



MIDLAND - CONTENTIONS

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

Kane
Rec'd 5/19/81
from Ellen Brown

May 19, 1981

NOTE TO: Midland Witnesses

FROM: Ellen M. Brown *EJB*

Attached is an updated version of the contentions. You will note that Ms. Stamiris has recently added further examples to Contentions 1, 2, and 3 and that she has changed the wording of Contention 4C. NRC Staff testimony must address these additions and changes.

If you are not already aware of which contentions you are responsible for, I have placed the appropriate reviewer's name in the margin next to the contention.

With respect to Stamiris' contentions, we have designated a lead witness for each contention: C-1 and C-2, Darl Hood; C-3, Gene Gallagher; C-4 and C-5, Joseph Kane. The lead is responsible for putting together the input from the other reviewers and providing one document which represents the NRC Staff response to the contention. Thus, the nonlead witness should provide their input to the lead witness as soon as possible. Testimony on contentions, like your other testimony, must be in question and answer form.

With respect to Warren's contentions, a separate document addressing her contentions is not required since she has withdrawn from the proceeding. However, the Licensing Board wants the substance of her contentions addressed in NRC testimony. Thus, Messrs. Kane, Rinaldi, and Cappucci should make sure that their direct testimony generally covers the subject matter of Warren's contentions.

If you have any questions on contentions, please give me a call.

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PDR FOIA
RICE84-96 PDR

APPENDIX

I. Contentions of Barbara Stamiris

1. Consumers Power Company statements and responses to NRC regarding soil settlement issues reflect a less than complete and candid dedication to providing information relevant to health and safety standards with respect to resolving the soil settlement problems, as seen in:

- a) the material false statement in the FSAR (Order of Modification, Appendix B);
- b) the failure to provide information resolving geologic classification of the site which is pertinent to the seismic design input on soil settlement issues (Responses to FSAR Questions 361.4, 361.5, 361.7 and 362.9);
- d) the failure to provide adequate acceptance criteria for remedial actions in response to 10 CFR §50.54(f) requests (as set forth in part II of the Order of Modification);

and this managerial attitude necessitates stricter than usual regulatory supervision (ALAB-106) to assure appropriate implementation of the remedial steps required by the Order Modifying Construction Permits, dated December 6, 1979.

Darl

Darl

Darl

Eric
Proulx

To be covered
by testimony
to be submitted
by July 29, 1981

Paul or Sid

4-20-81 Supplement to Contention 1

Examples of CPCo. reluctance to provide requested information

DH 1. 3/31/80 NRC meeting notation of Applicant's reluctance to provide NRC consultants with requested information.

DH 2. Vol. III, tab 65 50-54f, 8/6/79 meeting, attitude that "needlessly conservative decisions may be formulated on the 'what if' type questions" by the NRC on dewatering.

DH 3. The 11/24/80 S.A.L.P. assessment on CPCo - NRR interface as presented by D. Hood in the following statements regarding soil settlement issues :

" A big contributor to the inability to make meaningful progress in this matter is the quality of responses gotten. We have set some kind of record on the number of questions re-asked, which speaks poorly for CPCo-NRR interface. ...The bottomline is there seems to be a lack of appreciation or support of Staff review necessities and a tendency to push ahead despite the lack of proper assurances."

DH 4. The perfunctory manner in which CPCo. deponents answered questions. (I will tabulate examples from the depositions I attended.)

Examples of information withheld or incorrectly given:

Dunk 1. The failure of CPCo. to discuss the Administration Building settlement problem with the NRC, as they did with their consultants, in the early meetings on the DGP settlement.

Dunk 3. The false FSAR statements beyond the one cited as a "material false statement" in the Dec. 6 Order, as discussed in the 4/3/79 Keppler-Thornburg memo, and the 6/13/79 Thornburg -Thompson memo.

other nonmaterial false statements

2. Consumers Power Company's ~~financial and time schedule pressures have directly and adversely affected resolution of soil settlement issues~~, which constitutes a compromise of applicable health and safety regulations as demonstrated by:

Darl

a) the admission (in response to §50.54(f) question #1 requesting identification of deficiencies which contributed to soil settlement problems) that the FSAR was submitted early due to forecasted OL intervention, before some of the material required to be included was available;

