LICENSEE/FACILITY	Omaha Public Power District Fort Calhoun Station
DATE/TIME	December 10, 2003; 1:00 p.m.
LOCATION	Region IV Office

NAME (PLEASE PRINT)	ORGANIZATION
Charles Marschall	DRS/EMB
DWIGHT D. CHAMBERLAIN	DIRECTOR, DRS
MARK A. SATORIUS	DEPUTY DIRECTOR, DRP
Kriss M. Kennedy	Branch Chief, DRP
John Kramer	SRI
Wayne Walker	SPE
Mark Hare	NRC
NEIL O'KEEFE	NRC

NRC PUBLIC MEETING ATTENDANCE	
LICENSEE/FACILITY	Omaha Public Power District Fort Calhoun Station
DATE/TIME	December 10, 2003; 1:00 p.m.
LOCATION	Region IV Office
NAME (PLEASE PRINT)	**ORGANIZATION**
WAYNE CWALKER	US-NRC - RIV
Dave Bannister	OPPD - Fort Calhoun Station
John Herman	OPPD - Fort Calhoun Station
ROSS RIDENOURE	OPPD - ~~FORT~~ CALHOUN STATION
Harry Faulhaber	OPPD-Fort Calhoun Station

ENCLOSURE 2

FORT CALHOUN STATION
MANAGEMENT VISIT TO NRC REGION IV OFFICES
DECEMBER 10, 2003



Agenda

Arlington, Texas, December 10, 2003, 1300 Hours

Introductions

Fort Calhoun Station Meeting Attendees

Recent Organizational Changes

OPPD & FCS Organizational Changes

Current Plant Conditions

Plant Performance
Plant Material Condition

Fall 2003 Refueling Outage

Outage Details
Planned and Completed Activities
Significant Modifications and Engineering Changes
Goals – Measure and Actual
Challenges
Successes
Lessons Learned

Current Regulatory Issues

DG Testing
Reactor Cavity Seal Leakage
Performance During SSD & PC
RHRA Barriers
Regulatory Interface

Project Highlights for Future Outages

Power Uprate
Replacement Steam Generators
RV Head/Pressurizer Replacement
Spent Fuel Storage
Rapid Refueling Package

Closing

ROSS T. RIDENOURE

Vice President

Chief Nuclear Officer

Ross Ridenoure was named Vice President and Chief Nuclear Officer for the Omaha Public Power District in November, 2003. In this position, Ross has overall responsibility for OPPD's Fort Calhoun Nuclear Station and ensures the plant continues to be operated to the highest industry standards of safety and reliability.

He began his career with OPPD in July 1989 as an Operations Training Specialist. After earning a Senior Reactor Operator's (SRO) license, he was promoted to Shift Supervisor in 1991, Operations Supervisor in 1996, Operations Manager in 1998, Assistant Manager – Fort Calhoun Station in 2000 and Division Manager-Nuclear Operations/Site Coordinator in 2001. Prior to joining OPPD, Ross was employed by Illinois Power Company as a Nuclear Operations Instructor at Clinton Power Station. He also worked for Westinghouse Electric Company at the Zion and Braidwood Nuclear Stations.

Ross has extensive operational experience and was licensed or certified as an SRO on three different types of Commercial Nuclear Power Plants – a Westinghouse pressurized water reactor (PWR), a Combustion Engineering PWR and a General Electric Boiling Water Reactor. Mr. Ridenoure has been affiliated with the U.S. Navy for over 26 years either on active duty or in the Naval Reserves and was commissioned in 1987. He holds the rank of Commander and has worked as an Intelligence Officer for the U.S. Strategic Command at Offutt Air Force Base for many years.

He holds Bachelor's Degrees in Sociology and Nuclear Engineering Technology from the University of the State of New York in Albany, NY as well as a Master's Degree in Business Administration (Executive Program) from the University of Nebraska.

He and his wife Bonnie have been married for 25 years and have three daughters - Carmen, age 21, Lauren, age 18 and Devan, age 11.

DAVID J. BANNISTER

Manager

Fort Calhoun Station

Dave Bannister was named Manager – Fort Calhoun Station in February 2002. In this position, Dave has overall responsibility for day-to-day plant operations.

Mr. Bannister began his career at OPPD in 1983 as an Operations Training Specialist. He has held rotational positions as a Reactor Engineer and Manager of Quality. He was promoted to Shift Technical Advisor in 1990 and Operations Engineer in 1991. He was promoted to Operations Shift Manager in 1996, Supervisor – Operations in 1998, and Manager – Operations in 2000.

Mr. Bannister held a senior reactor operator's license from 1990 to 2002, and holds a Bachelor of Science degree in Physics from Nebraska Wesleyan University. He also has completed INPO-accredited training programs for shift managers, shift technical advisors and senior reactor operators.

HARRY J. FAULHABER

Manager

Integrated Work Management

Harry Faulhaber was named Manager – Integrated Work Management at Fort Calhoun Station in November 2002. In this position, Harry has overall responsibility for long-range planning, outage management, online work management, scheduling, maintenance planning, and construction planning at FCS.

Mr. Faulhaber began his career at OPPD in 1982 as a Senior Engineer in Generating Station Engineering. He has held positions as the Manager – Electrical Design Engineering (1985), Manager – Nuclear Construction Management (1989), Manager – Maintenance (1994) and Manager – Outages (1999).

Mr. Faulhaber is a Registered Professional Electrical Engineer (PE) in the State of Iowa and has completed the Management Plant Certification training program at Fort Calhoun Station. He also holds a Bachelor's degree in Electrical Engineering from the University of Nebraska and a Masters in Business Administration from Creighton University.

JOHN B. HERMAN

Manager

Nuclear Licensing

John Herman was named Manager – Nuclear Licensing at Fort Calhoun Station in June 2002. In this position, John has overall responsibility for coordination of regulatory affairs, inspections, and correspondence related to maintaining the operating license of FCS.

Mr. Herman began his career at OPPD in 1988 as the Supervisor - Operations Training. He has held positions as the Supervisor – Nuclear Licensing (1992), Manager – Outage Management (1995), and the Manager – Planning and Scheduling (1997). Prior to joining OPPD, Mr. Herman was employed by Advanced Technology Engineering Systems, Inc. as a Senior Nuclear Engineer. Mr. Herman was also enlisted in the US Navy nuclear program for six years.

Mr. Herman is a Registered Professional Mechanical Engineer (PE) in the State of Nebraska and a Certified Project Management Professional (PMP). He also holds a Bachelor's degree from the University of the State of New York, a Bachelor's degree from the University of Nebraska at Omaha, and a Masters in Business Administration from Creighton University.

RECENT ORGANIZATIONAL CHANGES

Announced Retirement

Mr. Fred Petersen, President and Chief Executive Officer for Omaha Public Power District, is retiring on December 31, 2003.

