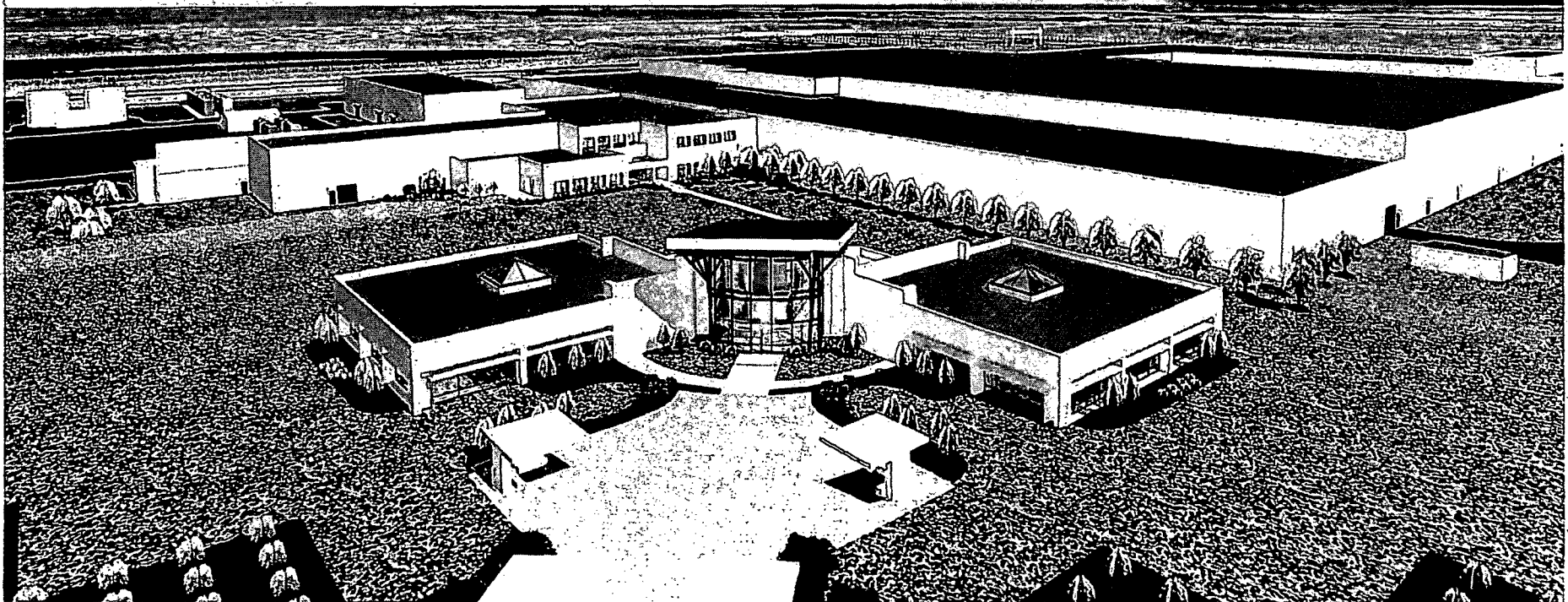




# **NRC Management Meeting**

**March 16, 2009**



# Introduction & Opening Remarks



*Presented by*

**Gregory Smith**  
**Chief Operating Officer &**  
**Chief Nuclear Officer**

# Agenda



- Major Milestones
- Engineering Activities
- Construction Activities
- Operations – Activities
- Licensing Activities
- Safety Culture
- Facility Expansion
- Closing Remarks

## Major Milestones (since Oct 2008)



- [REDACTED] Centrifuge Assembly Building Turned Over to ETC and ETUS
- [REDACTED] Addendum to ETUS Standard Practice Procedures Plan (SPPP) for HAT Approved by NRC
- [REDACTED] URENCO Announcement to Expand the Capacity of the National Enrichment Facility
- [REDACTED] License Amendment Request (LAR) for SBM Design Basis Change Approved by NRC
- [REDACTED] Receipt of 1<sup>st</sup> Shipment of UF<sub>6</sub> for Centrifuge Testing

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*Presented by*

**Dave Sexton**  
**Vice President - Engineering**

# Engineering Activities



- LES has established its own onsite Design Agency
- Engineering is on track to:
  - Complete all remaining designs in time to support Operations in late 2009
  - Complete all owner acceptance reviews of design prior to operational readiness
  - Transfer all remaining NTS design agency responsibilities to LES by [REDACTED]
  - Continue issuance of LES drawings and specifications on site

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# Engineering Activities (cont.)