See pg. 5 of Sect 5, Aug 10, 1979 ltr. from Howe to Keppler
the choice of remedial actions being based in part on expediency, ^{suited to the construction schedule} as noted in Consumers Power Company consultant R. B. Peck's statement of 8-10-79;

Kane
To be covered by testimony to be submitted by July 20, 1981

Gallagher

b) the practice of substituting materials for those originally specified for "commercial reasons" (NCR QF203) or expediency, as in the use of concrete in electrical duct banks (p. 23 Keppler Report)*;

Darl

d) continued work on the diesel generator building while unresolved safety issues existed, which precluded thorough consideration of Option 2 - Removal and Replacement Plan; and

* March 22, 1979 Keppler Investigation Report conducted by Region III, Dec. 78-Jan. 79.

Contention
dropped by
B. Stamiris
on 6/9/81

e) the failure to freely comply with NRC testing requests to further evaluate soil settlements remediation, inasmuch as such programs are not allowed time for in the new completion schedule presented July 29, 1980.

4-20-81 Supplement to Contention 2

4. Further examples of the effect of financial and time pressures on soil settlement issues: Table A...

2A. Examples

2B. Effect on soil settlement issues

1. 11/7/78 Fachtel action item: "proceed with preparations for preload as rapidly as possible"

1. Root causes not adeq. Investigated, Organizational deficiencies not eliminated prior to proceeding with remediation

2. 11/7/78 decision to fill pond "immediately, because the amount of river water available for filling is restricted"

2. Affected piezometric measurements during preload
Peck to address

3. 11/7/78 "5 month period is available in the schedule for preloading" (Tab 12) pg. 2

3. The surcharge was removed at the end of this 5 months despite lack of NRC satisfaction that secondary consolidation was assured
Peck to address

4. Failure to grout gaps prior to cutting of duct banks, failure to cut condensate lines when Ist suggested, failure to break up mudmat at DGE

4. Resulted in additional stresses to DGE which could have been avoided
Struct. Engr. to address for CPCO

Tab 18, pg. 1 of 70 letter
Dec. 12, 1978
Tab 12, pg. 3

Dial

Kare

Kare

Kare

Supplement to Contention 2 cont.

Kane Kane
5. Choice to continue construction of DGB

5. Eliminated practical consideration of Removal & Replacement Option *Howell Testimony 7.*

Dahl
6. Early FSAR submittal and inadequate review of FSAR

6. Precluded early detection of inconsistencies which could have prevented some of the s.s. problems

Kane
7. Failure to reconstruct geometry of area prior to fill placement, failure to await NRC approval before proceeding with Preload, *not foreclosing alternatives* selection of "least costly feasible alternative" for DGB.

7. Varying degrees of caution and conservatism were foregone in favor of cost and schedule advantages

Kane
8. Failure to excavate loose sands as committed to in PSAR *See response to Q362.2*

8. Contributed to inadequacy of subsoils *Keeley Testimony - Pg. 16*

Kane
Acceptable to store. I do not understand
9. Installation of preload instrumentation was subject to time pressure assoc. with frost protection considerations

Keeley Testimony 13:849
9. Expenditures for preload instrumentation (CJD 11/1/78 memo) prior to formal adoption of preload = premature commitment

Dahl
10. Appeals to NRC to consider financial plight and schedule deadlines as in Seismic Deferral Motion

10. If granted, would affect seismic-soil settlement standards

Kane Kane
11. Depth and breadth of surcharge limited by practical consideration of DGB, Turbine B. structures

11. Afforded less than optimum conditions for surcharge *Peck to address*

Dahl
12. Changes to design (DGB foundation), material, or procedural specifications without proper approval

12. Contributed to settlement or stress problems and allowed conflicts to go unnoticed as preventative indicators

3. Consumers Power Company has ~~not~~ implemented its Quality Assurance Program regarding soil settlement issues according to ~~10 CFR Part 50~~, Appendix B regulations, and this represents a repeated pattern of quality assurance deficiency reflecting a managerial attitude] inconsistent with implementation of Quality Assurance Regulations with respect to soil settlement problems, since reasonable assurance was given in past cases (ALAB-100, ALAB-106 and LBP-74-71) that proper quality assurance would ensue and it has not.

