

# Quad Cities Nuclear Power Station Transmission Line Analysis Environmental Report for License Renewal

Meeting

U. S. Nuclear Regulatory Commission Staff and Exelon Generation Company, LLC.

June 17, 2003

### Agenda

- Purpose and Background
- Quad Cities Nuclear Power Station (QCNPS)
   Transmission Lines
- Electric Shock
  - Compliance with U. S. Nuclear Regulatory Commission (NRC) Regulations
  - Compliance with National Environmental Policy Act (NEPA)
     Council on Environmental Quality (CEQ) Regulations
- Threatened and Endangered (T&E) Species
- Historic and Archaeological Properties
- Conclusion

### Meeting Purpose

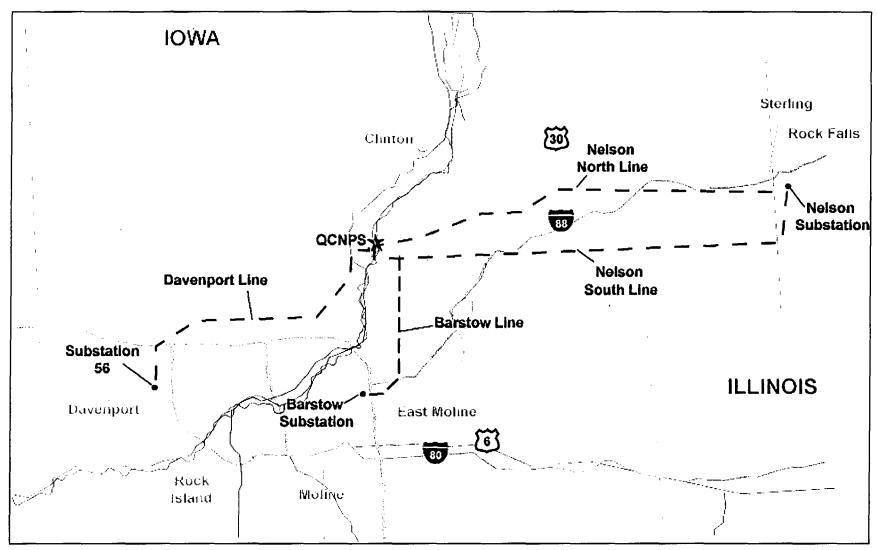
Discuss Exelon Generation Company, LLC. (EGC) basis for excluding from QCNPS license renewal environmental report (ER) portions of lines included in final environmental statement (FES) written for QCNPS operation.

- Focus on electric shock
- Confirm understanding of T&E species and historic and archaeological properties
- Basis for exclusion complies with NRC regulation and is consistent with docketed Staff position for Calvert Cliffs

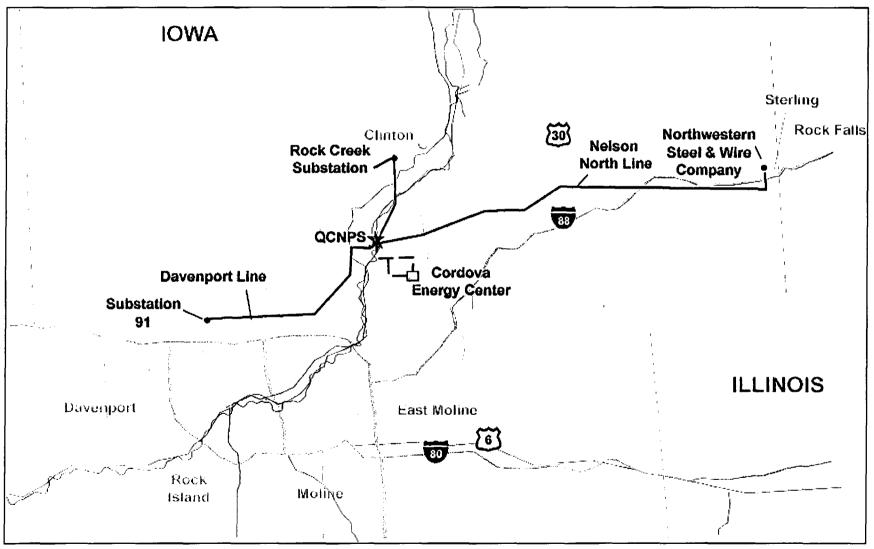
### Background

- 1/3/03 EGC submitted its license renewal application for QCNPS
  - Included ER
- The ER expressly states that the transmission lines are different than those the AEC identified in the 1973 FES for QCNPS operation
  - Differences reflect line modifications and new construction