Mr. Gary Gates, Chief Operating Officer, has been named to replace Mr. Petersen as President and Chief Executive Officer for Omaha Public Power District. Mr. Gates' appointment is effective January 1, 2004.

Recent Organizational Changes at Fort Calhoun Station

Mr. Ross Ridenoure, Division Manager – Nuclear Operations, has been named to replace Mr. Gates as Vice President and Chief Nuclear Officer. Mr. Ridenoure's appointment was effective December 1, 2003.

Future Organizational Changes

There will be additional organizational changes to support the above changes. Those changes are planned for early 2004. The NRC will be notified when they occur.

Current Organizational Charts

Organizational charts are included for your review following the closing of this presentation. New ones can be provided when the additional changes have been completed.

CURRENT PLANT CONDITIONS

Plant Performance

- The plant was placed back online on October 31, 2003 following startup from Refueling Outage 21.
- Two days following startup, operators lowered power, briefly took the turbine off-line, completed turbine testing, and placed the turbine back online.
- Following chemistry holds, operators increased power to 100%.

Plant Material Condition

- FCS started the cycle with two temporary modifications. Since then, three additional temporary modifications have been installed to accommodate operational anomalies.
- The plant started the cycle with one operator work-around/control room deficiency. This deficiency was enhanced later with a temporary modification.
- Following failure of a circulating water pump motor, the unit was lowered to ~92% power. After the pump motor repair was completed, the plant was returned to 100% power.
- Cycle 22 (current cycle) Chemistry Performance.
    - Two chemical excursions - high dissolved oxygen due to valve misalignment in secondary and chemical contamination of demineralized water storage tank. (negative impact on WANO CPI for November 2003).
    - RCS activity nearly 20% lower than cycle 21 at 30 days of operation.
- Since coming back online, Fort Calhoun Station has experienced an elevated RCS leak rate.
    - Total RCS leakage is approximately 0.5 gpm with known leakage to the Reactor Coolant Drain Tank (RCDT) at 0.4 gpm.
    - Containment entries have been made in an attempt to identify the source of the leakage, but the source has not been clearly identified.
    - Review of various indications has revealed that controlled bleed-off flow from reactor coolant pump RC-3C is approximately 0.3 gpm less than the calculated flow for the given pressure breakdowns on the shaft seals.

- Elevated RCS leak rate discussion (continued).
    - Further investigation revealed that the change in RC-3C bleed-off flow due to the change in backpressure has an equal and opposite effect on the in leakage to the RCDT.
    - The RCS leak rate is being closely monitored and guidance has been provided to the operating crews that limits known leakage to the RCDT to 0.75gpm or 0.8gpm total. If these limits are reached, the plant will begin a shutdown.
    - These limits are conservative with regards to the Technical Specification limit of 1gpm unidentified leakage or 10gpm total leakage.
    - Management has developed a forced outage plan and is currently considering when the plan should be executed.
- Fuel performance during the last cycle and since startup indicates no leaking fuel.

FALL 2003 REFUELING OUTAGE

Outage Details

- The outage began on September 12, 2003 with breakers opened at 2055 hours.
- The outage ended On October 31, 2003 with breakers closed at 0403 hours.
- Outage duration - 48 days, 8 hours, and 8 minutes (including DST change).

Planned and Completed Activities

Refueling Associated Activities:

- Reactor disassembly and refueling.
- Repair of upper guide structure lift rig (damaged in 2001 RFO).
- Removal of core barrel reactor internals for 10-year reactor vessel ISI.
- Replaced containment side refueling machine. This completed upgrades and replacement of fuel handling equipment including transfer, spent fuel pool and containment handling equipment.
- Installed a total of 44 new fuel assemblies as part of the 133 fuel assemblies for this cycle.

Reactor Head Maintenance and Inspections Activities:

- Inspection of bare metal inspection of reactor head in accordance with the NRC Generic Letter..
- Completed volumetric examination of a selected number of Control Element Drive Mechanism (CEDM) upper housing welds.
- Completed volumetric examination of a selected number of CEDM seal housing welds.
- Completed extensive planned maintenance on CEDM drive packages
- Testing of equipment and delivery process for performing volumetric examination of reactor head nozzles (actual volumetric inspection of CEDM nozzles is scheduled for 2005 refueling outage).

Core Off-loaded Activities:

- Replaced rotating assembly and pump cover on the third of four reactor coolant pumps (part of program to refurbish all four reactor coolant pumps (RCP) prior to steam generator replacement).
- Replaced a primary loop safety injection check valve to address adverse trend of reactor coolant leakage (check valve is the first reactor coolant boundary valve for loop safety injection).
- Completed 10-year ISI of reactor pressure vessel (RPV) welds.

Steam Generator Maintenance and Inspections:

- Completed Technical Specification required inspection of steam generator tubes.
- Completed extensive inspection campaign given the age of Fort Calhoun's steam generator.
- Completed secondary side visual inspections.
- Completed secondary side sludge lancing.

Turbine Generator Maintenance:

- Completed maintenance and inspection of both low pressure turbines.
- Completed inspection to assess potential replacement of high pressure rotor.
- Completed inspection of main generator for potential replacement or rewind.

Secondary Side Activities:

- Replaced two high pressure feedwater heaters.
- Significant condenser maintenance and inspections.

Significant Modifications and Engineering Changes

Fuel Transfer System Upgrade: FH-1 Mast, Trolley, Hoist Box and Controls

This engineering change replaced the mast, trolley, hoist box and complete control system for the containment fuel handling machine (FH-1).

LPSI Void Detection Instrumentation

The low pressure safety injection (LPSI) pump discharge header has the potential to form nitrogen gas voids at the high points in the system. The potential formation of gas voids is due to leakage past several isolation valves between the LPSI header piping and the higher pressure, nitrogen blanketed safety injection tanks. The potential for void formation leaves the system susceptible to water hammer. The operators periodically vent the LPSI injection risers in Containment. Instrumentation was installed to detect formation of a gas void in the LPSI system. Instrumentation was installed at the high point of each of the four LPSI discharge lines in containment. The instruments are ultrasonic level sensors that detect a wet or dry condition. Each instrument supplies an alarm to the emergency response facility (ERF) computer. The ERF alarm will alert the operators of a gas void so venting can be performed.

Control Room Fresh Air Inlet Dampers

The Control Room HVAC system is required to limit outside airflow to 1000 CFM +/- 10%. Previously, the existing air balancing dampers were over sized and did not give reliable, repeatable results. New smaller dampers were installed in series with the existing dampers to provide better control and adjustment of fresh air inlet flow.

Thermal Expansion Loops in Charging Lines

This modification installed piping and supports to allow thermal expansion in the charging lines to Reactor Coolant System (RCS) loops 1A and 2A. Water from the charging system exits the regenerative heat exchanger at up to 470 degrees F. It travels through long sections of pipe toward the RCS loop injection nozzles resulting in significant thermal growth in the piping. Analysis indicated that this thermal growth may overload some supports along these sections of pipe.

