

August 22, 2001

ORGANIZATION: Exelon Corporation

SUBJECT: SUMMARY OF MEETING WITH EXELON CORPORATION

The subject meeting was held on August 9, 2001, at the Nuclear Regulatory Commission (NRC) Headquarters in Rockville, MD, with representatives from Exelon Corporation and the NRC staff. A list of meeting attendees is provided in Enclosure 1, and Exelon presentation materials are provided in Enclosure 2.

The purpose of the meeting was for Exelon to present information on its proposed licensing approach for the pebble bed modular reactor (PBMR). Exelon presented its results from a pilot program to screen existing NRC regulations for applicability to the PBMR. The NRC staff indicated that Exelon should distinguish between regulations they believed were literally applicable to the PBMR and regulations they believed were applicable as guidance. The NRC staff also indicated that a review of the results of Exelon's pilot program would require a better understanding by the NRC staff of the PBMR design assumptions used by Exelon. In addition, the staff requested that Exelon submit an updated version of its licensing approach by August 31, 2001. The staff's assessment of Exelon's licensing approach will be provided to the Commission in November 2001. The staff will continue to discuss, as necessary, Exelon's proposed licensing approach throughout the pre-application review. If you have any questions regarding this summary, please contact Eric J. Benner (301-415-1171, ejb1@nrc.gov).

/RA/

Eric J. Benner, Regulatory Infrastructure Project Manager
New Reactor Licensing Project Office
Office of Nuclear Reactor Regulation

Project No. 713

Enclosures: As stated

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| DATE | 8/22/2001 | 8/22/2001 |

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Accession #

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PBMR EXPERT PANEL REGULATORY SCREENING RESULTS

July 10-11, 2001

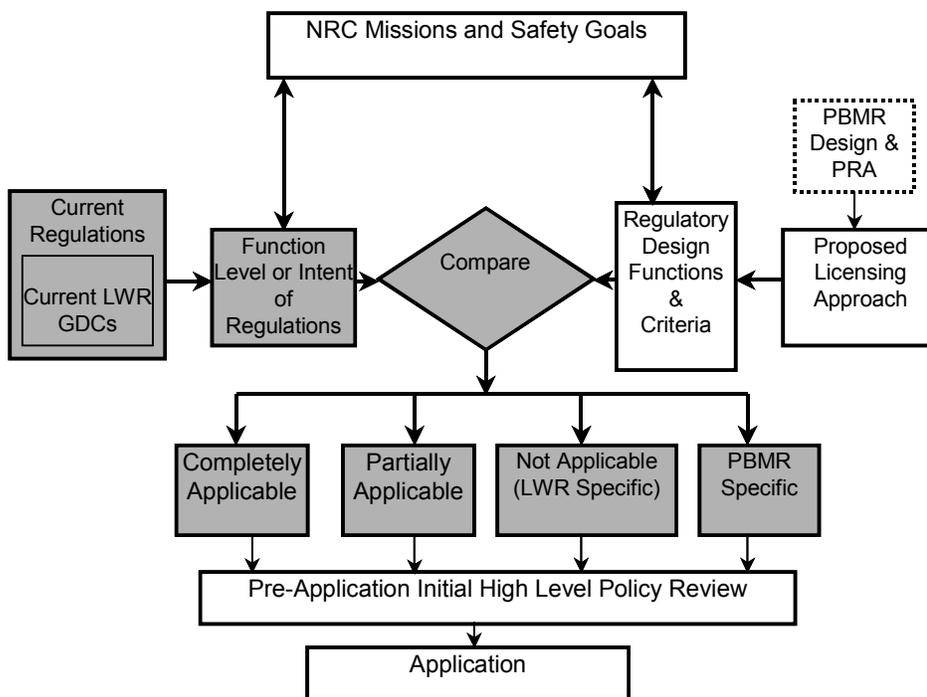
| GDC/Reg/App. | Applies | Partially Applies | Not Applicable | PBMR Specifics Needed | Comments |
|--------------|---------|-------------------|----------------|-----------------------|----------|
| §50.1 | X | | | | |
| §50.2 | | X | | | |
| §50.3 | X | | | | |
| §50.4 | X | | | | |
| §50.5 | X | | | | |
| §50.7 | X | | | | |
| §50.8 | X | | | | |
| §50.9 | X | | | | |
| §50.10 | X | | | | |
| §50.11 | | | X | | |
| §50.12 | X | | | | |
| §50.13 | X | | | | |
| §50.20 | X | | | | |
| §50.21 | | | X | | |
| §50.22 | X | | | | |
| §50.23 | X | | | | |
| §50.30 | X | | | | |
| §50.31 | X | | | | |
| §50.32 | X | | | | |
| §50.33 | X | | | | |
| §50.33f | X | | | | |
| §50.33g | X | | | | |
| §50.33k | X | | | | |
| §50.33A | X | | | | |
| §50.34 | | X | | | |
| §50.34A | X | | | | |
| §50.35 | X | | | | |
| §50.36 | X | | | | |
| §50.36A | X | | | | |
| §50.36B | X | | | | |
| §50.37 | X | | | | |
| §50.38 | X | | | | |
| §50.39 | X | | | | |
| §50.40 | X | | | | |
| §50.41 | | | X | | |
| §50.42 | X | | | | |
| §50.43 | X | | | | |
| §50.44 | | | X | | |
| §50.45 | X | | | | |
| §50.46 | | | X | X | |
| §50.47 | X | | | | |
| §50.48 | X | | | | |
| §50.49 | | X | | | |
| §50.50 | X | | | | |