- Recent accomplishments include:
  - Fully established in-house Design Agency capable of Quality Level 1 design
  - Fully staffed organization to support design, procurement and construction
  - Prior issues with configuration management of Engineering Change Request issuance have been resolved
  - LES is the Engineer of Record for site utilities, substation, and Security Building
  - All major site facilities for initial operations have been permitted for construction

*Presented by*

**Dan Poirier**  
**Vice President - Construction**

# Aerial View of Construction Site

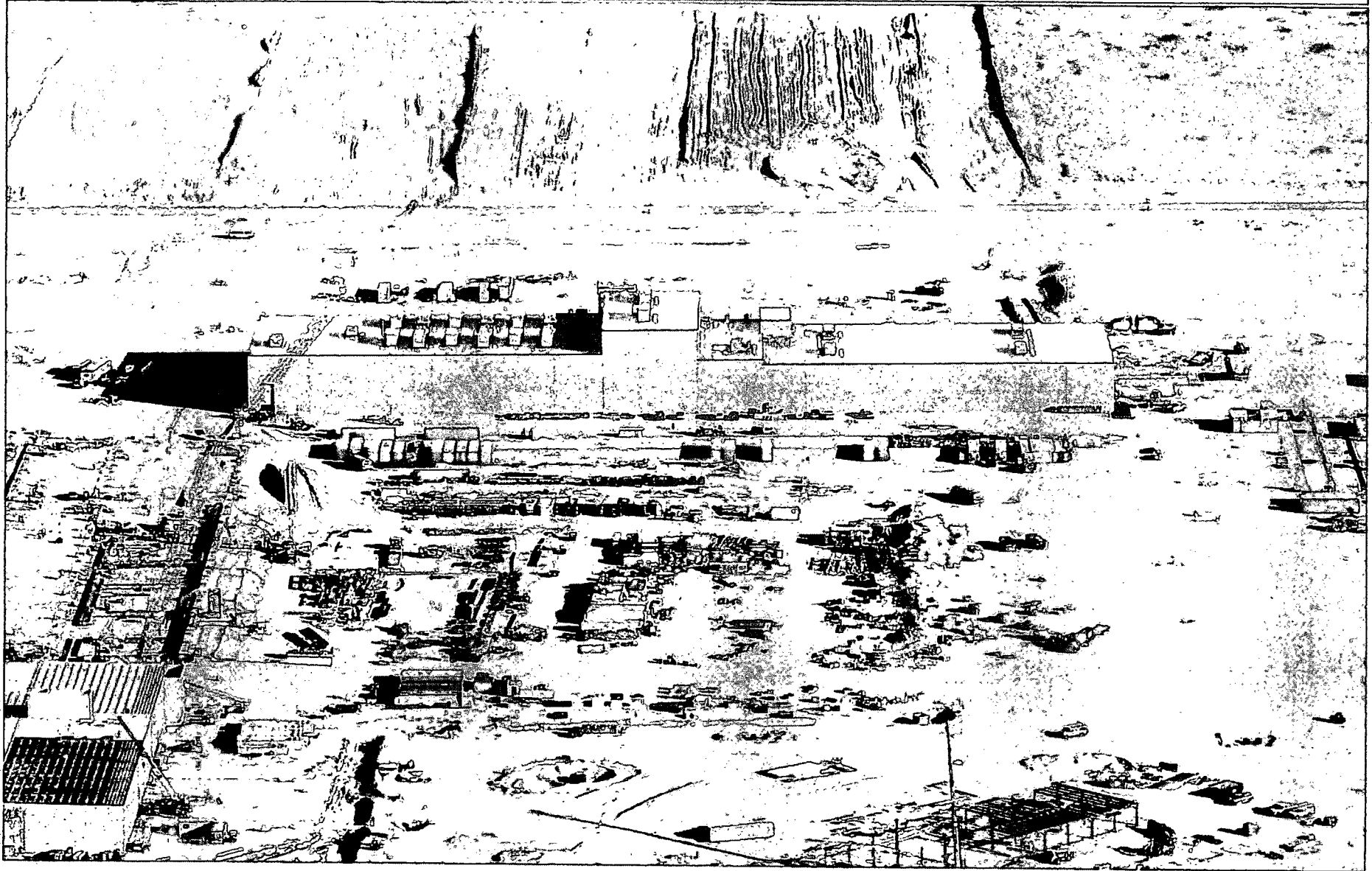
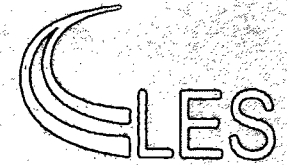


