November 1, 1991

Docket No. 50-289

DISTRIBUTION:

| | |
|---|---|
| Docket Files | NRC & Local PDRs |
| PDI-4 r/f | SVarga |
| JCalvo | SNorris |
| RHernan | OGC |
| EJordan | ACRS(10) |
| PDI-4 Plant | CWHehl |

Mr. Gary Broughton, Vice President
and Director - TMI-1
GPU Nuclear Corporation
Post Office Box 480
Middletown, Pennsylvania 17057

Dear Mr. Broughton:

SUBJECT: THREE MILE ISLAND UNIT 1 - REQUEST FOR ADDITIONAL INFORMATION REGARDING SPENT FUEL POOL RERACK (TAC NO. M79289)

Your letter dated November 14, 1990, submitted Technical Specification Change Request No. 201 in support of a planned program at TMI-1 to install new spent fuel storage racks. The staff is currently reviewing your request and will require additional information in order to complete its review.

The enclosure to this letter lists the radiological consequences information needed by the staff. Your response should be received no later than November 30, 1991, to support the schedule for issuance of a license amendment. Please contact me if you have any questions.

The requirements of the letter affect fewer than 10 respondents, and therefore, are not subject to Office of Management and Budget review under P. L. 96-511.

Sincerely,

/S/

Ronald W. Hernan, Sr. Project Manager
Project Directorate I-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosure:
Request for Additional Information

cc w/enclosure:
See next page

| OFC | LA/PDI-4 | PM/PDI-4 | PD/PDI-4 | | |
|---|---|---|---|---|---|
| NAME | SNorris | RHernan/tg | JStolz | | |
| DATE | 10/31/91 | 10/29/91 | 10/31/91 | | |

OFFICIAL RECORD COPY
Document Name: TMI RAI

DF01

9111080412 911101
PDR ADOCK 05000289
P PDR

Mr. T. Gary Broughton
GPU Nuclear Corporation

Three Mile Island Nuclear Station,
Unit No. 1

cc:

Michael Ross
O&M Director, TMI-1
GPU Nuclear Corporation
Post Office Box 480
Middletown, Pennsylvania 17057

Francis I. Young
Senior Resident Inspector (TMI-1)
U.S. Nuclear Regulatory Commission
Post Office Box 311
Middletown, Pennsylvania 17057

Michael Laggart
Manager, Licensing
GPU Nuclear Corporation
100 Interpace Parkway
Parsippany, New Jersey 07054

Regional Administrator, Region 1
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, Pennsylvania 19406

Robert Knight (Acting)
TMI-1 Licensing Manager
GPU Nuclear Corporation
Post Office Box 480
Middletown, Pennsylvania 17057

Robert B. Borsum
B&W Nuclear Technologies
Suite 525
1700 Rockville Pike
Rockville, Maryland 20852

Ernest L. Blake, Jr., Esquire
Shaw, Pittman, Potts & Trowbridge
2300 N Street, NW.
Washington, DC 20037

Governor's Office of State Planning
and Development
ATTN: Coordinator, Pennsylvania
State Clearinghouse
Post Office Box 1323
Harrisburg, Pennsylvania 17120

Sally S. Klein, Chairperson
Dauphin County Commissioner
Dauphin County Courthouse
Front and Market Streets
Harrisburg, Pennsylvania 17120

Thomas M. Gerusky, Director
Bureau of Radiation Protection
Pennsylvania Department of
Environmental Resources
Post Office Box 2063
Harrisburg, Pennsylvania 17120

Kenneth E. Witmer, Chairman
Board of Supervisors
of Londonderry Township
25 Roslyn Road
Elizabethtown, Pennsylvania 17022

## Request for Additional Information

450.1 With respect to the environmental impacts of transportation of high burnup fuels, the staff position is that 10 CFR 51.52(b) calls for a detailed analysis of the environmental effects of transportation of fuel and waste for reactors using fuels exceeding 4% enrichment and/or 33,000 MwD/T burnup. Since your amendment request would permit storage of fuel which substantially exceed these values, GPU Nuclear must either adopt the staff's assessment of the environmental effects of transportation (53 FR 30355) with a statement that it is in fact properly applicable to TMI-1 and its fuel use or the licensee should provide its own statement under 51.52(b).

450.2 In evaluating the environmental impacts of the use of extended burnup fuel, the staff position (53 FR 30355) is that the calculated iodine-131 gap release fraction is 20% greater than the Regulatory Guide 1.25 assumed value of 0.10. The licensee should provide its analysis, using assumptions from Regulatory Guide 1.25, to demonstrate that offsite radiological consequences from fuel handling accidents are within staff acceptance criteria (i.e., "well within" the guideline values of 10 CFR 100.

