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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

OFFICE OF SECRETARY  
DOCKETING & SERVICE  
BRANCH

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
CAROLINA POWER & LIGHT COMPANY	)	
and NORTH CAROLINA EASTERN MUNICIPAL	)	Docket No.
POWER AGENCY	)	50-400 OL
	)	
	)	
(Shearon Harris Nuclear Power Plant,	)	
Units 1 and 2)	)	

JOINT INTERVENORS INTERROGATORIES AND REQUEST  
FOR PRODUCTION OF DOCUMENTS TO APPLICANTS  
ON JOINT CONTENTION I (FIRST SET)

Pursuant to 10 C.F.R. Section 2.740b and 2.741, Joint  
Intervenors CCNC, CHANGE, Wells Eddleman and Kudzu Alliance  
hereby request that Applicants answer separately and fully in  
writing, and under oath or affirmation, each of the following  
interrogatories, and produce and permit inspection and  
copying of the original or best copy of all documents  
identified in the response to interrogatories below. Under  
the Commission's Rules of Practice, answers or objections to  
these interrogatories must be served within 14 days after  
service of the interrogatories; responses or objections to  
the request for production of documents must be served within  
30 days after service of the request.

These interrogatories are intended to be continuing in  
nature, and the answers should promptly be supplemented or

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amended as appropriate, pursuant to 10 C.F.R. Section 2.740(e), should Applicants or any individual acting on Applicants' behalf obtain any new or differing information responsive to these interrogatories. The request for production of documents is also continuing in nature and you must produce immediately any additional documents Applicants or any individual acting on Applicants' behalf, obtain which are responsive to the request, in accordance with the provisions of 10 C.F.R. Section 2.740(e).

Where identification of a document is requested, briefly describe the document (e.g., book, letter, memorandum, transcript, report, handwritten notes, test data) and provide the following information as applicable: Document name, title, number, author, date of publication and publisher, addressee, date written or approved, and the name and address of the person or persons having possession of the document. Also state the portion or portions of the document (whether section(s), chapter(s), or page(s)) upon which you rely.

Definitions. As used hereinafter, the following definitions shall apply:

"Describe" means to specify in detail and to particularize the content of the answer to the question and not just to state the reply in a summary or outline fashion.

"Identify" when used in reference to a natural person means to state his or her full name, present business address, and the relationship, both past and present, between such person and Applicants.

"Applicants" is intended to encompass Carolina Power &

Light Company, North Carolina Eastern Municipal Power Agency and their contractors for the Harris Plant, Brunswick Steam Electric Plant, HB Robinson Unit 2, and/or any other consultants or contractors who are working or have worked for CP&L.

"Document(s)" means all writings and records of every type in the possession, control or custody of Applicants or any individual acting on their behalf, including, but not limited to, memoranda, correspondence, reports, surveys, tabulations, charts, books, pamphlets, photographs, maps, bulletins, minutes, notes, speeches, articles, transcripts, voice recordings and all other writings or recordings of any kind, including all forms of computer-stored data;

"document(s)" shall also mean copies of documents even though the originals thereof are not in the possession, custody, or control of Applicants; a document shall be deemed to be within the "control" of Applicants or any individual acting on their behalf if he has ownership, possession or custody of the document or copy thereof, or has the right to secure the document or copy thereof, from any person or public or private entity having physical possession thereof.

#### General Interrogatories

1. (a) State the name, present or last known address, and present or last employer of each person, other than affiant(s), who provided information upon which Applicants relied in answering each interrogatory herein.

(b) Identify all such information which was provided by each such person and the specific interrogatory response in which such information is contained.

2. (a) State the name, address, title, employer, education and professional qualifications of each person Applicants intend to call as an expert witness or a witness relating to the contention which is the subject of this set of interrogatories.

(b) State the subject matter to which each such person is expected to testify.

3. (a) Identify all documents in Applicants' possession, custody or control, including all relevant page citations, upon which you relied in answering each interrogatory herein.

(b) Identify the specific interrogatory response(s) to which each such document relates.

4. (a) Identify any other source of information, not previously identified in response to Interrogatory 1 or 3, which was used in answering the interrogatories set forth herein.

(b) Identify the specific interrogatory response(s) to which each such source of information relates. State which information from each such source was used in each such response and state how each such source of information was used in making each such answer.

5. Identify all documents which Applicants intend to offer as exhibits during this proceeding to refute the



contention which is the subject of this set of interrogatories or which you intend to use during cross-examination of witnesses presented by Joint Intervenors and/or the NRC Staff on the contention which is the subject of this set of interrogatories.

6. Identify any information in your possession or known to any of your employees, consultants, or contractors which contradicts or casts doubt upon any answer, conclusion, opinion, or statement given or quoted or used in response to any other interrogatory in this set. If you have any information which contradicts or casts doubt upon any answers, conclusion, opinion, or statement given or quoted or used in response to any past interrogatory on Joint Contentions 1 or 7 please identify all such information also.

Please state which specific response(s) each item of information identified in response to this general interrogatory relates to and please produce all documents containing or referring to each such item or information.

#### Interrogatories on Joint Contention I

I-1. List all emergencies (all classes), incidents, accidents, events, mistakes, safety violations, violations of regulations, non-compliances, deficiencies, non-conformances, failures to follow procedures, licensee event reports, radiation leakages, radiation releases, employee radiation exposures, and abnormal occurrences (hereinafter all of the foregoing referred to as "occurrences"), or list(s) of any or all of the above, at each of the Brunswick, Robinson and Harris Nuclear Units, providing the date and the unit at

which each such occurrence happened. Identify for each such occurrence all documents in CP&L's possession which relate to that occurrence.

I-2. For each of the occurrences listed in response to #I-1, state which were reported to the NRC (a) by direct communication to the staff, or (b) through filed reports or documents; (c) indicate what time deadline is given in NRC regulations for making each such report, and state for each such communication or report whether it was timely filed or reported to NRC.

I-3. Provide copies of any and all reports filed with the NRC or any other governmental agencies concerning each of the occurrences listed in response to #I-1.

I-4. Provide copies of any and all correspondence to and from the NRC or any other governmental agencies concerning each of the occurrences listed in response to #I-1.

I-5. Provide copies of any and all internal reports, correspondence, memos or other documents concerning each of the occurrences listed in response to #I-1.

I-6. List all occurrences (including any of those listed in response to number I-1 above) or instances in which the NRC or any other governmental agency has in any way warned, cited, rebuked, fined, charged, indicted, questioned, disciplined, sanctioned or expressed concern to Applicants, as regards (i) their management or management capability (ii) their failure to comply with applicable regulations, (iii) a

pattern or continuing pattern of violations or failures to comply with applicable regulations, (iv) a failure to act to prevent recurrences of non-compliance or violations (v) need to improve management of nuclear operations (vi) poor operating performance or capacity factor at nuclear units or at any unit (vii) safety of any CP&L nuclear unit(s) (viii) security of any CP&L nuclear unit(s) (ix) failure to promptly repair a nuclear unit or equipment therein (x) severe accident precursors occurring at CP&L nuclear unit(s) (xi) patterns of repeated problems at any CP&L nuclear unit(s) or at all CP&L nuclear unit(s) (xii) failure to meet commitments to complete or begin repairs, refits, backfits, or additions to any nuclear unit(s) (xiii) nuclear unit decommissioning at Parr or any other nuclear unit owned, co-owned, or operated by CP&L (xiv) radiation overexposure to workers (xv) quality assurance (xvi) quality control (xvii) quality of materials (xviii) inspection (xix) nuclear operating procedures (xx) nuclear operator training (xxi) nuclear operator test scores (xxii) management presence inside nuclear plants or any plant (xxiii) failure to place trouble tags on equipment which is inoperable, under repair, or in need of repair (xxiv) failure to repair or service trouble-tagged equipment by the deadline or time stated on the tag (xxv) failure to specify a time or deadline to complete repairs to safety equipment (xxvi) failure to heed warning lights in the control room (xxvii) an attitude placing production ahead of safety (xxviii) interfering with or impeding NRC inspectors or inspections (xxix) off-site release of radiation (xxx) excessive

radioactive gas releases (xxxi) operating with more than 1% failed fuel (xxxii) inadequate emergency plans (xxxiii) inadequate security plans (xxxiv) failure to make required tests (xxxv) failure to follow proper nuclear operating procedures (xxxvi) improper construction at any nuclear facility (xxxvii) improper design of any part(s) of any nuclear facility (xxxviii) failure to curb corrosion in condensers or steam generators (xxxix) violations of nuclear waste transport regulations (xl) filing false reports (xli) cheating (xlii) pressuring employees to violate regulations or rules at a nuclear plant(s) (xliii) pressuring employees not to report problems, non-compliances, or violations at a nuclear plant (including Harris) (xliv) failure to detect open doors in high pressure coolant injection rooms (xlv) failure to detect tape over valves (xlvi) failure to detect marijuana use among security or quality assurance personnel ( xlvii) pressuring employees to work excessive overtime (xlviii) failure to provide ready access to NRC inspectors. State the date and the unit at which each such instance or occurrence happened.

Please identify all documents in your possession concerning each such instance or occurrence and specify which of the above-listed items I-6(i) through I-6(xlviii) each instance or occurrence relates to.

I-7. For each occurrence listed in response to #I-6, state the governmental agency taking the action, the specific reasons stated by the agency for the action, the type of



action taken, and, if a fine was levied, state the amount of the fine and the date when Applicants paid that fine.

I-8. If any of the actions described in response to #I-6 and #I-7 were appealed by Applicants, state the date of each appeal, the basis for each appeal, and the outcome of each appeal. Identify all documents which contain (a) the appeal (b) information used to support the appeal (c) correspondence or documents concerning the appeal (d) the ruling(s) on the appeal (e) information cited in the ruling(s) on the appeal which is not contained in other documents identified in response to (a) through (d) above.

I-9. For each of the occurrences listed in response to #I-1, or instance of any thing inquired about in I-6(i) through I-6(xlviii) above, that was not reported to the NRC, state with specificity why each such occurrence or instance was not reported to the NRC and identify the person or persons who made the decision not to report the occurrence.

I-10. Specify all safety requirements, regulations or restriction which Applicants have determined are applicable to the construction and operation of Shearon Harris, that may not be applicable to either the Robinson or Brunswick nuclear units. For each such requirement, regulation, technical specification or restriction state why Applicants believe it would not apply to (a) Brunswick (b) Robinson 2.

I-11. List every instance in which any representative of Applicants has publicly stated, either through the news media, or before any legislative, administrative or regulatory body, that any problem or problems at any of the Brunswick or



Robinson nuclear units (a) exist(ed); (b) need correction; (c) would be corrected. For each such instance, state the date of the statement, identify the person making the statement, identify the unit to which the statement pertained, describe the type of problem that was going to be corrected, identify the legislative, administrative or regulatory body before which that statement was made, and/or identify the news media through which the statement was made.

I-12. For each statement listed in response to #I-11, provide a copy of the statement and/or copies of any press accounts of the statement.

I-13. List any and all corporate or administrative reorganizations or reassignments of personnel that have been undertaken, in whole or in part, to improve the operation of Applicants nuclear units, stating the date of each such reorganization or personnel reassignment and describing in detail the particulars of each such reorganization or personnel reassignments, and stating the purpose of each such reorganization or reassignment and who ordered it. Identify all documents concerning (a) the need for the reorganization or reassignment (b) the decision to implement it (c) verifying that it was implemented (d) assessment of how successful it was (e) criteria for assessing the success or failure of the reassignment or reorganization.

I-14. With regard to each reorganization or reassignment described in response to #I-13, explain in detail the reasons why it was felt that each such reorganization or reassignment

would improve the (a) operation (b) safety (c) control or (d) compliance with NRC rules or regulations at Applicants' nuclear plants.

I-15. With regard to each reorganization or reassignment described in response to #I-14, provide all memos, correspondence, studies, reports or documents that discuss or approve each such reorganization or reassignment.

I-16. For each of Applicants' Brunswick and Robinson nuclear units, state the date each of those plants began operation and list each time any of the units were not in operation, stating the date of each outage, the reason for each outage, the length of each outage, and specify the reason or reasons for each outage. State when CP&L headquarters was informed of each outage, and which upper-level management personnel (vice presidents or higher) were informed of each outage.

I-17. For each outage listed in response to #I-16, provide all memos, reports, or other documents concerning the reasons for the outage and the steps taken to get each unit back in operation.

I-18. If any of the outages listed in response to #I-16 were planned outages for maintenance or other purposes, provide all memos, studies or other documents concerning the planning of each such outage, including all estimates of the likely length of each outage. If any such outage was extended for any reason, detail all reasons for, and the date of, each extension. State which of these extensions were required by NRC regulations, which by CP&L management. Identify all

documents concerning each such extension.

I-19. If any of the Brunswick and Robinson nuclear units have ever been limited to an output below 100% capacity for any period of time, state the date on which each such limitations commenced, state the date when the unit was again approved for full capacity operation, and specify the reason or reasons for each such limitation.

I-20. Provide all memos, studies, reports or other documents concerning each limitation listed in response to #I-19.

I-21. Provide any and all tables of organization, organizational charts and/or listings of management personnel for Applicants' dgroup(s), department(s) or division(s) responsible for nuclear operations, from the time the construction of Applicants' first nuclear unit began to the present, specifying the date of each such chart, table or listing.

I-22. Provide copies of any and all personnel policies that have been in effect at any of Applicants' nuclear units, at any time during the units' construction or operation, specifying the unit or units where each such policy applied, and the dates during which each such policy applied. State which policies applied to (a) P&L employees, (b) employees of contractors or consultants, or (c) other workers or employees.

I-23. Specify the title and provide the job description for all positions at each of Applicants' nuclear units, since

each unit began operation.

I-24. For each one of Applicants' nuclear units, state the total number of employees employed in each position listed in response to #I-23, as of January first of each year since the unit began operating.

I-25. For each one of Applicants' nuclear units, state the number of (i) CP&L employees and (ii) other employees, since the unit began operating, who have remained continuously employed in each of the positions listed in response to #I-23 for the following lengths of time.

- a) 0 to 6 months
- b) 6 to 12 months
- c) 12 to 18 months
- d) 18 to 24 months
- e) 2 to 3 years
- f) 3 to 4 years
- g) 4 to 5 years
- h) more than 5 years

I-26. Provide copies of all studies, reports or evaluations concerning the safety or operation of any or all of Applicants' nuclear units.

I-27. For each of the statements attached hereto as exhibit #1 and numbered 1 through 117, answer the following questions:

a) Do you admit that the statement was in fact made?

b) If the answer to (a) is other than "yes", identify and describe any similar statements made by

the identified person on or about the occasion described.

c) Was this statement, or the similar statement described in response to (b), made under oath?

d) Is the person who made the statement still employed or otherwise associated with Applicants?

i) If so, in what capacity?

ii) If this capacity is different than that at the time of the statement, identify the reason for such change and the date of such change.

e) If this person was not acting in an official capacity as (1) a member of Applicants' management, or (2) a spokesperson for Applicants, in making the statement, answer the following:

i) Identify who authorized him/her to make the statement.

ii) Identify and produce any coorespondence, internal memoranda, or other documentation of such authorization.

f) If this person was not acting in an official capacity for Applicants in making the statement, was the statement ever authorized, reviewed or approved by any other representatives of Applicants? If so, identify the person who authorized, reviewed or approved it and state the date of such review, authorization or approval.

g) Identify and produce all documents, internal reports, memoranda, corespondence, or other basis that support the statement or concern it or Applicants' response



to the statement in any way.

h) Identify and produce all minutes and/or a summary of all meetings involving CP&L management at which the statement was discussed in the 90 days preceding and/or following the statement.

i) Indicate what action, if any, was taken to carry out the promises, predictions, or other indications of future action contained in the statement, identifying who took such action and when. (Note: All statements marked with a large "f" are considered, at a minimum, to contain such an indication of future action.)

j) For each response to question (i) provide the results of any follow-up studies made to confirm such action.

k) Identify and produce minutes or a summary of all meetings involving CP&L management at which the results of actions or studies described in (j) or (k) above was discussed.

l) Identify and produce all internal management/personnel evaluation forms or other management evaluation data relevant to the person identified as making the statement.

I-28. List each person who has been Chief Executive Officer of Carolina Power and Light Company since the Company (CP&L) began operating nuclear power plants. For each such person, please provide (a) a vita or resume stating all professional qualifications, education, experience, etc. (b) a statement of all their education and experience in the following: (i) nuclear physics (ii) nuclear reactor design (iii) nuclear reactor construction (iv) nuclear reactor operation (v) nuclear steam supply system design (vi) nuclear steam supply system controls (viii) nuclear steam supply system operation (ix) nuclear reactor operation (x) nuclear power plant site management (xi) commercial nuclear reactor operation (xii) nuclear safety analysis (xiii) design of nuclear reactor and plant safety systems (xiv) nuclear quality assurance - military (xv) nuclear quality assurance - civilian (xvi) nuclear quality control - military (xvii) nuclear quality control - civilian (xviii) evacuation planning for nuclear plants (xix) civil defense planning (xx) civil defense operations (xxi) health physics (xxii) radiological safety (xxiii) nuclear operations support (xxiv) nuclear radiation monitoring -- military (xxv) nuclear radiation monitoring -- civilian (xxvi) management (xxvii) psychology (xxviii) nuclear facility security -- military (xxix) nuclear facility security -- civilian (xxx) law (xxxi) nuclear licensing (xxxii) training nuclear plant operators (xxxiii) training other nuclear plant personnel (xxxiv) public utilities (xxxv) public utility finance (xxxvi) lobbying on nuclear-related issues (xxxvii) public relations/corporate communications (xxxviii) advertising (xxxix) nuclear waste storage (xl) nuclear waste management (xli) nuclear waste isolation methods (xlii) pollution control systems for nuclear power plants (including waste processing systems) (xliii) pollution control systems for non-nuclear power plants (xliv) selection of nuclear plant operators (xlv) counterterrorism work (xlvi) intelligence or counterintelligence work (xlvii) assessing the stability or integrity of nuclear plant operators (xlviii) management information systems (xlix) performance assessment (l) nuclear plant construction (li) any other fields or areas the Company deems relevant to safe operation and management of nuclear power plants. Please also state any experience/education concerning transport of radioactive waste materials & spent fuel in a safe manner.

(c) Please state what records were made of this executive's (i) appointments (ii) travel (iii) telephone calls (iv) other communications (v) agenda (vi) daily activities (vii) activities on behalf of the Company (viii) outside consulting activities (ix) time spent on outside directorships (x) number of outside consulting activities and/or time spent thereon (xi) outside business interests (other than CP&L itself) and/or time spent thereon; (xii) time spent on outside directorships (xiii) time worked (xiv) office hours, during her or his tenure in the position(s) inquired about. Please identify all documents still in CP&L's or Applicants' possession which contain any of the above-requested information stating for each what information it contains for which person(s) for which time period(s).

(d) Do Applicants possess a reasonably complete breakdown, record or summary of how each such executive spends time? If so, please identify this breakdown, record or summary and any document(s) containing this information.

(e) Do any of the record(s) or documents inquired about in (d) or (c) above indicate how much time is spent (i) at the HB Robinson plant (ii) at HB Robinson Unit 2 (iii) inside the security area at HB Robinson Unit 2 (iv) at the Brunswick plant (v) inside Brunswick unit 1 (vi) inside Brunswick unit 2 (vii) inside the security area at Brunswick 1 (viii) inside the security area at Brunswick 2 (ix) on nuclear matters (x) on Robinson 2 nuclear operations (xi) on Brunswick nuclear operations (xii) on Brunswick nuclear problems (xiii) on Robinson 2's nuclear problems (xiv) on improving nuclear plant performance (xv) on improving nuclear plant safety (xvi) on the Brunswick Improvement Program (xvii) on nuclear licensing matters (xviii) on Harris nuclear licensing matters (xix) on Brunswick nuclear licensing matters (xx) on Robinson 2 nuclear licensing matters (xxi) on the US Committee on Energy Awareness (xxii) on the Electric Power Research Institute's nuclear research programs (xxiii) on emergency planning matters (xxiv) on non-nuclear matters (xxv) on non-CP&L matters (xxvi) on matters not concerning either CP&L or the nuclear industry (xxvii) on the Westinghouse Owners' Group or its business (xxviii) on INPO (Institute for Nuclear Power Operations) and related INPO business (xxix) on the Nuclear Safety Analysis Center or its business (xxx) on lobbying on nuclear matters (xxxi) on the BWR Owners Groups or its business (xxxii) on

the PWR Owners Group or its business (xxxiii) on matters related to low-level nuclear waste, including incidents in its storage and transport, and on the LLRW compacts issue (xxxiv) on matters related to high-level nuclear waste, its storage and transport, development and safety of storage and disposal methods for it, etc. (xxxv) on learning about, dealing with, hearing reports on, or appealing NRC fines, citations for violations, deficiencies, noncompliances, nonconformances, and other problems at CP&L nuclear plants.