## Centrifuge Assembly Building (CAB)

- [REDACTED], the CAB was officially turned over to ETC and ET US
- [REDACTED], the NRC approved the Centrifuge Test Facility (CTF) within the CAB to process, store and handle classified material
- [REDACTED], the State of New Mexico issued a temporary occupancy permit
- [REDACTED] Certificate of Occupancy for Phase 2 approved.
- ETUS is now proceeding with Site Acceptance Testing and Equipment Qualification

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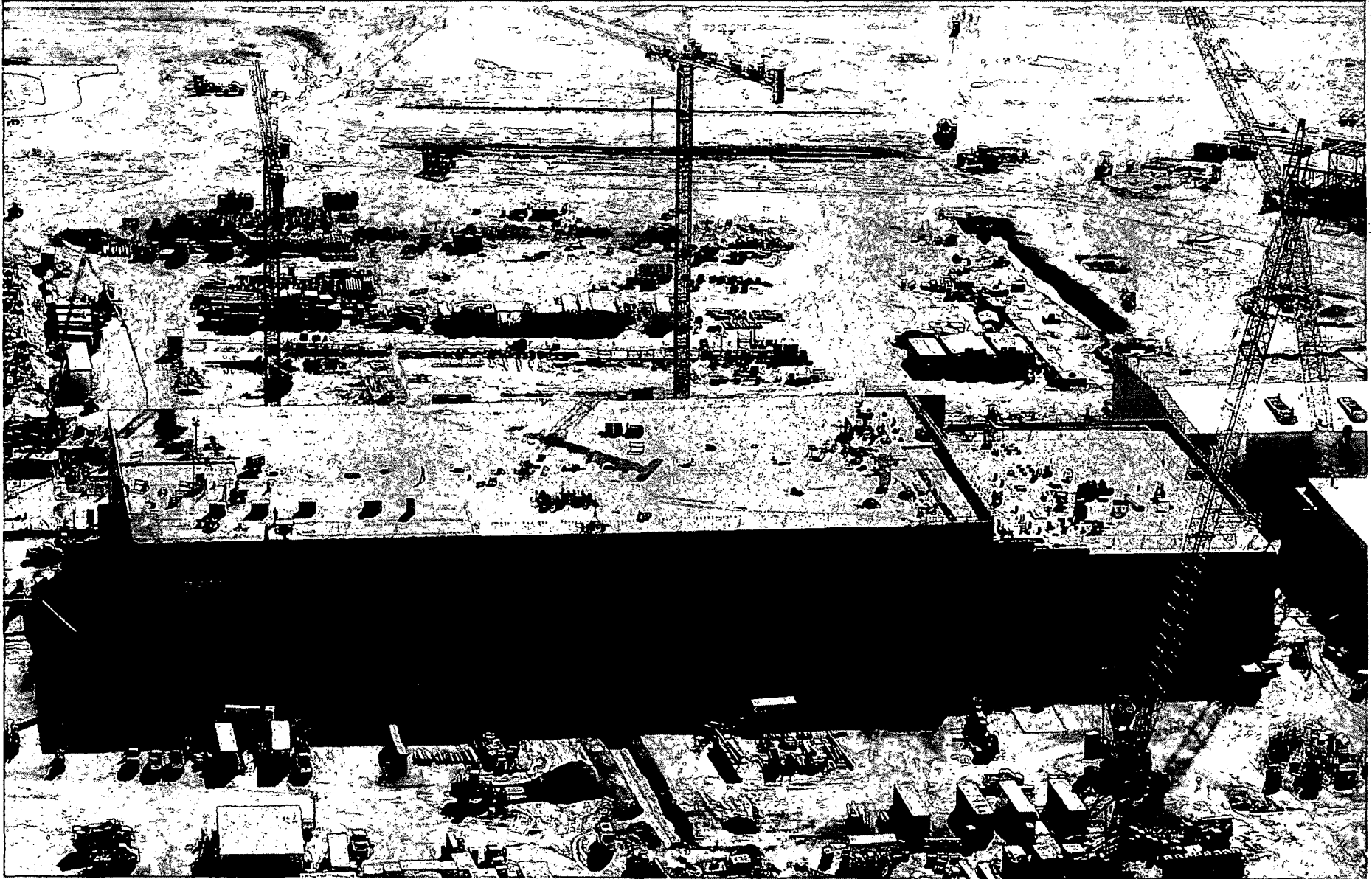
# Centrifuge Assembly Building (CAB)



