

The Urenco logo is displayed in white on a dark blue background. It consists of the word "Urenco" in a stylized, lowercase sans-serif font, with two horizontal lines positioned below the letters "o" and "c".

Urenco

Management Meeting

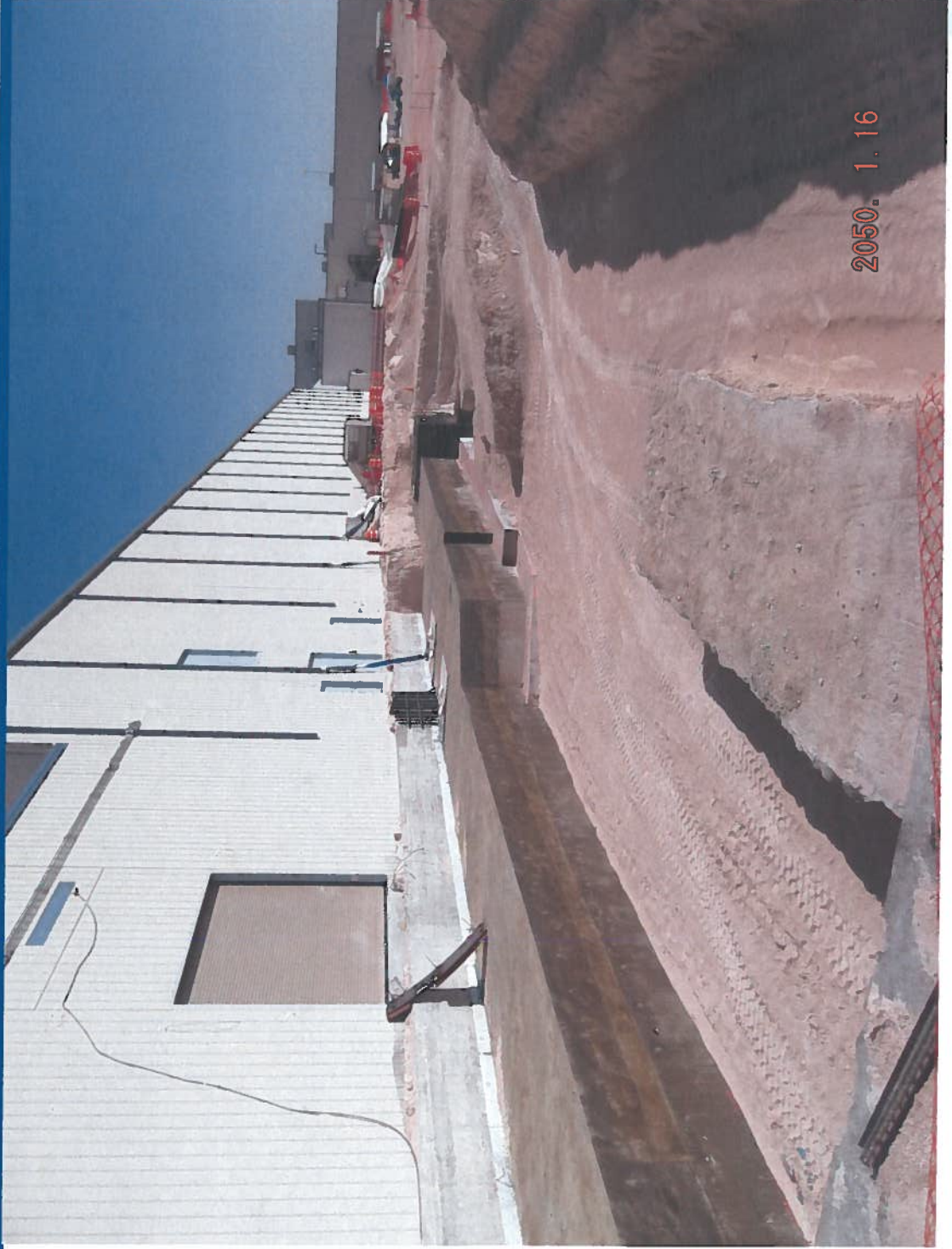
July 10, 2012
NRC Region II

Agenda



- Opening Remarks Jay Laughlin
- Excavation Activities, Causes and Corrective Actions Brian Robinson
- Discussion of CRDB Issues Jay Laughlin
- CRDB Response to NOVs and QA Perspective Joe Muth
- CRDB Actions to Re-verify Conformance Dave Sexton
- Senior Management Response - CNO Jay Laughlin
- Site Projects Dave Sexton
- Operations Steve Cowne
- Closing Remarks Jay Laughlin