450.3 In LER 91-014-00, Georgia Power identified a discrepancy between Unit 2 Technical Specification (TS) 3.9.10 and the design of the High Density Fuel Storage System (HDFSS) racks in the Hatch Unit 2 spent fuel pool. Essentially, this deficiency occurred as a result of a less-than-adequate design change safety evaluation in that the design change did not address compliance with T.S.3.9.10, which requires that 23 feet of water be maintained over the top of irradiated fuel assemblies seated in the storage racks. Verify that the planned rack installation at TMI-1 will permit the maintenance of a minimum of 23 feet of water above irradiated fuel assemblies seated in the storage racks.

450.4 The calculated short-term (accident) diffusion estimate utilized by the staff is discussed in Section 2.3.4 of the staff's Safety Evaluation Report related to operations of the Three Mile Island Unit 1 facility. The licensee should reanalyze this accident using the currently licensed thermal power level of 2568 megawatts, and the assumptions utilized by the staff in the SER related to Unit 1 licensing.

450.5 Table 14.2-5 of the TMI-1 FSAR presents information related to radioactive releases for the postulated fuel handling accident - Reg. Guide 1.25 Analysis (in the reactor building). Provide your analysis of the radiological consequences of a fuel handling accident in the reactor building. Your analysis should use staff approved assumptions, criteria, and methodology as set forth in Regulatory Guide 1.25 and Standard Review Plan 15.7.4.

450.6 If fuel handling operations inside containment occur when the containment is open to the environment, describe the measures provided for prompt radiation detection by use of radiation monitors and for automatic isolation of the reactor building.

*Title:* Challenge III Grant Application Guidelines for FY 1990.

*Frequency of Collection:* One-time.

*Respondents:* State or local governments; Non-profit institutions.

*Use:* Guideline instructions and applications elicit relevant information from non-profit organizations and State and local arts agencies that apply for funding under specific Challenge III program categories. This information is necessary for the accurate, fair and thorough consideration of competing proposals in the peer review process.

*Estimated Number of Respondents:* 150.

*Average Burden Hours per Response:* 80.

*Total Estimated Burden:* 12,000.

Murray R. Welsh,

*Director, Administrative Services Division, National Endowment for the Arts.*

[FR Doc. 88-18157 Filed 8-10-88; 8:45 am]

BILLING CODE 7537-01-M

## NUCLEAR REGULATORY COMMISSION

[Docket No. 50-400]

### Carolina Power & Light Co., et al., Shearon Harris Nuclear Power Plant, Unit 1; Environmental Assessment and Finding of No Significant Impact

The U.S. Nuclear Regulatory Commission (NRC or the Commission) is considering issuance of an amendment to Facility Operating License No. NPF-63 to the Carolina Power & Light Company (CP&L or the licensee), for the Shearon Harris Nuclear Power Plant, Unit 1, located in Wake and Chatham Counties, North Carolina.

### Environmental Assessment

*Identification of Proposed Action*

The proposed amendment would revise the provisions in the Technical Specifications (TS) relating to fuel enrichment.

The proposed action is in accordance with the licensee's applications dated February 1 and February 8, 1988, and previous submittals dated May 28, and November 2, 1987.

*The Need for the Proposed Action*

The proposed changes are needed so that the licensee can use higher enrichment fuel, and provides the flexibility of extending the fuel irradiation and permitting operation of longer fuel cycles.

*Environmental Impacts of the Proposed Action*

The Commission has completed its evaluation of the proposed revisions to the Technical Specifications. The proposed revisions would permit use of fuel enriched with Uranium 235 in excess of 4 weight percent and up to 4.2 weight percent and the license would expect the fuel to be irradiated to levels above 33 gigwatt days per metric ton (GWD/MT) but not to exceed 60 GWD/MT. The safety considerations associated with reactor operation with higher enrichment and extended irradiation have been evaluated by the NRC staff. The staff has concluded that such changes would not adversely affect plant safety. The proposed changes have no adverse effect on the probability of any accident. The increased burnup may slightly change the mix of fission products that might be released in the event of a serious accident but such small changes would not significantly affect the consequences of serious accidents. No changes are being made in the types or amounts of any radiological effluents that may be released offsite. There is no significant increase in the allowable individual or cumulative occupational radiation exposure.

With regard to potential nonradiological impacts of reactor operation with higher enrichment and extended irradiation, the proposed changes to the TS involve systems located within the restricted area, as defined in 10 CFR Part 20. They do not affect nonradiological plant effluents and have no other environmental impact.

The environmental impacts of transportation resulting from the use of higher enrichment fuel and extended irradiation are discussed in the attached staff assessment entitled, "NRC Assessment of the Environmental Effects of Transportation Resulting from Extended Fuel Enrichment and Irradiation," dated July 7, 1988. As indicated therein, the environmental cost contribution of the proposed increase in the fuel enrichment and irradiation limits are either unchanged or may in fact be reduced from those summarized in Table S-4 as set forth in 10 CFR 51.52(c).

Therefore, the Commission concludes that there are no significant radiological or nonradiological environmental impacts associated with the proposed amendment.