(f) If any of the information inquired about above in (e) is contained in any documents please (i) identify each such document (or refer to it) and state which information, for which executive, is contained in that document. Please provide any breakdowns or records of time spent in each field inquired about above, for each executive inquired about.

(g) Does North Carolina Eastern Municipal Power Agency or any of its members, officials or staff play any role in (i) building CP&L nuclear plants (ii) operating nuclear plants (iii) managing nuclear plants (iv) financing nuclear plants (v) nuclear safety policy for plants it co-owns (vi) emergency planning for nuclear plants it co-owns (vii) getting liability insurance for nuclear plants it co-owns (viii) financing repairs needed to assure safety of nuclear plants it co-owns (ix) CP&L nuclear operations (x) CP&L nuclear policy (xi) deciding what modifications or repairs will be needed on nuclear plants it co-owns?

If answer to any subpart above is affirmative, please (i) state what role CP&L management played in creating this role for NCEMPA (including negotiating the contracts CP&L has with NCEMPA to the extent such contract(s) affect, define or allow such role (ii) what member or person from NCEMPA plays the role (by name or title or both if known) (iii) the qualifications and experience the NCEMPA person involved in the role (aa) is required to have (bb) actually has.

(h) Please list all CP&L executives other than the CEO who have responsibilities in the nuclear field currently. For each, please provide the information requested in parts (a), (b), (c), (d), (e) and (f) above, or state where this information has already been provided to Joint INTERvenors.



I-29. Please list each person who was hired to operate (or be trained or be a trainee or be retrained to operate) the Brunswick nuclear reactors (a) prior to commercial operation of Brunswick 2 (b) after commercial operation of Brunswick 2 but prior to commercial operation of Brunswick 1 (c) after commercial operation of Brunswick 1 (d) at any other time (d-ii) at any time.

(e) for each person listed in response to the above, please state (1) the qualifications of that person for nuclear plant operating; (2) whether the person had ever held an RO license from NRC for (i) a commercial BWR (ii) any BWR (iii) any reactor (iv) any non-BWR civilian reactor (specify type of reactor) before being hired by CP&L; (3) the training each such person received before operating the Brunswick plant (4) the grades each such person received on tests required (i) by CP&L (ii) by NRC to be able to operate the Brunswick plant; (5) whether this person cheated on any test required to operate the Brunswick plant; (6) whether anyone at CP&L or employed by CP&L assisted this person in cheating on any test, NRC-required or otherwise, which this person had to pass to operate (or continue operating) the Brunswick plant ("plant" refers in this interrogatory to Brunswick Unit 1 or Brunswick Unit 2 or both units); (7) whether this person was ever (i) suspended (ii) disciplined (iii) fired (iv) transferred because of any problem which might disqualify him or her from operating a nuclear reactor, e.g. psychological problems, drug problems, failure to meet NRC requirements, cheating on tests, etc. (8) what re-training this person received after qualifying as a reactor operator at the Brunswick plant, and when and why and who ordered the re-training and what its curriculum consisted of; (8) when this person was hired by CP&L (date) (9) whether this person still works for CP&L in any capacity (10) whether this person is still employed by CP&L as a reactor operator (11) whether this person is assigned or in training for a reactor operator position at Harris.

(f) for each person who was ever hired by CP&L as a reactor operator or reactor operator trainee for Robinson 2 please state (i) the date such person was hired (ii) whether such person was hired as an operator or as a trainee (iii) whether such person had ever operated a commercial PWR before being hired



by CP&L (iv) whether such person had held an RO license from NRC before being hired by CP&L (v) all qualifications of that person for reactor operating at the time s/he was hired by CP&L (vi - xi) the answers to items 6 through 11 of (e) above with respect to this person; (xii) the training this person received before operating Robinson 2's reactor (xiii) the grades this person received on tests required by (aa) CP&L (bb) NRC to qualify to operate Robinson 2's reactor (xiv) whether this person cheated on any such test.

(g) (i) Please identify all documents containing CP&L policies on (aa) hiring of reactor operators (bb) hiring of reactor operator trainees (cc) testing of new employees (dd) testing of reactor operators (ee) testing of reactor operator trainees (ff) qualifications for reactor operators (gg) qualifications for reactor operator trainees (hh) suspension, removal, disciplining and/or firing of reactor operators (jj) transferring reactor operators (kk) retraining of reactor operators (ll) supervision of reactor operators (mm) number of reactor operators required per shift (nn) requirements for reactor operators beyond what NRC/AEC require or had required, that were ever in effect, or that are in effect now, or that were proposed but rejected (or not put into effect) (ii) for each, please give the date(s) in effect, who put it into effect, who recommended it, the names and titles of all person(s) who approved it, and if it has been changed or superseded, all reasons why it was changed or superseded, who recommended each change in it (or the changes made in it), and the names and titles of all persons who approved the changes. If any policy proposed or change proposed was rejected, please state who rejected it and when and on what basis.

(iii) prior to the decision to construct Robinson 2, what role did CP&L senior management play in selection of power plant operators? (iv) after Robinson 2 was begun, but before Brunswick 2 began commercial operation, what role did CP&L senior management play in selection of nuclear plant operators? Please describe any overall policies senior management established for nuclear operator selection, training, qualification, supervision and/or responsibility. (v) Were any changes made in CP&L's policies concerning selection of nuclear operators based on CP&L's experience

with the Brunswick plant? Please identify each such change, and state why it was made. (vi) Do any of the changes identified in response to (v) above apply to the Harris plant? (vii) If response to (vi) is affirmative, please state all such changes and why they apply. (viii) For each change in CP&L policy regarding nuclear operator selection, training, retraining, supervision, or qualification that applies to the Brunswick plant but does not apply to the Harris plant, please state (aa) the change (bb) why CP&L decided it does not apply (cc) any other reasons you believe it does not apply or should not apply to Harris (dd) who decided it does not or should not apply to Harris (ee) who approved this decision and when (ff) the identification of all documents containing the policy change, why it does/should not apply to Harris, and/or approving the decision not to apply it to Harris.

(h) Please identify each person now hired to be (aa) an operator (bb) an operator trainee, for the Shearon Harris Nuclear Power Plant. For each such person, answer all parts (i) thru (xiv) of I-29 (f) above.

(j) Are there any CP&L policies concerning reactor operators that apply at Harris that do not apply to (i) Robinson 2 (ii) Brunswick?

(k) If answer to any part of (j) above is affirmative, please state (i) why the policy does not apply to Robinson 2 (ii) why the policy does not apply to Brunswick (iii) why the policy does apply to HARRIS (iv) who decided this policy would apply to Harris (v) on what basis was this decided (vi) who approved this decision and when (vii) the identification of any documents concerning this policy, its content, why it applies to Harris, why it does not apply to Brunswick, why it does not apply to Robinson 2, approving this policy, approving its being applied to Harris, approving its not being applied to Brunswick or to HB Robinson 2, or giving reasons the policy should not be approved.

(l) Please state CP&L's pay schedule for reactor operators. Please give all pay schedules applicable to reactor operators (i) at Brunswick (ii) at Robinson 2 (iii) at Harris that have ever been in effect, and the dates each was in effect and who approved each.

(m) How many reactor operators have (i) resigned or left (ii) been fired from, the Brunswick plant? How many reactor operators are now employed at Brunswick? How long has each worked there? (iii) How many reactor operators have resigned from or left Robinson 2? (iv) How many reactor operators are still employed at Robinson 2? (v) How many reactor operators have been fired from Robinson 2? (vi) How many reactor operators have left Brunswick or Robinson to be or become reactor operators at Harris? (vii) are any reactor operators or reactor operator trainees for Harris persons who have been (aa) fired (bb) suspended (cc) disciplined (dd) treated for any medical or psychological problem (xx) by CP&L (yy) by the nuclear Navy (zz) by any other employer in the past.

(n) who sets the requirements for the security and background checks on CP&L reactor operators?

(o) Does CP&L require any security of background checking on reactor operators or reactor operator trainees beyond that which NRC requires? If so, what additional checking is required by CP&L?

(p) Have all CP&L reactor operators had their backgrounds investigated? If so, are all the investigations complete?

I-30 (a) Did CP&L witnesses tell the Atomic Safety and Licensing Board anything about the Brunswick Plant's problems (i) in the Shearon Harris construction permit hearings (ii) in the Harris Construction Permit remand hearings of 1979? (b) at any time since those remand hearings concluded, has any CP&L official made any statement to NRC under oath concerning the Brunswick plant's problems?

(c) If response to any of the above is affirmative, please state (i) who made the statement (ii) what problems were described or identified (iii) when the statement was made (iv) what solutions or management plans to solve the problem(s) or prevent their recurrence were identified in the statement (v) what followup was made on each such plan (vi) whether CP&L management ever refers to that statement or testimony in its management or operation of the Brunswick plant (vii) the identification of all documents containing the statement (viii) the identification of all documents containing NRC response(s), ASLB decisions, ALAB decisions, or Nuclear Regulatory Commission decisions in response to CP&L's statements or testimony; for each, please identify what CP&L testimony or statement(s) it responds to or rules upon.

(d) Why did it take CP&L approximately 16 months to connect an indicator in the Brunswick control room showing whether the watertight doors to the Brunswick RHR system compartment (and/or ECCS equipment) were closed? Did the completion of this indicator system have anything to do with the fact that its not being complete became an issue in the Harris CP remand hearings of 1979? When was this indicator scheduled originally to be operable? When did it actually become operable?

(e) Have there been cases when the watertight doors at Brunswick which this alarm indicates closure of, have been left open since March 1979? Please give the date of all such instances and whether the NRC was informed of each.

(f) Have there ever been any events at Brunswick which were not reported as LERs which NRC later found were reportable as LERs? Please identify each such event, its date, and the date an LER was filed on it and identify any documents describing it.

(g) Have there ever been any events at Brunswick which were not reported as LERs within 30 days, but which CP&L management



later decided were reportable occurrences? For each such, please state the date of the event, the date an LER was filed concerning it, the date CP&L decided an LER should be filed on it, and whether NRC Staff had anything to do with the decision to file the LER or with calling the event or its reportability to CP&L management's attention.

(h) Please state the number of LERs for Brunswick 1 in each year from 1976 through 1983.

(i) Please state the number of LERs for Brunswick 2 in each year from 1973 through 1983.

(j) Please state the number of LERs for Robinson 1 in each year from 1970 through 1983.

(k) Please state which LERs CP&L (i) considered to be of unusual safety significance within one year of its occurrence (ii) now considers to be of unusual safety significance (iii) considers to have no safety significance. Please state which of these LERs apply to (iv) Robinson 2 (v) Brunswick 2 (vi) Brunswick 1; please give the date of each.

(l) For each LER identified in response to (k)(i) above, please state why CP&L believed it had unusual safety significance. Please state what criteria CP&L used to determine its safety significance. Please state what action, if any, CP&L management took to prevent recurrence of the event described in this LER. Please state whether that event or a similar event has in fact recurred (or occurred at another CP&L plant) to date.

(m) for each LER identified in response to (k)(ii) above please state when it was determined to have unusual safety significance, what criteria were used to determine its safety significance, why it was being re-examined (or how it came to the attention of whoever determined its safety significance), who determined it had unusual safety significance, and what action if any was taken in response to the finding of unusual safety significance in this LER. Please also state whether a similar event to that described in this LER had occurred prior to the finding of unusual safety significance (i) at a CP&L plant (ii) at another nuclear plant (specify what plant, what event, and when); and state whether a similar event has occurred at any CP&L nuclear plant since the finding of unusual safety significance was made. Please state who approved the action taken in response to the finding of unusual safety significance



for this LER, and what followup was done and by whom concerning this LER (iii) at the time it was filed (iv) thereafter, but before it was found to have unusual safety significance (v) after it was found to have unusual safety significance.

(n) Please describe the problems the Brunswick plant has had with (i) instrumentation setpoint drift (ii) moisture and/or corrosion in instrumentation and/or electrical wiring (iii) having several instruments simultaneously out of service or out of adjustment or inoperable.

(o) what consideration, if any, was given to the moist climate at Brunswick's site, in (i) designing its instrumentation (ii) specifying its wiring materials (iii) establishing procedures and materials to be used in connecting wiring in the plant, particularly for instrumentation and for controls (iv) specifying the types of monitors, meters and electrical instrumentation used in the plant? (v) Did CP&L recognize that moisture might adversely affect the performance of instrumentation at Brunswick before the Brunswick plant's instrumentation problems began? What steps, if any, did CP&L order taken to minimize the adverse effects of moisture on Brunswick instrumentation?

(p) what consideration, if any, was given to the effect of salt or salinity of moisture on the Brunswick plant's (i) wiring (ii) instrumentation (iii) airhandling equipment, in designing and building the plant? What consideration did CP&L make of these items with respect to resisting harmful effects of salt or salinity during Brunswick's construction? Did CP&L specify any corrosion-resistant wiring, connections, materials or instrumentation for the Brunswick plant during its construction?

(q) Who at CP&L made the decision to make the Brunswick plant's original condensers with ordinary steel? (i) What consideration was given to the fact that the steam it condensed would contain radioactive material, in making this decision? (ii) What consideration was given to the fact that radiation exposure would be higher when replacing the Brunswick condensers (or their corrodable parts), than would be the case in replacing comparable condenser(s) (or any condensers) in coal-fired plants, when CP&L made this decision? (iii) what consideration was given

to the corrosive effects of brackish water in making this decision? Was CP&L aware that the Brunswick cooling water would be brackish? (iv) when was the decision made to replace the Brunswick condensers? Who made it? Why? Did senior management approve of this decision? When? (v) Had senior management at CP&L (vice presidents or higher officers) been involved in the original decision to make the Brunswick condensers with steel material rather than more corrosion-resistant material? If so, who was involved, and please identify all documents containing their opinion(s) on this matter. (vi) Has Sherwood H. Smith Jr. ever discussed the decision to make the Brunswick condensers of corrodable material (aa) in a public meeting in the Brunswick plant area (bb) with CP&L officials at or about the time such decision was made (cc) in testimony before the Congress (dd) in testimony before the NC Utilities Commission (dd) in testimony before the NRC? Please identify all documents in your possession giving any statements made by him concerning this matter at any time, especially in the 4 contexts inquired about above in (aa) through (dd). (vii) Please identify all documents concerning the decisions (aa) to specify the original materials of the Brunswick condensers (bb) to replace these condensers (cc) regarding worker radiation exposure during replacement of the Brunswick condensers, which are in your possession.

(r) Concerning the augmented off-gas system at Brunswick, (i) did it not experience an explosion early in 1976? Please identify all documents related to such explosion, the offgas system's problems, and NRC inspection following the offgas system explosion. (ii) did the NRC identify design problems with the augmented off-gas (AOG) system at Brunswick? When? In what documents? (iii) Did the NRC identify construction problems with the AOG system at Brunswick? When, and in what document(s)? (iv) did the NRC identify operator error as contributing to the AOG explosion at Brunswick in 1976? If so, when, and in what documents? (v) did the NRC note or find that CP&L employees had been exposed to radiation when they tried to check the AOG system about the time of the 1976 explosion in it? If so, were any CP&L personnel overexposed to radiation? When was their

contamination first discovered?

(vi) If you maintain that what happened to the Brunswick AOG system in early 1976 was other than an explosion, please answer subparts (i) through (v) above substituting the words "incident reported to NRC" for "explosion" in each such subpart.

(vii) who made the decision not to repair the Brunswick AOG system immediately after this 1976 incident?

(viii) what decision was made by CP&L concerning the AOG system at Brunswick (aa) in 1976 (bb) in any later year? Please identify all documents containing each such decision, stating who made the decision and when and on what basis.

(ix) is the AOG system needed at Brunswick to reduce the amount of radioactive gases released from the plant?

(x) if an operable AOG were functioning at Brunswick, would it be useful for reducing the amount of radioactive gases released from that plant?

(xi) did NRC Staff propose a license condition for Brunswick in 1978 or 1979 concerning the amount of failed fuel with which the plant could be operated? If so, please identify all documents concerning such proposal and CP&L's response to it.

(xii) did NRC Staff propose a license condition for Brunswick in 1978 or 1979 related to the amount of radioactivity or radioactive gases Brunswick could release? If so, please identify all documents concerning such proposal and CP&L's response to it.

(xiii) when the Brunswick plant was operating with more than one percent failed fuel, what action did CP&L take concerning the failed fuel? Who took the action? Why? What consideration did CP&L give to shutting down the Brunswick plant and removing the failed fuel before it was "burned up"? When? Who decided to leave the fuel in the reactor? What senior management (VP or higher rank at CP&L) were (aa) consulted (bb) informed of (cc) involved in (dd) makers of (ee) approvers of, this decision?

(xi) What is the highest percentage of failed fuel Brunswick 1 has ever operated with? Please give all basis for your answer and identify all documents concerning failed fuel levels at Brunswick greater than 1%. What is the highest percentage of failed fuel Brunswick 2 has ever operated with? Please give all basis for your answer and identify all documents your answer depends on.

(xv) when did CP&L senior management first become aware that low-level radioactive waste from the Brunswick plant was being disposed of (aa) in nearby landfills (bb) in nearby scrap yards (cc) in violation of NRC regulations?

(xvi) how long had disposal of Brunswick LLRW in violation of NRC regulations been going on before CP&L senior management found out about it?

(xvii) Who informed CP&L senior management that improper LLRW disposal was taking place at Brunswick (aa) to landfills (bb) to scrap dealers?

(xix) Did anyone with CP&L or employed by CP&L know that the LLRW was being taken out of the plant in violation of NRC regulations, before CP&L senior management was informed that LLRW was being removed from Brunswick in violation of NRC regulations? If so, who was it, when did each such person know, and what did each such person do with that knowledge? When, if ever, did each inform her/his superior(s) about the LLRW removal?

(xx) How much LLRW from Brunswick was later retrieved from (aa) landfills (bb) scrap yards (cc) other places, once the improper disposal of LLRW was known?

(xxi) How much LLRW at Brunswick is accounted for? Does CP&L management know where all the LLRW produced at Brunswick is now? If not, how much LLRW from Brunswick do you know the location of? How do you know? How much is known to be unaccounted for? Does CP&L management know how much LLRW is produced at Brunswick? Does CP&L management know how much LLRW has been produced at Brunswick?

(xxii) Describe all changes in Brunswick procedure which were ordered by senior CP&L management as a result of the improper disposal of LLRW at Brunswick. Please state what changes if any were made in security personnel, LLRW procedures, inspection of material leaving the plant for radioactivity, surveys of local landfills and/or dumps for radioactivity, etc. Among the measures taken, which were required by (aa) NRC regulations or rules (bb) NRC Staff (cc) CP&L management, beyond the requirements of NRC.

(xxiii) Does CP&L believe the LLRW disposal incidents at Brunswick are indicative of good management at Brunswick? If so, why? Please give your reasoning in detail.



(xxiv) Who is in charge of recordkeeping at the Brunswick plant? How long has this person held this position? Please identify all other persons who have been employed in recordkeeping for the Brunswick plant since it began commercial operation, the dates each was employed, and the reason (if known) each left CP&L or left Brunswick (for persons who have left Brunswick).

