Dry Fuel Storage at Fort Calhoun Station

Omaha Public Power District (OPPD)

Presentation to NRC

September 4, 2007

Meeting Purpose

- Brief the NRC on crane uprate status
- Review schedules for 2009 loading campaign
- Discuss the risks to the 2009 loading campaign

Agenda

- Status of Auxiliary Building crane (HE-2) uprate
  - Completed activities
  - Preliminary analysis results
  - Preliminary modification scope
- Schedule
- 2009 loading campaign

Status of HE-2 Crane Uprate

- Briefed NRR on 6/28/07 on methodologies used in crane uprate analysis
- Completed the preliminary analysis of Auxiliary Building and crane
- Completed a review of FCS SER on heavy loads

Preliminary Analysis Results

Loads and Load Combinations for Support Structure Evaluation

- Using same loadings, load combinations and acceptance criteria as original design basis
- 26 basic loads (i.e., dead load, roof live load, crane normal operating wheel loads, OBE and SSE loads) used in the load combinations

Preliminary Crane Analysis Results

- Building structure is within code allowables
  - Minimum code margin is 4%
- Crane structure rated for 105-ton load
- Crane hoisting equipment
  - Several components do not rate and require physical modification

Preliminary Modification Scope

- Hoist gears
  - Replace 4 gears, the reducer input shaft, the first idler shaft, and the energy absorbing torque limiter (EATL)
- Wire rope
  - Replace existing stainless steel wire rope with carbon steel wire rope

Preliminary Modification Scope

- Hoist drum pillow block and drum safety support
  - Increase weld size on shear bars
- Drum pinion pillow block
  - Install Heli-Coil® in pillow block support
- Transfer sheave pivot pin

Preliminary Modification Scope

- Administrative Controls
  - Modify main hoist hook operating procedure to limit sling angle to 30 degrees from vertical for each prong, for an included angle of 60 degrees
  - Update plant-specific data in Appendices B and C of Ederer Topical Report EDR-1

Preliminary Modification Scope

- Testing
  - New load test @ 125% rated load
- Document updates
- Possible NRC demonstration run

Going Forward Actions For 105-ton Crane Upgrade

- Finalize Auxiliary Building and crane analyses
- Issue contracts
- 50.59 analysis for uprate
- Modification package preparation
- LAR preparation (not expected)

