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 AUTH. NAME AUTHOR AFFILIATION
 MCGAUGHY, R. W. Iowa Electric Light & Power Co.
 RECIP. NAME RECIPIENT AFFILIATION
 DENTON, H. R. Office of Nuclear Reactor Regulation, Director (post 851125)

SUBJECT: Forwards listing of exemption requests being reviewed in response to NRC rev to 10CFR50.12 requirements, effective on 860113, specifying that Commission will not grant exemptions unless special circumstances present.

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Iowa Electric Light and Power Company

April 3, 1987
NG-87-1099

Mr. Harold Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

Subject: Duane Arnold Energy Center
Docket No: 50-331
Op. License No: DPR-49
10 CFR 50.12 - Special Circumstances for
10 CFR Part 50, Appendix R, Relief Requests

Reference: 1) Letter, L. D. Root (Iowa Electric) to
H. R. Denton (NRC) dated June 22, 1982
(LDR-82-180)

2) Letter, L. D. Root (Iowa Electric to
H. R. Denton (NRC) dated January 10, 1983
(NG-83-0092)

3) Letter, R. W. McGaughy (Iowa Electric) to
H. R. Denton (NRC) dated September
28, 1984 (NG-84-4135)

4) Letter, R. W. McGaughy (Iowa Electric) to
H. R. Denton (NRC) dated October 31,
1984 (NG-84-4749)

5) Letter, R. W. McGaughy (Iowa Electric) to
H. R. Denton (NRC) dated October 21, 1986
(NG-86-3358)

6) Letter, R. W. McGaughy (Iowa Electric) to
H. R. Denton (NRC) dated February 20,
1987 (NG-87-0513)

File: P-72a, A-117a

Gentlemen:

Effective January 13, 1986, 10 CFR 50.12 was revised (50 FR 50777) to specify that the Commission will not consider granting a requested exemption from the requirements of its regulations unless special circumstances are present.

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Mr. H. R. Denton
NG-87-1099
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Our NRC Project Manager has informed us that, although References 1 through 4 were submitted prior to the effective date of the revision to 10 CFR 50.12, Iowa Electric must now identify the relevant special circumstances before action on the exemption requests can be completed. The attachment to this letter provides a listing of the exemption requests which are being reviewed by the Staff and the 50.12 example which applies to the requested exemption.

References 5 and 6 provided information to the Staff regarding temporary and permanent modifications, respectively, to valves MO-1908 and MO-1909. Since no exemptions were requested in these letters, the provisions of 10 CFR 50.12 do not apply.

Should you have any questions or comments, please contact this office.

Very truly yours,



Richard W. McGaughy
Manager, Nuclear Division

RWM/MSG/pjv*

Attachment: 10 CFR 50.12 Special Circumstances

cc: M. Grim
L. Liu
L. Root
R. Gilbert
NRC Resident Office

Reference: Letter, R. W. McGaughey (Iowa Electric) to H. R. Denton (NRC) dated September 28, 1984 (NG-84-4135)

Fire Zones: Water tight unlabeled doors between Fire Zones 1-D and 2-B (watertight door No. 203) and 1-D and 1-A (watertight door No. 202).

Description of Exemption Request: These doors are required to be both watertight and 3 hour rated. Underwriters Laboratories (UL) approved the doors as 3 hour rated if gasket material is not used. However, without the gaskets the doors are not watertight. Although there is no known gasket material which is 3 hour rated, Iowa Electric replaced the gasket material with gaskets made of Ferratex #8201 material which is used in U. S. Naval scuttles, doors and hatches located in missile blast areas and also on fume-tight doors in fire bulkheads.

Special Circumstances of 50.12: Iowa Electric believes that both special circumstances 10 CFR 50.12(a)(2)(ii) and (vi) apply to the requested exemption. Use of Ferratex #8201 gaskets makes the doors equivalent to 3 hour rated doors and literal compliance with that rating is not necessary to achieve the underlying purpose of the rule (10 CFR 50.12(a)(2)(ii)). Furthermore, the licensee has made a good faith effort to locate a 3 hour rated gasket, but such material has not been developed (10 CFR 50.12(a)(2)(vi)).