(xxv) Who has responsibility for seeing that NRC-required tests at the Brunswick plant are carried out? Who has responsibility for ensuring that each such test is carried out on time? Who had responsibility for each of these matters (aa) in 1982 (bb) in 1981 (cc) in 1980 (dd) in 1979 (ee) in 1978 (ff) in 1977 (gg) prior to 1977?

(xxvi) What management controls were in place at the Brunswick plant to see to it that NRC-required tests of the plant were carried out in a timely manner (aa) in 1983 (bb) in 1982 (cc) in 1981 (dd) in 1980 (ee) in 1979 (ff) in 1978 (ff) in 1977 (gg) prior to 1977? Please identify all documents containing information about the management controls for this matter at Brunswick that applied in any of the years inquired about above, stating for each what period the document was in effect for and what period the controls it describes were in effect for.

(xxvii) Why didn't CP&L test the containment at Brunswick for leak-tightness from 1979 til 1982? Please give all reasons for your answer and explain in detail the role of senior management in assuring that NRC requirements are met for operating CP&L nuclear plants.

(xxxviii) Does CP&L deny that it failed to make NRC-required tests of Brunswick for years, as described in the testimony of Thomas Lam of NCUC's Public Staff in Docket E-2 sub 461? Please give all basis for your answer including identification of any documents you rely on or use in making your answer.

(xxix) Does CP&L believe that continuing failure to test its plants in accord with NRC requirements indicates good management? Please give all basis, including any documents you use or rely on in making your answer, which you believe supports your answer.

(xl) Does CP&L believe that its management made any mistakes during the Brunswick turbine outage of 1981? Please list all such mistakes you have identified to date. Please identify all documents concerning each such mistake in your possession. Please produce a copy of the turbine log for Brunswick for 1981.



(xli) Does CP&L have any proof that the Brunswick turbine was sabotaged in 1981? Please identify all documents you believe contains such proof. If you believe any document contains evidence of sabotage of the Brunswick turbine(s) at any date, please identify such document and the evidence of sabotage it contains.

(xlii) If the Brunswick turbine was not sabotaged in 1981, would that indicate to you that there was any other cause for the debris found in the turbine oil and/or for the damage to the turbine bearings? If your answer is affirmative, please identify all other causes you have considered for (i) the debris getting into the oil (ii) the damage to the bearings; please identify all documents which discuss each such cause, and particularly any document in which CP&L finds any such cause likely, or in which CP&L finds such cause unlikely.

(xliii) What evidence of good management does CP&L management find in the history of the 1981 Brunswick turbine outage? Please identify each pattern, incident, response or action which you believe indicates or shows good management of this outage.

(xliv) Do you believe that dismissing the specially-trained turbine maintenance crew CP&L had hired earlier in 1981 was good management? Please give all basis for your answer.

(xlv) Do you believe that the hiring of a second crew was done with adequate care for the competence of that crew for doing turbine maintenance at Brunswick in 1981? Please give all basis for your answer.

(xlvi) Did anyone at CP&L question the competence of the GE personnel involved in the 1981 turbine outage? Please identify any document(s) in which such criticisms or questioning are found. Please state what CP&L's policy is for dealing with (aa) an employee's belief that outside contractor or other outside personnel are not competent (bb) incompetent contractor personnel (cc) incompetent outside supervisory personnel (cd) incompetent outside advisors, in nuclear operations. Has your policy on any of these matters been changed since 1981? Since 1977? Since 1973? Please identify all documents containing your policy on any of the above-stated problems (dealing with them), that are (ee) presently in effect (ff) formerly in effect, giving the dates for which each such policy was in effect.

(xlvi) Who checked the oil filter screens on the Brunswick turbine to be sure they were properly installed before the turbine was restarted in 1981? Prior to which restarts, on which dates, did anyone check these screens? Who did each such check? Did anyone note that the screens were (aa) improperly installed (bb) not installed (cc) put in backwards, at any time in 1981? Has anyone noted any improper installation of the turbine oil filter screens at Brunswick (dd) prior to 1981 (ee) since 1981? Please identify each such person and when s/he noted an improper installation of filter screens on the Brunswick turbine.

(xlvii) How much radiation exposure did CP&L personnel receive in repairing the Brunswick turbine in 1981 and getting it back into service? How was this exposure measured? Please identify all documents stating the radiation exposure received by CP&L personnel involved in the Brunswick turbine repair and outage in 1981.

(xlviii) Does CP&L management believe that any of this radiation exposure could have been avoided? If so, how? If not, why not? Please describe in detail the health physics planning for the 1981 Brunswick turbine outage, the plan(s) made, and identify all documents containing such plan(s), revisions of such plan(s), and/or radiation exposure recording methods used and/or health physics methods used for area monitoring around the turbine during the outage.

(1) In making repairs at Brunswick in 1981, was any equipment damaged? If so, please list significant items of equipment that were damaged (aa) prior to planned use in making repairs (bb) during the making of repairs (cc) after making repairs but before the equipment was removed from the repair area (dd) after making repairs but before the equipment was removed from the plant. Please identify all documents relating to damage to equipment during repair operations at Brunswick in 1981.

(li) (aa) Please answer all parts of (1) above for the year 1982.

(bb) Please answer all parts of (1) above for the year 1983.

(lii) Please state whether CP&L opposes capacity factor goals for its Brunswick plant. Please identify all documents in which CP&L officials discuss or consider such goals, particularly any in which CP&L identifies any adverse safety effects which may result from attempts to improve capacity factor at Brunswick.

I-31. Please provide copies of the minutes, transcript(s) of any recordings, and handwritten notes of each meeting of (a) the CP&L Directors (b) the Executive Committee of the CP&L board of directors (c) the committee(s) of the CP&L Board of Directors which are concerned with finances (d) the committee(s) of the CP&L Board of Directors which are concerned with forecasting (e) any committee or subcommittee of the CP&L Board of Directors which is concerned with nuclear matters, at which any of the following was discussed:

(i) construction problems at Robinson 2

(ii) Robinson 2 steam generators, or repairs to them, or leaks in them, or radiation exposure incurred in servicing and/or repairing them.

(iii) construction problems at Brunswick (either or both units)

(iv) repairs to Brunswick

(v) outages at Brunswick

(vi) <sup>health, financial or</sup> safety significance of any problems at Brunswick, including the RHR problems found in the second quarter of 1981, any other RHR problems, radiation releases offsite, improper removal of low-level radioactive waste (LLRW) from Brunswick, failure to make required tests of Brunswick's containment or its integrity, cheating on tests by reactor operators at Brunswick, training of Brunswick reactor operators, any incidents when General Electric personnel were called to Brunswick to assist reactor operators or control room personnel, Brunswick condenser problems, chlorination of service water at Brunswick, chlorination of RHR heat exchangers at Brunswick, Brunswick torus modifications or the need therefor, Brunswick fire protection systems, Brunswick cable and wiring, damage to equipment during repairs at Brunswick, number of personnel required to repair Brunswick (or whether enough were available to make needed repairs promptly), turbine problems at Brunswick, failure of seals at Brunswick, failure of main steam isolation valves at Brunswick, emergency planning for Brunswick, spent fuel storage at Brunswick, spent fuel transportation to Brunswick, spent fuel transportation from Brunswick to other sites, LLRW transportation from Brunswick to disposal sites, Brunswick augmented off gas system (AOG system), Brunswick off gas system, failed fuel at Brunswick, routine radioactive releases from Brunswick, high Sr-90 levels in any environmental samples around Brunswick, changing the site at which Sr-90 samples are taken

near Brunswick, plans or attempts or action to buy out dairy operations near Brunswick or to prevent same from operating, radioactive material found in milk near Brunswick, radiation levels found in the picnic area near the Brunswick visitors center, adverse effects of employee turnover at Brunswick, employee turnover at Brunswick, alarm doors at Brunswick not being closed when required, security problems at Brunswick, control room problems at Brunswick, failure to make repairs at Brunswick, failure to complete repairs at Brunswick, pipe cracking at Brunswick, leaks of radioactive water at Brunswick, leaks in Brunswick steam system, venting of steam to atmosphere at Brunswick, CP&L's earnings improvement program, the Brunswick improvement program, any specific LERs or LER, failure to follow procedures at Brunswick, employee exposure to radiation at Brunswick, employee overexposure to radiation at Brunswick, instrumentation failures at Brunswick, reactor vessel embrittlement at Brunswick, mismanagement at the Brunswick site, management at the Brunswick site, or terrorist threat(s) to Brunswick.

(vii) Health, financial or safety significance of any problems experienced at HB Robinson plant or its Unit 2 which concern nuclear matters, including pressurized thermal shock, radiation overexposure to employees, security problems, any attitude of production coming before nuclear safety on the part of Robinson 2 management or employees, pump seal failures, radiation releases offsite, cheating by reactor operators or SROs or candidates for these jobs on NRC or AEC-required exams or on other examinations or tests, leaks in the Robinson primary system, outages, outage management, outage length or extensions, emergency planning at Robinson 2, spent fuel storage at Robinson 2, spent fuel transport from Robinson 2 to other sites, LLRW transport from Robinson 2, LLRW disposal for material from Robinson 2, mismanagement at Robinson 2, failure to follow procedures at Robinson 2, any LER or LERs, or operating Robinson 2 under regulations which are not as strict as those applicable to newer nuclear power plants.

(viii) Fines proposed or levied by NRC or AEC against CP&L.

(ix) Financial difficulties of the Company (CP&L), especially as such difficulties affect(ed) or might affect availability of funds for (aa) nuclear plant repairs required for safety reasons (bb) nuclear plant modifications required for safety reasons



(cc) nuclear plant changes otherwise required by NRC or by its rules or regulations (dd) nuclear plant construction, particularly construction of safety-related systems or components or purchase of such components or systems (ee) increased or changed NRC or AEC requirements for nuclear plants in construction or in operation.

(x) Any adverse effects on safety at any CP&L nuclear facility (or in nuclear waste or spent fuel transport) believed to be caused by (aa) lack of funds (bb) management decisions (cc) incompetent personnel (dd) human error (ee) insufficiently trained personnel (ff) insufficiently experienced managers or supervisors (gg) desire to maintain output of nuclear plants at higher levels (hh) desire to minimize downtime of nuclear plants or any nuclear plant (ii) any other cause related to management

(xi) any construction or management problems related to Harris, including any believed to have safety significance (aa) by NRC or its staff (bb) by CP&L management, including but not limited to: pipe hangers; cable pulling; instrumentation or controls; storage of materials or equipment; concrete work; qualification of management personnel; qualification of other employees; work done by Daniel International; work done by other subcontractors or contractors that was found or suspected not to be of adequate quality; LERs; NRC inspection reports; quality assurance; quality control; shop welding; field welding; diesel generators; instrumentation; control room equipment or design; seismic design or the plant; retaining wall near fuel handling building; emergency planning for Harris; nuclear waste or spent fuel storage at Harris; nuclear waste or spent fuel shipment to or from Harris; LLRW compact legislation.

I-32. Please provide a copy of each filing CP&L has submitted to the Securities and Exchange Commission concerning nuclear matters, including any filings on Form 10-k, Form 8-K, form 10-Q, and/or other SEC required forms, since CP&L began to operate or contract for construction of nuclear power plants (i.e. since approximately 1965). This request includes but is not limited to statements entitled "nuclear matters", statements concerning nuclear safety, nuclear issues, nuclear regulation, financing of nuclear facilities, CP&L nuclear policies, CP&L nuclear plants, performance expected of CP&L nuclear units, performance achieved by CP&L nuclear units, management of CP&L nuclear units, statements by CP&L officials



concerning nuclear operations, nuclear power, nuclear waste, nuclear power regulation, nuclear plant performance, or safety significance of accidents, incidents or events at CP&L nuclear facilities. Please state which of these filings were made under oath.

I-33. Please provide a copy of each prospectus or official statement related to the sale of (a) CP&L common stock (b) CP&L preferred stock (c) CP&L bonds (d) CP&L notes (e) CP&L commercial paper (f) CP&L nuclear plants or interest(s) therein, e.g. to NCEMPA or NC Municipal Power Agency #3 or to electric cooperatives or cities or others (g) CP&L overseas finance notes (h) CP&L nuclear fuel trust(s) (j) CP&L nuclear fuel, or nuclear fuel for CP&L plants, which mentions nuclear matters, including but not limited to: CP&L management of nuclear facilities, CP&L nuclear facility actual performance; CP&L nuclear facility expected performance; CP&L's judgment of the safety of any nuclear facility; radiation released from any CP&L nuclear facility; fines against any CP&L nuclear facility; regulation of nuclear power in the US; regulation of CP&L nuclear facilities; nuclear capacity factors for CP&L nuclear plants; financing of CP&L nuclear facilities; need for additional financing of CP&L nuclear facilities or repairs or modifications thereto; timetables for repairs or modifications to CP&L nuclear facilities; costs of modifications or repairs to CP&L nuclear facilities; availability of personnel for repairs or modifications to CP&L nuclear facilities; radiation exposure to personnel making repairs or modifications to CP&L nuclear facilities. (Throughout these interrogatories, a "CP&L nuclear facility" is one operated by CP&L.)

I-34. Please provide a copy of each statement made by any Chairman, President, Chief Executive Officer, Chief Operating Officer, Group Executive, Senior Vice President or Vice President or Treasurer or Secretary of CP&L before any committee or subcommittee of the US Congress concerning nuclear matters, including but not limited to: nuclear safety; nuclear power regulation; nuclear power financing; nuclear waste transport or storage; CP&L plans for nuclear construction; CP&L's operation of nuclear plants; CP&L management of nuclear plants; fines against CP&L nuclear power plants; CP&L management experience in constructing or operating nuclear power plants; nuclear plant emergency planning; nuclear plant capacity factors (expected or actual); radiation releases from

nuclear power plants; health effects of radiation; health or safety significance of any accident or release of radiation from a nuclear power plant; nuclear waste disposal feasibility or safety.

Please state whether each such statement was given under oath or not, and give the date it was made and identify what committee or subcommittee it was made before.

I-35. Please list each CP&L nuclear officer or official concerned with CP&L nuclear management or operations who has presented testimony to any committee or subcommittee of the US Congress concerning any nuclear matters, particularly CP&L nuclear operations and/or their safety or financing; nuclear power regulation; fines against CP&L nuclear plants; temporary licensing of nuclear power plants; CP&L efforts to change NRC regulations or to prevent NRC regulations from being changed; CP&L compliance with NRC regulations; radiation or radioactive material released offsite from CP&L nuclear facilities; CP&L emergency planning.

For each such officer or official, please state: date of testimony, before which committee or subcommittee, whether the testimony was under oath, whether the witness appeared voluntarily or was subpoenaed, and whether the company or any officers of CP&L reviewed and/or approved the testimony before it was given. Please produce copies of all such testimony in your possession.

I-36 (a) Does CP&L know the present address of J.A. Jones, formerly Chief Operating Officer and formerly Vice Chairman of CP&L? (b) If response to (a) is affirmative, what is that address? (c) Has Mr. Jones retired from CP&L? (d) Was his retirement voluntary? (e) Did CP&L have any rule, regulation or policy in effect at or before the retirement of Mr. Jones which would have required him to retire at a certain age? (f) Does CP&L plan to call Mr. Jones as a witness regarding CP&L management capability in this proceeding? (g) Who is the Chief Operating Officer of CP&L since Mr. Jones retired? (h) Does Mr. Jones do any consulting or other work for CP&L at present? (i) Did Mr. Jones do any work for CP&L after his retirement? (j) If response to (h) or (i) above is affirmative, please state what work Mr. Jones did, when, and whether he was paid for it. (k) Does CP&L have any agreement with MR. Jones or any other retired officers of CP&L which restricts him, or any of them, from (aa) commenting on CP&L management or

operations (bb) working for someone other than CP&L (cc) revealing information acquired while working for CP&L?

I-37(a) Did CP&L retain any papers or documents written by, or possessed by, the late Mr. Shearon Harris, after he was no longer with the Company (CP&L)? (b) If answer to (a) is affirmative, do any of these documents relate to (i) nuclear matters (ii) nuclear safety (iii) QA or QC items brought to Mr. Harris' personal attention (iv) nuclear safety matters brought to Mr. Harris' personal attention (v) nuclear construction problems brought to Mr. Harris' personal attention (vi) nuclear operating problems brought to Mr. Harris' personal attention? (vii) Mr. Harris' own views or policies concerning nuclear safety, nuclear plant management, nuclear operations, nuclear regulation (and/or compliance therewith), radiation releases from nuclear power plants, protection of the public health and safety by nuclear plant owners or operators, adequate financing of safe operation at nuclear power plants, personnel management, retaining qualified personnel, personnel training, quality assurance, quality control, corporate management, radiation health hazards, performance goals for nuclear plants, performance goals for non-nuclear power plants, or the question of production from nuclear plants as it may affect, or be affected by, safety?

(c) If response to any subpart of (b) is affirmative, please identify each document containing information inquired about in that subpart, and please produce the document or a copy of it for inspection and copying.

(d) Were any of Mr. Shearon Harris' personal papers or corporate papers (i) destroyed (ii) removed from CP&L control, after he was no longer with the Company?

(e) If response to any part of (d) above is affirmative, does CP&L know what was in those papers? Do you know if they concerned management, QA/QC, nuclear safety, nuclear plant management, or any nuclear matters including but not limited to those listed in part (b) above? Do you know who possesses any of those papers at present? If so, who possesses them?

(f) If any of Mr. Harris' papers were destroyed, please state who destroyed them, when, and why they were destroyed, to the extent you know.



I-38. Who among CP&L management participated in decisions concerning (a) planning of the Harris plant (b) design of the Harris plant (c) ordering the nuclear steam supply system for Harris (d) selecting the architect-engineer for the Harris plant (e) selecting the prime contractor for the Harris plant (f) selecting subcontractors for Harris, e.g. Bergen-Paterson for pipe hanger and hanger work or design, Research-Cottrell for cooling tower design or construction; (g) supervising early site work for the Harris plant (h) going ahead with site work on Harris before a Construction Permit was issued for it by the AEC or NRC (i) supervising construction at Harris after the NRC issued a Construction Permit in 1978 (j) cancelling Harris 3 and 4 (k) cancelling Harris 2 (l) continuing construction of Harris 1? Please list the managers who participated in each such decision, the date(s) of the decision(s), and identify all documents concerning each such decision.

I-39(a) What was the role of Mr. R. Talton in designing the Harris plant? What was his role in siting it? (b) Please list all CP&L employees who worked on the Harris project before it was publicly announced, including those who worked in the house CP&L used near the present Harris site. Please state the job classification and title of each such person, and for each state whether the person still works for CP&L and state his or her last known address. (c) Is Mr. Talton still employed by CP&L in any capacity? If so, please state in what capacity and whether his work is paid work. (d) Did Mr. Talton work for CP&L in negotiating the sale of part of the Harris project to members of NCEMPA (or to NC Municipal Power Agency #3 or NCMPPA #2 or any of their members)? If so, please state what representations Mr. Talton made to them or any of them concerning the completion of Harris 2 and/or Harris 1, and when such representation was made. Please identify all documents containing any such representation and state whether each had been approved by CP&L management (AND IF SO, BY whom and when) Please state if any representations concerning completion of Harris 2,3,4 or 1 or any of these units appear in CP&L's contract with NCEMPA (or with any of its predecessor organizations or members); if so, please identify each such representation and state where in each contract it appears and produce a copy of each such contract for inspection and copying. (e) Does CP&L plan to call Mr. Talton as a witness in this proceeding?

(f) Have any members of NCEMPA complained to CP&L concerning the cancellation of (i) Harris 3 or 4 (ii) Harris 2? Have any representatives of NCEMPA or any of its members or employees made any such complaint to CP&L? If so, when did it happen, who complained, what response did CP&L make, and please identify any documents containing the complaint or CP&L's response to the complaint.

(g) Have any person(s) connected with NCEMPA stated that CP&L misled NCEMPA, any member of NCEMPA, or any person negotiating for NCEMPA, concerning CP&L's sale contract for power plants with NCEMPA, or concerning operating, fuel, interconnection, or other agreements between NCEMPA and CP&L? If so, which of these complaints concerned (i) nuclear safety (ii) nuclear plant repair costs (iii) nuclear plant performance (iv) misleading representations made by CP&L or persons representing CP&L (v) representations made by CP&L or by any person or person representing CP&L? Please identify each such statement, who made it and when, what response CP&L made to it, and identify all documents containing the statement or any CP&L response to it.