Small Bore Piping Restraints in Containment

This engineering change installed 15 supports on small bore piping in the safety injection, reactor coolant, nitrogen gas and waste disposal systems inside containment. These resolved discrepancies were identified during an engineering evaluation of small bore piping.

RPS Hot Leg 1 RTD Reconfiguration

Flow streaming in the RCS produces local hot leg temperatures at the resistive temperature detectors (RTD) not representative of the bulk hot leg RCS coolant temperature. This engineering change reassigned the existing hot leg 1 RTDs to different RPS channels which averaged the temperature shift and is more representative of the actual bulk temperature. Previous action to raise the RPS high power pre-trip and trip setpoints has reduced challenges to the RPS. However, this modification was undertaken to ensure more accurate data.

RAS Test Switch Changes

During the performance of the Recirculation Actuation Signal (RAS) surveillance tests, the RAS lockout relay trips and sends a repositioning signal to the associated containment sump recirculation isolation valves, the SIRWT outlet header control valves and the SIRWT recirculation valves. To prevent these valves from repositioning during the surveillance tests, the valve control switches are either placed in pull-to-override or held open by dedicated operators. Following the 2003 RFO, use of dedicated operators to hold the valves open is not allowed or necessary. This engineering change installed key operated switches to disconnect the prime signals from the RAS lockout relay to the valves while in the TEST position during the surveillance tests. Annunciators are initiated when the switches are in the TEST position.

Feedwater Heater FW-15A/B Replacement

Significant tube support erosion in the drain cooler region and tube degradation were detected during eddy current testing of FW- 15B during the 2002 RFO. Since FW-15A had been in service conditions similar to FW-15B, both heat exchangers were replaced. They were sized to handle up to a maximum of 17% power up rate for the station.

Pressurizer Level Transmitter Cable Separation

The modification re-routed one Appendix R credited instrument cable (for LT-101Y, Pressurizer Level Transmitter) which was located in containment (Fire Area 30) to a different location in containment. This was completed to maintain the minimum 20-foot separation from the cable for LT-101X, as required by 10 CFR 50 - Appendix R. Cable 3473A (LT-101Y) used to pass within 2 feet of the redundant transmitter (LT-101X) cable in containment. This cable was identified in the corrective action program as not meeting the required Appendix R separation criteria. This closed the only Safety Analysis for Operability that had been open for FCS.

Goals – Measure & Actual

Goal	Measure	Actual
Maintain Shutdown Cooling Availability	0	0
Maintain Spent Fuel Pool Cooling Availability	0	0
Maintain Reactivity Control	0	0
No Unplanned Safety System Actuations	0	0
Maintain Containment Integrity and Containment Closure	0	0
No Lost-Time or Restricted-Time Injuries	0	2
Minimize Personnel Injuries	≤5	8
Maintain Cumulative Dose	<150R	194.3R
Minimize Personnel Contaminations >5000cpm	≤22	35
Event Free Human Performance	2	8
No Control Room Deficiencies, Operator Work Arounds or Temporary Modifications at the End of the Outage (unless approved by plant manager)	0	0
Minimize Outage Scope Growth Due to Emergent Work	8%	22%
Outage Duration	≤30 days	48 days
Budget	<$20.9 M	$23.7 M

Challenges

- A large number of capital modifications.
- Manual reactor trip at the beginning of the outage (potential Axial Offset Anomaly (AOA) issue, LER).
- Indicated RCS inventory level change following hot mid-loop (made and then retracted a call to the NRC Headquarters Operations Officer on this issue).
- Dropped fuel assembly recovery in the spent fuel pool (resulted in schedule delay of approximately 2-1/2 days).
- Undervessel examination.
- Performance of contractor regarding robotic inspection equipment for third 10-year ISI of RPV (resulted in schedule delay of approximately 9 days).
- CEDM reliability.
- Availability of experienced station and contractor personnel.

Successes

- Completed the steam generator inspection campaign on schedule with minimal inspection scope expansion.
- Completed a very ambitious turbine generator inspection and maintenance project.
- Completed feedwater heater replacement project ahead of schedule.
- Completed a number of inspections of major plant equipment, including:
    - Completed the reactor head bare metal inspection. The inspection results indicated that the head is in excellent condition.
    - Completed volumetric examination of the CEDM upper and seal housings. No indications discovered.
    - Completed the 10-year ISI of RPV welds. All indications were evaluated and found to be acceptable in accordance with the 1989 Edition ASME Section XI.

Lessons Learned

- The final report and critique will be completed by December 31, 2003.
- The lessons learned and improvement recommendations were collected during outage preparations and throughout execution of the outage. These have been entered into the corrective action program.
- Formal outage critiques have been completed for significant work and workgroups.

CURRENT REGULATORY ISSUES

DG Surveillance Testing Program

- NRC inspectors questioned compliance with the Technical Specification requirements for diesel generator testing.
- FCS design employs a primary and a secondary air start system for the diesel generators.
- Following compliance questions, FCS no longer credits or tests the secondary air starting system for use at the plant. The secondary air start system is maintained by the preventive maintenance program.
- The secondary air start system is not being tested during any Technical Specification surveillances. The secondary air start system is not being credited for operability of the diesel generators.
- FCS is evaluating potential modifications to the existing design to allow the secondary air start system to be credited for Technical Specification surveillances and for operability.

Reactor Cavity Seal Leakage

- FCS action plans are currently being developed to further ensure that seal leakage does not mask small nozzle leaks. This item is in the corrective action program which will be updated as plans are developed.

Performance During Safety System Design & Performance Capability Inspection

- Management will ensure that the correct individuals are available for inspection support activities.
- Management is developing new individuals in both system engineering and design engineering for system support.
- Management will ensure that organizational tools designed to manage inspection activities are used. This will support timely management notification when difficulties arise during inspections.
- Additional training will be conducted to develop new individuals in management positions that have not been involved in team inspection activities. This will ensure that those participating in team inspections understand their roles and responsibilities.

RHRA Barriers

- FCS is currently benchmarking the industry to identify industry best practices.
- Conference calls with the NRC have taken place to help FCS staff clearly understand the nature of the findings.
- FCS management views this as a potential generic industry issue.
- The FCS staff will continue a dialogue with NRC.

Regulatory Interface

- FCS strives for open and frank communications with the NRC.
- FCS will continue to share all available information with the NRC.
- To ensure the continuity in this constructive relationship, FCS proposes more frequent communications with the NRC on key issues.

