UNITED STATES OF AMERICA

BEFORE THE NUCLEAR REGULATORY COMMISSION

Petitioner, In the Matter of: CAROLINA POWER AND LIGHT COMPANY	Ex Parte: HARTSVILLE GROUP,)	110,1
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In the Matter of:	j.	DOCKET SO-26
CAROLINA POWER AND LIGHT COMPANY) 97 . 1995	In the Matter of:)	E Maron Es
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(h. B. Robinson Steam Electric)	(h. B. Robinson Steam Electric)	· Stach a son
Plant, Unit 2),	Plant, Unit 2),)	VIET
Applicant.)	Applicant.)	

SUPPLEMENT TO PETITION TO INTERVENE AND REQUEST FOR HEARINGS

Under provisions of 10 CFR 2.714 (a) (3) (b), Petitioner Hartsville Group herewith submits as a supplement to its petition to intervene and request for hearings a list of the contentions which it seeks to have litigated in this proceeding together with the basis for each such contention, reservi: fully its right to amend and make additions to this Supplement prior to the completion of the evidentiary hearing in this proceeding.

The Petitioner asks that should the Licensing Board construe any of these contentions as an attack upon any rule or regulation of the Commission, or any provision thereof, such rule or regulation be identified and the Petitioner allowed to petition the Commission for exception to or waiver of the application of such rule or regulation for the purposes of this particular proceeding.

Contention 1. The License Amendment should not be issued because Carolina Power & Light Company's history of frequent an repeated violations of and noncompliance with regulatory requirements demonstrates inadequate management ability to provide reasonable assurance that they will carry out the steam





generator repairs in compliance with the regulations in 10 CFR Chapter 1, including Part 20, and that the health and safety of the Public will not be endangered, as required by 10 CFR 50.40 and the Atomic Energy Act.

The NRC has repeatedly fined CP&L for regulatory violations. The NRC Region II Administrator noted in a December 22, 1982 meeting with the Applicant that "the number of (personnel) errors recently reported is greater than would normally be expected" and expressed concern "regarding the number of items of noncompliance with regulatory requirements that have been reported for the Brunswick and Robinson sites." The Regional Administrator stated that "the ability (of CP&L) to fully implement ... (corrective action) programs has not been demonstrated." James P. O'Reilly, Regional Administrator, Region II, NRC, to Carolina Power & Light Company, December 29, 1982, Docket Nos. 50-261, 50-324, and 50-325.

These noncompliances have led the NRC staff to propose the largest fine in the history of the NRC for "alleged noncompliances with NRC requirements that occured over a period of several years at the Brunswick nuclear power plant...." USNRC, Office of Public Affairs, Region II, II-83-20, February 18, 1983. According to Richard C. DeYoung, Director of the NRC Office of Inspection and Enforcement, the problem (which led to the fine) was primarily caused by poor corporate and facility management controls." Id.

Although the NRC staff suggests that they are satisfied with the "responsiveness of CP&L to correct the immediate causes of the problems," (<u>Id</u>.) the Board should look at CP&L like a sinner who has answered the alter call at every revival but is back in the ways of sin within the week every time. This is scarcely CP&L's first fine, although it is the largest.

Prior fines were levied of \$40,000 in May 1981; \$50,000 in December 1981; and \$120,000 in 1982. There may be others.

Wire service accounts quoting Kenneth M. Clark of the Region II Office suggest that another fine - for violations of NRC procedures during a refueling at Brunswick - may be imposed on CP&L.

Contention 2. Section 102(2)(c) of the National Environmental Policy Act (42 U.S.C. Section 4332(2)(c)) or 10 CFR Section 51.5 requires the prepatation of an Environmental Impact Statement prior to the issuance of amendments to the operating license for H.B. Robinson, Unit 2, authorizing Carolina Power & Light to repair the steam generators now in use at the facility.

The FSGRR postulates worker exposure of 2120 man-rems in the repair of steam generators at Robinson. That occupational exposure increases risks of somatic and genetic damage, significantly and adversely affecting the quality of the human environment. See <u>Virginia Electric Power Company</u> (Surry Nuclear Power Station, Units 1 and 2), CLI-80-4, 11 NRC 405 (1980).

Contention 3. The Applicant's Evaluation of Alternatives incorrectly weighs the costs of retirement of Robinson. The cost-benefit balance should be struck against the repair of the steam generators in favor of retirement of Robinson as the most cost-beneficial alternative. The EIS should strike that balance. An analysis of the alternative of closing Robinson 2 is required by 102(2)(e) 42 USC 4332(2)(e).

The cost-benefit analysis involving repairs to an aging nuclear plant like Robinson 2 is analagous to the analysis of major repairs to an aging automobile. Repairing the steam generators at Robinson is like putting new tires on a car with bad main bearings.