(h) Have the arbitration provisions of CP&L's contract(s) with NCEMPA ever been invoked by any party? If so, state by which party, when, and give all relevant details and identify all documents concerning such arbitration and/or the reason(s) why it was invoked. Please also state if the arbitration has been completed, and if so, with what results, and identify all documents giving the results of such arbitration.

(i) Is CP&L aware of any complaints or charges that CP&L or any agent or person working for CP&L misrepresented what CP&L was doing in acquiring land for the Harris plant? Is CP&L aware of any complaints concerning its land acquisition policies or practices for the Harris plant site? If so, please list each such complaint, who made it and when, and identify all documents containing the complaint or CP&L's response(s) to it.

(j) Did any attorney for CP&L ever participate in a court proceeding in North Carolina involving Mr. Calvin Ragan or the Ragan family, who own or owned a house and farm near the Harris plant site? If so, please identify each such proceeding and each CP&L attorney who participated in it; also identify any attorneys for CP&L, not already named, who participated in it; please also give the date(s) of each proceeding, including when it was commenced, when it was before the court, when CP&L



or its attorneys appeared in court for this proceeding, what court(s) the proceeding was before, and when any final decision or order was issued in it.

Please state with particularity whether any CP&L attorney or attorney for CP&L ever made any statement or argument in any such proceeding that CP&L had not decided whether Harris would be a nuclear plant or a coal plant, or <sup>said</sup> any words to that effect.

Please state further when CP&L adopted the title "Shearon Harris Nuclear Power Plant" for the Harris site or plant, why nuclear was chosen for the Harris site, when the Harris nuclear steam supply system was ordered (and by whom), whether CP&L received a certificate of public convenience and necessity from the NC Utilities Commission on or about 29 February 1972 for Harris as a 4-unit nuclear plant, and when and how CP&L has to date considered converting Harris or any Harris unit to coal-firing. Please identify all documents which (1) relate to the selection of nuclear as the power source for Harris, giving the date of each (2) show when the title "Shearon Harris Nuclear Power Plant" was given to what is now the Harris plant (3) order, or confirm the order for, the Harris Nuclear Steam Supply System (4) request a certificate from the NCUC for a nuclear plant at the Harris site (5) request a construction permit from the AEC or NRC for Harris (6) state that CP&L is considering converting any Harris unit or all its units to coal-fired units, oil-fired units, or any non-nuclear power source.

(k) Does CP&L have any policy in effect regarding the truthfulness or accuracy of its statements (i) to the news media (ii) to members of the public (iii) to stockholders (iv) to owners of land where CP&L is considering building a power plant (v) to the NRC (vi) to the SEC (vii) to the NC Utilities Commission (viii) to the Public Service Commission of South Carolina (ix) to bondholders (x) to any other person(s)? If answer to any of these subparts is affirmative, what is that policy, when was it adopted, what does it apply to, who approved it, and please identify all documents containing it and state why it was adopted.

(l) Has CP&L ever failed to correct any statement made in violation of any policy identified in response to any subpart of (k) above?

(m) Has CP&L ever had an offsite release of radioactive material where CP&L spokespersons did NOT say "There is no danger to the public"? If so, please state the date, place and amount

of each such release. Please provide a copy of any statement(s) CP&L released to the news media or to the public concerning each such release.

(n) For any offsite radiation release from any CP&L nuclear plant where CP&L did state there was no danger to the public, please identify all documents which show how CP&L calculated or concluded that there was no danger to the public. Please identify the source of any numbers or radioactive release values or radioactivity measurements on which such calculation or conclusion is based or was based. or been fired

(o) Has anyone ever resigned from CP&L because she or he (i) refused to do something because she or he believed that action was unsafe (ii) refused to certify or sign off on a statement she or he believed was not true (iii) believed or felt that any aspect of CP&L nuclear operations was unsafe (iv) believed or felt that any aspect of CP&L nuclear operations did not adequately protect (aa) the health of the public (bb) the health of CP&L employees (cc) the health of any other person including contractor employees?

(p) Has anyone ever resigned, or been fired, from CP&L because he or she (i) did something that was unsafe at a nuclear plant (ii) did something that failed to protect the public health or safety at a nuclear plant (iii) failed to do anything which was required to protect (aa) the public health (bb) any person's health (cc) the public safety (dd) any person's safety, at a nuclear plant?

(q) Please identify (or give a unique pseudonym to, if you believe privacy considerations demand it) each person who resigned or was fired for any reason inquired about in any part or subpart of (o) or (p) above. Please state all reasons you know for the firing or resignation of each such person. Please state the conditions under which you will provide Joint Intervenors with the name and last known address of each such person. Please state the conditions under which you will make available a copy of each such person's personnel file, performance evaluations, and professional qualifications to Joint Intervenors. Please make available the name, last known address, reason for resignation or firing, qualifications, personnel file, performance evaluations, and any documents concerning the matter this person resigned or was fired over; please state if the person resigned, or was fired,

and when. If the person was fired, by whom was she or he fired? Why was she or he fired? If the person resigned, do you have any letter of resignation or statement of his or her reasons for resigning? If so, please produce a copy of the letter or statement or any document containing reasons for the resignation.

(r) Has CP&L ever (i) fired (ii) transferred (iii) disciplined any employee for violating NRC regulations?

(s) Has CP&L ever (i) fired (ii) transferred (iii) disciplined any employee for violating technical specifications at a CP&L nuclear facility?

(t) Has CP&L ever (i) fired (ii) transferred (iii) reassigned (iv) disciplined any employee of the rank of vice-president or higher for any reason related to management problems at a nuclear facility, or related to safety or other problems at a nuclear facility?

(u) For any part or subpart of (r), (s), or (t) above for which your answer is affirmative, please provide the following:

(i) identification of each person, or a unique pseudonym for each person involved. If you use a pseudonym, give all reasons why the person's name cannot be revealed to Joint Intervenors.

(ii) all details related to the incident(s) or event(s) which led to the firing or transfer or discipline or reassignment.

(iii) copies of all documents related to the incident(s), event(s) or occurrence(s) which led to the firing or transfer or discipline or reassignment

(iv) the person's last known address

(v) all reasons for the firing, transfer, discipline or reassignment

(vi) who made the decision to fire, transfer, discipline or reassign this person

(vii) a copy of any policy under which the firing, transfer or reassignment was made or authorized

(viii) a statement of when that policy was put into effect, who authorized or approved it, and a copy of all previous policies on the same matters accompanied by a statement of when each was in effect and who approved each.

(ix) any administrative appeals, grievances, or other appeals of the decision to fire, transfer, discipline or reassign the person, including decisions thereon, statements made by the person affected, and copies of relevant policies used to decide the appeal

or grievance, and copies of any statements made or used in deciding the appeal and copies of any other documents used in deciding the appeal or grievance.

(x) a statement as to whether the person still works (aa) for CP&L; if so, in what capacity (bb) in a nuclear facility anywhere, if you know, identifying the nuclear facility if known (cc) in nuclear power management anywhere, stating where if you know where.

I-40. (a) What management controls or policies were in place at the Brunswick plant prior to commercial operation of Brunswick unit 2 to ensure that (i) problems at the plant were timely dealt with (ii) corrective action was taken for problems there?

(b) Please identify all documents containing descriptions of any of these controls or policies, state who approved each such management control or policy, state when it was approved, state who was in charge of monitoring compliance with each, state who was in charge or assuring compliance with each, and state whether CP&L senior management was ever informed by anyone at any time that any such management control or policy was not being followed (or that any such management control or policy was not being adequately followed).

(c) Had any additional management controls or policies been put in place by CP&L at the Brunswick plant prior to commercial operation of Brunswick 1 to ensure that (i) problems at the plant were promptly identified (ii) problems at the plant were promptly dealt with (iii) corrective action was taken for problems there? Please identify all documents containing descriptions of any of these controls or policies, and answer the other questions in part (b) above about each such policy or control.

(d) Prior to the end of 1978, had any additional management controls or policies been put in place by CP&L at the Brunswick plant to ensure that (i) problems at the plant were promptly identified (ii) problems at the plant were promptly dealt with (iii) problems at the plant were corrected (iv) there was adequate funding and experienced staff to deal with and correct the problems the Brunswick plant had? Please answer all the questions in part (b) above with respect to each such additional management control or additional policy.



(e) prior to the end of 1978, did CP&L recognize employee turnover at the Brunswick plant as a problem? If so, did CP&L management believe that such employee turnover could (i) reduce nuclear safety margins at Brunswick (ii) render the plant's operation unsafe (iii) retard the solution of problems at the plant (iv) prevent the timely solution of some problems at the plant (v) make it more difficult to identify problems at the plant (vi) make it more difficult to deal with problems at the plant in a timely manner?

(f) If your answer to any part of (e) above is affirmative, state in detail what CP&L management did about this problem. What was done to prevent any adverse effects of employee turnover on plant operation, identification of problems, timely solution of problems, and/or dealing with problems? Please provide copies of any documents concerning the employee turnover problem which CP&L produced prior to the end of 1978, including any documents describing any actions CP&L took prior to the end of 1978 to deal with this problem or to mitigate its effects. In particular, did CP&L management authorize the hiring of additional personnel, or any measures to attempt to retain qualified employees at Brunswick, prior to the end of 1978 in order to deal with problems of employee turnover there or problems caused by high employee turnover there? If CP&L did so, when? Who approved the action? Please identify all documents concerning each such action taken.

(g) Between 1-1-79 and the present, has CP&L management ever considered employee turnover at Brunswick to be (i) a problem (ii) a potential cause of other problems (iii) a threat to safety of the Brunswick plant operation (iv) something that reduces the margin of safety in Brunswick plant operations (v) a barrier or impediment to timely (aa) identification<sup>of</sup> (bb) dealing with (cc) solution of, problems at Brunswick?

(h) If your answer to any part of (g) above is affirmative, please state what CP&L management did about the problem or difficulty, and identify all documents, policies, procedures, management controls etc CP&L used or put in place to deal with this problem and/or its effects at Brunswick after 1/1/79. If you did anything on 1/1/79 please state what you did and why and who approved it, and identify all documents concerning your action taken 1/1/79 concerning employee turnover at Brunswick.



(i) Please identify any documents in your possession concerning the rate of employee turnover at Brunswick, the types of jobs or job classifications CP&L has at Brunswick and the rate of employee turnover in each such job type or classification, and the reasons for such employee turnover. Please give the date of each document, state who prepared it, state whether it was filed with NRC, NCUC, SCPSC or any other regulatory body (identify which it was filed with) and state whether the document was reviewed by CP&L senior management (ie. any person with the rank of vice-president or higher) at any time. If the document was reviewed by any senior management person, identify that person, state when she or he reviewed it, state what action she or he took after reading it, and identify all documentation of that action.

(j) Did anyone working with NRC or NRC Staff ever call CP&L's attention to problems of employee turnover at Brunswick, or to problems caused by employee turnover at Brunswick? If so, who did, when did he or she do it (state each time she or he did it), and identify all documents in your possession calling your attention to problems of employee turnover, or problems caused by employee turnover, at Brunswick. Please identify all documents in which CP&L responded to NRC or to the person who called CP&L's attention to the problem, giving the date of each and stating for each whether it had been approved by or reviewed by any member(s) of CP&L senior management before it was sent out. If it was reviewed or approved by any member(s) of CP&L senior management, state when it was reviewed and by whom (list names) and when it was approved and by whom (list names).

(k) Has anyone working for the (i) NC Utilities Commission Staff (ii) NCUC Public Staff (iii) NC Attorney General (iv) S.C. Public Service Commission staff (v) S.C. Attorney General (vi) SC Public Advocate of SC Consumer Advocate (vii) US General Accounting Office (viii) Federal Power Commission or Federal Energy Regulatory Commission (ix) NC Eastern Municipal Power Agency (x) government of NC, SC or the USA,

ever expressed concern to CP&L about problems caused by high employee turnover at Brunswick? If so, please identify each such person, what agency the person works for or worked for, when the concern was expressed, what the concern was, and identify all documents expressing the concern, and all documents wherein CP&L

made response(s) to each such concern. If the concern was expressed at a public hearing or in a legal proceeding, please give the docket number, title, and date of the proceeding and state what body the proceeding was being held before. For each CP&L response, state which senior CP&L management, if any, (i) reviewed (ii) approved the response before it was made. State any responses not documented.

(l) Has anyone else ever expressed concern to CP&L concerning the effects of high employee turnover at Brunswick as they may impede prompt recognition of and dealing with problems there, or as they may reduce the margin of nuclear safety there, or as a financial or other (e.g. inefficiency) burden on CP&L?

(m) If answer to (l) above is affirmative, please identify each such person, the date(s) such concern was expressed, all documents expressing such concern, to whom the concern was expressed, whether the person was employed by CP&L at the time such concern was expressed, whether the person is now employed by CP&L, whether the person had been present at the Brunswick site at or before the time the concern was expressed, and any and all documents in which CP&L responded to each such expression of concern. If CP&L made any response which is not documented, do you know what it was? If so, state the response made and who made it and when.

For each response CP&L made, state which CP&L senior management persons (i) reviewed (ii) approved each such response before it was made.

(n) Does CP&L presently plan any further actions to reduce employee turnover at Brunswick, to mitigate the adverse effects of employee turnover at Brunswick, or to increase the effectiveness and safety of its Brunswick operations in spite of employee turnover? If so, please identify each such action, who planned it, whether it had been approved for implementation as of 1/1/84, when it is scheduled to be implemented, who is to carry it out, and all documents which describe the action, its implementation, its review or approval, its funding, and the process, if any, by which its success will be monitored or judged.

(o) Has CP&L ever rejected any actions proposed to (i) reduce employee turnover at Brunswick (ii) mitigate any adverse effect on Brunswick repairs or operations which was caused or believed to be caused wholly or partly by employee turnover (iii) seek advice or further information needed to assess the causes of employee turnover at Brunswick?

(p) If answer to any part of (o) is affirmative, please state (i) what action was proposed (ii) when (iii) who proposed it (iv) who evaluated the proposal (v) who rejected it (vi) when it was rejected (vii) what other alternative action was taken instead of implementing the proposal (viii) whether it was partly rejected or wholly rejected; if partly, which parts were rejected and why? (ix) all reasons for the rejection of the proposal or proposed action(s); (x) any subsequent reconsideration or consideration of the proposed action by anyone at CP&L: when and by whom, with what results? (xi) whether the proposed action was reviewed by senior management: if so, when and by whom? (xii) whether the rejection of the proposal or proposed action (in whole or in part) was reviewed or approved by CP&L senior management; if so, when and by whom? (xiii) whether CP&L senior management ever reversed or overruled a rejection of any proposed action to reduce employee turnover at Brunswick, or to mitigate any adverse effects of such turnover, or to seek advice or further information on the causes of such turnover. If so, what decision was reversed or overruled, who did it, when, and what was done as a result of the reversal or overruling? Please identify all documents relating to each action or item of information asked about in subparts (i) through (xiii) above.

(q) Does CP&L management now consider that there is a problem with employee turnover at Brunswick? If so, please state all reasons why you believe there is a problem and what if any adverse effects on plant (i) safety (ii) reliability (iii) performance or capacity factor (iv) management (v) repairs (vi) maintenance (vii) modification, you believe employee turnover at Brunswick now has. If you do not believe employee turnover is now a problem at Brunswick, please state all reasons why you believe it is not a problem.

I-41. Please state which of the following equipment at Brunswick (a) Unit 2 (b) Unit 1 (c) common equipment shared by both units, was originally specified to be able to cope with or resist the effects of brackish water: (i) instruments required for operation of the Emergency Core Cooling System (ECCS) (ii) Reactor Core Isolation Cooling (RCIC) barometric condenser (iii) RHR heat exchangers (iv) condensers (v) High Pressure Coolant Injection (HPCI) system (vi) HPCI auxiliary oil pump.

(d) Has Brunswick ever experienced any problems due to (aa) corrosion (bb) fouling (cc) release of radioactive contamination, due to brackish water coming into contact with any of the equipment or systems listed as items (i) through (vi) above? If so, please state (dd) the date of the problem (ee) the system or equipment related to the problem (ff) the nature of the problem (gg) your evaluation of the safety significance of the problem made at or about the time the problem was discovered or noticed (hh) your subsequent evaluation of the safety or health significance of the problem if it differs from your initial assessment of such significance (jj) the health significance of the problem as you originally assessed it (kk) who noticed the problem (ll) who brought the problem to CP&L's attention (mm) what CP&L did about the problem (nn) whether the equipment involved, or any part of it, had to be (nn-a) cleaned (nn-b) replaced (nn-c) repaired (nn-d) modified as a result of the problem (oo) whether modification or replacement of the equipment to avoid brackish water related problems was proposed, and if so, who approved the proposal (and when) or who rejected the proposal (and when).

(e) Please identify all documents relating to each item inquired about in (d) above and its subparts.

(f) Does CP&L have any policy concerning (i) the corrosion resistance of parts in its plants that are cooled by brackish water (ii) the corrosion resistance of materials or parts in its nuclear plants when the nuclear plants are cooled by brackish water (iii) the resistance to brackish water of parts in plants cooled by brackish water (iv) the resistance to brackish water of parts in nuclear plants, when the nuclear plants are cooled by brackish water? For each affirmative answer given above, identify all documents concerning each such policy, its approval, and who approved it and when. State which policy, if any, was in effect when the Brunswick plant was (v) ordered (vi) designed (vii) built (viii) operated initially (ix) investigated by A. Ronald Jacobstein, consultant to the NCUC Public Staff (x) investigated by Thomas Lam of the NCUC Public Staff.

(g) Have any problems concerning brackish water at Brunswick been brought to the attention of CP&L senior management (i) prior to commercial operation of Brunswick 2 (ii) prior to commercial operation of Brunswick 1 (iii) prior to 1/1/79 (iv) prior to 1/1/82 (v) prior



to 1/1/83 (vi) after 1/1/83? For each affirmative answer, please list each such problem, the date it was brought to the attention of senior management, who brought it to whose attention, what action if any was taken by senior management, and also please identify all documents relating to (aa) the problem (bb) calling senior management's attention to it (cc) senior management's response to the problem or action concerning it or failure to act concerning it.

I-42 (a) Did anyone working for CP&L review the draft report of A. Ronald Jacobstein's investigation of the Brunswick plant before Jacobstein submitted his final draft to the NCUC Public Staff? If so, who did? When? What action, if any, did CP&L take as a result of reviewing this draft report?

(b) Did anyone working for CP&L attempt to get Jacobstein to make any changes in his report, or suggest any changes to his draft, including changes in language, to him or to the Public Staff or anyone working for the Public Staff? If so, who was involved for CP&L (list all persons who did any of the above things) and what did each do. Please provide a copy of all documents containing (i) CP&L comments or CP&L personnel's comments on Jacobstein's draft report (ii) CP&L comments or CP&L personnel's comments on Jacobstein's final report (entitled "Final Draft") (iii) changes CP&L suggested in Jacobstein's draft report (iv) Changes CP&L wanted made in Jacobstein's draft report (v) basis for suggested changes or reasons for them.

(c) Did any present or former employee of CP&L, including anyone on leave from CP&L to another organization, make any effort to (i) prevent A. Ronald Jacobstein from getting other consulting work; (ii) have any of Jacobstein's consulting work terminated; (iii) have Jacobstein fired or relieved of duties for any employer including the Public Staff of the NCUC; at any time after Jacobstein was hired by the Public Staff to investigate Brunswick? If so, please state who took such action, what action or effort each such person was involved in, whether the action or effort succeeded, what employer(s) or potential employers were contacted, whether any such action was reviewed, approved or known by CP&L senior management (if so, who knew, who reviewed it, who approved it, and when?), whether CP&L senior management made any effort to prevent Jacobstein from getting work,

who CP&L or its employee(s) contacted in such effort(s), and whether CP&L or any of its employees ever informed Jacobstein that such efforts were being made or had been made. Please identify all documents in your possession relating to the actions and matters inquired about in this interrogatory, including particularly any letters or memoranda or documents concerning Jacobstein which were sent by anyone at CP&L to any of Jacobstein's clients, potential clients, or persons working for his clients or potential clients. Please state to whom each such document was addressed.