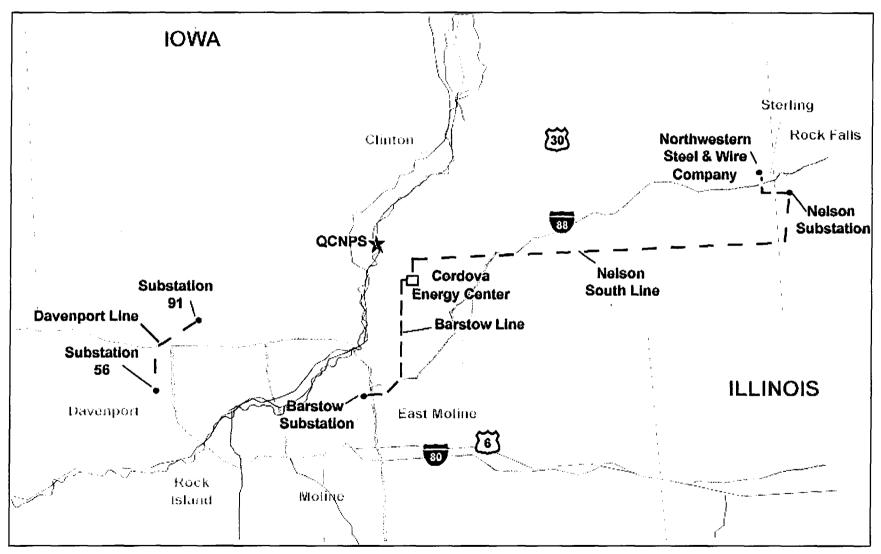
## Lines in FES



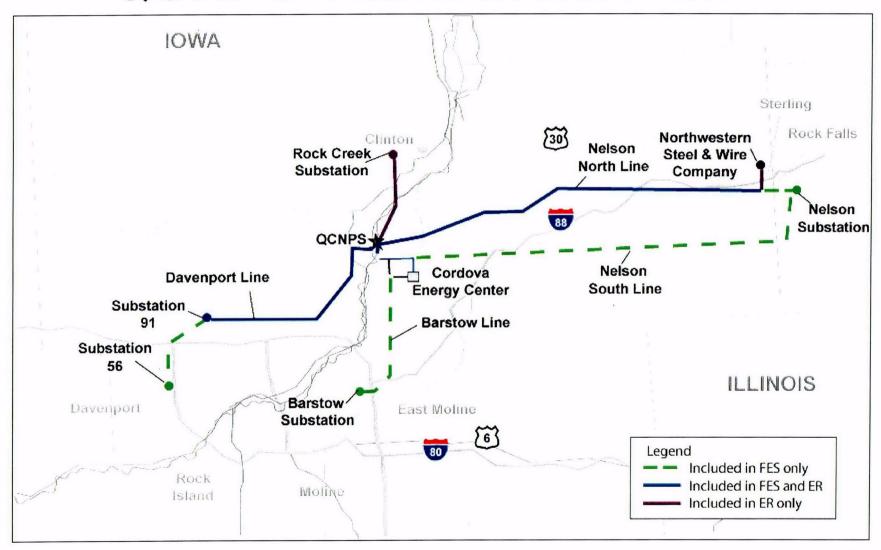
### Lines in ER



### FES Lines Excluded from ER

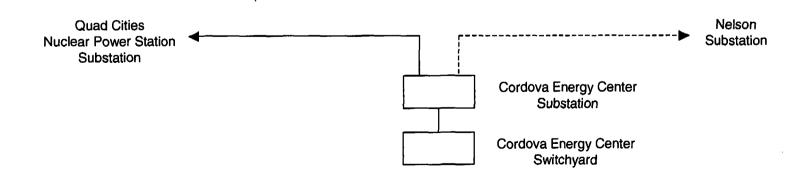


### **QCNPS** Transmission Lines



### Cordova-to-Nelson Example

- June 2001, MidAmerican Energy Company constructed Cordova Energy Center, 500-mW gas-fired electric plant
- Former QCNPS-to-Nelson South Line connected to Cordova Energy Center substation
- Cordova-to-Nelson Line connects Cordova Energy Center to Chicago-area grid



## NRC Transmission Line Regulation

If the applicant's transmission lines that were constructed for the specific purpose of connecting the plant to the transmission system do not meet the recommendations of the National Electric Safety Code for preventing electric shock from induced currents, an assessment of the <a href="impact of the proposed action">impact of the proposed action</a> on the potential shock hazard from the transmission lines must be provided. 10 CFR 51.53(c)(3)(ii)(H) [emphasis added]

# Compliance with NRC Transmission Line Regulation

impact of the proposed action (QCNPS license renewal)