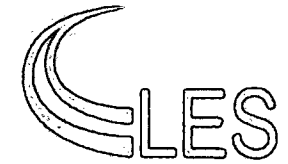
### **Separation Building Module (SBM) - Centrifuge Halls**

- Four cascades of flomels have been installed, positioned with all infill and grouting complete
- Roof concrete in Halls 1A, 1B, 2A, and 2B is complete
- Roof concrete in Process Service Corridor is complete
- Lower cascade steel installation for first cascade is in process
- Structural steel approximately 99% complete
- UF<sub>6</sub> Area transporter rail is in place
- Walls in UF<sub>6</sub> Area placed; roof placements are 100% complete
- Security Systems are ready for classified material in Hall 1A

# Separation Building Module (SBM1)



# SBM1 Process Services Corridor (PSC)



# Construction Activities (cont.)



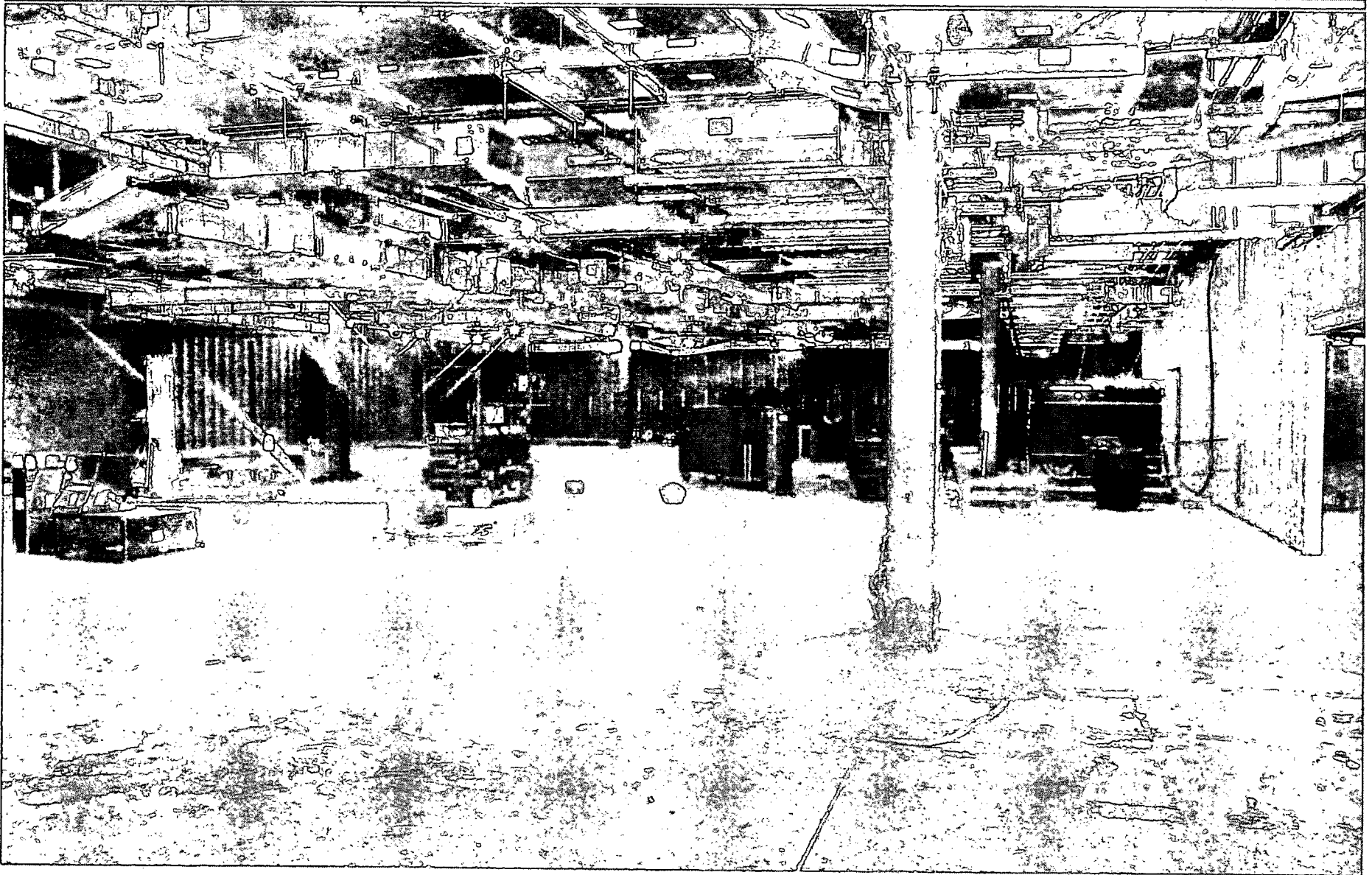
## **Technical Services Building (TSB)**

