U. S. Nuclear Regulatory Commission

In the Matter of
CPCo. Midland Plant
Units 1 & 2

Docket Nos.
50-329 OL
50-330 OL

BEFORE THE ATOMIC SAFETY & LICENSING BOARD

AMMENDED OPERATORS LICENSE CONTENTIONS OF INTERVENOR STAMIRIS

7/9/82

All examples specified as bases for the contentions are intended to provide detail, dates and sources of the issues in question, but are not to limit the contention to those examples only, or to those references only.

I contend that:

1. Self monitoring which takes place when an organization or individuals audit or oversee their own work cannot provide the necessary assurance of safety and conservatism in that work or product. Examples of this self-monitoring include:
   a. Bechtel's design audit (5/20/82 ACRS meeting)
   b. Bechtel QC inspections of Bechtel construction
   c. Bechtel/CPC economic ties
   d. CPC monitoring of operational discharges to the environment (DES section 5, 5/ /82 DNR meeting)
   e. ISI and surveillance programs (SER 3.62, 3.9.6, 5.2.4.4, 5.3.1.3)

2. The NRC has exhibited a pattern of leniance in their regulation of CPC despite the history of problems at this plant. This pattern of leniance has aggravated the QA, design, and construction problems to the extent that acceptable

levels of safety assurance do not exist for the construction or operation of this facility. This pattern of leniance includes:

a. A "preventative inspection" philosophy which gives CPC a break (as described by the Resident Inspector on 6/21/82)

b. NRC's failure to adequately enforce 10 CFR 50 Appendix B regulations (in 1978-1982 I&E reports and QA assessments, SER 17.4 assessments)

c. NRC practice of weighing financial hardship to CPC against public safety standards in the end result of "proceed at own risk" agreements, and in granting exemptions from established health and safety standards (SER 3.62, 3.8.1-3, 3.9.3.1-2, 5.3.1.4, 5.2.4.4 DES 4.2.4.3)

d. NRC's practice of announced inspections

e. NRC acceptance of significant design departures from PSAR/FSAR made after the fact (10/81 testimony p. 4853-55, 4923, 5019, 2652-55)

f. NRC's undue consideration of CPC scheduling needs which allows construction work to proceed while safety issues are unresolved such as soils, piping, and electrical work (4/20/82 SALP)

g. Exempting population zone requirements on basis of above normal management review as stated by NRC at 5/20/82 ACRS meeting

h. NRC defense and justification of CPC QA presented to ACRS 5/20/82 by B. Little (R III)

3. The NRC's economic cost benefit analysis in the DES misrepresents facts to the public in an attempt to justify CPC's financial investment because it:

a. fails to consider the $3.39 billion construction costs to be borne by the ratepayers

b. estimates only $235 million for decommissioning while CPC estimated about $500 million to decommission Big Rock and Palisades in 1980

c. estimates about a 36 year lifespan despite the shorter life expectancy and or derated capacity of Unit I due to its defective weld (SER p. C-10)

d. uses CPC's estimated annual growth rate of 3.2% while recent studies by Michigan's Attorney General project a 1-1½% long term electrical growth rate in Michigan

And such a faulty analysis used as a basis for OL recommendation "in the absence of any significant environmental or safety objection" (DES p. 3-1) places the Applicant's financial needs ahead of public health and safety by denying the existance of currently unresolved significant safety issues.

4. CPC's repeated failure to follow design requirements especially in considering combined Seismic, LOCA and other design base forces, has resulted in a nuclear plant unlikely to withstand design basis accident conditions. Examples of these design errors include the following 50.55e construction deficiency reports:

a. Small break reactor coolant pump interaction (79-03)

b. Letdown cooler supports (80-01)

c. Helba restraint design (80-03)

d. Component Cooling Water deficiency (80-06)

e. NSSS Seismic/LOCA analysis (80-07)

f. Auxilliary Building Seismic Analysis (81-02)

g. Containment Shear Reinforcement Lacking (81-05)

h. Reactor Cavity Cooling System deficiency (81-06)

i. Auxilliary Feedwater System deficiencies (82-04, 82-06)

j. HVAC cooling capacity (82-07)

And this pattern of design errors cannot provide the necessary assurance that other unverified areas have been designed properly, or that interrelated safety systems affected by these design weaknesses will function properly under all necessary conditions (remedial actions being inadequate and in some cases impossible).