*Alternative to the Proposed Action*

Since the Commission concluded that there are no significant environmental effects that would result from the proposed action, any alternatives with equal or greater environmental impacts need not be evaluated.

The principal alternative would be to deny the requested amendment. This would not reduce environmental impacts of plant operation and would result in reduced operational flexibility.

*Alternative Use of Resources*

This action does not involve the use of any resources not previously considered in the "Final Environmental Statement related to the operation of the Shearon Harris Nuclear Power Plant, Units 1 and 2," dated October 1983.

*Agencies and Persons Consulted*

The NRC staff reviewed the licensee's request and did not consult other agencies or persons.

### Finding of No Significant Impact

The Commission has determined not to prepare an environmental impact statement for the proposed license amendment.

Based upon the foregoing environmental assessment, we concluded that the proposed action will not have a significant effect on the quality of the human environment.

For further details with respect to this action, see the application for amendment dated February 1, and February 8, 1988, and submittals May 28 and November 2, 1987, which are available for public inspection at the Commission's Public Document Room, 1717 H Street NW., Washington, DC and at the Richard B. Harrison Library, 1313 New Bern Avenue, Raleigh, North Carolina 27610.

Dated at Rockville, Maryland, this 3rd day of August 1988.

For the Nuclear Regulatory Commission.

Edward A. Reeves,

*Acting Director, Project Directorate II-1, Division of Reactor Projects I/II, Office of Nuclear Reactor Regulation.*

### NRC Assessment of the Environmental Effects of Transportation Resulting From Extended Fuel Enrichment and Irradiation

*Introduction*

Several Licensees of light water reactors (LWRs) have submitted proposed license amendments to permit use of enriched fuel in excess of four (4) weight-percent uranium-235 and to extend fuel irradiation from the current limit of 33 Gigawatt Days/Metric Ton (GWD/MT) up to 60 GWD/MT. It is anticipated that, in time, almost all licensees of light water reactors will request approval to accept increases in

irradiation levels and fuel enrichment. Paragraph (b) of 10 CFR 51.52 states, among other things, that the reactors using fuel enrichment greater than 4 weight percent uranium-235 or where fuel irradiation exceeds 33 GWD/MT, the licensee shall provide a full description and detailed analysis of the environmental effects to transportation of fuel and wastes to and from the reactor, including values for the environmental impact under normal conditions of transport and for the environmental risk from accidents in transport. The Statement shall indicate that the values determined by the analysis represent the contribution of such effects to the environmental costs of licensing the reactor.

With respect to the issue, the staff published a Notice of Environmental Assessment and Finding of No Significant Impact for extended burnup fuel use in Commercial LWRs in the Federal Register (53 FR 6040), dated February 29, 1988. In the above cited notice, the staff concluded that the environmental impacts summarized in Table S-4 of 10 CFR 51.52 for the burnup level of 33 GWD/MT are conservative and bound the corresponding impacts for burnup level up to 60 GWD/MT and uranium-235 enrichments up to five percent by weight. The staff also concluded that there are no significant adverse radiological or non-radiological impacts associated with the use of extended fuel burnup and/or increased enrichment, and that this use will not significantly affect the quality of the human environment. Moreover, pursuant to 10 CFR 51.31, the Commission determined that an environmental impact statement need not be prepared for this action.

The Staff is in the process of revising the regulations at 10 CFR 51.52 to reflect the findings published in the above cited Federal Register Notice. In the interim, in connection with its review of proposed license amendments to permit use of fuel enriched with uranium 235 in excess of 4 percent and up to 5 percent by weight and irradiated to levels above 33 GWD/MT and up to 60 GWD/MT, and pursuant to 10 CFR 51.52(b), the staff proposes to accept the following analysis of the environmental effects of the transportatio of such fuel and waste until such time as the revision to the rule is issued.

## Environmental Impacts of Transportation

In evaluating the environmental impacts of the use of extended irradiation of high enrichment, fuel, the Commission has relied upon the following four studies dealing with the transportation impacts:

(1) Pacific Northwest Laboratories' report NUREG/CR-5009, "Assessment of the Use of Extended Burnup Fuel in Light Water Power Reactors," dated February 1988, prepared for the Nuclear Regulatory Commission;

(2) Nuclear Regulatory Commission's report WASH-1238, "Environmental Survey of Transportation of Radioactive Materials to and from Nuclear Power Plants, dated December 1972;

(3) Envirosphere Company Report AIF/NE SP-032, "The Environmental Consequences of Higher Fuel Burnup," dated June 1985, prepared for National Environmental Studies Project (NESP) and the Atomic Industrial Forum, Inc., with the participation of the Commission's staff; and

(4) Sandia National Laboratories (SNL) Draft Report NUREG/CR-2325, "The Transportation of Radiactive Material (RAM) To and From U.S. Nuclear Power Plants," dated December 1983.