- TSB Steel erection is complete (1250 tons)
- Walls in Control Room are in progress
- TSB concrete floor slabs are complete on all elevations
- Mechanical Piping Installation is 50% Complete.
- Mechanical/electrical system installation has commenced

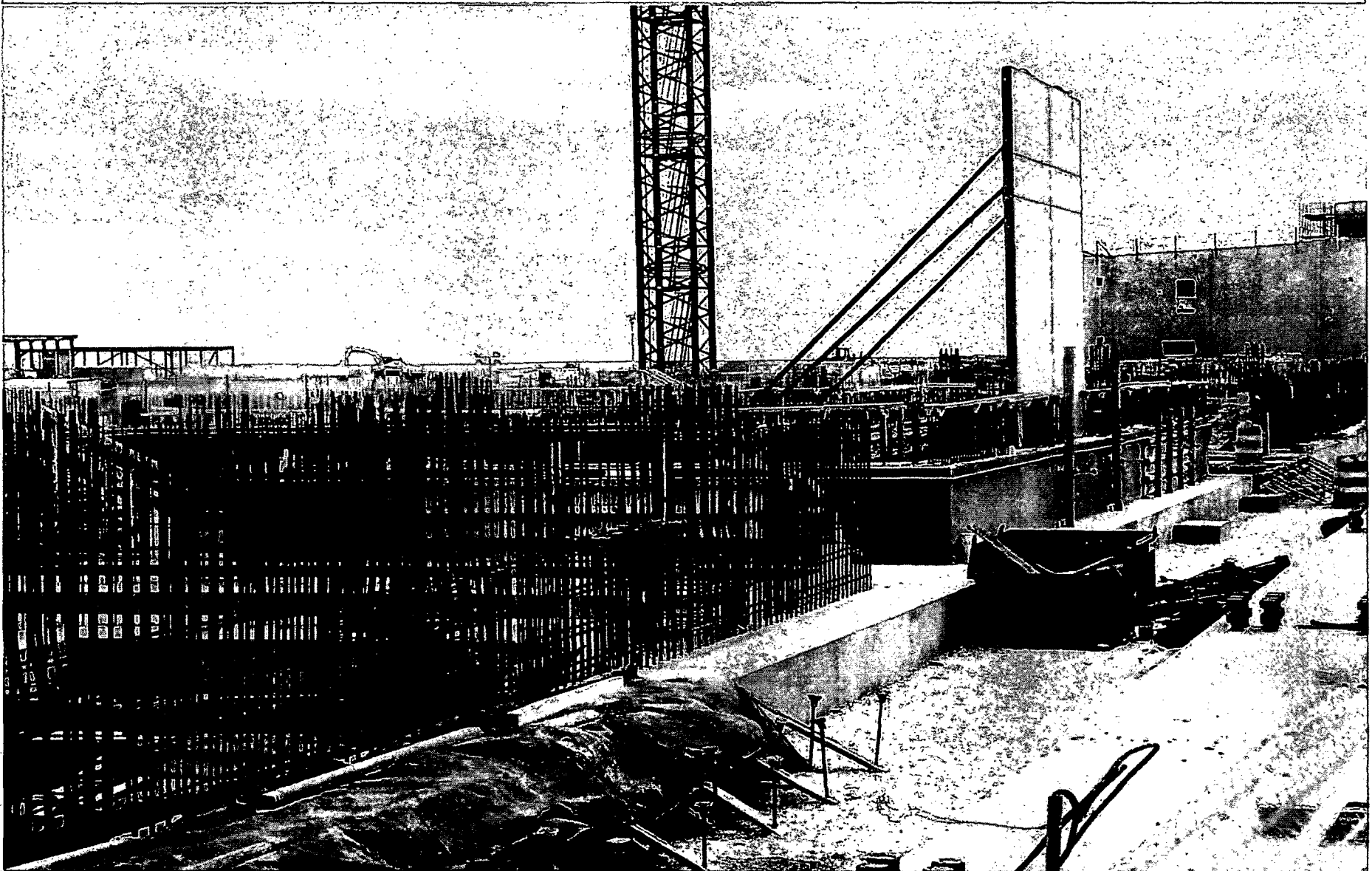
## **Cylinder Receipt and Dispatch Building (CRDB)**