5. The NRC/CPC reporting system intended to allow plant workers to raise concerns or criticisms about inadequate workmanship or practices is ineffective and therefore plant safety issues go unresolved. Examples of this ineffectiveness include:

   a. job losses due to QA/QC reporting

   b. fear of contacting NRC

   c. threats of intimidation

6. It is improper for Bechtel employees to have to sign a promise not to divulge information about the nuclear plant to the public, as an initial job condition because it tends to intimidate workers from raising safety concerns when frustrated with internal reporting system limitations.

7. CPC has not proved themselves to be adequately concerned with plant safety and worthy of the responsibility to safely operate the plant (including proper monitoring and reporting of safety related conditions) because of their inability or unwillingness to prevent problems even after their identification. Examples of this pattern include:

   a. 1978 installation of known defective Unit I reactor

   b. Failure to implement specific or generic corrective actions following identification of problem (1978-1982 NCRS and audits)

   c. Proceeding with construction in the face of unresolved safety issues (RPV and LAQT Bolting, ZACK, HELBA, soils remedial, piping, and electrical work)

   d. Relaxations of established design, construction, QA, or operating procedures and standards

   And the NRC should not grant exemptions to safety standards on the basis of CPC committment to future monitoring and ISI programs because CPC has not proved themselves worthy of this trust.

8. The 1978 identification of extensive deficiencies in the procurement system for proper qualification of equipment (55e report 78-10) should have prevented or identified the following equipment qualification procurement errors:

   a. RPV (79-10), LAQT (80-09), pipe whip restraint (8/11/ 81 MCARR) bolting inadequacies

   b. Inadequate station batteries (1979)

   c. Gould starters (1979) and class 1E equipment (81-04)*

   d. Limmitorque terminal strips (81-01)

   e. HVAC components (1980-82)

   f. MSIV equipment (82-01)

   g. Wiring deficiencies (81-07, 82-02)

   h. AFW Power Supplies (82-03)

   These deficiencies represent unacceptable safety reductions for proper plant operation and EQ methodology has not been proven adequate (SER 3.11).

9. The Bechtel errors in Seismic calculations discovered as a result of reactor vessel support modifications (79-10, 80-07 #3 and 4), had extensive generic implications which should have delayed further related construction until the safety significance of these errors was resolved.

10. NRC's waiver of current Seismic standards for concrete safety structures on the basis of their 1973 design completion (SER p. 3-19, 3-21) is not warranted because new design information was submitted in 1981 for Seismic/ LOCA criteria (80-07 #3 and 4) and because public health and safety is compromised in this regard.

11. The containment structures are subject to extensive design and construction deficiencies which taken together render the reactor containment system unlikely to perform its intended safety function. These deficiencies include but are not limited to:

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*all such year-numbers refer to 50.55e construction deficiency reports.

a. inadequate loading combinations (SER p. 3-21)

b. NSSS Seismic/LOCA deficiencies (80-07)

c. effects of dewatering (1981)

d. tendon sheath omissions (1977)

e. past tensioning errors (I&E 79-19)

f. RVP support modification (79-10) and further anchor bolt failure effects

g. lack of adequate shear reinforcement (81-05)

h. cooling system deficiencies (79-07, 81-06)

i. failure to postulate containment pipe break effects (SER 3.6.2)

j. 1974 Unit II fire effects (74-01)

1. bulge in containment liner
2. bulge in blade steel
3. protective coating damage
4. possible concrete damage
5. possible damage to horizontal rebar at floor

12. Widespread bolting problems could have been prevented by proper procurement qualifications and QA/QC inspections of supplied materials. The failure to avoid these defective components has resulted in safety systems unlikely to withstand design basis accident conditions involving:

a. Reactor Pressure Vessel Support Modifications (79-10)

b. Reactor Coolant Pumps (80-09)

c. L.A.Q.T. bolting in support of safety systems (80-09)

d. Pipe whip restraint bolts (8/11/81 MCARR)

e. HVAC bolting (1981)

Remediation has resulted in compromise to original design standards, and in many cases has been impossible due to inaccessibility of installed bolting.