Schedule for 2009 Loading

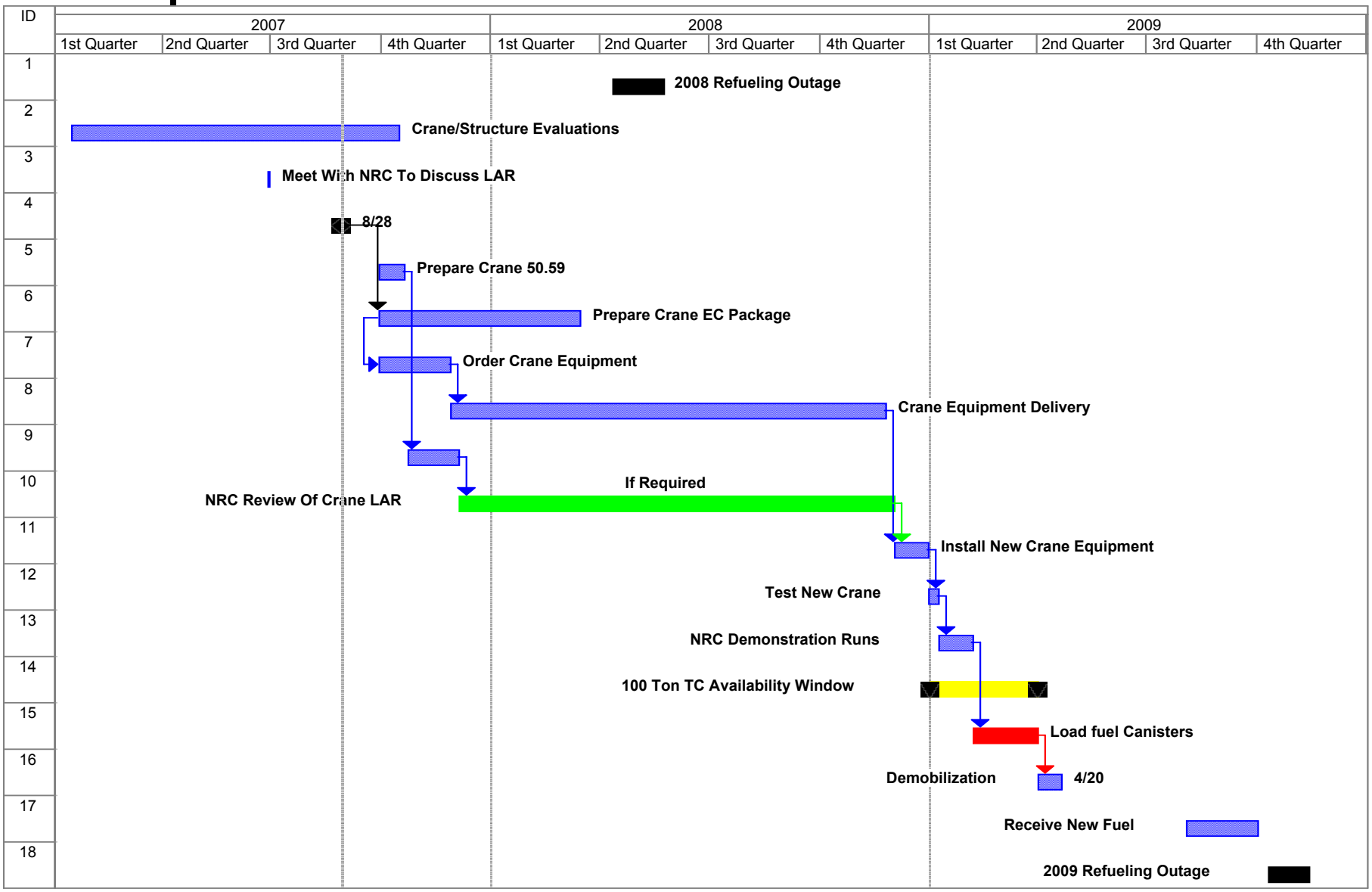
Key Issues

- FCS must transfer fuel prior to summer 2009
- Purchase of new 100-ton transfer cask
  - 2+ years manufacturing lead time
- Leased transfer cask availability
  - Window is limited to 1st quarter 2009
  - Key risk to crane uprate schedule
- Crane uprate equipment delivery
  - 1 year manufacturing lead time

