Ameren Services

One Ameren Plaza 1901 Chouteau Avenue PO Box 66149 St. Louis, MO 63166-6149

314.554.3484 314.554.4014 (fax) wtatro@ameren.com

September 30, 2010

Steven Reed Secretary Missouri Public Service Commission P.O. Box 360 Jefferson City, Missouri 65102



RE: 4 CSR 240-4.010 notice

Dear Mr. Reed:

This notice is provided in accordance with the requirements of 4 CSR 240-4.020, et. seq. in regards to a meeting with certain Commissioners on September 27th. A memorandum summary of the substance of the communications is attached. These meetings were the subject of previous notice letters filed in AmerenUE's pending cases.

Sincerely,

Is Wendy Tatro

Wendy K. Tatro Associate General Counsel

Tour of Callaway Plant September 27, 2010 9:00 – 1:00

Attendees from MPSC: Commissioner Kenney, Commissioner Gunn, Richard Moore, Joshua Harden, Gregg Brossier, and Noumvi Ghomsi

Attendee from OPC: Marc Poston

Attendees from AmerenUE: Warner Baxter, Adam Heflin, Fadi Diya, Luke Graessle, Greg Bradley, Rick Eastman, Anne Roselius and Gaye Suggett

Attendee from MEDA: Warren Wood

Warner Baxter welcomed everyone. He visited about the commitment to safety at Callaway and described the INPO Principles for a Strong Nuclear Safety Culture. Mr. Baxter also discussed the Ameren values of commitment to excellence, respect, integrity, accountability, stewardship, and teamwork which equate to trust building behaviors.

Adam Heflin gave a brief overview of Callaway, and visited about the importance AmerenUE places on safety. He discussed three types of safety, 1) nuclear – to protect the public and the environment, 2) radiological – to limit our employees' exposure to radiation, 3) industrial – to protect our employees from injury.

Rick Eastman gave a presentation on nuclear and the history of Callaway. This presentation discussed some of the milestones and accomplishments achieved by the Callaway Plant, which has successfully completed 25 years of operations.

After the presentations, a tour was given to all attendees.

INPO Principles for a Strong Nuclear Safety Culture

- 1. Everyone is personally responsible for nuclear safety.
- 2. Leaders demonstrate commitment to safety.
- 3. Trust permeates the organization.
- 4. Decision-making reflects safety first.
- 5. Nuclear technology is recognized as special and unique.
- 6. A questioning attitude is cultivated.
- 7. Organizational learning is embraced.
- 8. Nuclear safety undergoes constant examination.



TRUST MODEL – OUR VALUES

 + Make, meet, & exceed commitments + Follow up in a timely manner + Renegotiate when things change + Follow through to closure + Hold ourselves and others accountable for achieving excellent results + Do your best + Know, meet, & exceed 'Industry Best' practices 	 + Maintain or enhance the dignity and self esteem of others + Communicate face-to-face when appropriate + Show empathy and compassion + Display loyalty to the absent + Proactively communicate decisions that affect others + Actively listen + Seek first to understand, then to be understood 	 + Tell the truth + Be consistent + Do what we say we will do/Walk the Talk + Admit mistakes, accept responsibility, and apologize + Maintain confidentiality 	 + Recognize and acknowledge current reality + Forgive in order to move forward + Find solutions + Take responsibility + Meet & exceed expectations 	 + Treat people, not equipment, as our greatest assets + Focus resources on key priorities + Ensure adequate resources + Continually seek to improve processes + Appropriately consider people in business decisions 	 + Volunteer to help co-workers + Engage all stakeholders to arrive at team solutions + Coach teammates + Seek opposing opinions + Execute the team plan with loyalty to team decisions + Share knowledge 	TRUST-BUILDING BEHAVIORS
Commitment to Excellence	+ Respect	+ Integrity	+ Accountability	+ Stewardship	+ Teamwork	= Trust
 ∆ Breaking our commitments and promises ∆ Not following up when things change ∆ Losing focus ∆ Accepting less than excellence 	 ▲ Belittling others ▲ Talking behind someone's back ▲ Berating the group for individual behaviors ▲ Not returning phone calls or e-mails 	 Δ Inconsistency of word and action Δ Deception Δ Dishonesty 	 Δ Ignore or deny issues Δ Make excuses Δ Blame others Δ Resist involvement Δ Hold a grudge 	 ∆ Letting emergent issues undermine priorities ∆ Allowing waste and inefficiency ∆ Inhibiting personal growth and development ∆ Wasting Resources 	 ▲ Autocratic decision-making (silos) ▲ Putting personal agendas above the team 	TRUST DAMAGING BEHAVIORS



An Overview of Nuclear Energy and AmerenUE's Callaway Plant





United States

- Largest producer of nuclear energy in the world
- Nuclear energy provides 20% of electricity
- An 1,000 megawatt reactor powers 740,000 average households each year
- Oldest operating plant is located in Oyster Creek, N.J. (1969)

104 reactors in 31 states





Callaway Plant

- Operating safely and reliably since December 1984
- 4th highest in lifetime generation among the 104 U.S. nuclear plants through 2008
- 19th highest in the world for lifetime generation through 2008 among 439 nuclear plants
- Provides 19% of the total electricity generation for AmerenUE
- Produces enough electricity to supply over 780,000 homes





Callaway Plant

Achieved first breaker-to-breaker run since plant went online — operating continuously for 520 days from May 2007 to October 2008 (Cycle 16)

 Only 25 other U.S. plants have achieved operating runs exceeding 500 days

 Cycle 16 – highest lifetime capacity for Callaway Plant at 99.36%



 Achieved first less than 30-day refueling outage during Refuel 16 (27.9 days) in fall 2008



2009 Accomplishments

- Celebrated our 25 years of operations.
- Completed one of our safest years:
 - Had no Lost Workdays Away.
 - Received the second lowest dose in a calendar year.
 - Had zero nuclear safety events.
- Kept our operational focus index at an average of less than 1.0 throughout the year.
- Generated the most electricity in a calendar year.
- Successfully renewed our accreditation for the Operations Training programs.