All four studies present the results of evaluation of transportation impacts for postulated traffic models. The results are presented for traffic density, radiological occupational risks, radiological public risks of normal transportation, and risks of transportation accidents. The Pacific Northwest Laboratories (PNL) report and the Envirosphere Company report present the environmental impacts for fuel irradiation levels extending up to 60 GWD/MT and enrichments up to 5 weight percent uranium-235. The PNL results appear to have been derived from the analysis presented in the NESP report.

Table I summarizes the results of traffic densities for transportation of fresh fuel, spent fuel, and other solid waste by truck, rail and barge used in the four studies.

TABLE I.—TRAFFIC DENSITIES SHIPMENTS PER REACTOR YEAR

| Transportation mode | NUREG/CR-5009 (PNL) | | NESP-032 | | WASH-1238 | SNL [1] |
|---|---|---|---|---|---|---|
| | 33 GWD/MT | 60 GWD/MT | 33 GWD/MT | 60 GWD/MT | 33 GWD/MT | 33 GWD/MT |
| TRUCK | 112 | 92 | 112 | 92 | 112 | 122 |
| RAIL | 10 | 8 | 10 | 8 | 10 | 2.3 |
| BARGE | 5 | 4 | 5 | 3 | | |

[1] The report does not clearly state the assumptions regarding fuel enrichment and irradiation levels. However, since Table S-4 in 10 CFR 51.52 is based on 33 GWD/MT, the staff has assumed that SNL analysis must be based on the assumptions contained in 10 CFR 51.52, Table S-4.

The comparison of the results of traffic density analysis shows that there is a reasonable good correlation between the total number of shipments shown in SNL results and that shown in other reports for 33 GWD/MT. Both the PNL study and the NESP study show that there will be a reduction in the total number of shipments (fresh fuel, spent fuel, and low level wastes) when higher levels of irradiation (60 GWD/MT) are assumed. Such high irradiation levels may require that fuel enrichment be increased up to a maximum of 5 weight percent. The reduction in the shipments is due to the fact that there will be fewer outages for fuel reloads resulting in reduced fuel shipments to the reactor and reduced spent fuel shipments from the reactor. However, there will be an increase in the shipment of low level solid wastes. Even when this increase in low level waste shipment is included with the shipment of fresh fuel and spent fuel, the total shipments for higher irradiation (60 GWD/MT) are still somewhat reduced from those at 33 GWD/MT. As a result of the reduction in number of shipments, there should be some reduction in the estimated number of persons exposed. There should also be no significant change in heat generated per irradiated fuel cask and the weight restriction for transporting vehicle.

The discharged spent fuel at higher irradiation (60 GWD/MT) will have more long lived radionuclides per unit mass compared with the spent fuel irradiated at 30 GWD/MT. However, there is a smaller amount of annual spent fuel discharged. Since each spent

fuel package will meet the surface radiation level limits imposed by the transportation regulations and there are fewer packages being shipped, there will be an overall reduction in the impacts of normal transportation of spent fuel at higher irradiation levels. However, the normal transportation impacts of low level wastes will increase with increased irradiation level. This is due to the fact that slight increases in cooling water activity could occur through increased inventory and gap release fraction. Because this activity would need to be removed to keep cooling water activity within licensed technical specification limits, a small increase in the quantity of low level wastes is estimated to occur. Both NUREG/CR-5009 and NESP-032 conservatively assume a 20% increase in solid waste at 60 GWD/MT irradiation. Table II summarizes the combined environmental impacts of normal transportation of spent fuel, low level waste and new fuel activities at 33 GWD/MT and 60 GWD/MT as presented in NUREG/CR-5009 and NESP-032.

TABLE II.—NORMAL TRANSPORTATION RADIOLOGICAL EXPOSURE RISK PERSON REM/REACTOR YEAR

| Exposure type | NUREG/CR-5009 (PNL) | | NESP-032 | |
|---|---|---|---|---|
| | 33 GWD/MT | 60 GWD/MT | 33 GWD/MT | 60 GWD/MT |
| Occupational | 4.2[1] | 3 | 4.2 | 3 |
| General Public | 3.2[1] | 2.5 | 3.2 | 2.0 |
| Total (Normal Transportation Exposures) | 7.4 | 5.5 | 7.4 | 5.0 |

[1] These values are identical to the rounded off values reported in Table S-4 of 10 CFR 51.52, and form the basis of the Commission's determination of no significant adverse environmental impacts of transportation of fuel and wastes to and from nuclear reactor sites.

The above results show that there is in fact an overall reduction in the radiological impacts of normal transportation (the calculated impacts are lower than the values reported in Table S-4).