The Quality Assurance deficiencies regarding soil settlement include:

- a) 10 CFR Part 50, Appendix B, Criteria III, V, X and XVI as set forth in the Order of Modification;
- b) 10 CFR Part 50, Appendix B, additional criteria denoted by roman numerals below:
 - I. The Applicant has failed to assume responsibility for execution of the QA program through its

Sallge + Kepler

failure to verify and review FSAR statements (pp. 6-8 and p. 21, Keppler Report) and through its reliance on final test results not in accordance with specified requirements (p. 16, Keppler Report);

II. The QA program was not carried out according to written policies, procedures and instructions, in that oral directions were relied upon and repeated deviations from policies occurred regarding compaction procedures (p. 9-14, Keppler Report);

VII. Control of purchased material has not been maintained, in that examination and testing of backfill materials did not occur in accordance with regulations (NCR QF29, NCR QF147);

IX. Control of non-destructive testing was not accomplished by qualified personnel using qualified procedures regarding

- a) moisture control (Keppler Report p. 14-16; QA Request SD40, NCR QFS52, 172, 174 and 199);
- b) compaction procedures (Keppler Report, p. 9; NCR QFS 68, 120 and 130); and

c) plant fill work (pp. 24 and 25, Keppler Report); .

XI. Test programs did not incorporate requirements and acceptance limits adequately in the areas referenced in a, b and c above, and do not meet these requirements regarding soil settlement remedial actions;

XIII. Measures were not adequately established to prevent damage or deterioration of material regarding frost effects on compacted fill (pp. 16 and 17, Keppler Report);

XV. Measures were not taken to control non-conforming material in order to prevent the inadvertent use (NCR QF29 and QF127);

c) the settlement of the Administration Building in 1977 should have served as a quality indicator, preventing the same inadequate procedures from occurring in the 1978 construction of the diesel generator building causing its eventual settlement.

4-20-81 Supplement to Contention 3

6/3/81
SE. Additional CA deficiencies from the period of 1980-1981 relating to soil settlement issues are set forth in NRC I. & E. Reports, 80-32, and 81-01; in S.A.L.P. assessment of 11/24/80; CPCo. Report 18.4.3.6 and NCR 3401. This listing of additional deficiencies, although tentative, is as complete as I can be at this time.

4. Consumers Power Company performed and proposed remedial actions regarding soils settlement that are inadequate as presented because:

A. Preloading of the diesel generator building

Kane

1) does not change the composition of the improper soils to meet the original PSAR specifications;

Kane

2) does not preclude an unacceptable degree of further differential settlement of diesel generator building; *cover zone of influence*

Kane

3) does not allow proper evaluation of compaction procedures because of unknown locations of cohesionless soil pockets;

Cappucci, & Rinaldi

4) may adversely affect ^{MEB} underlying piping, conduits or nearby structures; and ^{SEB (Turbine Bldg., service water valve pits)}

Kane

5) yields effects not scientifically isolated from the effects of a rise in cooling water and therefore ^{not measured properly} *five basic*

B. Slope stability of cooling pond dikes is not assured because they were built with the same improper soils and procedures (NCR QF172);

Kane

COE

Requires coordination w/

Note: Kane, Cappucci do not address this 4c. Instead, address the supplementary 4c on the following page.

C. Remedial soil settlement actions are based on untested assumptions and inadequate evaluation of dynamic responses of those structures to such things as R. Gonzalez, J. Kane, F. Rinaldi, dewatering, differential soil settlement, and seismic characteristics:

- a. Auxiliary Building Electrical Penetration Areas and Feedwater Isolation Valve Pits
- b. Service Water Intake Building and its Retaining Walls
- c. Borated Water Storage Tanks
- d. Diesel Fuel Oil Storage Tanks;

4-20-81 Supplemental Contention 4C

Rinaldi & Cappucci

Oct. Hearing
Check w/ Stamiris & CPO

Will not proceed until agreement has been reached on adequacy of dynamic analysis

(Contention 4, part C should read, " Remedial soil settlement actions are not based on adequate evaluation of dynamic responses regarding dewatering effects, differential soil settlement, and seismic effects for these structures: a. Aux. Bldg. Electrical Penetration Areas & Feedwater Isolation Valve Pits, b. Service Water Intake Building & its Retaining Walls, c. Borated Water Storage Tanks, d. Diesel Fuel Oil Storage Tanks, e. DGB, f. Related Underlying Piping & Conduit)

