ATTACHMENT 1

Commonwealth Edison
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April 6, 1982

Mr. Paul O'Connor
Operating Reactor Branch #5
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington D.C. 20555

Subject: Dresden 2 SEP Topic VI-2.D, Mass and Energy Release for Possible Pipe Break Inside Containment and VI-3, Containment Pressure and Heat Removal Capability
NRC Docket No. 50-237

Reference: D.M. Crutchfield letter of December 28, 1981 to L. DelGeorge

Dear Mr. O'Connor:

Commonwealth Edison has reviewed the above referenced letter. Edison believes that the staff's analysis is overly conservative and as a result is a conservative upper bound for containment temperatures. Edison does not believe the analysis provided constitutes a valid basis for equipment qualification.

Edison's specific comments concerning the Staffs analysis are as follows:

A. Design Basis LOCA -

1. Break size of 5.62 Ft^2 is too large (assumes cross-connection of recirculation system not allowed by operating license). A break size of 4.77 $Ft.^2$ is utilized in current Exxon LOCA analysis.

B. Large Steam Break (1.0 $Ft.^2$).

1. The assumption of infinite phase separation utilized in the RELAP Blowdown model is unrea- listic. Level swell and resultant moisture introduction to the vessel dome significantly alter the mass energy release and yield lower peak containment temperatures.

2. The Rx scram at 2 psi drywell pressure should occur earlier than the 2 second time point used in the Blowdown Analysis. This time is at odds with the NRC Drywell pressure trace provided with this report.

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C. Small Steam Break (0.01 Ft.^{2})

1. The assumption of infinite phase separation utilized in the RELAP Blowdown model is unrealistic. Level swell and resultant moisture introduction to the vessel dome significantly alter the mass energy release and yield lower peak containment temperatures.

2. The Rx scram at 2 psi drywell pressure should occur earlier than the 65 second point used in the analysis. Note NRC Drywell Pressure trace provided in this report.

3. Operator action taken at 10 minutes to terminate this transient may have a significant effect on both the duration and peak temperatures reached, i.e. containment spray, or rapid depressurization.

D. General Comments

1. The two points analyzed for steam breaks do not constitute a spectrum.

2. Passive heat slabs were not considered, due to lack of information, but can have a significant effect.

3. Feedwater temperature of 309.75^{o}F is low when compared to OPL-3 value of 341^{o}F.

4. The initial wetwell temperature of 125^{o}F is 30^{o} greater than the Technical Specifications allow.

5. Drywell initial pressure is 15.7 psia due to pumpback system.

6. A drywell relative humidity of 100% seems high. 80% is more representative.

7. Drywell pool surface area of 700 Ft.^{2} is low. 1100 Ft.^{2} is more typical.

It should be noted that one of the original concepts of SEP was to determine the real margins in older plants. When the staff follows current guidance and makes conservative, or as was done several times in this analysis, grossly conservative assumptions, the goal of determining how much margin the plants really have is lost. The original intent of SEP was to review the plant against current licensing procedures and where the plant was at variance with current procedures determine whether or not the variances have significant safety implications. The staff cannot make a safety determination for this topic unless it performs the analysis again using realistic assumptions and heat sinks. The plant conditions should be based on the as-built plant conditions.

Please address any questions you may have concerning this matter to this office.

One (1) signed original and thirty-nine (39) copies of this transmittal have been provided for your use.

Very truly yours,

T.J. Rausch
Nuclear Licensing
Administrator
Boiling Water Reactors

NPS:mnh/lm

cc: RIII Resident Inspector, Dresden

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TABLE 4

MSLB Mass and Energy

Release Rate Data (1.0 ft^2 Break)

Time (seconds)	Flow (lbm/sec)	Energy (Btu/lbm)
0.0	2218.0	1198.
1.0	2218.0	1198.
10.0	2232.0 /	1202.
20.0	1090.0	1201.
40.0	930.0	1198.
60.0	970.0	1196.
80.0	861.0	1196.
120.0	610.0	1197.
160.0	530.0	1198.
200.0	412.0	1198.
400.0	412.0	1198.

Decay Heat Energy Addition Rate

Time (seconds)	Energy Rate (Btu/sec)
400.0	6.893E4
1000.0	5.426E4
4000.0	3.754E4
10000.0	2.83E4
40000.0	9.943E3