Environmental impacts also result from transportation accidents. The extended irradiation of fuel will result in an increase in the actinide and fission product inventory in the fuel. Since the spent fuel in transported after an extended storage at the site (5 years), only the long lived fission products and antinides would remain to contribute to the risk. The PNL analysis shows that the overall effect of a higher inventory of antinides and long lived fission products would be to increase the projected dose in the event of an accident involving spent fuel by a factor of about 2.7, when irradiation is increased from 33 GWD/MT to 60 GWD/MT. However, because the increased irradiation will correspondingly decrease the amount of the spent fuel discharged, the probability of a transportation accident will be reduced by an amount roughly equal to the ratio of irradiation levels. The overall effect of the increase in irradiation to 60 GWD/MT would be to increase the radiological risk of spent fuel transportation accidents by about 50%.

As stated earlier, the amount of low level waste is conservatively assumed to increase by about 20% when irradiation levels are increased to 60 GWD/MT. No significant change in composition of low level wastes is expected. Therefore, the transportation accident risks of low level waste shipment would increase by 20%. The transportation risk associated with new fuel shipments would decrease as shipments decreased due to extended burnup.

Although Table S-4 indicates that the radiological risk of accidents is small and not capable of quantification, the radiological risks of transportation accidents were calculated in NUREG/CR-2325. For the 1985 transportation model, the SNL calculated radiological risk of 1.8 person-rem/reactor year. The staff has conservatively assumed from the PNL analyses that the higher irradiation (60 GWD/MT) would result in a 50 percent increase in radiological risks due to transportation of all kinds of radioactive waste (even though for low level waste the increase in expected to be 20% or less and for new fuel the risk would decrease with the assumption). SNL calculated risk of 1.8 person-rem/reactor year could increase to 2.7 person-rem/reactor year at 60 GWD/MT irradiation level. When accident risks at 33 GWD/MT (SNL value) and 60 GWD/MT (Scaled SNL value) are added to normal impacts (PNL and NESP-032 value in Table II), the overall radiological risks at higher irradiation levels are still lower than the risks at 33 GWD/MT irradiation levels. This is shown on Table III.

The analyses presented in NESP-032 show that the radiological environmental impacts of transportation accidents are small at 33 GWD/MT and remain small at 60 GWD/MT. The NESP-032 finding is consistent with finding in WASH-1238 and the results summarized in Table S-4 of 10 CFR 51.52.

TABLE III.—TRANSPORTATION RADIOLOGICAL EXPOSURE RISK PERSON REM/REACTOR YEAR

| | NUREG/CR-5009 (PNL) | | NESP-032 | |
|---|---|---|---|---|
| | 33 GWD/MT | 60 GWD/MT | 33 GWD/MT | 60 GWD/MT |
| Normal Transportation Exposures | 7.4 | 5.5 | 7.4 | 5.0 |
| Accident Exposures (from SNL) | 1.8 | 2.7 | 1.8 | 2.7 |
| | 9.2 | 8.2 | 9.2 | 7.7 |

The non-radiological impacts of transportation accidents are presented in Table S-4 as follows:

(a) 1 fatality in 100 reactor years.

(b) 1 non-fatal injury in 10 reactor years.

(c) $475 property damage per reactor year.

As seen in Table 1, the overall shipments of fresh fuel, spent fuel, and low level waste are slightly reduced. Therefore, the likelihood of an accident would decrease with the decreased number of shipments, while the non-radiological consequences of transportation accidents would remain unchanged.

In summary, the environmental impacts of extended irradiation up to 60 GWD/MT and increased enrichment up to 5 weight percent are bounded by the impacts reproted in Table S-4 of 10 CFR Part 51. Table IV shows the summary of the comparison of impacts. Table IV also supports the staff's conclusions concerning transportation impacts in the Federal Register Notice 53 FR 6040.

TABLE IV.—SUMMARY COMPARISON OF TRANSPORTATION IMPACTS

| | Table S-4 | 60 GWD/MT and up to 5 percent enrichment |
|---|---|---|
| Traffic Density | | |
| Truck | Less than 1 per day | No increase. |
| Rail | Less than 3 per month | No increase. |
| Radiological Risk—Person REM per year | | |
| Normal Transportation | 7 | 5.0-5.5 |
| Accidents | 1.8 | 2.7 |
| Total | 8.8 | 7.7-8.2 |
| Non Radiological Risk | 1 Fatality/100 Reactor Years | No increase. |
| | 1 Non-Fatal Injury/10 Reactor Years | No increase. |
| | $475 Property Damage/ Reactor Year | No increase. |

The above evaluation sets forth the changes resulting from increased enrichment (up to 5 weight percent) and extended irradiation (up to 60 GWD/MT), in the environmental impacts of transportation of fuel and wastes to and from the light water reactors set forth in Table S-4, 10 CFR Part 51. The values set forth in this detailed analysis represent the contribution of the environmental effects of transportation of fuel enriched with uranium 235 above 4 weight percent and up to 5 weight percent, and irradiated to levels above 33 GWD/MT and up to 60 GWD/MT to the environmental costs of operating the reactors. As shown above, the environmental cost contributions of the stated increases in fuel enrichment and irradiation limits are either unchanged or may in fact be reduced from those summarized in Table S-4, as set out in 10 CFR 51.52(c).