Reference: Letter, R. W. McGaughy (Iowa Electric) to H. R. Denton (NRC)
dated September 28, 1984 (NG-84-4135)

Letter, R. W. McGaughy (Iowa Electric) to H. R. Denton (NRC)
dated October 31, 1984 (NG-84-4749)

Fire Zones: 1-C to 2-A/2-B; 1-D to 2-A/2-B; 2-A/2-B to 3-A/3-B, 3-C and
3-D; 2-D to 3-A/3-B; 3-A/3-B to 4-A/4-B; 7-E to 8-F, 8-G, 8-H
and 8-J; 10-A to 11-A; 10-B to 11-A; 10-D to 11-A;
11-A to 12-A; 16-A/16-B to 16-B/16-A; 16-F to 16-A and 16-B;
17-A/17-B to 17-B/17-A; 17-C/17-D to 17-D/17-C.

Description of Exemption Request: Exemptions from the requirement to
protect structural steel forming part of or supporting required fire
barriers (exemption from Section III.G.2.a to 10 CFR Part 50, Appendix R)
were requested for the fire zones identified above.

Special Circumstances of 10 CFR 50.12: Iowa Electric has demonstrated by
analysis in the referenced letter that the peak temperature of the
structural steel will not exceed the critical temperature of 1100 degrees F
when exposed to fires postulated in the DAEC Fire Hazards Analysis.
Therefore, protection of the structural steel is not necessary to achieve
the underlying purpose of the rule 10 CFR 50.12(a)(2)(ii)).

Reference: Letter, R. W. McGaughy (Iowa Electric) to H. R. Denton (NRC)
dated September 28, 1984 (NG-84-4135)

Fire Zones: Open hatch between 3-B and 4-B (Fire Zone 3-B)

Description of Exemption Request: An exemption was requested from the requirement (exemption from Section III.G.2.a to 10 CFR Part 50, Appendix R) to provide a rated fire barrier at the hatch between Fire Zones 3-B and 4-B to separate redundant safe shutdown equipment.

Special Circumstances of 10 CFR 50.12: A rated fire barrier is not needed to achieve the underlying purpose of the rule because of the existence of deluge and partial zone suppression systems, low combustibile loading and combustibile distribution (10 CFR 50.12(a)(2)(ii)).

Reference: Letter, R. W. McGaughy (Iowa Electric) to H. R. Denton (NRC)
dated September 28, 1984 (NG-84-4135)

Fire Zones: 1-A, 1-C, 2-D, 3-A, 3-B, 4-A, 7-A, 7-C

Description of Exemption Requests: Exemptions were requested for fire dampers located between Fire Zones 1-A and 1-C, 7-A and 7-C, 3-B and 4-A. Because of congestion and construction tolerances the dampers cannot be installed totally "in accordance with the conditions of their listing and the manufacturer's installation instructions" as required by NFPA 90A, Article 3-3.7.2.1.

Exemptions were also requested from the requirements of Section III.G.2.a (also Section III.G.2.b for Fire Zone 1-A) of 10 CFR Part 50, Appendix R. The exemption request proposed the use of the flexible wrap manufactured by B & B insulators under the trade name "Hemyc". The use of the flexible "Hemyc" material provides protection equivalent to a complete 3 hour fire barrier.

Special Circumstances of 10 CFR 50.12: The ability of the fire barriers and fire dampers to function will be unimpaired by their installation. Thus, requiring in-situ testing of the dampers to meet the literal reading of NFPA 90A, Article 3-3.7.2.1 is not necessary to achieve the underlying purpose of the rule. The flexible "Hemyc" material has been shown, by extrapolation from 1 hour test data, to be equivalent to a 3 hour fire barrier and its use achieves the underlying purpose of the rule (10 CFR 50.12(a)(2)(ii)). For Fire Zone 1-A, Iowa Electric has demonstrated that exemption from full zone detection and automatic suppression is justified and requiring such is not necessary to achieve the underlying purpose of the rule (10 CFR 50.12(a)(2)(ii)).