PROJECT HIGHLIGHTS FOR FUTURE OUTAGES

Power Uprate:

- Final studies and decisions underway (Spring 2004).
- Proposed extended power uprate work could include:
  - Condenser module replacements
  - Main turbine upgrades
  - Main generator rewind
  - Heater drain tanks, valves, feedwater heaters, and other secondary side upgrades
- New steam generators and pressurizer being sized to accommodate power uprate.

Replacement Steam Generators:

- Fabrication of the steam generators is being completed by Mitsubishi Heavy Industries (MHI) located in Japan (fabrication in progress).
- Installation is scheduled for the 2006 refueling outage.
- Containment access for the steam generators will be through a large opening that will be cut in the wall of containment.
- FCS offers our own experiences to assist the NRC in making travel preparations for necessary inspection activities.

Reactor Vessel Head and Pressurizer Replacement:

- The replacement reactor pressure vessel head and reactor coolant system pressurizer are being manufactured by Mitsubishi Heavy Industries (MHI) located in Japan (fabrication just kicked-off).
- Installation is scheduled for the 2006 refueling outage.

Spent Fuel Storage:

- A 2004 modification to the spent fuel storage rack will provide full core off-load capability through the 2006 RFO.
- FCS will purchase a temporary cask pit storage rack as a contingency beyond 2006.
- A dry cask storage pad will be constructed in 2005/06.
- The initial load of storage casks is scheduled for 2007.
- The current status of the spent fuel pool at FCS is 1083 spent fuel cells, 2 cells are unusable, 12 cells are occupied by non-fuel items, 883 spent fuel assemblies, and 133 fuel assemblies are located in the reactor. This leaves 53 spent fuel pool cells open with the core offloaded to the pool.

Rapid Refueling Package:

- Projected Phase 1 (2005) - New neutron shield, new missile shield.
- Projected Phase 2 (2006) - Coordinated with the new reactor vessel head installation. This includes revised ventilation, new utility bridges, and new quick-disconnect cables.
- The projected savings each outage is 3 days, 48 polar crane lifts, and ~4 rem.

CLOSING

Omaha Public Power District appreciates the opportunity for Fort Calhoun Station representatives to come to the NRC Region IV Offices to present this information.

No proprietary information has been included in this presentation.

No commitments are made in this presentation.