Dated: July 7, 1988.

[FR Doc. 88-18[illegible] Filed 8-10-88; 8:45 am]

BILLING CODE 7590-01-M

[Docket No. 50-341]

## Detroit Edison Co., Wolverine Power Supply Cooperative, Inc.; Environmental Assessment and Finding of No Significant Impact

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an amendment to Facility Operating License No. NPF-43, issued to the Detroit Edison Company (DECo) and the Wolverine Power Supply Cooperative, Incorporated (the licensees) for the operation of Fermi-2 located in Monroe County, Michigan.

### Environmental Assessment

*Identification of Proposed Action*

The Proposed amendment would revise provisions in the Fermi-2 Technical Specifications (TSs) relating to the Standby Gas Treatment System (SGTS) Radiation Monitors and the Containment High Range Radiation Monitor.

*The Need for the Proposed Action*

The proposed changes to the TSs are required in order to remove the potential for an unmonitored release for fission products from the plant and to revise Action Statement 81 to make it consistent with NRC Generic Letter 83-36.

*Environmental Impacts of the Proposed Action*

The Commission has completed its evaluation of the proposed revision to the TSs. The proposed revision would require a minimum of two channels, instead of one, of the SGTS Radiation Monitors to be operable to ensure that appropriate compensatory actions are taken to preclude conditions which have the potential for allowing unmonitored releases of noble gases. In addition, the proposed amendment would (1) revise the associated Action Statement 81 in Table 3.3.7.5-1 for the SGTS Radiation Monitors and Containment High Range Radiation Monitor to extend the time period before the licensees are required to submit a Special Report to the Commission (pursuant to 6.9.2 of the TSs) as recommended by NRC Generic Letter 83-36, and (2) make appropriate changes in the TS Bases for Accident Monitoring Instrumentation as a result of the changes. Therefore, the proposed changes do not increase the probability or consequences of any accidents, no changes are being made in the types of any effluents that may be released offsite, and there is no significant increase in the allowable individual or cumulative occupational radiation exposure. Accordingly, the Commission concludes that this proposed action would result in no significant radiological impact and could result in the reduction of the radiological impacts.

With regard to potential nonradiological impacts, the proposed changes to the TSs involve systems located within the restricted area as defined in 10 CFR Part 20. They do not affect nonradiological plant effluents and have no other environmental impact. Therefore, the Commission concludes that there are no significant nonradiological environmental impacts associated with the proposed amendment.

The Notice of Consideration of Issuance of Amendment and Opportunity for Hearing in connection with this action was published in the Federal Register on March 10, 1988 (53 FR 7819). No request for hearing or petition for leave to intervene was filed following this notice.

*Alternatives to the Proposed Action*

Because the Commission has concluded that there is no significant environmental impact associated with the proposed amendment, any alternative would have either no or greater environmental impact. The principal alternative would be to deny the requested amendment. This may increase the environmental impacts attributed to the facility due to allowing the potential for unmonitored releases from the facility.

*Alternative Use of Resources*

This action involves no use of resources not previously considered in connection with the "Final Environmental Statement Related to

# Corrections

Federal Register
Vol. 53, No. 164
Wednesday, August 24, 1988

This section of the FEDERAL REGISTER contains editorial corrections of previously published Presidential, Rule, Proposed Rule, and Notice documents and volumes of the Code of Federal Regulations. These corrections are prepared by the Office of the Federal Register. Agency prepared corrections are issued as signed documents and appear in the appropriate document categories elsewhere in the issue.

## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Parts 156 and 170

[Docket No. OPP-300164; FRL 3314-4]

### Worker Protection Standards for Agricultural Pesticides

*Correction*

In proposed rule document 88-15418 beginning on page 25970 in the issue of Friday, July 8, 1988, make the following corrections:

1. On page 25978, in the first column, in the second line, "proposal" should read "proposed"; and in the eighth line, "is the" should read "in this".

2. On page 25978, in the third column, in the second complete paragraph, in the 13th line, "§ 170.79b)(1)" should read "§ 170.7(b)(1)".

3. On page 25979, in the second column, in the first complete paragraph, in the 15th line, insert a comma after the word "necessary".

4. On page 25986, in the third column, in the third complete paragraph, in the 11th line, after the word "exposure" insert "could".

5. On page 26007, in the second column, in the second line, "*Association of Journal*" should read "*Association Journal*".

§ 170.1 [Corrected]

6. On page 26012, in the second column, in § 170.1(b)(3), in the second line, "prorection" should read "protection".

BILLING CODE 1505-01-D

## ENVIRONMENTAL PROTECTION AGENCY

[OPTS-44514; FRL-3422-6]

### TSCA Chemical Testing; Receipt of Test Data

*Correction*

In notice document 88-17247 beginning on page 26909 in the issue of Monday, August 1, 1988, make the following correction:

On page 26909, in the third column, under **SUPPLEMENTARY INFORMATION**, in the second line, after "4(d)", remove the letter "n".