Callaway Plant – 930 Ameren employees

By City:		By County:	
Fulton	= 267	Callaway	= 442
Columbia	= 166	Boone	= 181
Jefferson City	= 158	Cole	= 170
Holts Summit	= 51	Gasconade	= 35
New Bloomfield	= 28	Montgomery	= 30
Hermann	= 27	Audrain	= 22
Steedman	= 26	Franklin	= 14
Mokane	= 24	St. Charles	= 11
Auxvasse/Mexico	= 18 (tie)	Warren	= 6
Montgomery City	= 16	Osage	= 5
All Other Cities	= 131	All Other Counties	= 14



Safety

Safety is our highest priority – Three Types:

- Nuclear protect the public and our environment
- Radiological limit our employees' exposure to radiation
- Industrial protect our employees from injury
- Stringent physical security barriers & armed guards protect the plant
- NRC inspectors work at each plant for daily inspections
- Automatic shutdown mechanisms
- Highly-trained personnel including Licensed Operators
- Plant Design includes multiple back-up safety systems
 - Redundant (back-up) Systems
 - Alternate Sources of Water
 - Alternate Sources of Power
- Radiological Emergency Response Plan
- Protection of the General Public, 10 Mile Emergency Planning Zone (EPZ)



How does nuclear energy work?





Fuel Assembly

- 8.5" x 8.5" x 12 Feet
- 17 x 17 Bundle Array
- Approx. 1100 Pounds
- 264 Fuel Rods
- 380 Fuel Pellets/Rod,
- 100,300 Pellets/Assembly
- 19,000,000 Pellets/Core

Energy Equivalent 1 fuel pellet = 1 ton of coal





Nuclear Fuel – Highly Efficient



One uranium fuel pellet provides as much energy as:

- One ton of coal
- 149 gallons of oil
- 17,000 cubic feet of natural gas

Land mass required for 1,200 megawatts electricity generation: Nuclear: 900 acres **1.4 square miles** Wind: 180,000 acres 280 square miles Solar: 50,000 acres 78 square miles



Managing Used Fuel

- All U.S. nuclear plants store their own used fuel
- All the used fuel at Callaway Plant since 1984 is stored in a fuel pool about the size of a tennis court
- U.S. Government is no longer funding a national repository underneath Yucca Mountain in Nevada
- U.S. one of the few countries with a significant nuclear power program that does not recycle used fuel





Nuclear Energy An Affordable Energy



2008 U.S. Electricity Production Costs (per kilowatt-hour)					
Nuclear	1.87 cents				
Coal	2.75 cents				
Natural Gas	8.09 cents				
Oil	17.26 cents				

Source: NEI and Ventyx Velocity Suite



Nuclear Energy A Clean Air Energy



- When generating electricity, nuclear power produces no greenhouse gases or air emissions:
 - No sulfur dioxide (Acid rain)
 - No nitrogen dioxide (Urban smog)
 - No carbon dioxide (Greenhouse gas)
- No. 1 source of emission-free energy in the U.S.



Major Capital Modifications – 2004 - 2008

- Condenser Tube Bundles replacement
- Steam Generators replacement
- Turbine Rotors replacement
- Main Steam Isolation and Main Feedwater Isolation Valves replacements
- Essential Service Water Pipe and Discharge Line Replacement



Condenser Tube Bundles Replacement

- Refuel 13 (2004) = \$30 Million
 - Added 5 MW of generating capacity
 - Removes copper from the secondary system to protect the new steam generator tubes from cracking

Old Condenser Tube Bundle



New Condenser Tube Bundle





Steam Generators Replacement

- Refuel 14 (2005) = \$200 million total for project
 - Installed four new Steam Generators (SG)
 - New SGs added 12 MW of generating capacity

Old Steam Generator



New Steam Generator





Turbine Rotors Replacement

- Refuel 14 (2005) = \$58.5 Million; part of SGR outage
 - Installed four new turbine rotors 3-LP; 1-HP
 - New rotors added 49 MW of generating capacity
 - Eliminated risk of failure due to stress corrosion cracking **Old Turbine Rotors New Turbine Rotor**







Essential Service Water (ESW) Pipe and Discharge Line Replacement

- 2005 2008 = \$45 million
- ESW Pipe Callaway is the first nuclear plant in the nation to install ASME Class 3 HDPE (plastic) pipe
- New 7.5 mile Discharge Line to MO River provides groundwater protection



New Discharge Pipe





The Next 5 Years at Callaway Plant

- Plant Life Extension (2011)
- New Main Step up Transformers (2013)
- Replacement Reactor Vessel Head (2014)
- Rewind Main Generator (2014)
- Dry Cask (Fuel) Storage (2015)