Opening Remarks



Opening Remarks



Background of Excavation Activities



- On April 9, 2012, the NRC identified a potential concern related to the depth of an excavation activity adjacent to the SBM1003 Foundation
- Stopped excavation work activities
- Initiated CR-2012-0950 on April 10, 2012
- Performed a detailed inspection of the foundation and support zone
- Placed temporary soil next to the foundation to protect against erosion

Excavation Activities

Immediate / Interim Actions



- Detailed Engineering Evaluation determined no impact to SBM1003 Foundation
- Conducted a series of Construction stand downs to discuss the event
- Revised the work planning process to require an engineering evaluation of work plans
- Revised existing excavation work plans
- Performed senior management review of excavation work plans prior to resuming work
- Restored design configuration

Excavation Activities

Causes

- CR-2012-0950 Apparent Cause #1:
Human Performance
 - Weaknesses in the planning of work activities, review of work plans, and execution of work in the field
- CR-2012-0950 Apparent Cause #2:
Inadequate Procedural Guidance
 - Insufficient detail in Work Planning Procedures, Construction Procedures, and Engineering Design Documents

Excavation Activities

Corrective Actions



- Revise Engineering Documents
 - Additional detail on limits of excavation and foundation support zones
- Revise Work Planning Procedures
 - Additional guidance on roles and responsibilities, level of detail, necessary reviews, and evaluating potential impacts to existing systems, structures, and components
- New Construction Guidance Documents
 - Additional guidance on the execution and control of excavation activities near existing structures
- Training / Coaching
 - Lessons Learned Document
 - Coaching and training for Construction and Operations Personnel

Path Forward Excavation



Conformance to the design has been restored.

Discussion of CRDB Issues

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- Cylinder Receipt and Dispatch Building (CRDB) Inspection

CRDB – Violations



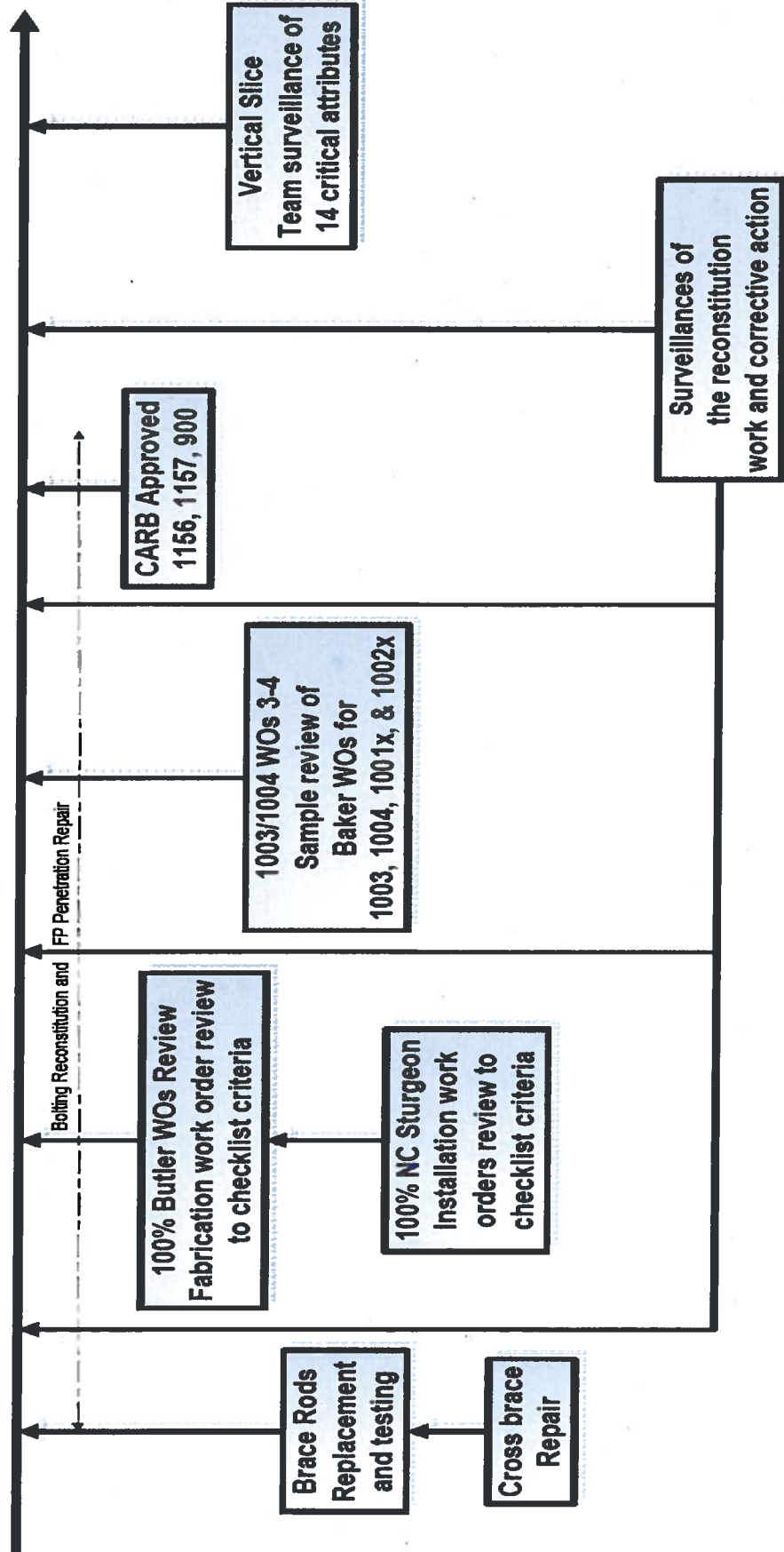
- NRC Inspection Findings of CRDB:
UUSA agrees with the NRC identified violations from inspection of CRDB building readiness.
- Violation of QAPD Criteria 7
Less than adequate communications of the required dimensions to be recorded, along with errors in design drawings.
- Violation of QAPD Criteria 16
 - UUSA Line and QA management decisions and actions negatively affected verification of compliance for the CRDB QL-1G activities.
 - Lessons learned from the SBM authorizations were a missed opportunity for application to the CRDB. As such, provisions were insufficient to ensure a formal readiness review prior to requesting authorization for CRDB readiness.