- Concrete footing installation complete.
- Concrete placement for Bunkered Area Stemwalls has commenced.
- Concrete placements for footings has begun in bunkered section.
- Tower cranes have been mobilized to facilitate construction to CRDB.

# Technical Services Building (TSB)



# Cylinder Receipt and Dispatch Building (CRDB)



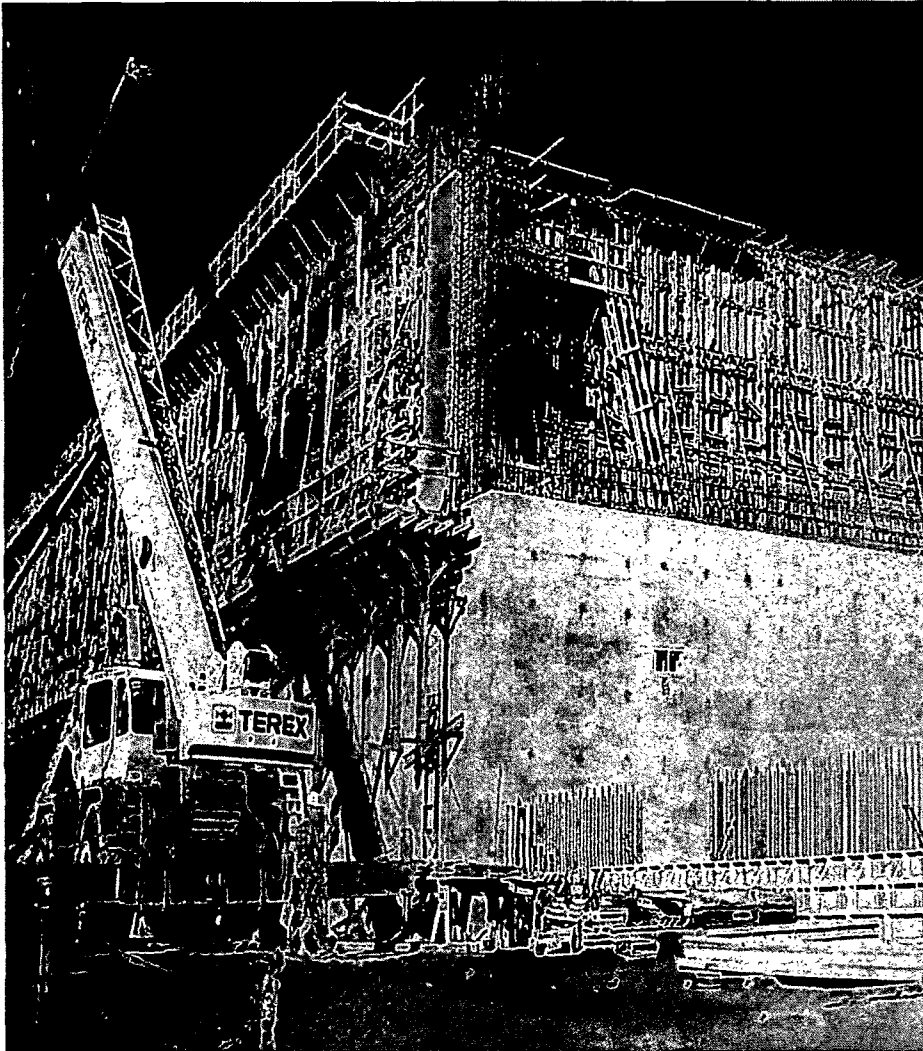
# Central Utilities Building (CUB)