I-43(a) Have any construction workers at Brunswick ever been contaminated due to radiation released by (i) a unit operating on the site (ii) planned release from a unit not in operation (iii) unplanned release from a unit not in operation (e.g. shut down)? (b) If so, please give details of each such incident or occurrence, and identify all persons contaminated, when and how the contamination was discovered, what CP&L did about the contamination, whether the persons contaminated were promptly informed that they were contaminated, what compensation if any CP&L made or offered to make to those contaminated, and all measures taken by CP&L to prevent recurrence of such contamination. Please identify all documents relating to these matters, including any list(s) of person(s) contaminated, any CP&L procedures for avoiding such contamination, any CP&L procedures for dealing with such contamination, and any past incidents of similar contamination at any CP&L nuclear plant. (c) Please state when, or if, CP&L senior management was informed of each incident of contamination inquired about above, and how long a time elapsed between (i) the time of the contamination (ii) the discovery of the contamination, and the time CP&L senior management was informed of it. Please identify all documents relating to CP&L policy on informing senior management concerning radioactive contamination of employees or contractor employees or other workers, and any documents by which CP&L senior management received notification of, or reports on, contamination incidents such as inquired about above.

I-44 Has CP&L ever identified any coordination problems (A) at Brunswick (B) at Robinson 2 (C) at Harris, concerning:

- (a) operations
- (b) maintenance
- (c) construction
- (d) relations between or coordination of:
  - (i) health physics and operations
  - (ii) health physics and maintenance
  - (iii) health physics and construction
  - (iv) health physics and repair work
  - (v) operations and maintenance
  - (vi) operations and repairs
  - (vii) operations and construction
  - (viii) construction and maintenance
  - (ix) construction and repairs
  - (x) maintenance and repairs

(e) If response to any of the above parts or subparts is affirmative, please identify or state:

- (i) each such problem and all documents concerning it
- (ii) who identified the problem first, and when
- (iii) when CP&L management first took action to solve the problem; what action(s) management took, and the reasons for each such action, and the success of each such action and who evaluated the success of each such action.
- (iv) when each such action was completed
- (v) whether NRC Staff concurred in CP&L's view of the success of the action(s) taken to solve the problem.
- (vi) whether the problem led to any violation of plant technical specifications (identify each tech spec violated)
- (vii) whether the problem was considered a (aa) open item (bb) violation (cc) deficiency (dd) noncompliance, by NRC inspector(s) or NRC Staff
- (viii) the role, if any, of CP&L senior management in dealing with the problem
- (ix) when CP&L senior management was first informed of the problem, and by whom
- (x) what actions CP&L senior management took to deal with the problem, if any, and what oversight senior management used to see if the problem had been solved
- (xi) all documents relating to senior management's involvement with the problem.

I-45 (a) Does CP&L believe that the Shift Technical Advisors for Harris should receive (i) training sufficient to bring each up to date on current Harris procedures and facility setup, before taking on STA duties (ii) retraining equivalent to the annual requalification training described in Appendix C of NUREG-0737, before taking on STA duties again, when s/he has been absent<sup>N</sup> from STA duties for 6 months or more?

(b) If any answer to (a)(i) or (a)(ii) above is other than affirmative, please state all reasons for your answer, state when (or if) you informed NRC Staff of this position, and state whether you believe your answer is consistent with the requirements of NUREG-0737 and applicable NRC rules.

(c) What involvement, if any, have senior CP&L managers had in setting the requirements for (i) training (ii) retraining (iii) requalification of Shift Technical Advisers for Harris? Please identify all documents showing such involvement, and specify what parts of which documents reflect the decisions or input of senior management.

I-46 (a) For each outage at Brunswick, please list the following:

- (i) number of oil spills
- (ii) number of resin spills
- (iii) number of salt water spills
- (iv) number of brackish water spills
- (v) number of radioactive water spills
- (vi) number of primary coolant spills (i.e. spills of water that would normally circulate through the reactor and turbine and condenser, of which has so circulated)
- (vii) number of spills of toxic chemicals
- (viii) number of incidents in which equipment was damaged during the outage

(b) which of the above-listed things happened during the 1981 turbine outage at Brunswick? For each that did occur, state its effect on (i) safety (ii) length of the outage (iii) ability to make repairs (iv) ability to make repairs on the critical path for that outage (v) radiation exposure to personnel at the plant (vi) radiation exposure offsite (vii) radiation or radioactive material released offsite. Please identify all documents dealing with each of these matters in the 1981 Brunswick outage.



(c) For each matter inquired about in (a) above, were there management controls or policies or procedures in effect at Brunswick in 1981 to minimize or prevent its occurrence? For each of the matters (i) thru (viii) listed in (a) above, please identify each (aa) policy (bb) procedure (cc) management control designed to limit or prevent its occurrence, which was in effect in 1981 (dd) before the Brunswick plant outage (ee) during the Brunswick plant outage of that year. Please identify all documents containing or concerning each such policy, procedure or management control, and state for each if it was available at the Brunswick plant in written form during the 1981 outage(s).

(d) Please state which of the matters listed as (i) thru (viii) in (a) above were considered in planning the 1981 Brunswick plant outage. For each, identify all documents in which it was considered and state all steps and plans made or projected for preventing each in the planning for that outage. State who had responsibility for preventing each of these things (i) thru (viii) at the Brunswick plant in 1981, if anyone had such responsibility. State whether the Brunswick plant had any policy or procedure establishing responsibility for minimizing or preventing spills and/or equipment damage (aa) during outages (bb) at any time, which was in effect during any part of the 1981 outage.

(e) who was responsible for outage planning at Brunswick (i) in 1980 (ii) in 1981 (iii) in 1982 (iv) in 1983? Please list each such person, when each had responsibility for outage planning, and what responsibility each had. For each, state what concern(s), if any, she or he communicated to senior management concerning the quality or effectiveness of outage planning at Brunswick (aa) in 1980 (bb) prior to 1980 (cc) in 1981 (dd) in 1982 (ee) in 1983. Did any person who was responsible for outage planning in any way at Brunswick prior to 1980 ever express complaints or concern or call senior management's attention to any problems with outage planning at Brunswick? If so, state who did it, what they did, who they contacted, and identify all documents in which such complaint, concern, or call for senior management's attention was expressed, and identify also to whom each such document was sent, and identify all documents prepared in response to such complaint, concern, or call for senior management's attention.

(f) Did CP&L have any policy or policies applicable to the timing, content, nature or comprehensiveness of outage planning (i) at HB Robinson 2 (ii) at Brunswick, as of: (aa) 1-1-74 (bb) 1-1-77 (cc) 1-1-79 (dd) 1-1-80 (ee) 1-1-81 (ff) 1-1-82 (gg) any date thereafter? If so, please identify each such policy and all documents containing it, proposing it, or approving it, and state what date(s) each such policy was in effect for.

(g) Did CP&L have any policy or procedure which concerned the availability of spare parts for (i) safety-related systems (ii) non-safety related systems (iii) turbines (iv) generators (v) main steam isolation valves, (vi) reactor coolant pumps (vii) demineralizers (viii) condensers (ix) steam generators (x) safety-related instrumentation (xi) other instrumentation, in effect at (aa) HB Robinson 2 (bb) Brunswick (cc) Harris, as of:

(dd) 1-1-74  
(ee) 1-1-77  
(ff) 1-1-79  
(gg) 1-1-80  
(hh) 1-1-81  
(jj) 1-1-82  
(kk) 1-1-83  
(ll) 1-1-84 ?

For each date, plant and item for which your answer is affirmative, please identify the document(s) containing such policy, state when such policy was last revised, who approved it, whether senior management reviewed or approved it and if so who did each, and provide all reasons for change(s) in the policy from previous policy applicable (mm) company-wide (nn) to the plant in question, e.g. Brunswick, Robinson or Harris.

(oo) Do any policies identified above apply only to spare parts and not to replacement parts? If so, identify all such policies which do not apply to replacement parts.

(pp) Does CP&L make any distinction between spare parts and replacement parts for its nuclear plants and/or equipment in them? If so, what is that distinction? Please identify all documents concerning your policy regarding replacement parts, for any CP&L policy that has been in effect at any time at (pp-a) Harris (pp-b) Brunswick (pp-c) Robinson 2, stating the date(s) each policy

was in effect. If the policy is still in effect, say so.

(h) Has CP&L ever experienced any problems of labor availability or competence of workers at its (i) Brunswick (ii) Robinson 2 (iii) Harris plant(s)? Please detail (iv) what problems you have experienced (v) what action management took to deal with each such problem (vi) identification of all documents asking for management action concerning labor availability (vii) identification of all documents asking for management action concerning competence of workers (viii) all actions management took or ordered taken concerning these matters (ix) all followup and oversight action by management concerning their actions and/or orders re labor availability problems (x) all followup and/or oversight action by management concerning their actions and/or orders re competence of workers. Please give this information for each nuclear site.

(xi) Please detail the involvement of senior management (vice presidents and higher ranking officials) in dealing with the problems of (aa) labor availability (bb) worker competence which you have experienced at (cc) Robinson 2 (dd) Brunswick (ee) Harris.

(j) Does CP&L ever use the "critical path method" in planning (i) construction of nuclear plants (ii) repairs of nuclear plants (iii) operation of nuclear plants (iv) outages of nuclear plants (v) maintenance of nuclear plants? For each subpart above for which your answer is affirmative, please state (aa) why CP&L management adopted the critical path method for this activity (bb) what measures CP&L management adopted to prevent problems from resulting from use of the critical path method (cc) what problems have actually resulted from the use of the critical path method, including whether CP&L management believes there has ever been an inordinant amount of concentration on tasks on the critical path to the detriment of tasks not on the critical path, and whether bottlenecks occurred as a result of using the critical path method (dd) what further measures CP&L is taking to prevent problems of interference among critical path activities, competition for health physics services, competition for QA/QC services, competition for equipment, competition for qualified workers, or qualified supervisors.

State whether any of the problems mentioned in (dd) above or in your response to (cc) above have occurred at (xx) Robinson 2 (yy) Brunswick (zz) Harris, and also state when such problems have been brought to the attention of CP&L senior management. If any such problem(s) have been brought to the attention of CP&L senior management, state what action CP&L senior management took and identify all documents bringing such problem(s) to the attention of CP&L senior management, and all documents detailing action senior management took or proposes to take in response.

I-47 (a) what requirements, if any, did CP&L senior management establish for the main steam isolation valves (MSIVs) at Brunswick (i) prior to purchasing them (ii) prior to installation. (b) what inspections and verifications of the valve materials, installation, or operability (or all or any of these) were made on the Brunswick MSIVs prior to the operation of (i) Brunswick 2 (ii) Brunswick 1?

(c) On pages 4-1 through 4-3 of his "Final Draft" report filed in NCUC Docket E-2 sub 444, A. Ronald Jacobstein identifies eight valve failures of Brunswick MSIVs. (i) Does CP&L agree that Jacobstein listed these failures accurately? If not, please specify each inaccuracy in his listing. (ii) Does CP&L agree with Jacobstein that the failure of threaded connections was a cause of separations in the Brunswick MSIVs (see p. 4-3)? If not, please state all other reasons (besides the four given by Jacobstein on page 4-3) for such separations. (iii) Does CP&L agree with Jacobstein that the design of steam piping at Brunswick causes turbulence which can lead to MSIV problems? If not, state all reasons for your disagreement. (iv) Was steam flow turbulence considered in (aa) the design of the Brunswick steam piping (bb) the design of the Brunswick MSIVs (cc) the locating of the Brunswick MSIVs? For each affirmative answer, state exactly how it was considered and whether the effect of steam flow turbulence on the MSIVs was considered, and if so, what steam flow turbulence effects on the MSIVs were predicted or taken into account. Please identify all documents concerning steam turbulence in the Brunswick piping design and steam turbulence effects on the MSIVs which you possess.



problems with or  
(v) Have there been any failures of Brunswick MSIVs since 1-1-82? Please describe fully each such problem or failure and what remedial action was taken concerning it. If any Brunswick MSIV failed after 9/8/81, please state whether the failure of this valve was brought to the attention of CP&L management, and if so when, how long after the valve failure that was, how long after the valve failure was discovered that was, what valve problems have been identified in connection with this failure, and what action management took concerning it. Please list all valve problems concerning Brunswick MSIVs identified after 9/8/81, identify all documents concerning each, and state for each when the problem was identified, when the problem was brought to the attention of senior management, and what action senior management then took.

(vi) Is it true that the MSIVs of CP&L's Mayo 1 coal plant were installed with their operators 45 degrees off vertical?

(vii) Is it true that the installation inquired about in (vi) above was made to avoid a catwalk? (viii) Is it true that the Mayo MSIVs had to be cut out and rewelded when the valve manufacturer informed CP&L that the valve operators had to be vertical?

(ix) Did anyone at CP&L know that the Mayo MSIV valve operators had to be vertical before these MSIVs were installed? If so, who knew and when? Was senior management ever informed that the MSIV valve operators had to be vertical before they were installed?

(x) How much work (person-days) did it take to remove and re-install the Mayo MSIVs?

(xi) Is there anything in the handling of the Mayo MSIVs that CP&L would describe as good management? Please detail each such thing and why it is good management.

(xii) Does CP&L agree with Jacobstein (p.4-1) that "an understaffing of engineers and maintenance personnel" existed at Brunswick during the period 1979-81? If not, state all reasons for your disagreement.

(xiii) Does CP&L believe that Brunswick has ever been understaffed with (aa) engineers (bb) maintenance personnel (cc) other workers? If so, when, for what type of worker(s), and why? Was CP&L senior management aware of this understaffing? If so, what action did they take concerning it? When did they take each such action? Please identify all documents concerning understaffing of Brunswick.

(xiv) Does CP&L agree with Jacobstein (p.4-1) that there was a "large, ever-increasing backlog of backfit and maintenance requirements during the 1979-81 period" at Brunswick? If you disagree, please state all reasons for your disagreement.

(xv) Does CP&L believe that it (aa) now has (bb) had during 1982 (cc) had during 1983 (dd) had prior to 1979, a large backlog of backfit and/or maintenance requirements at its Brunswick plant? Please state all reasons and all data supporting your answer. If you have listings of maintenance and/or backfit work scheduled or required for Brunswick in any of the years 1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, or 1986, please identify all documents containing such listings of lists, and make them available for inspection and copying.

(xvi) Please identify all causes you know of for the backlog(s) of backfit and/or maintenance work to be done at Brunswick as of (aa) 1/1/77 (bb) 1/1/78 (cc) 6/30/78 (dd) 1/1/79 (ee) 1/1/80 (ff) 1/1/81 (gg) 6/30/81 (hh) 1/1/82 (ii) 6/30/82 (jj) 1/1/83 (kk) 6/30/83 (ll) 1/1/84, or for any date(s) other than the above for which you have a list of the backlog of backfit or maintenance work to be done at Brunswick. Which, if any of these causes would you say is indicative of good management? Which, if any, of the same causes would you say it is impossible for good management to (mm) anticipate (nn) overcome?

I-48. Which (if any) of the following does CP&L believe is/are important qualifications for safe management of nuclear power plants?

- (a) honesty
- (b) integrity
- (c) truthfulness
- (d) anticipation of problems
- (e) experience
- (f) track record
- (g) past violations of NRC regulations or rules
- (h) seriousness of violations of NRC regulations or rules
- (i) attracting sufficient numbers of well-qualified personnel
- (j) retaining sufficient numbers of well-qualified personnel
- (k) devoting sufficient resources to problems to solve them

- (l) keeping commitments
- (m) outstanding achievements in quality assurance and/or quality control
- (n) failures of quality assurance or quality control
- (o) excellent plant design work
- (p) excellent construction practices and procedures
- (r) dedication to following proper procedures
- (s) outstanding design of procedures
- (t) excellent training programs
- (u) cheating on tests or allowing operator or SRO exam-takers to cheat
- (v) excellent materials procurement practices
- (w) maintaining adequate or more than adequate inventories of spare parts and/or replacement parts
- (x) doing only what NRC rules or regulations require
- (y) doing more than NRC rules or regulations require, for health, safety or quality
- (z) large salaries for senior management
- (aa) competitive salaries for all personnel
- (bb) prompt reporting of problems, failures or violations to NRC
- (cc) top management experience in nuclear operations
- (dd) top management experience in nuclear maintenance
- (ee) prompt action to correct problems
- (ff) followup on all commitments and actions to correct problems
- (gg) a "safety-first" attitude
- (hh) a "production first" attitude
- (ii) high capacity factors on plants
- (jj) excellent control of Low Level Radioactive Wastes
- (kk) minimizing the amount of Low Level Radioactive Wastes generated
- (ll) disposing of low-level radioactive wastes improperly
- (mm) excellent plant security practices
- (nn) excellent plant security planning
- (oo) excellent plant security force training
- (pp) excellent plant security force management
- (qq) good financial condition of the Company
- (rr) always devoting sufficient funds and personnel to solve nuclear-related problems promptly

(ss) always devoting sufficient funds and personnel to maintain "defense in depth" against nuclear accidents or radiation releases to the public

(tt) offsite radiation releases

(uu) excellent design of radioactive gas containment and processing systems

(vv) excellent maintenance and operation of radioactive gas containment and processing systems

(ww) minimizing radioactivity released to the environment

(xx) monitoring the most sensitive areas in the environment near nuclear plants for radioactivity

(yy) moving monitoring or sampling sites away from areas showing higher levels of radioactivity

(zz) providing a "wall of lawyers" around all your actions?

Which of these do you believe would be indicative of bad management ? Which do you believe would be indicative of insufficiently good management?

I-49(a) Are there any indicators of (i) good management (ii) safe management of nuclear power facilities, which are not mentioned above, but which CP&L management believes are significant? (b) If answer to any part of (a) above is affirmative, please list all such indicators which apply to (a)(i), and please list all such indicators which apply to (a)(ii). (c) Has CP&L management ever adopted or written any statements of its (i) management practices (ii) management philosophy (iii) rules or practices for nuclear plant management (iv) philosophy of nuclear plant management (v) beliefs or philosophy of management regarding nuclear plant safety (vi) beliefs or philosophy of management regarding radiation exposure to the public due to operation of nuclear facilities (vii) beliefs or philosophy of management regarding radiation exposure to employees at CP&L (owned or co-owned or operated) nuclear facilities? (d) If not, for any part of (c) above, (i.e. if the answer to any subpart of (c) above is other than affirmative), have CP&L management or any CP&L senior manager ever made any oral statements on this subject of which you possess any record? (e) Please identify all records, documents or other information containing the information inquired about in each part of (c) above, and please list separately any records of oral statements inquired about under (d) above, telling which part of (c) each relates to (e.g., management practices)



I-50. Concerning your 12-15-83 report to the NC Utilities Commission in Docket E-2 sub 428, please (a) explain all basis for the statement on page 4 thereof that "Design retaining wall for Units No. 3 and 4 backfill. This milestone is complete". (b) Please identify the person or persons (i) who ordered (ii) who were in charge of, the design of this retaining wall. (c) Please identify all documents specifying the (i) design of the units 3 and 4 backfill retaining wall (ii) criteria for the units 3 and 4 backfill retaining wall (iii) questions raised by NRC Staff concerning the design of the units 3 and 4 backfill retaining wall (iv) answers made by anyone employed by CP&L to any question raised by NRC Staff concerning this backfill retaining wall. Please identify the author of each such document if the author is not named on the document. If there are multiple authors, please state all their names and their positions or job titles. (d) Please state who in (i) Harris plant management (ii) CP&L senior management, the person(s) responsible for this backfill retaining wall's design report to. Please specify each individual in the chain of command upward from the person directly responsible for the design of the retaining wall, to senior management. (e) Please identify which person(s) in the chain of command identified in response to (d)(ii) above have been informed of any difficulties with the design of the retaining wall or any other difficulties with the retaining wall. (f) For each person identified in response to (e) above, please give their job title, the date each was informed of such difficulties, and identify all documents informing such person of such difficulties, and all documents written by such person concerning such difficulties.