| | | | | | |
|---|---|---|---|---|--|
| §50.51 | X | | | | |
| §50.52 | X | | | | |
| §50.53 | X | | | | |
| §50.54 | | X | | | |
| §50.55 | X | | | | |
| §50.55a | X | | | | |
| §50.56 | X | | | | |
| §50.57 | X | | | | |
| §50.58 | X | | | | |
| §50.59 | X | | | | |
| §50.60 | | | X | | |
| §50.61 | | | X | | |
| §50.62 | | | X | | |
| §50.63 | | | X | X | |
| §50.64 | | | X | | |
| §50.65 | X | | | | |
| §50.66 | | | X | | |
| §50.67 | | | X | | |
| §50.68 | | X | | | |
| §50.70 | X | | | | |
| §50.71 | X | | | | |
| §50.72 | X | | | | |
| §50.73 | X | | | | |
| §50.74 | X | | | | |
| §50.75 | X | | | | |
| §50.78 | X | | | | |
| §50.80 | X | | | | |
| §50.81 | X | | | | |
| §50.82 | X | | | | |
| §50.90 | X | | | | |
| §50.91 | X | | | | |
| §50.92 | X | | | | |
| §50.100 | X | | | | |
| §50.101 | X | | | | |
| §50.102 | X | | | | |
| §50.103 | X | | | | |
| §50.109 | X | | | | |
| §50.110 | X | | | | |
| §50.111 | X | | | | |
| §50.120 | X | | | | |
| App. A | X | | | | |
| GDC 1 – Quality | X | | | | |
| GDC 2 – Protection against Natural Phenomena | X | | | | |
| GDC 3 – Fire Protection | X | | | | |
| GDC 4 – Environmental and Dynamic Qualification | X | | | | |
| GDC 5 – Sharing Systems between Units | X | | | | |
| GDC 10 – Reactor Design | X | | | | |