CRDB- Near term and Institutionalized actions



- Near term actions:
 - Correcting identified deficiencies
 - Design documents were updated
 - Developed and Implementing a Re-verification Program headed by Site Projects to ensure QL-1G design requirements are satisfied
 - Inspected, reworked and repaired all similar configurations
- Institutionalized actions:
 - Establish a formal Senior Management review Program of PQAP implementation on future QL-1 and QL-1G building construction projects
 - Provide for a standing forum for Quality Assurance to present assessment of functional readiness to Senior Management for construction projects
 - PQAP or implementing procedures to be revised to require Readiness Reviews of Projects before requesting authorization.

CRDB – Quality Assurance Going Forward



Quality Assurance



Perspective

CRDB – Actions to Re-verify Conformance



- A comprehensive quality re-verification task is underway in response to NRC identified concerns and extent of condition reviews.
- Inspected and corrected angle brace and rail support connections. No additional bolts found missing.
- Completed CGD vs. QL-1g "gap analysis" of over 2,000 individual piece parts.
- Completing complete re-verification of over 55,000 bolts for tightness in the CRDB ceiling (primary and secondary connections)
 - 31,343 inspected as of 7/4/12. 13 bolts missing (0.041%) and 417 required additional tightening (1.33%)
- Reviewing historical QL-1g fabrication and installation work plans for overall adequacy.
- Re-verifications to complete by mid August.
- Final Quality Re-verification Report to be issued.

Senior Management Response – Chief Nuclear Officer



- In Response to Inspection Readiness Challenges, UUSA:
 - Corrective Action Review Board (CARB) senior managers and the Chief Nuclear Officer performed a collective (macroscopic) review of the results
 - Two problem statements were formulated, documented in CRs and further evaluated
 - Results are summarized below

Senior Management Response – Site Projects



- Site Projects is performing an investigation specifically focused on prior and current management involvement/oversight.
- Events were identified where management could have implemented more aggressive oversight of CRDB quality related activities.
- Management did not perceive additional oversight or checks were needed. The CRDB was considered standard building construction practices for which UUSA had a good record. Further, full time QC resources were assigned at the fabrication facility.
- Going forward:
 - Formal periodic reviews of PQAP implementation and quality verification effectiveness with QA and Senior Management to be performed on SBM 1003 and all future SBMs.
 - Also, structural SMEs to participate in final readiness reviews on structures.

Senior Management Response – Operations



Operations will make the decision for when we are ready for inspections and operability.

- Operations will verify IROFs are ready to declare operable before NRC inspection.
- Operations will better utilize commissioning and turnover process for structures.
- We will implement a readiness affirmation process for SBM1003 and any future SBMs.

Closing Remarks



Summary and conclusions