(g) Please state who (i) requested (ii) approved (iii) ordered additional engineering support for (aa) hanger design (bb) probabilistic risk analysis (cc) riser and cable tray design (dd) radiological assessment (ee) site support, during the period July 1 1983 to September 30, 1983 (see p.3 of report, defining "the period" as used in item II.C on page 4).

(h) Please state, for each item (aa) through (ee) above, why additional engineering support was provided for it. Please identify all documents stating any need for additional engineering support in each of the areas identified in item II.C of page 4 of the report (i.e. those listed as (aa) through (ee) above).

(j) Please identify all documents approving additional engineering support for each of the areas listed as (aa) through (ee) under (g) above; to the extent not stated in such documents, please state the number, qualifications, and experience of the additional personnel committed to that area (i) during the period July 1, 1983 to September 30, 1983 (ii) after September 30, 1983. Please also identify any documents asking for or stating a need for still further support or personnel in any of the areas listed as (aa) through (ee) above,

(k) Why is work on the conduit supports in the Harris containment building mentioned in this report (p.4)? (i) what work is being done on these conduit supports (ii) why is this work required (iii) have any LERs, noncompliances, nonconformances, open items, violations, deficiencies or other reports of problems been written concerning conduit supports in the Harris containment building? Please identify each such report.

(l) As of 9/30/83 was the Harris I construction (i) behind (ii) ahead of (iii) even with, CP&L's schedule for it, overall? (iv) If the HARRIS I construction was behind schedule, how far was it behind? (v) what problems or items contributed to Harris 1 construction being behind schedule? (vi) which, if any of the problems or items identified in (v) above have been reported to the NRC or its Staff? For each that was reported, when, and please identify any document reporting it to NRC or NRC Staff. (vii) Please state all reasons why NRC Staff (see Feb 24 1983 prehearing conference transcript) believed CP&L would be as much as 6 months behind its anticipated fuel load date for Harris I. Please identify any documents in your possession in which the Staff discusses the construction status of Harris 1 or of Harris 1 and 2, particularly as regards completion schedules. (viii) Please state what, if any, measures CP&L (aa) management (bb) site management (cc) senior management, has or have ordered to speed up construction on Harris 1. Please identify each document in which CP&L management discuss (i) any perceived need to speed up construction of Harris or of Harris 1 (ii) any reasons to speed up construction of Harris or Harris 1 (iii) any methods to speed up construction of Harris or Harris 1 (iv) any measures to speed up construction of Harris or Harris 1 (v) any measures ordered into effect to either speed up construction of Harris (or Harris 1) or to prevent such construction from falling behind schedule or from falling further behind schedule.

I-51. Concerning the status report on the Brunswick Improvement Program filed with NCUC 12-15-83 (or dated that date) by CP&L, please state (a) why CP&L "undertook a comprehensive self-appraisal of the Brunswick plant" in July, August and September 1982. (b) on what dates CP&L had ever undertaken a comprehensive self-appraisal of (i) Brunswick (ii) Robinson 2 (iii) Harris, either before or after July 1, 1982. (c) what documents were produced (i) as input for each such self-appraisal (ii) as a result of each such self-appraisal, including all those produced as part of the Brunswick Improvement Program that relate to (aa) management (bb) LLRW management (cc) security (dd) torus modifications (ee) the augmented off-gas system (ff) the RHR system (gg) required tests (hh) setpoint drift (jj) procedures (kk) failure to follow procedures (ll) radioactivity released offsite (mm) failed fuel (nn) outage planning (oo) watertight doors to the compartment containing ECCS and RHR equipment, including provision of alarms for such doors and lights indicating the open or closed status of each such door in the Brunswick control room (pp) turbine outages (rr) sabotage (ss) health physics (tt) parts or equipment management and supply (uu) numbers of workers on-site (vv) quality of work performed by contractors or contractor personnel (ww) contamination of auxiliary boilers (xx) contamination of personnel (yy) spent fuel storage, including failures of recirculating pumps and radiation releases from spent fuel storage areas (zz) precursors to serious accidents at Brunswick.

(d) Please identify each document setting forth (i) the goals of the Brunswick Improvement Program (ii) the reasons for undertaking the Brunswick Improvement Program (or any reason therefor) (iii) the means by which CP&L intended to accomplish any goal or goals in the Brunswick Improvement Program (iv) any consideration or estimate or budget of costs for the Brunswick Improvement Program (v) any reports of costs incurred in the Brunswick Improvement Program (vi) any limitation on amount of funds available for the Brunswick Improvement Program (vii) involvement of CP&L senior management in the Brunswick Improvement Program (viii) internal CP&L reports concerning the progress or, or problems in, the Brunswick Improvement Program (ix) any report(s) made to outside agencies including NRC, FERC, SCPSC, NCUC, NCUC Public Staff, Cresap McCormick & Paget (NCUC's management auditors) or the media.

(e) Please identify each incident (i) prior to the beginning of the Brunswick Improvement Program, or which was considered by CP&L as a reason to develop or implement the Brunswick Improvement Program (ii) after the beginning of the Brunswick Improvement Program, which involved:

(aa) FAilure to fully or timely comply with any surveillance requirement(s), regulatory commitment(s) or regulatory rcquirement(s) concerning Brunswick. (See p.2 re BIP, 12-15-83 report to NCUC in Docket E-2 sub 428)

(bb) Failure to have necessary procedures in place at Brunswick, either for ordinary operations or for plant modifications and/or for new requirements.

(cc) Failure to follow procedures at Brunswick

(dd) Having procedures which were unclear or ambiguous or imprecise or incomplete or not of high technical quality

(ee) inadequate frequency of QC surveillance

(ff) inadequate scope of QC surveillance

(gg) failure to follow through on problem(s) identified by QA or QC

(hh) degrading any component, system or instrument which is Class IE, during maintenance

(ii) degrading any other component, system or instrument during maintenance

(jj) rendering any component, system or instrument necessary to safe operation or safe shutdown of the plant or either unit, inoperable during maintenance

(kk) rendering any component, system or instrument inoperable during maintenance

(ll) insufficient proficiency of plant personnel

(mm) insufficient of inadequate training of plant personnel

(nn) insufficient proficiency of contractor personnel

(oo) insufficient training of contractor personnel

(pp) problems caused by contractor personnel being inadequately supervised, or being unfamiliar with the plant due to inadequate orientation or due to failure of CP&L to provide adequate oversight or supervision

(qq) less effective, or inadequate, use of technical expertise in the (i) On=Site Nuclear Safety (ii) Corporate Nuclear Safety staff(s)



(rr) weakness(es) in management control  
(ss) weakness(es) in organizational discipline  
(tt) weakness(es) in management control necessary to provide a safe and reliable operation  
(uu) weakness(es) in organizational discipline necessary to provide for safe and reliable operation.

(f) Please state why Brunswick plant procedures (open item II-2, p.3 of report) had to be upgraded.

(g) Please state whether CP&L management considered (i) any (ii) all Brunswick procedures to be inadequate prior to the commencement of the Brunswick Improvement Program (BIP).

(h) Please state why an outside consultant was retained to upgrade, modify or develop procedures for Brunswick.

(i) Please state who supervises, and who reviews, the work of this consultant or consultant in procedures.

(j) Please state whether any procedure prepared by this consultant or consultant(s) has ever been found unacceptable. Please identify each procedure found unacceptable and identify all documents concerning each such procedure.

(k) Please state whether the consultant is reviewing all procedures at Brunswick. If not, which were not to be reviewed, and why not? Who made the decision not to have these procedures reviewed or upgraded? Please identify any document(s) concerning procedures at Brunswick not being upgraded or reviewed by your consultant.

(l) Has the review of procedures in BIP been completed? When?

(m) Have all procedures upgraded or modified or developed in BIP been approved yet? If not, please identify all that have not, and identify any documents concerning their approval or disapproval and any documents stating or containing each such procedure.

(n) Who is normally in charge of (i) developing (ii) upgrading (iii) modifying procedures at Brunswick?

(o) For any person identified in response to any part of (n) above, please identify the person's title, qualifications and experience, and role, if any, in working with the consultant who modified, developed or upgraded procedures for Brunswick as part of BIP.

(p) Has anyone ever been removed from responsibility for (i) writing (ii) modifying (iii) approving (iv) upgrading (v) developing

procedures at Brunswick (aa) for any reason (bb) for reasons having to do with the procedures or their quality or adequacy or usefulness or their compliance (or noncompliance) with NRC/AEC rules?

(q) If answer to any part(s) of (p) above is affirmative, please identify each such individual, the date of such removal from responsibility, and all documents concerning such removal from responsibility.

(r) Is there any procedure now in use at Brunswick which (i) NRC Staff (ii) CP&L management (iii) your consultant(s) believe or have stated is inadequate or not in compliance with any applicable NRC rule? If so, please identify each such procedure and all documents concerning its adequacy and/or compliance with NRC rule(s).

I-52. Please provide a copy of each and every report by Management Analysis Company concerning (i) Corporate Quality Assurance Program, as described in item VII-1 on page 3 of the report under open items (E-2 sub 428 report to NCUC on BIP). Please also provide a copy of any draft(s) of the report or portions thereof or any portion thereof, in your possession.

I-53. Please identify any recommendations of Management Analysis Company with respect to QA which CP&L has rejected. For each such, please give all reason(s) for such rejection, state who rejected it, and identify all documents concerning it.

I-54. (a) Why was Management Analysis Company selected to perform a review of CP&L's Corporate QA program? (b) Who selected Management Analysis Company (MAC) for this work? Why? Please identify all documents concerning the selection and qualification of MAC for this work. (c) Why did CP&L management find it necessary to have a review of the Corporate QA Program? Did inadequacies or problems with Brunswick QA or Corporate QA's handling of Brunswick QA problems or Corporate QA's relations with Brunswick QA have anything to do with this decision? If so, please identify each such inadequacy or problem and all documents concerning it. (d) What was MAC asked to do with respect to Corporate QA? Were there any areas MAC was prohibited from inquiring into concerning QA or QC? If so, please identify each such area (or anything MAC was prohibited from inquiring into concerning QA or QC) and state all reasons for each such prohibition and identify all documents concerning it.

I-55 (a) Please identify each member of CP&L senior management (rank of Vice President or higher) who has any responsibility for nuclear plant management or nuclear safety who has (i) been diagnosed as suffering from any form of psychosis (ii) received treatment for severe depression (iii) received treatment for any psychosis (iv) been unable at any time to discharge his or her responsibilities due to psychological problems.

(b) For each such individual, give all date(s) on which these problems, diagnosis or treatment applied; (c) For each such individual, please state (i) whether other CP&L management knew of each such problem, depression, or psychosis, and (ii) what, if anything, CP&L management did to make sure that the person's responsibilities were safely and effectively and efficiently carried out during such problem, psychosis or depression.

(c) Please identify each member of CP&L site management for Harris, and each employee in a management position with Daniel International or any other contractor on the Harris site, who has (i) been diagnosed as suffering from any form of psychosis (ii) received treatment for severe depression (iii) received treatment for any psychosis (iv) been unable at any time to discharge his or her responsibilities safely or effectively due to psychological problems.

(d) For each such individual, please state all dates on which the psychosis, depression or problem was present or known, and also state (i) whether the psychosis, depression or problem was known to (aa) CP&L management (bb) CP&L senior management (cc) other management in the organization the person was employed by (dd) what measures CP&L took to be sure this person's responsibilities were discharged safely during the problem, depression or psychosis (ee) whether the person is still employed at Harris (ff) whether the treatment of the problem(s) depression or psychosis was successful (gg) whether such treatment has been completed.

I-56. Please provide a copy of any report done by MAC concerning methods for reducing outside demands on Brunswick plant staff. Please identify all such demands on Brunswick plant staff known to CP&L management, state which MAC was to review (if any were not to be reviewed, please provide all reasons why not for each), and provide a copy of all recommendations by MAC and of all drafts of the MAC report or portion(s) thereof in your possession.

(a) Please state which recommendation(s) of the MAC report on reducing outside demands on Brunswick plant staff (i) have been rejected (ii) are being implemented (iii) are approved for implementation but not yet being implemented (iv) have not been reviewed yet, by CP&L. If there are any other recommendations of this MAC report, please identify each and state its status.

(b) For each action with respect to MAC report recommendations inquired about in (a) above, please give all reasons for CP&L's action (or inactions) concerning that recommendation.

(c) Please state the meaning of "appropriate corrective actions to resolve the recommendations" of MAC (BIP report to NCUC in Docket E-2 sub 428, dated Dec 15, 1983, p.4 of section entitled "STATUS AS OF NOVEMBER 17, 1983")

(d) Please identify any actions, other than corrective actions, taken in response to this MAC report to date. Give all reasons for each.

(e) Have all the recommendations of this MAC report been "resolved"? If not, which have not? Please identify all documents concerning recommendations not yet resolved.

(f) When did CP&L senior management first consider outside demands on Brunswick plant staff to be a problem? Please identify all documents in which CP&L senior management recognize, discuss, or instruct or order actions concerning, this problem. Please give the date of each such document.

(g) When did CP&L management decide to have MAC do a report on this problem (outside demands on Brunswick plant staff)? Why was MAC selected to do this report? Who selected MAC? When? Please identify all documents concerning the selection of MAC to do this report.



I-57(a) Please provide a copy of the Shift Foreman Time Utilization Study made for BIP. Please identify all documents in which this study is requested, discussed or implemented. Please provide a copy of all documents including orders or procedures to implement this report, and all schedules for its implementation, including any schedules that have been changed. Please provide the date on which each such schedule was prepared, state who prepared it, and give all reasons why it has not been met if it has not been fully met to date.

(b) What is the number of Shift Foreman now employed at Brunswick?

(c) How many of the Shift Foremen at Brunswick were involved in the Shift Foreman Time Utilization Study?

(d) Who prepared this study? (e) Who ordered it made?

(f) Who reviewed it? (g) Who was responsible for approving or disapproving this study or its recommendations? (h) were any of its recommendations rejected? If so, which ones. Who rejected them? When? Please give all reasons why each was rejected and identify all documents concerning each rejected recommendation.

I-58. Has CP&L ever considered turnover of middle and upper management at Brunswick to be a problem? If so, when? What did you do about it? Please identify all documents concerning this problem and your actions (if any) to relieve, reduce, or prevent it.

I-59. Has any person ever been assigned to a management position at Brunswick for which she or he was not fully qualified in your view? Please identify each person who has served in any management position at Brunswick but was not fully qualified during any part of the period she or he served in that position. If CP&L did anything to upgrade the person's qualifications, please state what CP&L did and when.

(a) Does CP&L believe that each other person who has ever served in a management position at Brunswick was fully qualified as provided for in (i) the FSAR for Brunswick (ii) the Brunswick Technical Specifications?

I-60(a) Does CP&L management believe that it has ever assigned inadequate numbers of persons to Brunswick to handle all the problems (as well as routine operations) there in a fully safe and well-managed manner? If so, please state at what time(s) the numbers were inadequate, when CP&L perceived this as a problem, and what you did about it, if anything, and when. (b) Please state whether CP&L management has ever considered extended work weeks, large amounts of overtime being assigned, or the period in which Brunswick personnel were assigned extended work weeks (e.g. months or years of extended work weeks) a problem? If so, when did you recognize it as a problem? What did you do about it?

I-61 (a) Are there any problems at Brunswick which NRC brought to CP&L's attention (i) during inspections (ii) during SALP reviews (iii) during special meetings with CP&L management or Brunswick plant personnel? (b) If response to any part of (a) is affirmative, please identify each such problem, the date(s) NRC brought it to your attention, the date(s) CP&L management took action concerning the problem, the action(s) taken, the measures taken to be sure the action was (i) carried out (ii) effective, and any reports or documents (iii) for use within CP&L (iv) given or sent to NRC, concerning such action or concerning the problem.

I-62(a) with respect to p.14 of CP&L's Form 10-K for the year ending 12-31-80, filed with the Securities and Exchange Commission, please state (i) what, if any, information CP&L provided to NRC concerning its proposed rule amending its fire protection regulations (ii) what, if anything, CP&L did to the Brunswick plant to implement those regulations (iii) what, if any, was the outcome of CP&L's (aa) appeals (bb) intervention seeking review of, those fire protection regulations. (b) Please identify all documents concerning (i) the NRC's amended fire protection regulations as discussed on p.14 of the above-cited document (ii) CP&L's decision to appeal such regulations or seek exemption(s) from them (iii) NRC Staff's view of CP&L's actions on fire protection at Brunswick (aa) during 1980 (bb) before 1980 (cc) after 1980.

I-63 (a) What, if any, action did CP&L take when the Atomic Safety and Licensing Board issued a decision in Docket 50-400 (and the other Harris dockets) requiring a report on CP&L's management capability to be made before an operating license proceeding on Harris was noticed to the public? (b) Did CP&L do anything concerning its own management as a result of (i) the 1979 remand hearings of the Harris CP over management capability (ii) the decision of the ASLB in such remanded hearings (iii) the decision of the Appeal Board concerning that Board's order in the remanded hearings? Please identify all documents concerning each such action.

I-64(a) Please provide a copy of any response(s) CP&L made to NRC's 2-18-83 notice of violation proposing to fine CP&L \$600,000 for violations of NRC rules. (b) Please provide a copy of any documents detailing or discussing other action(s) CP&L took in response to this notice of violation, including changes in management, changes in the Brunswick plant, instructions to public relations or corporate communications personnel, changes in Brunswick plant personnel or management, etc.

I-65 (a) Please state whether, in response to Darrell Eisenhut's letter of 9/21/79 concerning PWR plant surveillance testing, CP&L put together any information showing that "its management policies (are) adequate to assure that multiple equipment failures in safety-related systems would be vigorously pursued and analyzed to identify potential failure modes not previously considered that could lead to a significant reduction in the ability of safety systems to function as required" (cf. P.2 of letter from EE Utley CP&L to Eisenhut NRC dated 11/7/79, serial no. GD-79-2856). (b) Please identify all documents concerning the information inquired about in (a) above.

I-66(a) Prior to 1983, did CP&L have any system of inspection(s) to verify the installed quantities of any bulk materials at Harris? (b) If not, why not? (c) When did CP&L put such a system in place? (d) Why was this system put in place? (e) who ordered it put in place? (f) Has CP&L made any effort to verify the installed quantities of any bulk materials at Harris installed before 1983?

Please identify all documents concerning each of the above matters, and the results of any attempts to verify the amount of bulk materials installed at Harris before 1983. Please state what verifications of quantities of bulk materials installed at Harris were performed in 1983, by whom, and with what results.

I-67(a) Please state why CP&L strengthened its project control systems at the Harris project in 1983. (b) Please give all reasons known to you why these project control systems needed to be strengthened. (c) Please state what actions you took to strengthen these control systems at Harris during 1983. (d) Please state all further actions you plan to strengthen project control systems at Harris, giving the reasons for each such action. (e) Who ordered the strengthening of project control systems at Harris? (f) Who has assessed the implementation of this strengthening of project control systems at Harris? Please identify all documents concerning efforts or actions to strengthen project control systems at Harris at any time, and particularly in 1983 and after 1983.

I-68(a) Did Cresap McCormick & Paget make any recommendation to CP&L concerning eliminating shortages of operating personnel at Brunswick? (b) If so, what recommendation did they make? Please identify all documents concerning each such recommendation and each CP&L action in response to it, particularly action(s) by senior management. (c) Has CP&L management, in your view, eliminated all shortages of operating personnel at Brunswick? (d) Have you, in your view, eliminated all shortages of repair and/or maintenance personnel at Brunswick. (e) Please state all facts and identify all documents you believe support your answer s to (c) or (d) or both, above.