Kane,
Rinaldi &
Cappucci
address
as of 12/6/79

↑
4C

D. Permanent dewatering

- 1) would change the water table, soil and seismic characteristics of the dewatered site from their originally approved PSAR characteristics - characteristics on which the safety and integrity of the plant were based, thereby necessitating a reevaluation of these characteristics for affected Category I structures;
- 2) may cause an unacceptable degree of further settlement in safety related structures due to the anticipated drawdown effect;
- 3) would allow inadequate time in which to initiate shutdown, thereby necessitating reassessment of these times.

7
Kane
~~PS~~

Is affected
by

Respond only as of Dec. 6, 1979 - not present knowledge

Therefore, unless all the issues set forth in this contention are adequately resolved, the licensee actions in question should not be considered an acceptable remediation of soil settlement problems.

CPCs write testimony on cooling pond - ^{Not} Stipulation

NRCC (OE) what we observed - our conclusions and agreement

DGB - Is SEB satisfied w/ approach to crack analysis

5. The additional information and testing requested of Consumers Power Company by the NRC and its consultant, the Army Corps. of Engineers, on June 30, 1980 and August 4, 1980, is essential to the Staff's evaluation of Consumers Power Company's remedial soils settlement action. Without this information and testing, the Staff does not have reasonable assurance that the plant can be operated without undue risk to the health and safety of the public (part II, p. 3, Order of Modification). The requests must therefore be responded to fully and complied with totally.

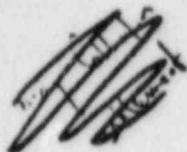
Raise
Handwritten scribbles

*Contention
dropped by
B. Stammers
on 6/9/81*

Don't directly answer contention
cover in other testimony

II. Contentions of Sharon K. Warren

1. The composition of the fill soil used to prepare the site of the Midland Plant - Units 1 and 2 is not of sufficient quality to assure that pre-loading techniques have permanently corrected soil settlement problems. The NRC has indicated that random fill dirt was used for backfill. The components of random fill can include loose rock, broken concrete, sand, silt, ashes, etc. all of which cannot be compacted through pre-loading procedures.



Kane

2. A. Because of the known seepage of water from the cooling pond into the fill soils in the power block area, permanent dewatering procedures being proposed by Consumers Power Company are inadequate, particularly in the event of increased water seepage, flooding, failure of pumping systems and power outages. Under these conditions, Consumers cannot provide reasonable assurance that stated maximum levels can be maintained..

Kane

B. Given ^{are ok} the facts alleged in Contention 2.A, and considering also that the Saginaw Valley is built upon centuries of silt deposits, these highly permeable soils which underlie, in part, the diesel generator building and other class I structures may be adversely affected by increased water levels producing liquefaction of these soils. The following will also be affected:

Kane +

Rinaldi
to concur

- 1) borated water tanks
- 2) diesel fuel oil tanks.

3. Pre-loading procedures undertaken by Consumers Power have induced stresses on the diesel generating building structure and have reduced the ability of this structure to perform its essential ^{cracking} functions under that stress. Those

Kane
Rinaldi
Cappucci

remedial actions that have been taken have produced uneven settlement and caused ^{still pending} inordinate stress on the structure and circulating water lines, fuel oil lines, and electrical conduit.

- Write testimony
- Attempt to answer Sinclair contention by referring to my testimony

OL

Can. consent
1st 2nd 3rd
not 2nd

Sinclair
Contention # 24.

The present site for the Midland facility is not only inappropriate for the reasons set forth in Contention 9, but also affirmatively unsafe. Serious questions have been raised concerning the ground stability of portions of the site. At least one of the essential buildings of the reactor complex is reported sinking, and construction has been halted on that building. As a result of the serious and unresolved questions concerning ground stability, the findings required by 10 C.F.R. §§ 50.57(a)(3) and 50.57(a)(6) can not be made.

reasonable assurance that activities authorized by OL can be conducted without endangering health & safety of public

not be hostile to common defense & security or to health & safety of the public

May 8 Sinclair contention 24 set forth in pp. 18-19 of her "Contentions..." filed on 10-31-78 admitted with caveats by L.B. in its February 23, 1979 Special Hearing Conference Order. (caveats attached)

Dr. Licenser's 12-26-79 Request for Hearing indicates intent to try this with the issues set forth by C-1 in its 3-14-80 order.