Omaha Public Power District

SENIOR MANAGEMENT GROUP

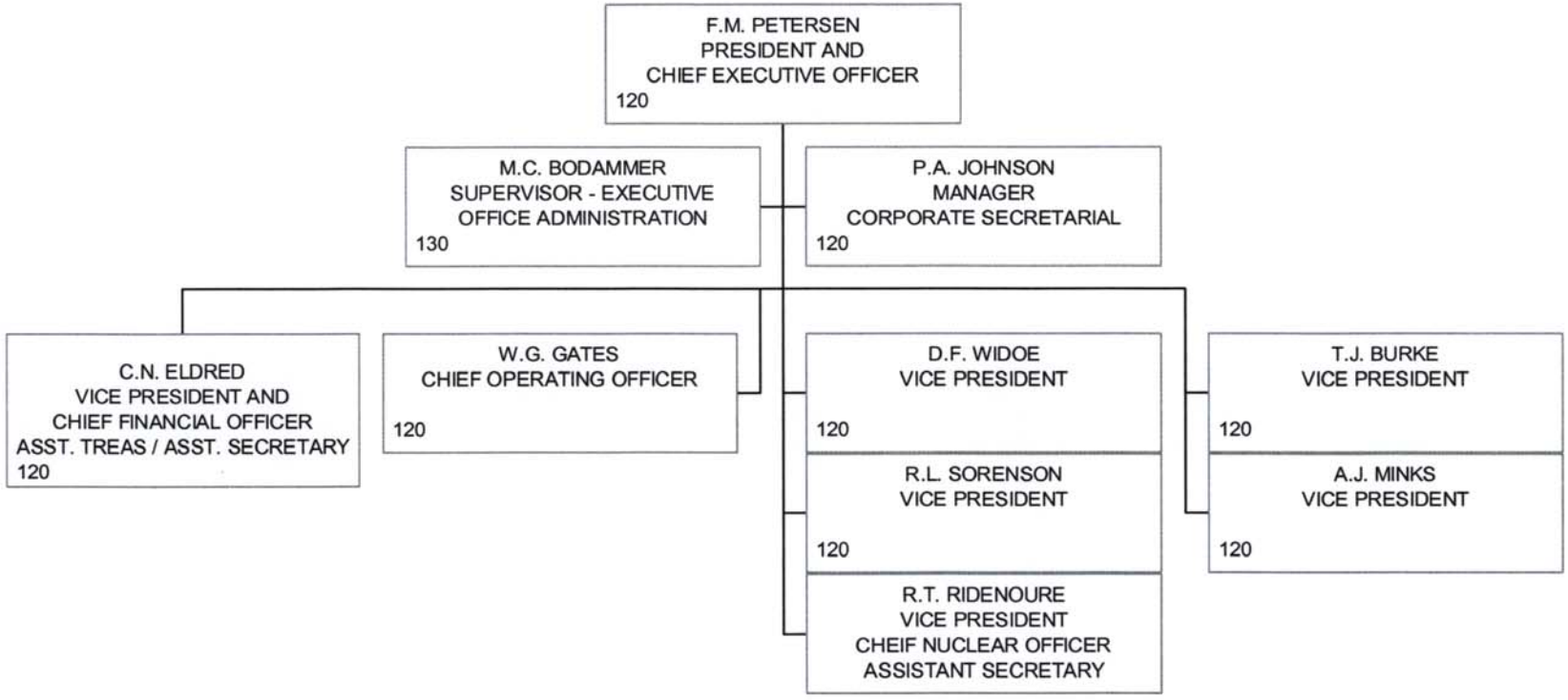


CHART 1.0.02

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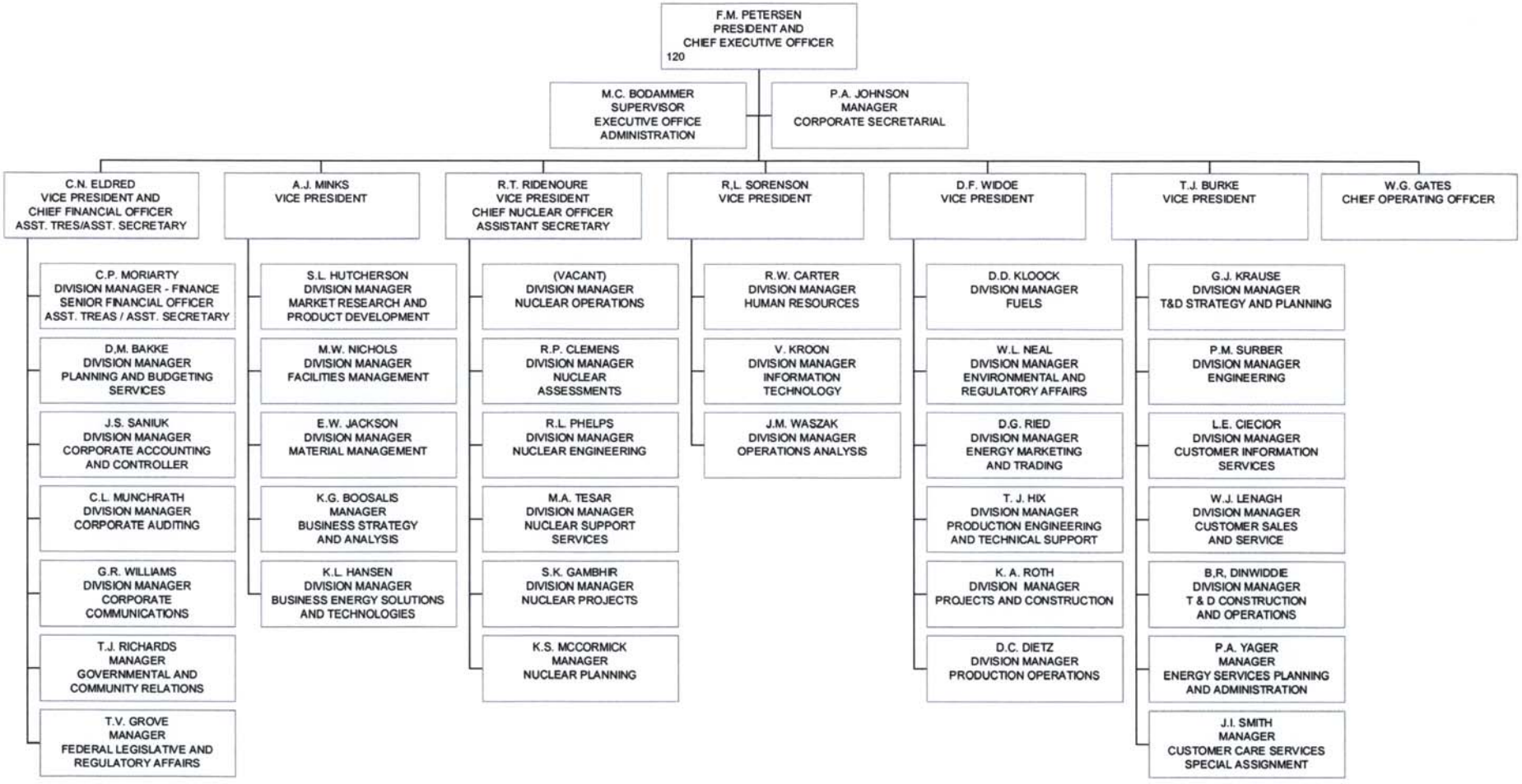
Omaha Public Power District

OMAHA PUBLIC POWER DISTRICT
CORPORATE ORGANIZATION



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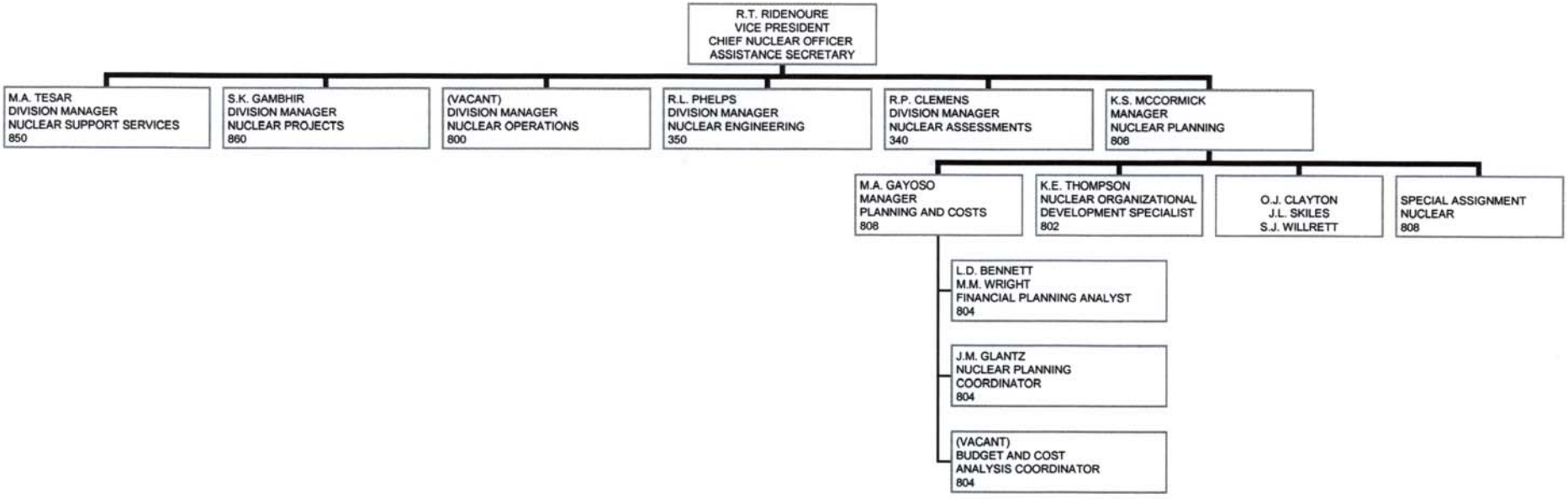

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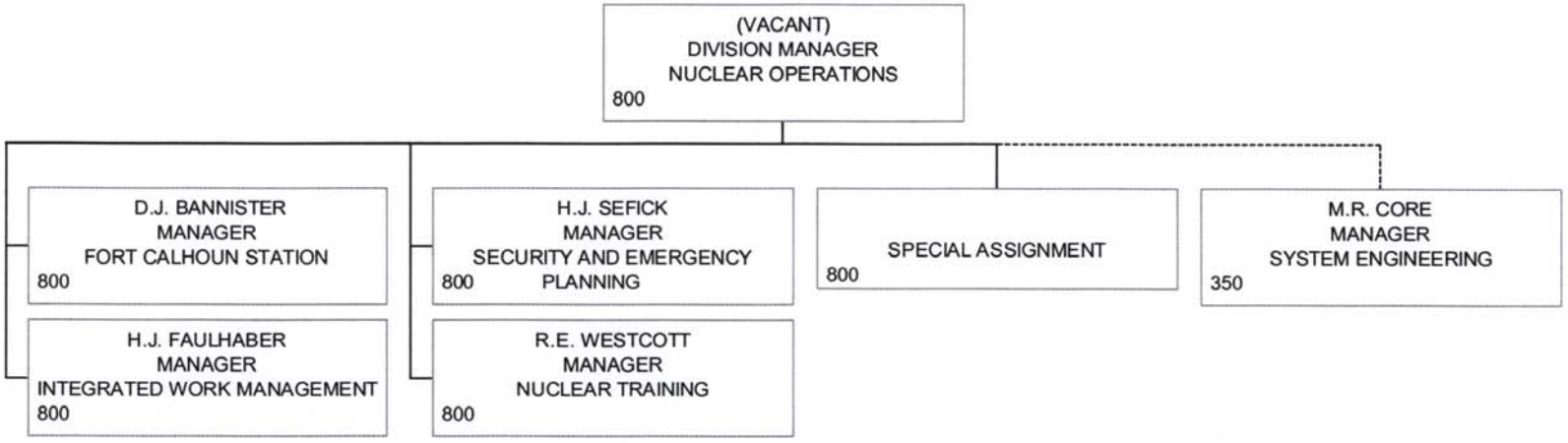
NUCLEAR OPERATIONS DIVISION