## **Safety and Quality**

- Safety and Quality continues to be the top priority at all levels
- 4,100,000 Man-Hours without a Construction Lost Time Accident
- Construction Rework Rate at .188 per 10,000 Man-Hours
- Site Self ID Rate is greater than 80% for all groups
- We have an aggressive site Corrective Actions program which tracks Non-Conformances and extrapolates lessons learned

# Construction - Key Lessons Learned



- Design Review before Construction
- Engineering / Procurement / Construction Contracting
- COL Culture
- Planning, planning, planning, to keep construction on critical path

# Construction - Looking Forward



- [REDACTED] Start Cascade Header Pipe Installation Work in Mini-Hall  
Start Equipment Installation in Process Service Corridor (PSC)
- [REDACTED] Start Equipment Installation in UF<sub>6</sub> Area
- [REDACTED] External Travel Path Complete – Cylinder Receipt and Dispatch Building (CRDB)
- [REDACTED] Start Centrifuge Machine Production  
Technical Services Building (TSB) Turnover  
Centrifuge Assembly Building (CAB) Turnover

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## Construction - Looking Forward (cont.)



- [REDACTED] Start Centrifuge Installation
- [REDACTED] Central Utilities Building (CUB) Turnover, CRDB NQA1 Bunker Structurally Complete
- [REDACTED] First Cascade On-Line

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*Presented by*

**Jerome Reed**  
**Vice President - Operations**

# Operations - Activities



- Operational Readiness
- Upcoming Milestones
- Staffing
- Procedures and Programs
- Mock Operations
- Operational Controls while Constructing

# Operational Readiness



- Operations, Maintenance and Security staffing for 1st cascade on line is complete; training is 75% complete
- Procedures and programs for 1st cascade are 75% complete
- Hot Acceptance Testing ongoing. NRC approval granted on [REDACTED]
- UF<sub>6</sub> source material was received [REDACTED]  
Transfer to test rig started [REDACTED] and was completed on [REDACTED]
- Security systems for classified matter in ISO-Pad, Centrifuge Assembly Building and Hall 1A are installed and NRC has approved their use

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# Operations - Upcoming Milestones



- Security systems in place for 1st cascade on line – [REDACTED]
- Implement Emergency Preparedness – [REDACTED]
- National Enrichment Facility ready for NRC Operational Readiness Review – [REDACTED]
- Receipt of feed stock – [REDACTED]
- 1st cascade on line – [REDACTED]

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# Operational Control - Current Status



- 24 hour, 7 day a week Operations shift coverage
- Operations has assumed Operational Control of:
  - Site excavation activities
  - Fire protection systems
  - Centrifuge Assembly Building electrical system
  - Centrifuge Assembly Building HVAC and other utilities
  - Security utilities
- Hot Acceptance Testing is ongoing

# Operations - Procedures and Programs

- Conduct of Operations
- Operating and Maintenance Procedures
- Abnormal and Emergency Procedures
- Operational Control During Construction
- Nuclear Material Control & Accounting
- Criticality Safety
- Radiation Protection
- Fire Protection
- Approximately 600 total procedures

# Mock Operations



Tabletops and simulations with actual equipment to validate procedures and prepare Operations and Maintenance personnel:

- UF<sub>6</sub> cylinder receipt
- Transfer of UF<sub>6</sub> to Centrifuge Test Facility
- IROFS testing and surveillance
- Centrifuge Test Facility operation
- Hot Acceptance Test sample packaging and transportation to laboratory

# Operational Controls while Constructing

- Objective: Safe and Reliable Operation while Constructing
- Achieved through:
  - License Compliance
  - Operational Control Zones
  - Defense in Depth
  - Work Control

# Operational Controls while Constructing

(cont.)

