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Pennsylvania Power & Light Company

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MAY 08 1986

Mr. Samuel J. Chilk, Secretary  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555  
Attn: Docketing and Service Branch



SUSQUEHANNA STEAM ELECTRIC STATION  
COMMENTS ON PROPOSED REVISION TO 10CFR20  
PLA-2640 FILES R41-2/A17-11

Docket Nos. 50-387  
50-388

Dear Mr. Chilk:

Pennsylvania Power & Light Company has the following comments on the proposed 10CFR20 revisions published in the January 9, 1986, Federal Register.

GENERAL COMMENTS

- o Revisions to the present Part 20 to incorporate a de minimis concept are endorsed. Clearly, there are exposure levels which should be below regulatory concern, while public health and safety remains assured. While inclusion of the cut-off value for collective dose calculation is appropriate, the additional inclusion of a value for an individual near the site boundary, for use in licensing studies, is clearly desirable. A value such as 10 mrem/year appears to be consistent with defined exposure limits and a reasonable reduction factor.
- o The Nuclear Regulatory Commission needs to develop regulatory guides and other public documents to provide clear interpretation of Part 20, as proposed, to licensees and regulators. Public hearings, training sessions or similar forums would be helpful to enable focused discussions on the proposed revisions and implementation practicalities. Completion of the written guidance and discussions before revisions take effect is desirable.
- o Internal dose to workers is small in most types of facilities. Computational and/or recordkeeping requirements in such facilities (to implement external and internal dose summation) may be costly but without significant dose-reduction benefit. The Commission should look to the most cost-effective ways to implement the summation concept. Recording and use in summation of internal dose should not be required unless a preset threshold value (for example, 2 DAC-hours in a day) is exceeded.
- o The retention of conventional units along with the introduction of SI units is endorsed. This should reduce the potential for misunderstanding of the regulations.

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SPECIFIC COMMENTS

o Table 1, Pages 1098-1100

The use of the term "reference level" here and in other locations may lead to confusion. While the reference level for a member of the public is not a limit, reporting and regulatory approval processes are proposed to take effect at that level. (Reporting is also required for doses above 0.5 rem/year.)

Licenses should be encouraged to maintain offsite doses below 0.1 rem/year. Actions taken by licenses to estimate offsite doses and to maintain them below a preset value such as 0.1 rem/year may be subjected to inspection. However, the justification and benefit of the new terminology and associated reporting and approval requirements are not clear. The proposed reporting and approval requirements for doses exceeding 0.1 rem/year should be deleted.

o 20.3, Page 1124

Radiation areas and high radiation areas are defined by the dose rate at 30 cm from the radiation source. Eighteen (18) inches (45 cm) is used by most licenses as the measurement location. Since this distance more realistically reflects a work distance from a source, it is recommended for the revision.

o 20.3, Page 1126

The word "every" should be deleted from the third line in the definition of ALARA. There is no way to document that every possible action has been considered and dispositioned.

o 20.102, Page 1130

Subsection (a), items (1) to (4) - This section should be deleted. The nuclear power industry, under present regulation, has initiated effective ALARA programs. Provisions like these should be included as guidance, not regulation. A similar comment applies to Section 20.1102.

o 20.208, Page 1132

We suggest that the dose received by the embryo/fetus from internal uptake by the mother prior to conception of the embryo/fetus be specifically excluded from the 0.5 rem limiting dose because it may, as proposed, jeopardize a woman's employment opportunities during her child bearing years.

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o 20.602, Page 1134

The requirements for controls in 20.602 should clearly exclude nuclear power plants and other facilities where automatic controls to reduce dose rates are not feasible.

o 20.902, Page 1135

Use of the word "danger" should be reserved for only high or very high radiation areas. That would help ensure proper awareness and perspective of exposure rates.

o 20.1104, Page 1138

Subsection (d) - Section 20.502 of this proposed revision establishes dose limits for which individual monitoring is required for external and internal radiation exposure. Setting limits for monitoring, particularly in cases of internal exposure, encourages the licensee to control these exposures below their limits, benefiting the licensee and individual by reducing the need for expensive and time consuming internal dose monitoring, encouraging improved ALARA practices and reducing records and documentation requirements. Section 20.1104 requires that an unmonitored individual be assumed to have received a dose equal to the dose for which monitoring is required. This results, essentially, in requiring monitoring, particularly for transient workers. Even if exposure was not likely, the employer apparently must assume 1.5 rem internal exposure if the workers previous employer determined that monitoring was unnecessary. The transient worker could quickly find himself unemployable based on nonexistent dose. A suggested alternative might be to place more emphasis on monitoring based on job conditions (e.g., use of respirators, DAC level, etc.) and credit 0 internal dose for unmonitored periods.

o 20.1104, Page 1138

Subsection (d) - the licensee should not be required in every case to request followup written verification of dose data received by telephone, telegram, or electronic media. This unnecessarily burdens licensees participating in inter-utility data-exchange programs such as NEDS. Licensees participating in the NEDS program are required to provide electronically transmitted hard-copy data to other participating licensees. In all cases the receiving licensee reviews and verifies (by signature of the radiation worker) the electronically transmitted data.

o 20.1109, Page 1139

The NRC should address the issue of electronic data storage in this proposed revision.

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Appendix A

Footnotes

(d)(2)(c) The use of sorbents against radioactive gases or vapors can in some cases be very effective. The NRC, in fact, has permitted the use of protection factors for charcoal filters in selected cases. The NRC should consider the inclusion of sorbent protection factors in this proposed revision.

PP&L recognizes the benefits from incorporating recent scientific findings and for establishing clear health protection bases for limits into the Part 20 rule; however, the Commission should review the proposed revisions to demonstrate that the tangible/intangible benefits exceed the cost of implementation. (Industry sources estimate initial implementation costs of the proposed revision to be approximately \$850,000 per station, and recurring annual costs to be \$400,000.) Additionally, the proposed revision does not significantly change many of the basic radiation protection principles or limits now being used. Therefore, the proposed revision does not appear to be cost beneficial in terms of a real increase to worker or public health and safety (for most licensees, significant dose reductions cannot be expected to result from promulgation of the revised rule).

We appreciate this opportunity to comment on this proposed revision.

Very truly yours,



H. W. Keiser  
Vice President-Nuclear Operations

cc: Mr. R. H. Jacobs - NRC Senior Resident Inspector  
Ms. M. J. Campagnone - NRC (NRR Project Manager)