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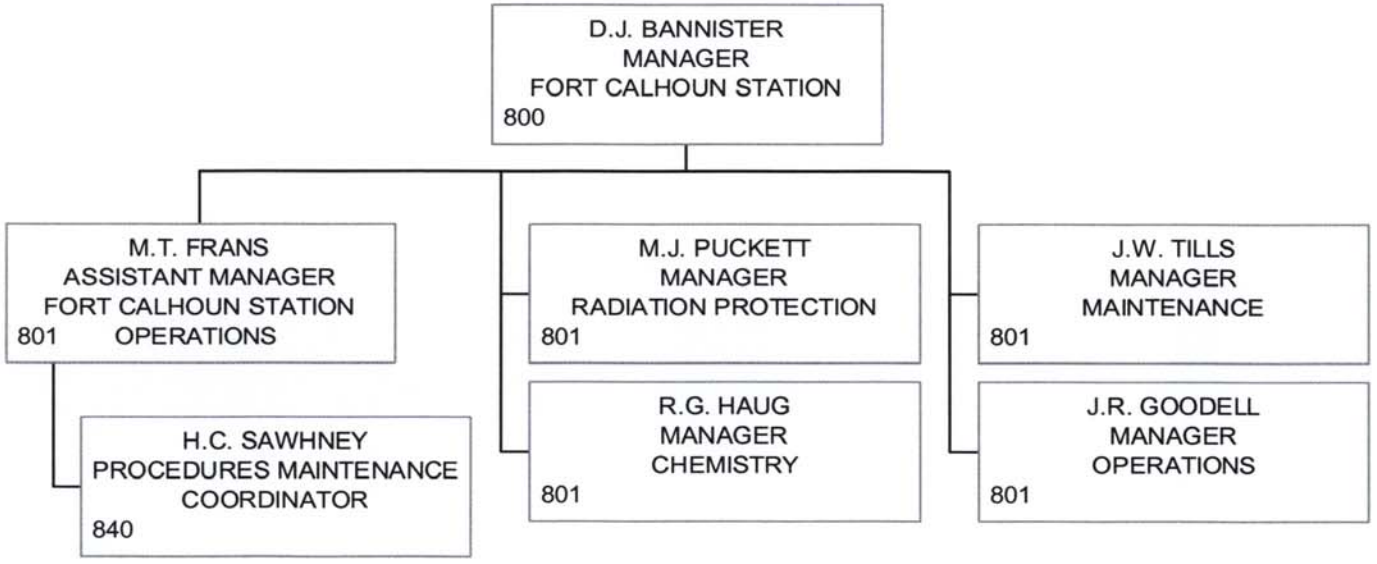
FORT CALHOUN STATION



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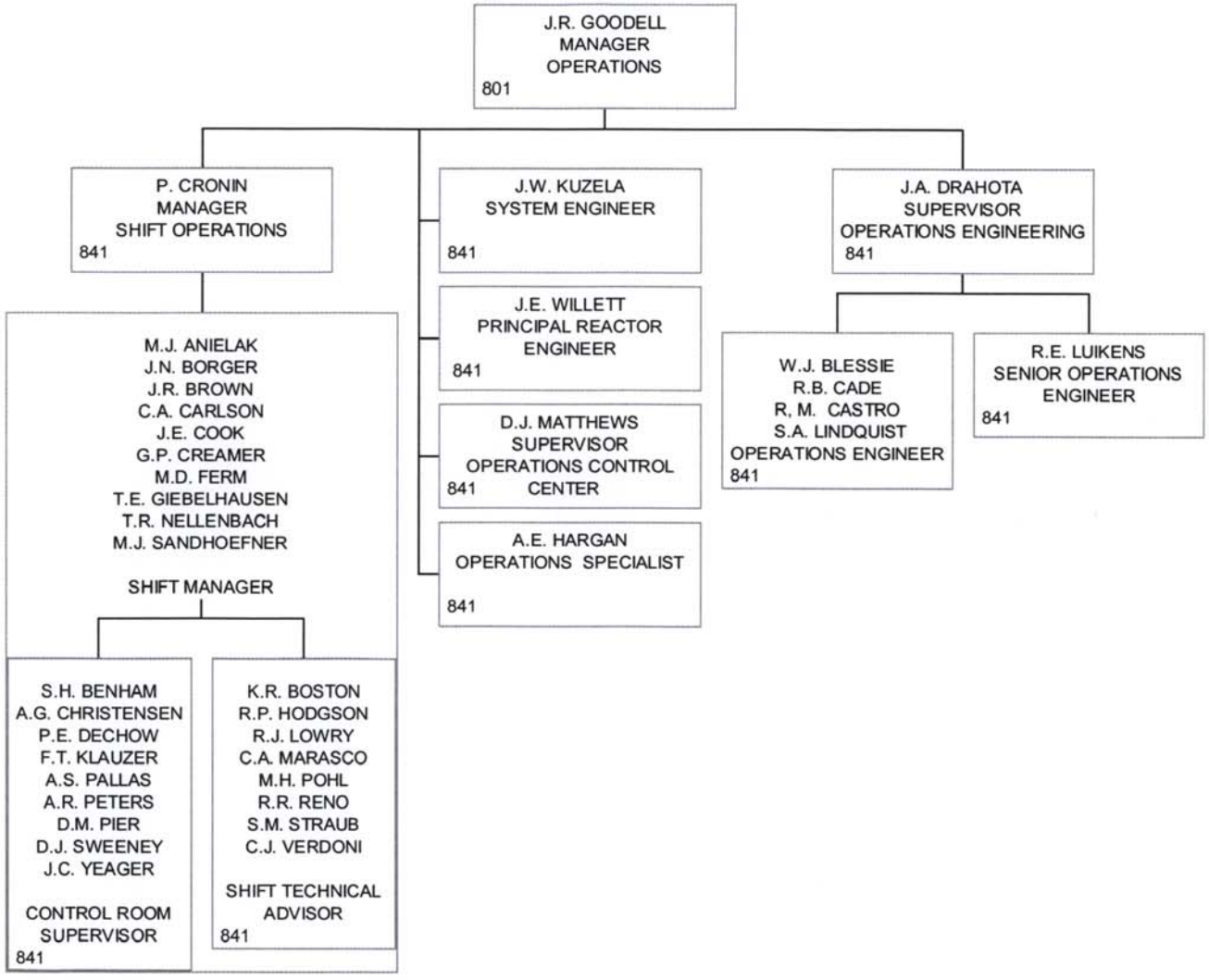
FORT CALHOUN STATION