13. Welding conditions practices, qualifications, and QA review thereof have been deficient and these deficiencies result in unsafe conditions for plant operation and lack of assurance about acceptability of unaccessible welds. Examples of welding deficiencies include:

    a. Class 1 and 2 piping (SER 5.2.4.3 and 4)

    b. Reactor vessel welds (SER 5.3)

    c. HVAC components (I & E report 79-12)

    d. Radiographic examination of core welds

    e. low alloy steel welding (SER p. 5-10-511)

14. The absence of design features and criterion for radiation exposure control during plant decommissioning and the absence of a specified decommissioning plan (SER 12.3.1) constitute an unassessed health and safety hazard to the public.

15. Numerous design and construction deficiencies combine to make the decay heat removal and core cooling system (SER p. 5-29 to 5-41) unreliable for performing its intended safety function. These deficiencies include but are not limited to:

    a. B & W Sensitivity issues (SER 5.5)

    b. AFW System deficiencies (82-03,04,06)

    c. Piping not all to category I standards

    d. CCW Supplies (79-02)

    e. Reactor coolant pump defects (79-03, 80-09)

    f. CCW System deficiencies (80-06)

    g. Required manual operation for emergency boration and auxilliary spray and location of manual DHR valves not readily accessible (SER p. 5-32)

    h. Safe shutdown boration capabilities (79-11)

i. Soil settlement effects on reliability of BWST, SWS, piping and shared ultimate heat sink

j. Unusual corrosion in condensate stainless steel piping (Stam. ex. 35 7-18-79 mtg. summary) and generic implications (SER p. 5-9)

k. Reactor cavity cooling system defects (79-07, 81-06)

l. RCPB materials (SER 5.2.3)

m. questionable reliability of onsite DGB power supply

16. Despite extensive deficiencies and reliability questions associated with the DGB onsite power supply due to soil settlement problems, the offsite/onsite blackout power failure accident is not a postulated design basis event for safe shutdown and this represents a serious unconsidered threat to public health and safety. (The AFW system--see contention 15--and a turbine driven pump are not designed for and cannot be relied upon to provide sufficient cooling water from the non-category I condensate tanks to perform this essential safety function. (SER p. C-16, 17)

17. A pattern of widespread electrical errors and deficiencies fails to provide adequate assurance that these and other unverified electrical systems will function properly to perform their essential safety function. Examples of these deficiencies include:

a. NSSS component wiring (80-02)

b. ECCAS wiring (80-03)

c. MSIV actuators (82-01)

d. AFW valve power supplies (82-03)

e. improperly qualified electrical or damaged equipment (contention 8 and 82-02)

f. design of cable spreader room 50% too small (1980)

g. misrouted cables (1981)

h. overloaded conduit supporters (1981-82)

i. I & E 32-12 deficiencies, and QC inadequacies

j. 4/20/82 SALP electrical deficiencies

18. Problems with piping design methodology systems and supports (SER 3.6.2, I & E 81-12, and 4/20/82 SALP) indicate widespread deficiencies due to inadequate follow-up and correction of identified piping deficiencies and design methodology, adequate assurance does not exist that these and other unverified piping systems will be able to perform their intended safety functions, especially when considered together with soil settlement stresses, welding, and corrosion problems.

19. The NRC risk assessment concerning potential release of radioactivity to underlying groundwater (DES p. 5-58) is unconservative because it depends too heavily on the natural safeguard of the "essentially impervious" clay layer, whose properties have not been clearly established to provide the assummed barrier (Kane OM-OL testimony p. 4292), and it does not consider potential effects of permanent dewatering on the ground-water relationships. Therefore public health and safety is jeopardized by these inadequacies.

20. Pressurized thermal shock probability, and overpressurization as discussed in I.N. 82-17, create a hazard aggravated by deficiencies in other safety systems which has not been adequately addressed in an integrated fashion to assure that public health and safety will be protected.

21. NRC and CPC actions directed toward resolving ZACK HVAC problems have been deficient resulting in ongoing and unresolved safety problems regarding this system.

Respectfully Submitted,

Barbara Stamiris

cc ASLB judges; W. Paton, NRC; M. Miller, CPC; Secretary, NRC; T. Devine, GAP