## License Compliance

- Assessing risks to Safe Operation while Constructing to ensure compliance with the approved safety basis
- Reviewing and updating plant licensing basis to reflect plant status for 1<sup>st</sup> cascade online per 10CFR70.72, Facility Changes and Change Process
- Close coordination and communication with the NRC

*Presented by*

**Steve Cowne**

**Director – Quality and Regulatory Affairs**

## **License Amendment Requests Either Currently Under NRC Review or To Be Submitted by Mid-2009**

- Various Security Amendments to allow for the processing storage and transportation of classified information
- CRDB IROFS changes
- Constructing While Operating
- Plant Expansion LAR – Tails Cylinder Limits and Decommissioning Funding Changes
- Fire Protection IROFS changes
- New Accident postulated for Autoclave Internal Leakage
- Emergency Action Levels Amendment

## **NRC Inspection Findings**

- During the last six months, LES has received four (4) Notice of Violations (NOVs) of Severity Level IV from the NRC
- These were documented in NRC Inspection Report 70-3103/2008-003 dated October 30, 2008
- In its response, NEF-08-00299-NRC, Reply to Violation 70-3103/2008-003, dated December 1, 2008, LES identified corrective actions which will address each of the four (4) Notice of Violations (NOVs)

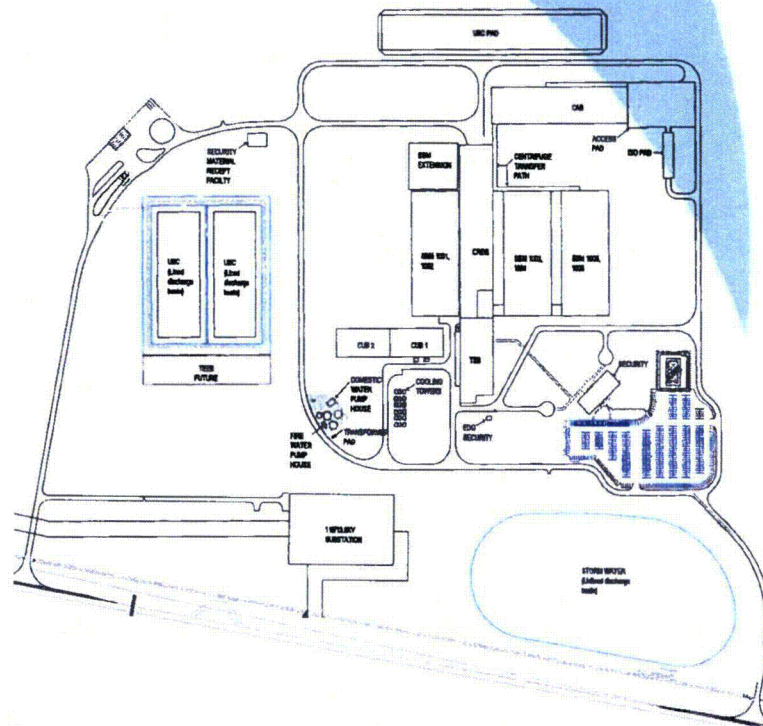
# Safety Culture



- LES recognizes the importance of a strong safety culture
- LES performed an independent safety culture assessment in 2008
- LES is preparing for another series of safety conscious work environment training classes for all supervisors
- LES continually looks for ways to improve safety culture

*Presented by*

**Gary Sanford**  
**Vice President – Facility Expansion**



## Facility Expansion (cont.)



- LES will follow its Configuration Control/Management process for design changes, and those that are required will be evaluated using the 10CFR70.72 evaluation process
- Changes to programs such as Emergency Planning, Security, NMC&A, Quality Assurance, Environmental Compliance will undergo additional reviews to determine if there is a decrease in effectiveness or reduction in commitment as appropriate
- LES will then identify and schedule any required License Amendments with the NRC

# Closing Remarks



*Presented by*

**Gregory Smith**  
**Chief Operating Officer &**  
**Chief Nuclear Officer**