The Energy Systems Research Group of Boston found in an October 1982 study of Indian Point, <u>The Economics of Closing the Indian Point Nuclear Power Plants</u>, that the percentage impact on rates of closing those facilities would be less than 2%. Application of their Cost Assessment of Nuclear Substitution model to Robinson would show that the proposed steam generator repair to keep Robinson operating is not costeffective. Robinson 2 is older than the Indian Point plants, and has continuing major equipment problems and reactor embrittlement which compounds the potential for Pressurized Thermal Shock, which may close Robinson 2 down within three to six years and/or result in significant derating. Ncn-oil

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fired make-up power is available to substitute for power that Robinson would have generated.

The cost-benefit analysis should include not just the cost of repairs to Robinson 2, but other avoided future costs if Robinson 2 is retired, including expenditures on nuclear fuel, operating and maintenance expenses, and a portion of the costs of nuclear waste disposal.

Because the Applicant cannot demonstrate that the proposed changes in the Model 44F steam generators will solve the problems which have led to tube leaks in the old Model 44F steam generators, the Applicant cannot rightly claim that occupational exposures to workers during testing and repair of the new steam generators will be reduced but should be required to assume that future exposures will be substantially the same as current exposures. As the staff's "Steam Generator Status Report" of February 18, 1982 notes regarding earlier "fixes": "these fixes have met with varying degrees of success, but none of them is a panacea. Furthermore, short-term solutions to one problem may create other problems."

Contention 4. The License Amendment should not be issued because the repair of steam generators at Robinson 2 would violate 10 CFR Part 20. Requirements that worker exposures be kept "as low as is reasonably achievable" taking into account the state of technology, and the economics of inprovements in relation to benefits to the public health and safety, and other societal and socioeconomic considerations.

Where, as in this case, it can be shown that an alternative approach to providing needed power is both more cost-beneficial than the proposed action and entails avoiding the proposed exposures, then no exposures may be incurred without violating ALARA principles.

Robinson 2 is an aging plant. No sure fix has been found to the steam generator degradation problems which have heretofore plagued the facility. The embrittlement of the reactor vessel is increasing at such a rate that the Pressurized Thermal Shock screening criteria will be exceeded in February 3088. Non-oil-fired make-up power is available to substitute for the power that Robinson would have generated.

Sophisticated quantitative estimates of the streams of costs and benefits over a ten to twenty year planning time frame which would result from closing Robinson 2 utilizing the Cost Assessment of Nuclear Substitution model will show that the proposed steam generator investment to keep Robinson 2 going is not cost effective.

Any analysis of ALARA considerations should take into account future worker exposures which can be avoided by timely retirement of Robinson, including, but not limited to, lowered exposures during decommissioning, avoided exposures from future repairs and inspections of steam generators, and avoided exposures during operations involved in dealing with the premature embrittlement of the reactor vessel.

Contention 5. The License Amendment should be denied because CP&L cannot provide reasonable assurance that Commission Quality Assurance and Quality Control regulations at 10 CFR Part 50, App. B can be met in that the Applicant has failed to demonstrate that the numbers of workers needed to make the repairs within the limits of 10 CFR Part 20 will not overtax the available supply of qualified workers.

Contention 6. The Applicant should not be permitted to proceed with steam generator repairs and the License Amendment should be denied because the Applicant has demonstrated an inability to comply with NRC Quality Assurance regulations as set forth at 10 CFR Part 50, Appendix B.

The NRC staff has just announced a proposed fine - the largest in NRC history - which includes a \$100,000 fine for "failure of CP&L's quality assurance staff to identify the problem or to take appropriate corrective action." NRC, Office of Public Affairs, Region II, II-83-20, February 18, 1983. According to Richard C. DeYoung, Director of the NRC Office of Inspection and Enforcement,

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"the problem was primarily caused by poor <u>cornorate</u> and facility management controls." Ibid. (Emphasis added).

Presumably, CP&L's previous QA program had been approved by the staff. Merely making more plans and programs cannot be relied upon for providing reasonable assurance that CP&L can carry out these steam generator repairs without endangering the health and safety of the general public. The Applicant has demonstrated that acceptable plans are not the same as acceptable performance.

Contention 7. The Applicant should be required to demonstrate conservatism in safety margin by testing at 125% of rating the crane which will lift the old steam generator's lower assemblies.

The crane which is to lift the SGLA's is currently rated at only 155 tons and would be rerated at 212 tons. The Applicant plans to test the crane at only 100% of its new rating instead of the normal 125%. A freefalling crane boom could cause "significant damage" to the containment shell (<u>FSGRR</u>, p. 89). A failed lifting frame striking the north building crane runway could cause "unacceptable consequences" (<u>FSGRR</u>, p. 89). Each lower steam generator assembly weighs approximately 195 tons--only 9% less than the proposed tested load strength.