BILLING CODE 1505-01-D

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### Food and Drug Administration

[Docket No. 83C-0129]

### Color Additives; Denial of Petition for Listing of D&C Red No. 19 for Use in Externally Applied Drugs and Cosmetics

*Correction*

In notice document 88-16042 beginning on page 26881 in the issue of Friday, July 15, 1988, make the following correction:

On page 26882, in the first column, in the first complete paragraph, in the fourth line, after "Inc." insert "(now the Cosmetic Toiletry and Fragrance Association, Inc.".

BILLING CODE 1505-01-D

## DEPARTMENT OF THE INTERIOR

### Fish and Wildlife Service

### 50 CFR Part 17

### Endangered and Threatened Wildlife and Plants; Proposed Technical Amendments to the Sea Otter Translocation Regulations

*Correction*

In proposed rule document 88-18668 beginning on page 31722 in the issue of Friday, August 19, 1988, make the following correction:

On page 31722, in the first column, under "DATE", in the second line, "September 29, 1988" should read "August 29, 1988".

BILLING CODE 1505-01-D

## LEGAL SERVICES CORPORATION

### 45 CFR Part 1607

### Governing Bodies

*Correction*

In rule document 88-18351 beginning on page 30678 in the issue of Monday, August 15, 1988, make the following corrections:

1. On page 30679, in the second column, in the second complete paragraph, in the 17th line, "from" should read "form".

2. On the same page, in the same column, in the next to last line, "commenter" should read "comments".

3. On the same page, in the third column, in the second paragraph, in the first line, "Pub. L. 100-201" should read "Pub. L. 100-202".

BILLING CODE 1505-01-D

## NUCLEAR REGULATORY COMMISSION

[Docket No. 50-400]

### Carolina Power & Light Co., et al., Shearon Harris Nuclear Power Plant, Unit 1; Environmental Assessment and Finding of No Significant Impact

*Correction*

In notice document 88-18175 beginning on page 30355 in the issue of Thursday, August 11, 1988, make the following corrections:

1. On page 30356, in the first column, in the ninth line, "to" should read "of".

2. On the same page, in the same column, in the first complete paragraph, in the first line "to the" should read "to this".

3. On the same page, in the second column, in the first complete paragraph, in the 14th line, "transportation" was misspelled.

4. On the same page, in the third column, in paragraph (3), in the sixth line, remove "a".

5. On the same page, in the first column under Table I, in the third line, "reesonable" should read "reasonably".

8. On the same page, in the third column under Table I, in the first complete paragraph, in the fifth line, "30" should read "33".

7. On page 30357, in the first column, in the second complete paragraph, under Table II, in the sixth line, "in" should read "is".

8. On the same page, in the third column under Table II, in the fifth line, "in" should read "is".

9. On page 30358, in the first column, in the last line, "ractors" should read "reactors".

BILLING CODE 1505-01-D

## OFFICE OF THE UNITED STATES TRADE REPRESENTATIVE

### Trade Policy Staff Committee; Articles Being Considered for Possible Duty Removal

*Correction*

In notice document 88-18424 beginning on page 30920 in the issue of Tuesday, August 16, 1988, make the following corrections:

On page 30921, in the first column, in the table under *Plants, Vegetable Materials, Lacs, etc.*, "1401.10.00" should read "1401.10.00*". On the same page, in the third column, in the table under **VII. Jute and Hard Fibers**, "5305.19.00" should read "5305.19.00*".

BILLING CODE 1505-01-D

## DEPARTMENT OF THE TREASURY

### 31 CFR Part 103

### Proposed Amendments to the Bank Secrecy Act Regulations Regarding Reporting and Recordkeeping Requirements by Casinos

*Correction*

In proposed rule document 88-18630 beginning on page 31370 in the issue of Thursday, August 18, 1988, make the following corrections:

1. On page 31371, in the first column, under **SUPPLEMENTARY INFORMATION**, in the 17th line, "of" should read "on".

2. On the same page, in the third column, in the fourth line, "cash totalling" should read "cash in totalling".

3. On page 31373, in the first column, in the fourth line, "device" should read "advice"; and in the eighth line, the first "of" should read "or".

4. On the same page, in the same column, in the last paragraph, in the 15th line, remove "the".

5. On the same page, in the second column, in the second complete paragraph, in the 18th line, "that" should read "what".

6. On page 31374, in the second column, in the second complete paragraph, in the fourth line, "anticipated" was misspelled; and in the eighth line, "individuals" should read "individual".

**§ 103.22 [Corrected]**

7. On page 31375, in the first column, in § 103.22(a)(2)(i)(A), "Purchase" should read "Purchases".

8. On the same page, in the second column, in § 103.22(a)(2)(iii) introductory text, in the fifth line, "totalling" was misspelled.