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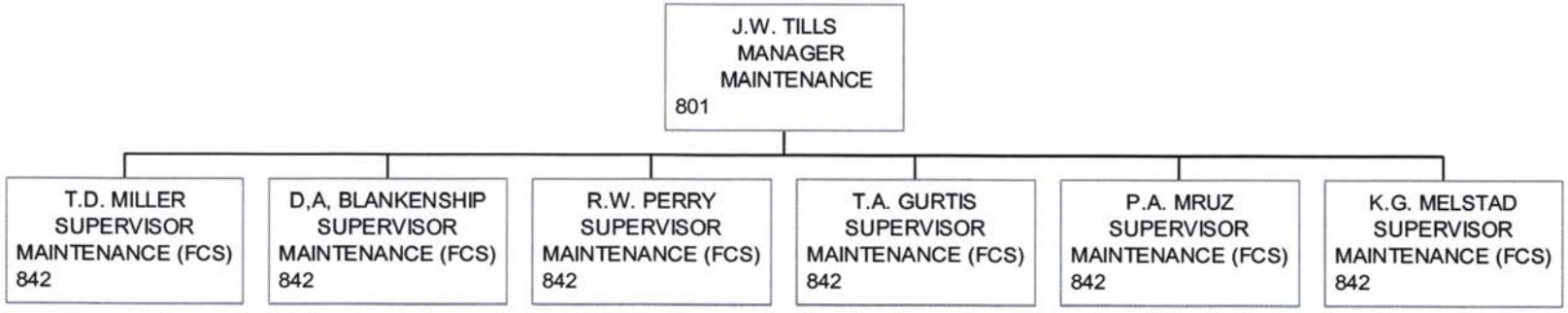

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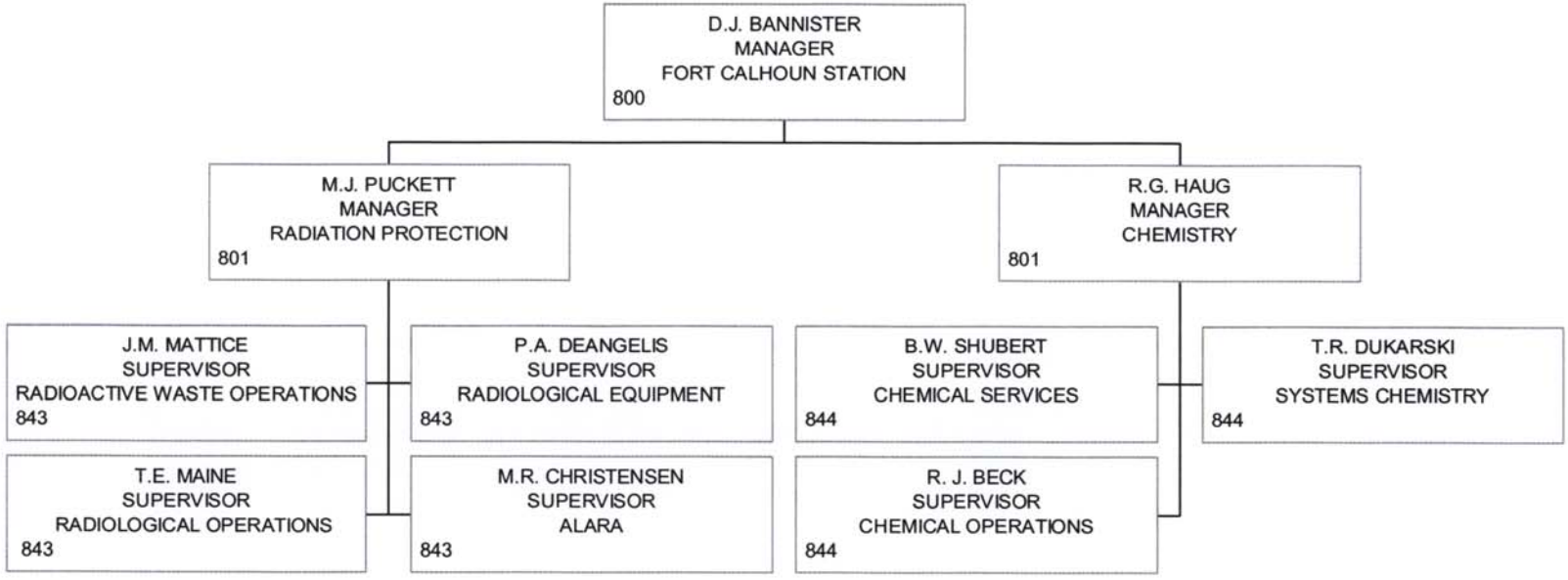
NUCLEAR OPERATIONS DIVISION
FORT CALHOUN STATION



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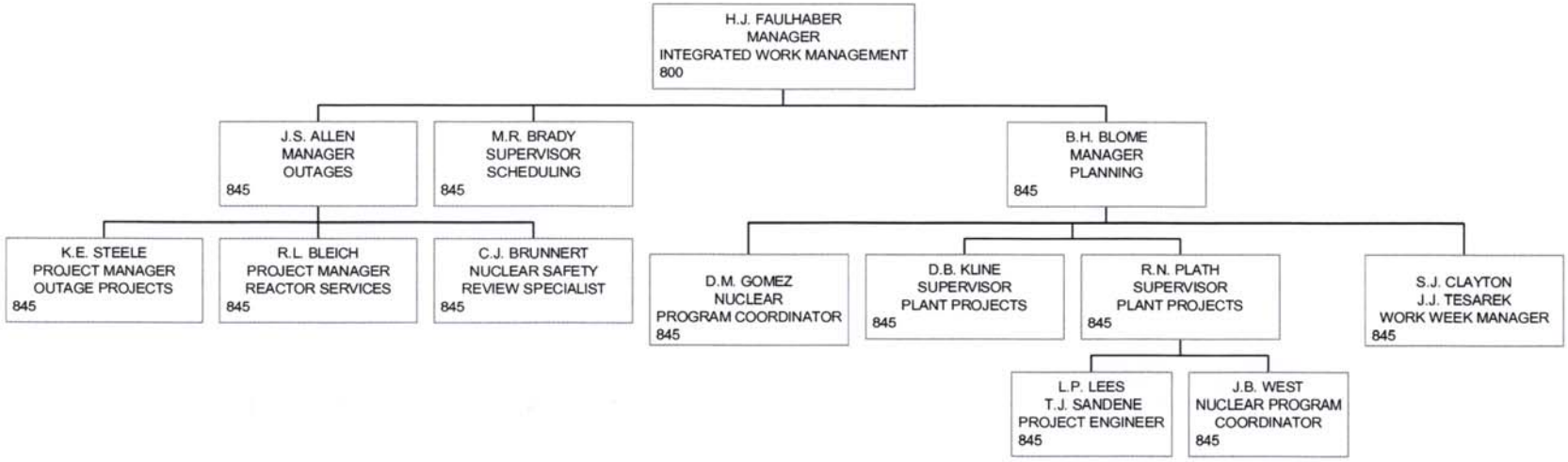