I-69(a) Why did CMP consider monitoring and reporting mechanisms for the construction backlog at Brunswick to be an area CP&L needed to improve? (b) Please state all reasons for your answer to (a) above and identify all documents in senior management's possession concerning construction backlogs at Brunswick. (c) What has CP&L management done to date to improve monitoring and/or reporting mechanisms for the construction backlog at Brunswick? Please identify all documents concerning each action



you have taken for either or both of these purposes. (d) Do you plan any further action to improve monitoring and/or reporting mechanisms for the construction backlog at Brunswick? If so, what do you intend to do, what is your schedule for getting it done, and please identify all documents concerning each such action. (e) Please identify each document which lists or describes the construction backlog at Brunswick. Please state which of these documents, if any, was prepared (i) before 1977 (ii) before 1-1-79 (iii) after 1-1-82 (iv) after 1-1-83 (v) after 1-1-84.

I-70(a) What problems, if any, did CMP identify with respect to CP&L outage management at nuclear plants? (b) for each such problem, state what action, if any, CP&L management has taken concerning the problem, and identify all documents concerning such action and concerning verification of **the effectiveness** of each such action

I-71(a) Has CP&L developed an experience profile for its (i) Harris (ii) Robinson 2 (iii) Brunswick operating crews? (b) Has CP&L begun to develop such a profile subsequent to the meeting announced (or referred to) in John Hannon (NRC)s 1-17-84 memo to OL Applicants (including CP&L)? (c) Has CP&L made any other response to NRC concern about limited operational experience on operating crews? (d) Please identify all documents related to each of the above matters, or to any of them (specifying which each relates to).

I-72(a) Have any of the individuals of holders of positions identified in CP&L's "Management Capability Report" (MCR) (serial LAP 83-538 dated 1-10-84), or any of the senior management exercising "senior management oversight functions" identified in that report, ever been evaluated in their performance against the criteria set forth in that report? If so, please identify which individuals, for which jobs, when, by whom, with what results, and identify all documents concerning such evaluation. (b) Who are the authors of the MCR? When did they write it? What are their qualifications concerning management? What are their other qualifications and experience? Are they available for deposition during regular business hours? Where?

(c) How do you determine whether each person in the MCR outline of responsibilities is in fact exercising those responsibilities? Please give specific examples if you have any. Who is responsible for each such determination.

\*(d) Who determines whether the Vice President -- Corporate Nuclear Safety and Research is or is not responding satisfactorily to a nuclear safety or quality assurance issue? Have any such persons ever communicated with the Chairman/President concerning any such problem? If so, when? Please identify all documents concerning these matters including any communications with the Chairman/President.

I-73(a) What outside reviewers (not employees of CP&L) (e.g., consultants, NRC Staff or its consultants, utilities commission or FERC staff) have reviewed or examined the effectiveness of CP&L's Senior Management Oversight Function? (b) identify all documents concerning each such outside review of the Senior Management Oversight Function. (c) Identify all problems you see with the implementation or activities of the Senior Management Oversight Function.

I-74(a) For each position identified in MCR Table 3.1, please state how much of the nuclear power plant experience was at a PWR other than Harris. Please identify, for each person hired for any such position, the other nuclear plant(s) each has worked at, whether such plant(s) were commercial PWRs generating electricity, and whether the person was ever fired or disciplined in connection with work at any CP&L or other nuclear plant. Please identify all documents concerning any such firing or disciplining.

I-75(a) What significance, if any, do you attach to the "degrees/person" figure in the right column of Table 3-2 of the MCR. (b) Is it at all relevant to your perspective what the degrees are in? (c) Of the degrees listed in Table 3-2, how many are in nuclear engineering (please identify by section and by degree type, e.g. Robinson Nuclear Project x BS 0 BA Y MS Z PhD). (d) How many of the remaining degrees are in nuclear physics? In thermodynamics? In Engineering Systems Science or in Systems Engineering? Please state how many of these degrees, at what level, are in each grouping listed in Table 3-2.

I-76(a) What steps, if any, has CP&L taken at any time to prevent cheating on reactor operator and/or SRO exams given to CP&L personnel? (b) please identify each such step, the date(s) on which it was first taken and was last taken, and CP&L's assessment, if any, of its effectiveness. (c) How, if at all, has CP&L verified or sought to verify that cheating is not taking place on RO or SRO exams taken by CP&L personnel? (d) Please state each method of verification used. (e) Has CP&L ever surprise-inspected exams or exam scores? (f) Has CP&L ever audited or had audited the exam answers to attempt to detect cheating? (g) Please identify all documents relating to CP&L efforts to prevent cheating by its employees on RO or SRO exams. (These are, of course, the exams for the RO and/or SRO licenses given by NRC, as well as exams CP&L gives to its own candidates for these exams). (h) Has CP&L ever -used items from old RO or SRO exams given by NRC in its training programs? If so, did NRC know about this use? Was this use approved by NRC? Was it allowed under NRC rules? If not, when did CP&L know that it was not allowed by NRC rules? What did CP&L do next?

I-77. How do you get enriched uranium from Portsmouth Ohio to North Carolina? (b) Is it good management not to recognize that the preceding question is a facetious one? (You need not answer).

I- ~~78~~. (a) What role, if any, does senior CP&L management play in (i) preparing (ii) writing (iii) approving (aa) annual reports to stockholders (bb) quarterly reports to stockholders (cc) Form 8-K reports to the Securities and Exchange Commission (dd) Form 10-K reports to the SEC (ee) Form 10-Q reports to the SEC (ff) other reports to the SEC (gg) Form 1 reports to the Federal Power Commission (FPC) or Federal Energy Regulatory Commission (FERC)? (b) For any report inquired about in (aa) through (gg) above, did senior CP&L management play a different role in the past? If so, please state all different past roles CP&L management played in (i) preparing (ii) writing (iii) approving, each such report or type of report in the past. (c) Are there any annual or quarterly or other reports to stockholders in which CP&L management's views on (i) nuclear matters (ii) nuclear safety (iii) nuclear plant management (iv) good management (v) bad management, are mentioned or stated? Please provide for inspection and copying every annual and every quarterly and every other report made by CP&L to its stockholders since 1/1/64; please identify which contain information inquired about in any of (i) through (v) above. (d) Does CP&L or anyone working for you possess any record, transcript, recording or document concerning an interview with Sherwood H. Smith Jr. conducted by Mark Hertsgaard? (i) If so, please identify each such document, record or recording and make it available for inspection and copying: (ii) If Mr. Smith or anyone else at CP&L prepared or sent any corrections, clarifications, comments or further responses to Mr. Hertsgaard concerning this interview or subjects discussed in it (or concerning nuclear matters) please identify each document which contains such corrections, clarifications, comments or responses. (e) Of what other interviews with CP&L senior management does CP&L possess recordings, records, transcripts or other documents? Please identify each, giving its date,



I-79: Name all awards, prizes, honors, and other recognition Applicants have received for good management, including

- (a) date received;
- (b) by whom awarded;
- (c) for which section or division of Applicants' organization awarded; and
- (d) the basis for such award.

I-80: Of the persons identified in Applicants' "Management Capability Report," filed 10 January 1984, identify:

- (a) the number of such persons who have been indicted or tried on felony charges;
- (b) the number of persons who have stood charges before military courts-martial;
- (c) the number of such persons who have been convicted of felonies or have been adjudged guilty by courts-martial;
- (d) the number of such persons who have been charged with misdemeanors other than traffic offenses and convicted of same;
- (e) identify the highest level at which persons who have been convicted or adjudged guilty as per the answers in (a) through (d) above is currently serving in Applicants' management organization.

I-81: Identify with specificity, including form numbers, the reports regularly received by the President/Chairman from Power Supply and Engineering & Construction Groups, and

- (a) the frequency of such reports;
- (b) the action required of the President/Chairman for each such report;
- (c) follow-up procedures employed by the office of the President/Chairman.

I-82: Identify with specificity, including form numbers, the reports or other communications regularly received by Executive Vice President-Power Supply and Engineering & Construction Groups from subordinate departments <sup>or other organizations</sup>. For each such report or communication, provide the following information:

- (a) the frequency of such report or communication;
- (b) the action required of the Executive Vice President for each such report or communication;
- (c) meetings regularly conducted to review such reports or communications;
- (d) minutes or other summary, including the most detailed summary available, for all such meetings as identified in response to (c) above, of all such meetings as identified in response to (c) above during the past three (3) years;
- (e) follow-up procedures employed by the office of the Executive Vice President.

Produce all logs, schedules, or other records of the transmittal of such reports or communications.

I-83: Identify with specificity, including form numbers, the reports or other communications regularly received by the Senior Vice President-Nuclear Generation Group from Subordinate departments or other organizational entities. For each such report or communication provide the identical information as requested in (a) through (e) of the previous question, except where "Executive Vice President" is used insert instead "Senior Vice President-Nuclear Generation Group." Produce all logs, schedules, or other records of the transmittal of such reports or communications.

I-84: Identify with specificity the authority which the Manager-Environmental & Radiation Control, the Environmental & Chemistry Supervisor, and the Radiation Control Supervisor of the Harris Plant Operations Section have

- (a) to order plant shutdowns if necessary;
- (b) to recommend plant shutdowns;
- (c) to recommend, order, or otherwise affect specific power levels for the plant;
- (d) to report to individuals other than their immediate supervisors; and
- (e) authority they have to request or order other information collection activities.

I-85: Identify with specificity, including form numbers, the reports or other communications regularly received by the Vice President-Corporate Nuclear Safety and Research Department. For each such report or communication, provide the following information:

- (a) the frequency of such report or communication;
- (b) the action required of the Vice President-Corporate Nuclear Safety and Research for each such report or communication;
- (c) what meetings are regularly conducted to review such reports or communications;
- (d) minutes or other summary, including the most detailed summary available, for all such meetings as identified in response to (c) above, during the past three (3) years;
- (e) follow-up procedures employed by the Vice-President-CNS&RD;
- (f) PROVIDE all logs, schedules, or other records of the transmittal of such reports or communications; and
- (g) identify all communications to higher levels of Applicants' management based on such reports or communications.

I-86: Do Applicants use the "key card" system to log personnel in and out of their nuclear plants? Describe the system used by Applicants to log personnel in and out of their nuclear plants.

I-87: For the Brunswick and Robinson plants, provide the following information:

(a) Using the data collected by the system described in response to the previous question, give the number of hours spent in the plant for each member of the supervisory staff of the plant on a weekly basis for each week for the past three (3) years;

(b) Using the data identified in (a) above, indicate the number of times members of the Corporate Nuclear Safety and Research Department have visited the plant in the past three (3) years, and the number of hours spent for each visit;

(c) Using the data identified in (a) above, indicate the number of times members of the Corporate Quality Assurance Department have visited the plant in the past three (3) years, the date of each such visit, and the number of hours spent in the plant;

(d) If the answer to (a), (b) or (c) above is that the data available is insufficient, answer the questions to the best extent possible and provide a detailed explanation of the reasons for the lack of availability of such data.

I-88: (a) How do Applicants plan to log persons entering the Harris plant in and out?

(b) Describe records or logs of such traffic, and record retention periods.



I-89: (a) At page 2-24 of Applicants' "Management Capability Report," dated 10 January 1984, it is indicated that the QA/QC manager and staff are responsible for reporting quality-related problems for correction. Describe each type of report so used.

(b) For each report identified in response to (a), give on a weekly basis the number of such reports generated by QA/QC during the past three (3) years, for each week during that period.

(c) Identify by name and position each person to whom such reports were sent, delivered, or furnished, including information copies.

(d) Identify any records regularly kept of corrective action taken in response to such reports.

(e) For such records identified in response to (d), give the average correction time on a monthly basis for each month in the past three (3) years.

(f) Identify specifically and produce each report for which corrective action was not completed within two (2) months during the past three (3) years.

I-90: Identify specifically each instance in which QA/QC at the Brunswick and Robinson Plants has stopped maintenance or modification work in the past five (5) years, as described in the Management Capability Report, p. 2-24. Specify the reason for such stoppage, and produce all stop orders, reports, memoranda, and other documentation of such stoppage and the reasons therefor.

I-91: For each instance described in response to the previous question, describe specifically the final resolution of the maintenance or modification work. Produce copies of all final reports relating to such instance.

I-92: For each instance identified in the previous two questions and in response thereto, indicate specifically by name and position each person in Applicants' senior management notified of such stoppage, date notified, means of notification (including form numbers) (including indirect notification).

I-93: Identify specifically each instance in which the Manager Harris QA-QC Section has stopped work or provided authorization to stop work or stopped maintenance or modification work as described at page 2-26 of Applicants' "Management Capability Report" of 10 Jan. 1984. Specify the reasons for each such stoppage, and produce all stop orders, reports, memoranda, and other documentation of such stoppage and the reasons therefor.

I-94: For each instance identified in response to the previous question, describe specifically the final resolution of the work stopped, producing copies of all final reports relating to such resolution.

I-95: For each instance identified in the previous two questions and in response thereto, indicate specifically by name and position each person in Applicants' senior management notified of such stoppage, date notified, means of notification (including form numbers) (including indirect notification).

I-96: Identify each instance in the past five (5) years in which the Vice-President-Corporate Nuclear Safety and Research, or the Chairman/President, has failed to respond satisfactorily to a nuclear safety or quality assurance issue as described in p. 3-7 of Applicants' "Management Capability Report" of 10 Jan. 1984. For each such instance, describe specifically what actions were taken by the junior member(s) of management, meetings that took place, and produce all documentation, including internal memoranda, letters, and reports documenting the procedure from the initial report on the issue through to its resolution.

I-97: Produce copies of all logs of QA audits received by members of Senior management.

I-98: Identify all "concerns" and "findings" reported to Senior Management as described at page 3-8 of Applicants' "Management Capability Report" of 10 January 1984 during the past five (5) years.

I-99: Produce copies of all monthly reports containing the status of all quality assurance audits during the past five (5) years, as such reports are described at page 3-8 of Applicants' "Management Capability Report" of 10 Jan 1984.

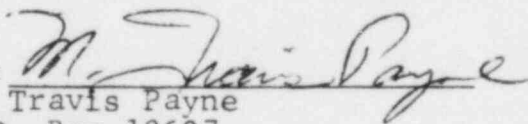
I-100: (a) Identify the department(s) within Applicants' corporate structure(s) which are responsible for authorizing expenditures and making disbursements.

(b) Identify all reports which are required to be submitted to the department(s) identified in response to (a) by all other departments, sections, or other organizations within Applicants' corporate structure(s).

(c) Identify all expenditures or disbursements which must be justified to the department(s) identified in response to (a) before such expenditure or disbursement.

This the 23rd day of February, 1984.

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1. "Even though an attempt was made to make provisions in staffing to handle a certain number of unexpected problems, the cumulative impact of the problems we confronted at Brunswick(during startup) significantly exceeded our manpower projections." Prefiled testimony of E.E. Utley and ~~Harold~~ Banks, CP&L, Docket Nos. 50-400-403, Transcript of hearing before USNRC, 7 March 1979 at page 35.
2. "Most of the specific design and engineering problems (at Brunswick) were unforeseeable, although the fact that there would be problems was not unforeseeable and general allowances in time and manpower were made to accomodate them." Id at 36.
3. "Experience has also taught us the necessity of creating more flexible administrative and scheduling systems to accomodate the unforeseeable problems which will occur." Id. at 36.
4. "It is clear with the benefit of hindsight that the Brunswick Plant did not have sufficient permanent staff during the startup and/<sup>initial</sup>operations period. CP&L management's view of required manpower underwent frequent upward revisions...." Id. at 51.
5. "As a result of the long hours and the tight schedule, the plant staff developed a very narrow focus on 'the critical path.' Work which was not leading directly to the next established milestone was necessarily backlogged." Id. at 52.
6. "...the cumulative impact of long hours, the constant appearance of new 'crises', the need for added documentation to support changing regulations, and a steadily growing backlog of other work contributed to employee morale problems in some cases and to a turnover rate higher than desired by CP&L." Id. at 53.



7. "Modifications were also made to the administrative controls for procedure revisions to ensure that the required administrative approval for changes was available on an around-the-clock basis." Prefiled testimony of E.E. Utley and Howard Banks, CP&L, Docket Nos. 50-400-403, Transcript of hearing before USNRC, 7 March 1979 at page 35.
8. "During this period of time, particularly during the Unit 2 startup, there was a turnover of supervisory personnel which was greater than is desireable." Id. at 55.
9. CP&L does not feel that the lack of BWR experience in the newly appointed supervisors was a problem. We do believe that there were undesirable breaks in the continuity of experience at the plant." Id. at 55.
10. "When there exists a question about the reportability of a specific event, CP&L has chosen to err on the side of reporting too much." Id. at 57.
11. "Several actions were taken to reduce the number of occurrences which result in an LER. A Regulatory Coordinator was designated at the plant, with the responsibilities of identifying reportable occurrences, coordinating data collection, writing LER's and other NRC reports, and most importantly, following up on recommended corrective action." Id. at 58.
12. "These LER's are reviewed to determine trends, repeated occurrences, and problem areas. If problems or suspected problems are noted, Operations QA personnel will investigate these areas with plant personnel." Id. at 60.
13. "CP&L responds to the concerns of NRC inspectors as quickly as possible." Id. at 62.

14. "Audits determine whether required procedures are adequate and current and whether they are implemented adequately. Plant personnel training, qualifications, and responsibilities are audited to ensure compliance with plant procedures and requirements. Careful attention is directed to plant operations with regard to Technical Specification requirements and Environmental and Radiation Controls." Prefiled testimony of E.E. Utley and Howard Banks, CP&L, Docket Nos. 50-400-403, Transcript of hearing before USNRC, 7 March 1979, at page 72-73.
15. "The audited activity has 30 days to respond to the audit report and when the corrective action has been completed, the finding will be closed by the lead auditor with concurrence of the Manager of the CNS & QAA Section. Outstanding findings are kept before management's attention to ensure prompt follow-up." Id. at 73.
16. "We have recently restructured the 'hot' license training program at both Brunswick and Robinson to incorporate three months of formalized training in the control room. Additionally, we have formalized on-the-job training for operations personnel at both plants." Id. at 76.
17. "Since the (surveillance) tests are revised periodically, it had become increasingly difficult to assure the latest revision was being used. Furthermore, due to plant conditions and/or manpower, certain tests at times have to be rescheduled." Id. at 77.
18. "Personnel in this (Corporate Nuclear Safety and QAA) Section do not have responsibilities for performance of QA, rather their function is solely one of auditing. They are trained to conduct and report on audits and to follow-up to assure timely correction of conditions which could degrade plant quality." Prefiled testimony of M.A. McDuffie, Transcript, supra, 7 March 1979, at page 28-29.

19. "These audits include reports of findings to senior management and objective evaluations of the effectiveness of implementation of the QA program..." Prefiled testimony of M.A. McDuffie, CP&L, Dockets 50-400-403, Transcript of hearing before USNRC, 7 March 1979, at page 29.
20. "Structural steel erection, including torquing of bolted connections and welding is followed closely by CP&L construction inspectors to ensure compliance with specifications and drawings." Id at p. 33.
- F 21. "Furthermore we feel we will be able to foresee any (personnel) shortfall before it hits us and that we will be able to hire additional people if necessary" Id at p. 40.
- F 22. "Some of the fixed-price contractors may work extended hours, but we do not anticipate any problems with this and their work will be inspected." Id at p. 40.
23. "We have maintained a very favorable ratio in these areas" (of competitive wages), testimony of J.A. Jones, Transcript supra, 8 March 1979 at p. 3528.
24. "The organization was rather stable (at Brunswick) on up to April of 1975. At that time we recognized not only from our internal audits of our program, but also, as has been alluded to here in regard to the hearing, that we needed to reinforce our quality assurance program." Testimony of E.E. Utley, Transcript, supra, 8 March 1979 at p. 3530.
25. "In May of 1975, looking at the results that were being produced from the Brunswick organization in regard to the operation of the plant, we were not satisfied,..." Id at 3530.
26. "However, we, as a management organization, top management, were not satisfied with the operation of the Brunswick plant. There were things that were not meeting our standards, so to speak." Id. at 3531.

F 27. "It's (the operation of Brunswick) still not where we want it, but it will be where we want it." Testimony of E.E. Utley, CP&L, Transcript of hearing before USNRC, 8 March 1979, at p. 3535.