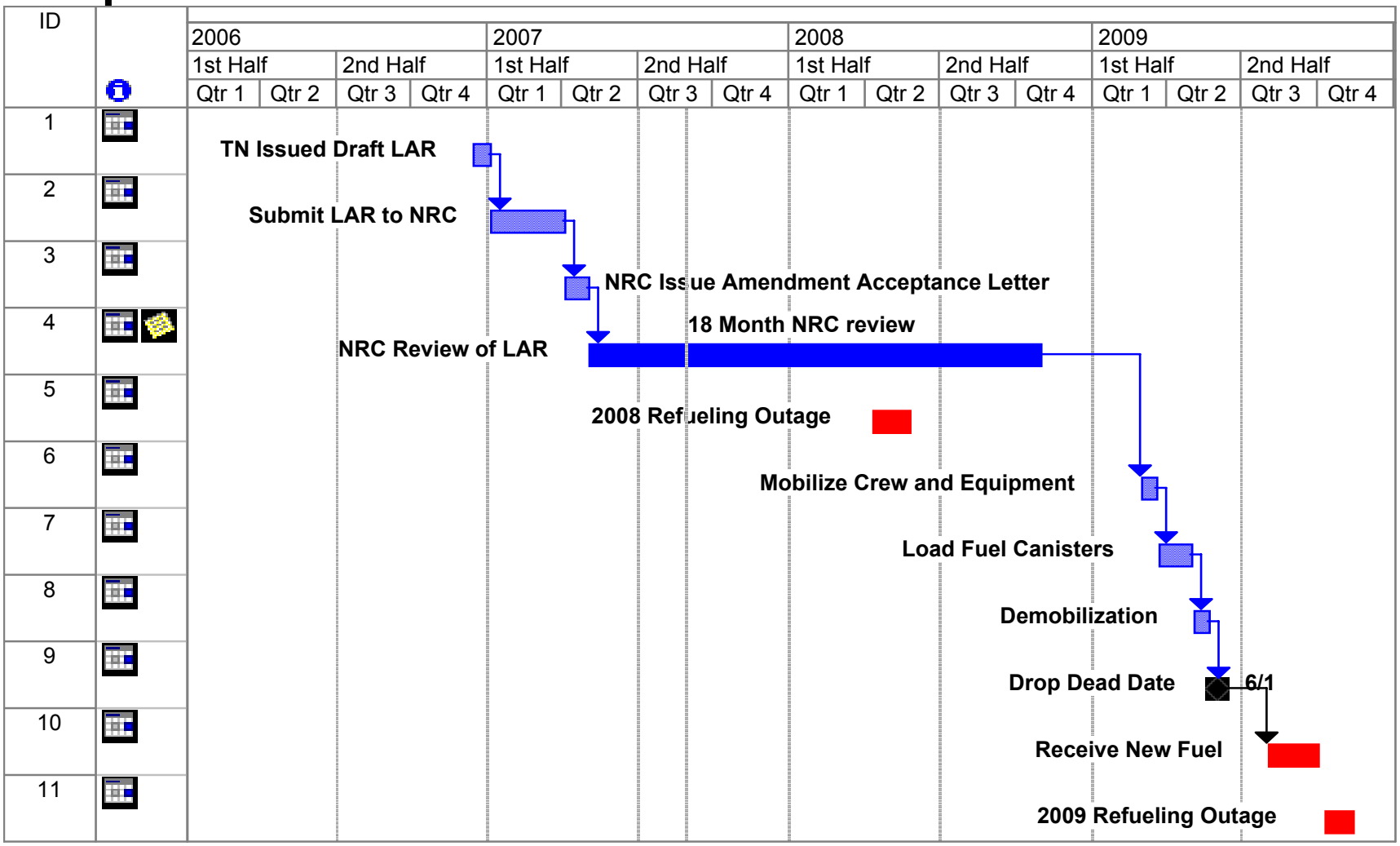
Key Issues (cont.)

- Unlimited availability of 75-ton leased transfer cask
- TN Amendment 11 approval is needed by November 2008 to support 2009 loading
- If approved, 75-ton transfer cask provides lowest risk to loading campaign

Loading Schedule – 100-ton



Loading Schedule – 75-ton



2009 Load Campaign Statistics

- Loading six NUHOMS 32-PT canisters
- Loading remaining 192 qualified fuel assemblies
- Best case heat load is ~12 kw per canister
- Worst case heat load is one 16 kw canister

Estimated Dose for 75-ton Transfer Cask Load Campaign

- Bare transfer cask contact dose ~10 REM
- Dose per loaded canister ~250 mrem
- Total campaign dose 1.5 rem

Summary

- OPPD plans to uprate the Auxiliary Building/crane to 105-ton capacity
- Loading window is very tight for 105-ton transfer cask
- OPPD must pursue both options to insure fuel can be loaded in 2009
- Approval of TN Amendment 11 by November 2008 will support OPPD needs for fuel loading

QUESTIONS/COMMENTS