The Applicant has failed to demonstrate the suitability and accuracy of the analytical techniques to be employed in rerating the cranes.

Contention 8. No reasonable assurance can be had that the proposed steam generator repairs can be accomplished without endangering the public health and safety because the replacement of the H. B. Robinson steam generators will create large amounts of radioactive wastes, the transportation and on-site storage of which has not been addressed by CP&L with adequate specificity.

According to the Final Steam Generator Repair Report, the steam generator repairs will create 41,000 cubic feet of dry active and concrete waste, the packing and shipping of which will try the Applicant's ability to handle such large volumes of waste. CP&L has not stated which method of deconning the channel head will be used or how it will handle solid waste disposal. Until such time as CP&L provides specific information on its plans for decoming the channel head and solid waste disposal, no reasonable assurance can be given that they will comply with applicable U. S. Department of Transportation regulations and burial site criteria.

The Applicant has not addressed either the radioactivity or the volume of solid radioactive wastes from the SGLAs themselves. The Applicant has failed to demonstrate that there is a place to safely dispose of the SGLA hulks after replacement. The Applicant has not demonstrated that shipping the approximately 5,000 cubic foot SGLAs to an off-site burial facility would not violate volume limitations at a site such as the Barnwell low-level nuclear waste dump.

Contention 9. By replacing the leaking steam generators with essentially equivalent Westinghouse Model 44F steam generators, CP&L cannot meet General Design Criterion 14(10 CFR Part 50, App. A) and the license amendment should not issue. There is no reasonable assurance that the new steam generators on order will be of significantly lower probability of suffering from abnormal leakages or gross rupture.

The Final Steam Generator Repair Report for Robinson 2 analyzes (at page 96) causes of corrosion and degradation but is unable to identify the mechanism causing most of the tube degradation in the current steam generators. The design changes in the new steam generators cannot be relied upon to have solved the problem.

In reviewing proposed changes to steam generators, including replacement, reduced operating temperatures, support plate modifications, condenser retubing, and removal of copper based alloys from the secondary system, the staff's "Steam Generator Status Report" of February 18, 1982 notes:

> These fixes have met with varying degrees of success, but none of them is a panacea. Furthermore, short term solutions to one problem may create other problems. Conversion from phosphate to AVT water chemistry, which minimized wastage and stress corrosion cracking but was followed by denting, is a case in point.

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Since Westinghouse steam generators have been in operation, they have consistently developed degradation problems. All four of the significant steam generator tube ruptures which have occurred in domestic PWR's in the period 1975 through 1932 were Westinghouse design. Westinghouse is apparently incapable of designing and fabricating a steam generator not susceptible to tube degradation and leakage.

WHEREFORE having supplemented its Petition to Intervene with this list of the contentions which it seeks to have litigated in this proceeding, and the basis therefor, Petitioner Hartsville Group requests that its Petition be granted, that it be provided an opportunity to be heard in support of its interest in this matter, and that the Application of Carolina Power and Light Company for an amendment to the Operating License of the H. B. Robinson Steam Electric Plant, Unit 2, be denied, or so conditioned as to protect the health, safety and economic interests of Hartsville Group and the public.

March 1, 1983

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B. A. Matthews Post Office Box 1089 Hartsville, S.C. 29550

(803) 332-2727

Authorized Representative for Hartsville Group

UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the matter of

CAROLINA POWER & LIGHT COMPANY (H. B. Robinson Steam Electric Plant, Unit 2)

DOCKET NO. 50-261

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Administrative Judge Morton B. Margulies Chairman, Atomic Safety and Licensing Board U. S. Nuclear Regulatory Commission Washington, D.C. 20555

Administrative Judge Jerry R. Kline Atomic Safety and Licensing Board U. S. Nuclear Regulatory Commission Washington, D.C. 20555

Administrative Judge David L. Hetrick Atomic Safety and Licensing Board Professor of Nuclear Engineering University of Arizona Tucson, Arizona 85721

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Atomic Safety and Licensing Appeal Board Panel U. S. Nuclear Regulatory Commission Washington, D.C. 20555

UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In	the	matter	r of			
CAROL	INA	POWER	& LIGH	T	COMPANY	
(H.B. Plan	Rob	inson Jnit 2)	Steam	E1	ectric	

DOCKET NO. 50-261

AFFIDAVIT OF SERVICE

PERSONALLY APPEARED before me, B.A. Matthews, who does affirm that he did on this day of <u>MARCH</u>, 1983, serve copies of the attached Supplement to Petition to Intervene and Request for Hearings upon the parties on the attached Service List by deposit in the United States mail, first class, postage paid.

B.A. Matthews

Authorized Representative of Hartsville Group

DONE before me this 1 24 day of Prick; 1983,

at Hartsville, South Carolina.

larin 42 FOR SOUTH CAROLINA

My commission expires ______.