Contention 22

This contention, which simply asserts an inadequate discussion of the character and effects of low-level radioactive wastes, is rejected as being insufficiently specific.

Contention 23

This contention must be rejected as non-specific. The only specific example cited--that certain questions were unanswered at the time of preparation of the contention--is a normal situation at that stage of a proceeding and not an adequate basis for a contention.

Contention 24 Accepted but limited

This contention, not objected to by any party, is accepted except to the extent that the first sentence refers to previously rejected Contention 9. This acceptance, however, is further conditioned by our agreement with the Staff's comment (November 28, 1978 response, page 6) that the question appears not to be one of site suitability, but rather of the type of material used by the Applicant under the building in question. A suitable restatement of the contention shall be provided by the Intervenor at the time required by the schedule below for submission of other restated contentions.

this is from 2-23-79 order
in the O.L. case

*Special Instruction
Conference Order
Feb 23, 1977*

Contention 1.

This contention asserts that radioactive spills from Palisades Plant indicate that the same experience will take place at Midland. It is denied for irrelevancy, lack of basis, and because the issue of radiological releases from Midland is res judicata.

Contention 2

Wendell Marshall

This is the same issue as Sinclair contention 24. It is accepted as it relates to settling of the Midland diesel generator building.

Contentions 3 and 4

*6/17/81
B. Paton to send full
Marshall contention
(See Ltr. dated Oct. 31, 1978)*

MAPLETON INTERVENORS
Route 10
Midland, Michigan 48640

1978 NOV 8 AM 8 34

October 31, 1978

USHRC-OELD

I
Hoefling/Olmstead
Lawrence/Townellotte
FF
Reply due Nov 20
called 8:34

Mr. Ivan W. Smith, Chairman
Atomic Safety & Licensing Board
Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Smith:

In compliance with requests by Mr. William Olmstead of this date and in accordance with Nuclear Regulatory Commission Rule 2.714, the Mapleton Intervenor are submitting the following additional contentions to support our previous contentions submitted on September 6, 1978.

Under the rules, the Mapleton Intervenor contend that:

- 1) ~~Illegal radioactive charges and spills from the Palisades Nuclear Power Plant operation probably is indicative of the operation that will take place at the Midland Nuclear Power facility.~~

- 2) Present geological conditions, according to newspaper accounts, is causing the settling of the generator building at the Nuclear Power Plant site.

- 3) Michigan law prevents the licensing of a nuisance. Cite Marshall vs. Consumers Power Company in Michigan Court of Appeals on nuisances.

- 4) The Mapleton Intervenor contend that the operation of the Plant will cause nuisance that will disturb their peace and tranquility guaranteed by the United States Constitution and by the State of Michigan laws..

- 5) Icing and fogging will interfere with Mapleton Intervenor lives and will damage their property. This was pointed out in Midland, Michigan recently when the Nuclear Regulatory Commission was obtaining information concerning the operation of the Plant.

- 6) Storage of spent fuel rods from operation of the Plant will impose a health and safety hazard on the citizens and specifically on Mapleton Intervenor who reside within 1-1/2 miles of the Plant.

Joe
accepted
rejected
rejected
see 2-23-79 order
rejected

~~7811210048~~
app.

see 2-23-79 order at pp. 21 ->

Mr. Ivan W. Smith
Atomic Safety & Licensing Board
October 31, 1978
Page 2

rejected 7) Present technology prevents nuclear power plants operation with zero emission, therefore, the creation of a continuous nuisance and health hazard to the Mapleton Intervenors.

With the above contentions which will be properly formulated for the Operating Hearing, the Mapleton Intervenors respectfully request that these be considered.

Sincerely,

Wendell H. Marshall

Wendell H. Marshall
President
Mapleton Intervenors

WEM:mc

Records filed in a
folder labeled "A5LB
Nov. 1-3, 1983 Violation of
Board Order - Support of
Region III" maintained
by Joseph Kore