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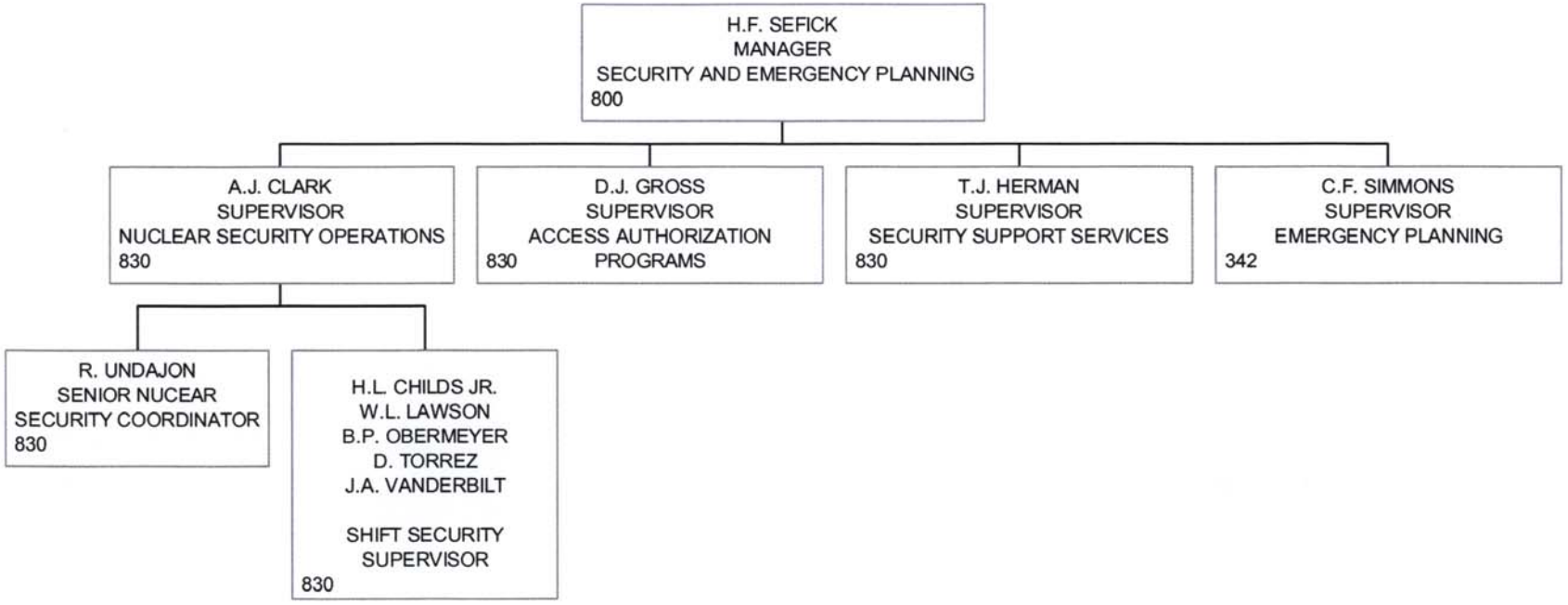

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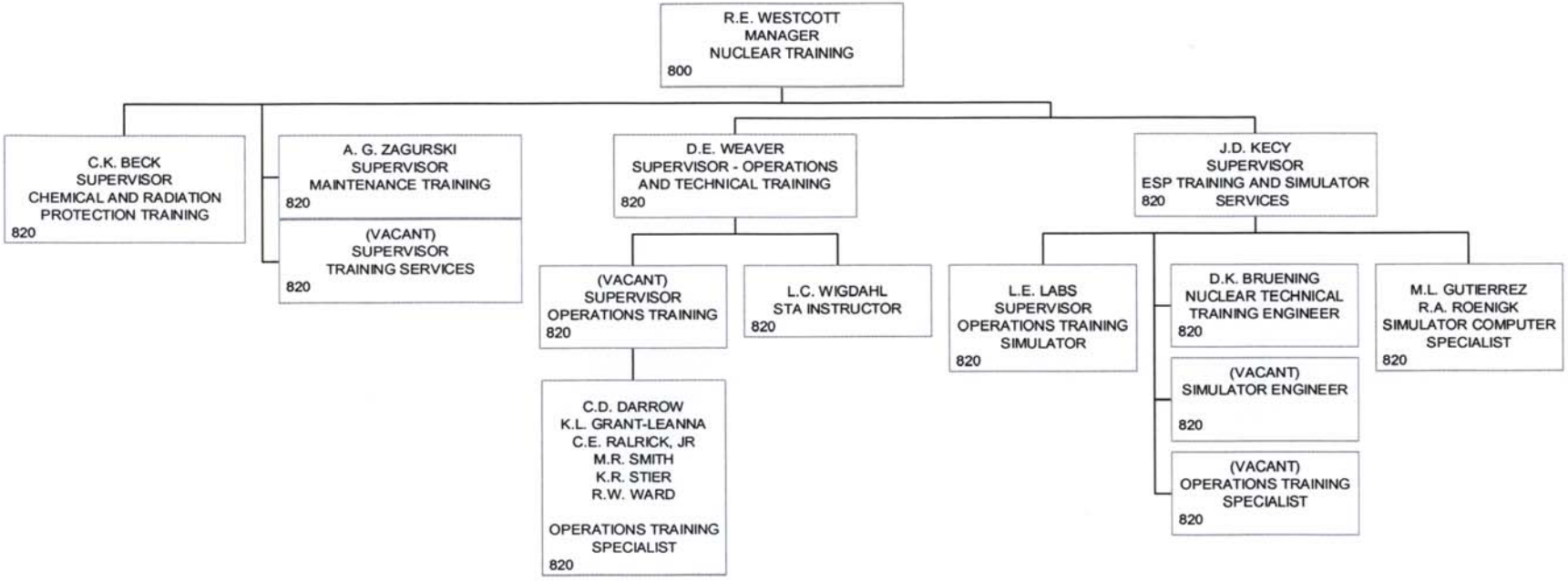

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