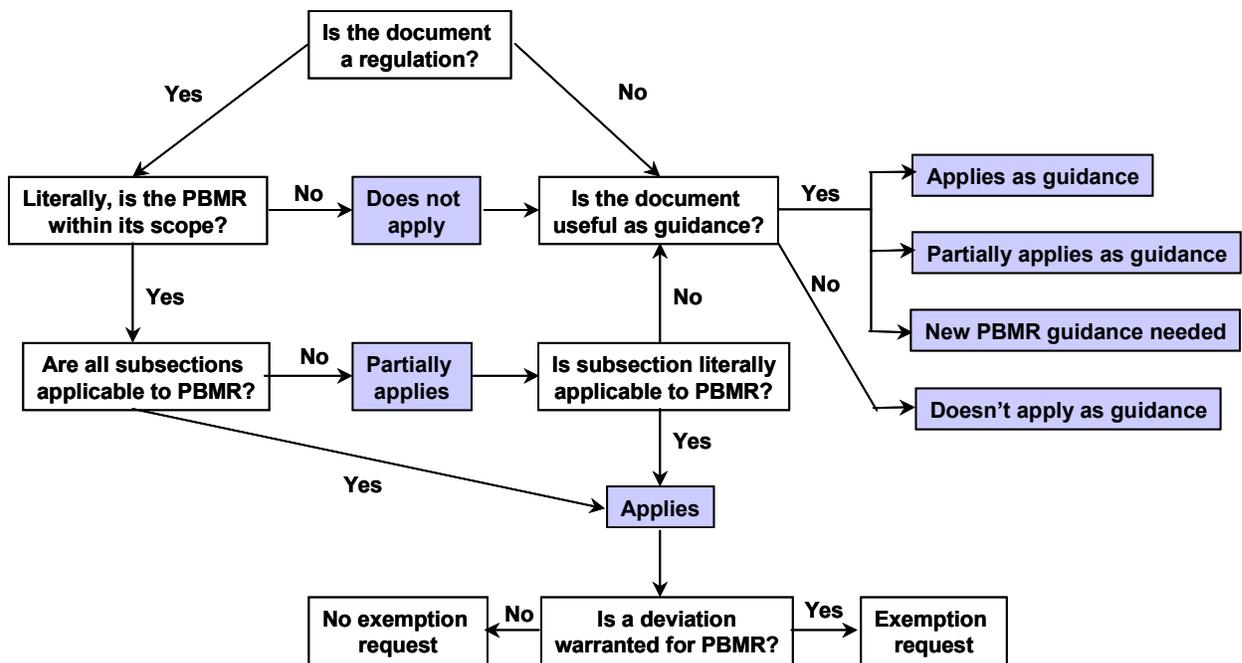
| | | | | | |
|---|---|---|---|--|--|
| GDC 11 – Reactor Inherent Protection | X | | | | |
| GDC 12 – Power Oscillations | X | | | | |
| GDC 13 – Instrumentation and Control | X | | | | |
| GDC 14 – RCS Boundary | | X | | | |
| GDC 15 – RCS Design | X | | | | |
| GDC 16 – Containment | | X | | | |
| GDC 17 – Electric Power Systems | | X | | | |
| GDC 18 – Inspection and Testing of Electric Power Systems | X | | | | |
| GDC 19 – Control Room | | X | | | |
| GDC 20 – Protection System Functions | X | | | | |
| GDC 21 – Protection System Reliability | X | | | | |
| GDC 22 - Protection System Independence | X | | | | |
| GDC 23 - Protection System Failure Mode | X | | | | |
| GDC 24 - Separation of Protection and Control Systems | X | | | | |
| GDC 25 – Requirements for Reactivity Control Malfunctions | X | | | | |
| GDC 26 – Reactivity Control System Redundancy | | X | | | |
| GDC 27 – Reactivity Control System Capability | | X | | | |
| GDC 28 – Reactivity Limits | | X | | | |
| GDC 29 – Protection against Anticipated Operational Occurrences | X | | | | |
| GDC 30 – Quality of RCS Boundary | | X | | | |
| GDC 31 – Fracture Prevention of RCS | X | | | | |
| GDC 32 – Inspection of RCS Boundary | X | | | | |
| GDC 33 – Reactor Coolant Makeup | | | X | | |
| GDC 34 - Residual Heat Removal | X | | | | |
| GDC 35 - Emergency Core Cooling | | | X | | |
| GDC 36 - Inspection of ECCS | | | X | | |
| GDC 37 - Testing of ECCS | | | X | | |
| GDC 38 - Containment Heat Removal | | | X | | |
| GDC 39 – Inspection of Containment Heat Removal | | | X | | |
| GDC 40 - Testing of Containment Heat Removal | | | X | | |
| GDC 41 - Containment Atmospheric Cleanup | | X | | | |
| GDC 42 - Inspection of Containment Atmospheric Cleanup | X | | | | |
| GDC 43 - Testing of Containment Atmospheric Cleanup | X | | | | |

| | | | | | |
|---|-----|----|----|---|--|
| GDC 44 - Cooling Water, | X | | | | |
| GDC 45 - Inspection of Cooling Water System | X | | | | |
| GDC 46 - Testing of Cooling Water System | X | | | | |
| GDC 50 - Containment Design Basis | | X | | | |
| GDC 51 - Fracture Prevention of Containment | | X | | | |
| GDC 52 - Containment Leak Rate Testing | | X | | | |
| GDC 53 - Containment Testing and Inspection | | X | | | |
| GDC 54 - Systems Penetrating Containment | | X | | | |
| GDC 55 - RCS Penetrating Containment | | | X | | |
| GDC 56 - Primary Containment Isolation | | X | | | |
| GDC 57 - Closed System Isolation Valves | | X | | | |
| GDC 60 – Control of Radioactive Releases | X | | | | |
| GDC 61 - Fuel Storage and Handling | X | | | | |
| GDC 62 – Prevention of Criticality | X | | | | |
| GDC 63 – Monitoring Fuel and Waste | X | | | | |
| GDC 64 - Monitoring Releases | X | | | | |
| App. B | X | | | | |
| App. C | X | | | | |
| App. D | | | | | |
| App. E | X | | | | |
| App. G | | | X | X | |
| App. H | | | X | X | |
| App. I | | X | | | |
| App. J | | | X | | |
| App. K | | | X | X | |
| App. L | X | | | | |
| App. M | X | | | | |
| App. N | X | | | | |
| App. O | X | | | | |
| App. Q | X | | | | |
| App. R | | | X | | |
| App. S | X | | | | |
| §55 | X | | | | |
| §60 | | | X | | |
| §70 | X | | | | |
| §73 | X | | | | |
| §75 | X | | | | |
| §100 | X | | | | |
| §110 | X | | | | |
| §140 | X | | | | |
| Totals | 115 | 22 | 26 | 5 | |

Licensing Approach



Logic Chart for Regulatory Document Review



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