F 28. "I think and I feel convinced of this, that NRC is going to continue to see improvements in respect to the operations of both our nuclear plants, and we will certainly have the capability to move on in Harris." Id. at 3535.

F 29. "So there are on the market other types of recombiners which we feel will do the job, and in the process of talking to those technical people in the plants that have some in operation, we are committed now to go back to the Commission with what we will do by the first of April, which will be other than a thermal recombiner. That we know for sure. We will give them our schedule on May 1 of 1979, and we will give them a technical description on August 1 of 1979. A preliminary investigation indicates that we will have the equipment delivered and be able to install it during the refueling outage in 1981." Testimony of Harold Banks, discussing Brunswick augmented off-gas system, Transcript, supra, at p. 3552.

30. "There were various things discussed as to the reasons people were leaving: they were working long hours, as we recognized, longer hours than we look at as being good management practice, so to speak, under continuing conditions." Testimony of E.E. Utley, Id. at 3624.

31. "Also, as you look at the results produced under the management of the Brunswick plant, there has been a continual improvement in the results of operation since these type things took place." Id. at 3625-26.

F 32. "We still plan to make further improvements." (in Brunswick operations). Id. at 3628.



33. "I think management did everything that was reasonable to do when you look at the circumstances and conditions under which the plant was progressing in regard to startup versus regulations versus construction, design, and so forth." Testimony of E.E. Utley, CP&L, Dockets 50-400-403, Transcript of hearing before USNRC, 8 March 1979, at p. 3629.

34. "We didn't quite appreciate the extensive documentation (required by NRC quality assurance regulations) at that time. WE've learned a lot since, and I guess we'll learn some more in the future, Testimony of J.A. Jones, Treanscript, supra at p. 3639.

35. "I stay current on the LER happenings, the trends, and whether or not we are making improvements or whether or not the progress is not what I look at as being desireable." Testimony of E.E. Utley, Transcript, stupra, at p. 3653.

36. "Well, we have internal guidelines set up for the distribution of NRC reports, and the reports that fall under this particular category come to my attention.

Q (Mr. REIS): "And what category is that?"

"Well, for example, the report that came back from the plant as a result of the last QA inspection, that type correspondence comes to my attention, along with any other reports that really pertain to the safe operation of the nuclear plant." Id. at 3654.

F 37. "All plant equipment should be capable of performing its intended function as designed, and that the installed equipment meet the design specifications. To that end we intend to investigate our quality assurance program to see if there are changes that can be made to strengthen it and thereby avoid recurrence of the types of deficiencies brought out by our investigation of this incident." (tape on valve at Brunswick). Testimony of E.E. Utley, Id. at 3660.

38. "We have no way in the world of knowing just how it might have happened." (Tape on vent line). Testimony of E.E. Utley, CP&L, Transcript of hearing before USNRC, 8 March 1979, at 3663.

39. Q (Mr. REIS): "Do you know how long the condition existed before it was discovered?" (HPCI door condition)

A: I became aware of it when Mr. Cantrell identified it.

Q: And you have no idea how long it existed before Mr. Cantrell identified it?

A: I have none. Testimony of Harold Banks, Transcript, supra at 3669.

F 40. "The total fire protection system is not completed. It's being done by pieces. This piece on the doors is finished. There are still other pieces 'hat will be worked on the remainder of this year." Id. at 3670 (discussing Brunswick).

41. "I'd like to add that once a condition is started off, it is documented, the results of that is documented, whether it was vetoed or whether it was carried on, and those are available for I&E inspectors to review at any time at the plant, which they do on almost all inspections." Id. at 3687.

42. "We are also following programs on other reoccurring LERs to eliminate the cause of LERs." Testimony of E.E. Utley, Transcript, supra at 3694.

43. Q: (Mr. REIS)L Have you called for any reports from the Robinson management on the situation (increased LERs)?

A: Of course, these ERs are kept, a record is kept of them in the office, and these records are routed through me. Id. at 3698.

44. "Well, I would say our total management effort in regard to LERs has resulted in what the record shows." Id. at 3699.

45. "At the same time we continue to increase our better surveillance and better application of engineering to get to the root cause of the problems to correct it, such that they won't be reoccurring." Testimony of E.E. Utley (concerning LERs at Robinson), CP&L, Docket Nos. 50-400-403, Transcript of hearing before USNRC, 8 March 1979, at p. 3699.
46. "Well, I think one way we have been evaluating as to what kind of job we're doing in regard to regulations is really we look at the industry and what their performance is against what our performance is." Id. at 3701.
47. "We look at it more from the management judgment standpoint as to what is best for the operation as it relates to the regulations. And sometimes our interpretation is probably more stringent then the regulation calls for. And I'm sure there are cases where we don't interpret enough and find ourselves in violation." Id. at 3701-2.
48. "It's my responsibility as a manager in Carolina Power and Light Company to comply with regulations down the line. There is no exception allowed." Id. at 3702.
49. "I'm sure they (expectations) rise to Mr. Harris because Mr. Harris has had me in the board room with his plant manager to discuss problems in regard to meeting regulations." Id. at 3703.
- F 50. "It's going to be tougher to find problems at Robinson than it was at Brunswick." Id. at 3706.
51. "These people, this corporate audit you're talking about, these people when they audit operations, engineering, and construction, their reports are addressed to our chairman and chief operating officer." Testimony of M.A. McDuffie, Transcript supra at p. 3728.

F 52. "A CP&L Spokesman said that four of 24 low-pressure turbine discs were replaced last year on the Robinson plant and that turbines would be inspected when the plant is shut down for refueling in May," reported in the Raleigh News and Observer (hereinafter "N&O"), 11 March 1980.

53A "CP&L spokesman Mac Harris said all necessary repairs (to Brunswick 2) were accomplished before the unit was restarted (in early 1980)," reported in N&O, 2 April 1980.

53B Mac Harris: "Any implication that we operated a damaged unit is simply incorrect," reported in N&O, 2 April 1980.

F 53C "During this time we are doing maintenance items, including modifications to the plant (Brunswick 2). Among the work is some modification to pipe supports so that a similar situation (as in November) would not create similar damage," Mac Harris, reported in N&O 2 April 1980.

54. Brunswick  
"No worker at the/plant has ever reached the dose limit," CP&L spokesmen, reported in N&O 2 April 1980.

55A "Thomas Elleman,...put the cost of meeting new regulations at \$12.5 million for CP&L," reported in N&O, 13 May 1980.

55B "Educational and professional standards for nuclear plants workers have been raised," (in the wake of TMI) he (Elleman) said, reported in N&O, 13 May 1980.

56 "Harris said some small items were found with low levels of radiation," (at a Goldsboro salvage yard), reported in N&O 5 May 1980.

F 57. "We have taken actions to remedy all the deficiencies indicated by the NRC," (for releases from Brunswick), Fred Tollison, reported in N&O, 14 June 1980.



58A "Counting LERs is an exercise that has no particular merit," said CP&L news coordinator Mac S. Harris. "It is simply not possible to draw meaningful conclusions from numbers of LERs. You have to look at the significance of an event." Reported in N&O, 14 July 1980.

58B "Of course, the numbers are higher than you'd like. To some degree the number of LERs will reflect the philosophy of management." Mac S. Harris, reported in N&O, 14 July 1980.

58C "Harris said the figures cited in the report indicated equipment problems "and not safety problems." Mac Harris, reported in N&O, 14 July 1980.

59 "The radioactive materials that left the plant were very low-level and did not pose a threat to public health. We know of no incident in which any member of the public suffered adverse health effects from the materials," (discovered in landfills), Lynn Eury, reported in N&O, 2 August 1980.

F 60 CP&L was "very concerned" about the incident and had taken steps to correct its hazardous waste procedures. Lynn Eury, reported in N&O, 2 August 1980.

61 "After the accident, we did review certain precautions, and as a result, certain design changes in components were made," Chuck Mosley, reported in Daily Tar Heel, 12 Sept., 1980.

62 William Graham "contended there was no mismanagement by CP&L. He also said there was no indication that the (Brunswick) reactors would have been out of service for a shorter time or at a better time of year had the problem been corrected in 1979," reported in N&O, 16 Oct. 1980.

63 Furr said the exposure calculation was made by assuming that the head or waist of each worker was constantly exposed to the highest radiation levels present in the steam generators at the time the men were working. Beginning in January, CP&L

63 changed its procedures for such workers by requiring them to  
(cont) wear three radiation detection badges on different parts of  
their body, Furr said, reported in N&O, 13 May 1981.

F 64 Mac Harris...said the Raleigh-based utility responded in May  
that its on-going studies showed no immediate indication of  
a problem (with radiation embrittlement). But CP&L told the  
NRC that it would continue its analysis for any long-term  
problem that might develop, Harris said, reported in N&O, 3  
July 1981.

65 "There was no question that someone was attempting to sabo-  
tage the system," Mac Harris said (concerning bearings at  
Brunswick), reported in N&O, 17 July 1981.

F 66 Harris said a team of CP&L officials headed by J.A. Jones,  
assistant board chairman, was conducting an investigation of  
the problems, reported in N&O, 17 July 1981.

67 Harris said no safety problem was posed by the shutdowns (at  
Brunswick). "It's strictly an operating question and not a  
safety question." Reported in N&O 19 July 1981.

F 68A Utley said it might take three years of major modifications  
to get the Brunswick units back to an acceptable level of  
operation. "Some will be required by the NRC and some we will  
be initiating on our own, just to improve performance," he  
said, reported in N&O on or about 22 July 1981.

68B "We've got several programs to improve Brunswick," he (Utley)  
said. "At the time of the (latest) outage we were just com-  
pleting some modifications." Reported in N&O on or about 22  
July 1981.

69 "We've discussed the NRC concerns with them and understand that  
these have been satisfactorily addressed." E.E. Utley on NRC  
report issued in early 1981, reported in N&O 23 July 1981.

70 "We may very well have some unscheduled outages," said Lynn Eury, reported in N&O, 19 August 1981.

71 "We're very hopeful that we'll see a significant improvement" in plants' performamnce (at Brunswick) after the modifications, Eury said.... "if we look back at the performance of the Brunswick units over the past couple of years, it has not been as good as we would have expected," reported in N&O, 19 August 1981.

F 72 "We're hoping to install the (siren) equipment as rapidly as possible and meet the February 1st deadline," Mac Harris said, reported 30 August 1981 in N&O.

F 73 Ben J. Furr...said...that initial findings submitted to the NRC (concerning reactor vessel cracking) "show there is no reason for immediate concern." "We have been involved in examining this issue for some time." He said long-term analyses had not been completed, but that CP&L would make every effort to submit those reports to the NRC on schedule. Reported in N&O, 10 Sept., 1981.

74 But (Sherwood) Smith said that the NRC criticism (of CP&L safety) was based on happenings during a period of time that wasn't representative of the way things usually are. "Had they looked at a different period of time, things would have been very different." Reported in Durham Morning Herald, 11 Sept. 1981.

75A "A Re-evaluation by CP&L and the manufacturer indicates the Robinson vessel is safe for continued operation," said E.E. Utley, reported in N&O, 1 Oct. 1981.

75B Utley said a rate of "embrittlement" is built into the plants. Reported in N&O, 1 Oct. 1981.

75C "Based on the information we now have there is no reason for concern about the integrity of the Robinson reactor during even a serious accident," Utley said, reported in N&O, 1 Oct. 1981.

76 Ben J. Furr,...said in a statement that the incident was a result of "insufficient communication between two health physics technicians." He also said the incident was not representative of Brunswick's health physics program. Reported in N&O, 2 Oct. 1981.

77 Smith defended the utility's management decisions, saying that the percentage (of electricity generated from nuclear) would have been lower "if we had not done a good job of running those (nuclear) plants." Testimony of Sherwood Smith, reported in N&O, 15 Oct. 1981.

78 "Had the paperwork been in order, there would have been no problem with the level of exposure received by the worker," Furr said, reported in N&O, 3 Dec. 1981.

F 79 Graham said, "Limits on the number of (construction) personnel in the (Brunswick) plant were made to assure proper health physics control. We certainly will consider the recommendation that the limitation on the number of workers in the plant be lifted," reported in N&O 17 February 1982.

F 80 "These changes will significantly reduce the likelihood of similar (steam generator) problems at Harris," said Lynn Eury, reported in N&O 24 February 1982.

81 Sherwood Smith said, "We believe it is appropriate that our management of resources be examined by regulators, and we are confident that an objective appraisal will show we are doing a good job for our customers during a difficult period," reported in N&O 28 February 1982.

82 CP&L Spokesman Mac Harris said the firm had already planned to spend about \$100 million replacing three steam generators at its Robinson plant either in 1984 or 1985. Reported in N&O, 31 March 1982.



83 "It is our judgment that CP&L has a management team that is providing excellent performance during a period of great difficulty," wrote John F. Watlington, reported in N&O 25 April 1982.

84A Mac Harris confirmed that some (workers transferred from Brunswick and other plants to Harris) are unhappy about the move in view of current economic conditions. Reported in N&O 9 May 1982.

84B "I'm certain there are some who aren't happy," said Harris. "But this was a mutual agreement." Reported in N&O 9 May 1982.

F 84C In view of the number of people being transferred and current economic conditions, Mac Harris said, CP&L has assigned top officials to meet individually with all those involved. Reported in N&O, 9 May 1982.

85 "I would say that's absurd," said CP&L spokesman Wayne Ennis, (referring to charges that CP&L was more interested in bringing plants on line than in steam generator safety) "I can assure you that we are interested in safety and would not operate a nuclear plant in an unsafe condition." Reported in N&O, 7 May 1982.

86 Mac Harris said that damage to cable casings at Brunswick "in no way compromised the safety of our plant." Reported in N&O 30 June 1982.

87 In late May or early June, the company reported the incident to the NRC as possible sabotage after it conducted an investigation ~~and did not find that the damage~~ (to casings at Brunswick) reported in N&O 30 June 1982.

- 88 Ben J. Furr said, "We are ~~not~~ familiar with the (NRC) report (on precursors to meltdown). However, a review of the operating history of our plants will in no way substantiate that any pre-melt conditions have ever existed." Reported in N&O, 8 July 1982.
- 90 Sherwood Smith did say that NRC review of the company's nuclear operations concluded that they have been and are being operated safely/ Reported in N&O 9 July 1982.
- 91 Mac S. Harris said the company thought the (containment valve) tests were not required, then under a reinterpretation of regulations decided that they were. It was not a case of forgetting to make the tests he said. Reported in N&O, 22 July 1982.
- 92 It would be my opinion at this time...there is a very high probability of the replacement of steam generators (at Robinson)." said Lynn Eury. Eury says that while CP&L could continue running Robinson with more minor repairs, the utility decided last year to order new generators from Westinghouse. Reported in N&O 26 July 1982.
- F 93 When CP&L announced that Brunswick Unit 1 had been shut down, it said the closing would last several days. But Mac S. Harris said Tuesday the shutdown would last longer because the scope of the tests was more extensive than thought. Reported in N&O 28 July 1982.
- 94 Ben J. Furr said he didn't know how many times various tests (at Brunswick) were missed. Reported in N&O 30 July 1982.
- 95 Lynn W. Eury told the Utilities Commission that the company had failed to make the tests (of valve, fire control, and certain instrument systems at Brunswick) and could be fined. Reported in N&O 30 July 1982.

96 Ben J. Furr testified that the outages (at Brunswick) were extended because more work cropped up after the plants were shut down. "That's unplanned work," he testified. "The fact that an outage gets extended should not be seen as a sign of poor management." Reported in N&O 31 July 1982.

97 Mac Harris said he did not know whether the investigation (of security guards at Robinson) was dealing with drug use while the guards were on duty at the plant. He said he thought the drug involved was marijuana. "CP&L is cooperating fully in the investigation," he said. Reported in N&O 15 August 1982/

98 "The only new material (in the Critical Mass) report is the (NRC's) informal ranking," said Ben J. Furr. "It is neither a complete ranking...nor is it a conclusive evaluation." Reported in N&O 19 August 1982.

99 "For a number of reasons, some related to regulatory modifications, others not, we acknowledge that our Brunswick plant has not consistently met our performance expectations in recent years." Statement of William Graham, Reported in N&O 25 Sept. 1982.

F 100 "We are sparing no effort to turn that situation (at Brunswick) around, and to improve the plant's performance." William Graham, reported in N&O 25 Sept. 1982.

101 "We are confident that we have the management team at the plant to do this (turn the situation at Brunswick around)." William Graham, reported in N&O, 25 Sept. 1982.

F 102 "Completing the necessary modifications and reliability improvement measures at the Brunswick plant will take a couple of years or so." William Graham, reported in N&O 25 Sept. 1982.

F 103 "But we will do it (complete necessary modifications at Brunswick), and customers will enjoy substantial savings over the life of the plant." William Graham, reported in N&O 25 Sept. 1982.

104 Tom Elleman said the company has been "aggressively addressing" the thermal shock problem at Robinson. Reported in Charlotte Observer, Dec. 3, 1982.

F 105 Tom Elleman said, "...A comprehensive program is being developed in conjunction with other utilities that will satisfactorily resolve any concerns well in advance of the earliest time that the embrittlement issue could potentially impact the level of plant operations (at Robinson)." Reported in Charlotte Observer, 3, Dec. 1982.

F 106 Spokesman Mac Harris said an inspection of Robinson last summer showed no flaws in the vessel wall. He said recent modifications will lessen the neutron bombardment and operators will heat water used to replenish the reactor after refueling to minimize thermal stress. Reported in ~~N&O~~ Charlotte Observer 3 Dec. 1982.

107A Lynn Eury acknowledged that CP&L had not begun making the tests (at Brunswick) until mid-1982. But he said that only one of the omitted tests was required at the time of licensing. Reported in N&O 18 Jan. 1983.

107B Lynn Eury said the company intensified its program for safety testing last summer after the omissions were discovered. Reported in N&O 18 January 1983.

107C Lynn Eury said that CP&L already had a strong program for upgrading the (Brunswick) plant. Reported in N&O 18 Jan. 1983.

107D "We have gone back and made a total review of our testing programs, reviewed all our operating procedures,...and have installed tracking systems" to make sure the procedures are followed, Lynn Eury said. Reported in N&O 18 Jan. 1983.

108 Sherwood Smith said "There is no area that receives a higher corporate priority (than improving Brunswick performance), I can assure you of that." Reported in N&O 22 Feb. 1983.



F 109

James M. Davis Jr. said the Cresap report "provides a number of recommendations we can use to improve our operations....We will certainly follow through." Reported in N&O 22 Feb. 1983.

110

Mac S. Harris said that he understood the incorrect positioning of fuel bundles within the core at Brunswick "was a procedural matter and was not a safety-related issue." Reported in N&O, 23 Feb. 1983.

111

CP&L said in its letter (to the NRC re: \$600,000 fine) that "there is no single issue to which the chief executive officer of CP&L (Sherwood H. Smith Jr) has devoted more attention," reported in N&O 4 May 1983.

112

Company officials said that if a crack should occur (in cooling system pipes at Brunswick) before November, monitoring equipment would detect the problem before the crack reached the size to be significant. Reported in N&O, 9 August 1983.

113

"Our position when we identify cracks is that regardless of the depth, we make repairs," said Wayne Ennis; Reported in N&O 14 August 1983.

114

"We did testing for the most susceptible areas (for cracks at Brunswick) back in February and found no indication of any cracking problem on Unit 2," said Wayne Ennis, reported in N&O 14 Aug. 1983.

115

In a 27-page letter sent to the NRC in May (concerning \$600,000 fine) the company said it thought its safety improvement program was the most comprehensive ever taken by an organization licensed by the federal agency. Reported in N&O 18 August 1983.

116

Sherwood Smith said, "We are pleased that the NRC has concurred with the company's position, that based on the evidence, additional pipe testing on Unit 2 is not necessary prior to the November scheduled maintenance outage." Reported in N&O 25 August 1983.

117

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Wayne Ennis said "additional measures implemented by the company will prevent any recurrence" of an incident in which an unauthorized person entered a restricted area in the Robinson plant. Reported in N&O 17 November 1983.