- Regardless of whether QCNPS shut down, Cordova-to-Nelson line would remain energized to service Cordova Energy Center
- License renewal would have no impact on line operation or shock hazard. Therefore, there is no 'impact of proposed action'.
- Excluding line from QCNPS ER complies with 10 CFR 51.53(c)(3)(ii)(H)
- Excluding line is consistent with prior Staff position for Calvert Cliffs

#### **NEPA**

- National Environmental Policy Act (NEPA) requires assessment of the impact of the proposed action. 42 USC 4332(2)(C)(i)
- Interpreted as requiring close <u>causal</u> <u>connection</u> between proposed action and alleged effect before effect need be considered. <u>Metropolitan Edison Company v People Against</u> <u>Nuclear Energy</u>, 460 U.S. 766, 773-74 (1983)

### CEQ

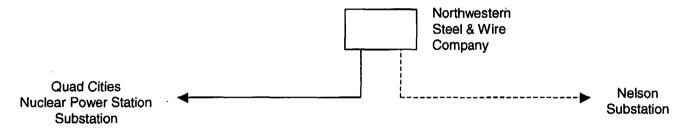
- Council on Environmental Quality (CEQ) defined effects to be considered as those caused by the proposed action. 40 CFR 1508.8
- Not required to evaluate effects that will be unaffected by proposal. Burbank Anti-Noise Group v Godschmidt, 623 F.2d 115, 116-117 (9th Cir.1980).

### Compliance with NEPA and CEQ

- No causal relationship between proposed action, QCNPS license renewal, and any impacts from Cordova-to-Nelson line
- Impacts from line, such as electric shock, would be unaffected by license renewal
- Excluding line from QCNPS ER complies with NEPA and is consistent CEQ requirements

### Remaining Excluded Lines

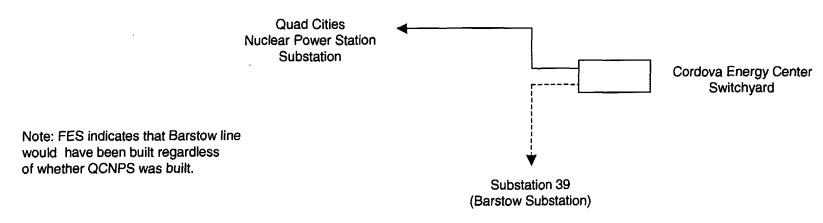
- Former QCNPS-to-Nelson North Line connected to Northwestern Steel & Wire Company
- Regardless of QCNPS license renewal, Northwestern-to-Nelson Line would remain energized to serve plant



Note: Information on the internet indicates that Northwestern Steel & Wire Company has filed for bankruptcy protection, that Sterling Steel has bought some of the former Northwestern business and is continuing operations, and that the local economic development entity is evaluating the feasibility of turning the property into an industrial park. Given the continued activity on the property, EGC believes that its transmission line analysis remains valid.

## Remaining Excluded Lines, Continued

- Former QCNPS-to-Barstow line connected to Cordova Energy Center switchyard
- Regardless of QCNPS license renewal, Cordova-to-Barstow line would remain energized to connect Cordova Energy Center to Davenport-area grid



## Remaining Excluded Lines, Continued

- New Substation 91 built on former QCNPS-to-Substation 56 (Davenport) line
- Regardless of QCNPS license renewal,
   Substation 91-to-Substation 56 line would remain energized as part of Davenport grid

Quad Cities
Nuclear Power Station
Substation
Substation 91
Substation 56

Note: FES indicates that Davenport line would have been built regardless of whether QCNPS was built.

### **T&E Species**

- [T]he applicant shall assess the impact of the proposed action on threatened or endangered species. 10 CFR 51.53(c)(3)(ii)(E) [emphasis added]
- Endangered Species Act (ESA) requires insuring that actions do not jeopardize threatened or endangered species. 16 USC 1531 et seq., at 1536
- EGC understands that scope would be same as for electric shock
  - Lines assessed for shock would be assessed for T&E species

# Historic and Archaeological Properties

- All applicants shall assess whether any historic or archaeological properties will be <u>affected by the</u> <u>proposed project</u>. 10 CFR 51.53(c)(ii)(K) [emphasis added]
- National Historic Preservation Act (NHPA) requires consideration of effect of undertaking on historic resources. 16 USC 470 et seq., at 470f
- EGC understands that NRC concluded that the Peach Bottom decision governs QCNPS transmission lines
  - Lines not within area of potential effect
  - Lines do not need to be analyzed for historic or archaeological impacts

### Conclusion

- QCNPS transmission lines not within the area of potential effect of proposed action, QCNPS license renewal, on historic or archaeological properties
- ER identifies those transmission lines for which license renewal could have electric shock or T&E species impacts
  - License renewal would have no impact on excluded lines
- QCNPS license renewal ER complies with NRC regulations, NEPA, CEQ regulations, ESA, and NHPA