**§ 103.36 [Corrected]**

9. On page 31376, in the first column, in § 103.36(b)(9)(iv)(B), the third line should read "(b)(9); and".

10. On the same page, in the same column, in § 103.36(b)(9)(iv)(C), in the third line, the language beginning with "the casino" through the end of the paragraph should appear as a flush paragraph.

11. On the same page, in the second column, in § 103.36(b)(11)(viii), in the eighth line, "ete." should read "etc.".

12. On the same page, in the same column, in § 103.36(b)(12), in the 12th line "name of casino" should read "name or casino".

**§ 103.54 [Corrected]**

13. On the same page, in the third column, in § 103.54(b)(1)(i), in the third line, add a comma after "currency".

14. On page 31377, in the first column, in § 103.54(b)(2)(i)(A), in the second line, "currency of chips" should read "currency or chips".

15. On the same page, in the same column, in § 103.54(b)(2)(ii), in the ninth line, "number of taxpayer" should read "number or taxpayer".

16. On the same page, in the second column, in § 103.54(b)(3), in the 3rd line, add a comma after "section"; and in the 15th line, "name of casino" should read "name or casino".

17. On the same page, in the same column, in § 103.54(b)(4)(i), in the second line, remove the comma before "of this section".

18. On the same page, in the same column, in § 103.54(b)(4)(iii), in the 13th line, "alien, the date" should read "alien: the date"; and in the 16th line "name of casino" should read "name or casino".

BILLING CODE 1505-01-D

## 2.7 DESIGN BASIS ACCIDENT ANALYSIS RELATIVE TO EXTEND FUEL BURNUP

The licensee has requested authorization to increase fuel enrichment to 4.2 weight percent of U-235 and to allow fuel burnup up to 60,000 megawatt days per metric ton (MWD/MT). The staff and licensee evaluated the potential impact of this change on the radiological assessment of design basis accidents (DBA) which were previously analyzed in the licensing of the Shearon Harris Unit 1 nuclear power plant.

The licensee, in their submittals of May 26 and November 2, 1987, concluded that the design basis accidents previously analyzed by the licensee in their FSAR bound any potential radiological consequences of DBA that could result with the extended fuel burnup fuel.

The staff reviewed the licensee's submittals and also reviewed a publication which was prepared for the NRC entitled, "Assessment of the Use of Extended Burnup Fuel in Light Water Reactors," NUREG/CR 5009, February 1988. The NRC contractor, the Pacific Northwest Laboratory (PNL) of Battelle Memorial Institute, examined the changes that could result in the NRC DBA assumptions, described in the various appropriate SRP sections and/or Regulatory Guides, that could result from the use of extended burnup fuel (up to 60,000 MWD/MT). The staff agrees that the only DBA that could be affected by the use of extended burnup fuel, even in a minor way, would be the potential thyroid doses that could result from a fuel handling accident. PNL estimates that I-131 fuel gap activity in the peak fuel rod with 60,000 MWD/MT burnup could be as high as 12%. This value is approximately 20% higher than the value normally used by the staff in evaluating fuel handling accidents (Regulatory Guide 1.25, "Assumptions Used for Evaluating the Potential Radiological Consequences of a Fuel Handling Accident in the Fuel Handling and Storage Facilities for Boiling and Pressurized Water Reactors).

The staff, therefore, reevaluated the fuel handling accidents for the Shearon Harris Unit 1 facility with an increase in iodine gap activity in the fuel damaged in a fuel handling accident. Table 1 presents the fuel handling accident thyroid doses presented in the operating licensing Safety Evaluation Report, dated November 1983, and the increased thyroid doses (by 20%) resulting from extended burnup fuel.

Table 1

Thyroid Doses as a Consequence of DBA Fuel Handling Accidents

| | Exclusion Area | | Low Population Zone | |
|---|---|---|---|---|
| | Thyroid Dose (Rem) | | Thyroid Dose (Rem) | |
| Fuel Handling Accident | A* | B** | A* | B** |
| In Fuel Building | 5.5 | [illegible] | 1.5 | 1.8 |
| In Reactor Building | 5.0 | | 5.0 | 6.0 |

*A SER dose
**B Extended fuel burnup dose

The staff concludes that the only potential increased doses potentially resulting from DBA with extended fuel burnup to 60,000 MWD/MT is the thyroid dose resulting from fuel handling accidents and these doses remain well within the 300 Rem thyroid exposure guideline values set forth in 10 CFR Part 100 and that this small calculated increase is not significant.

## 3.0 SUMMARY

The staff has reviewed the information submitted by Carolina Power & Light Company, the licensee for the Shearon Harris Unit 1 plant, to support proposed Technical Specification changes required for the operation of Cycle 2. The proposed amendment affects the configuration of control rod Bank-D, requested increases in the values of the radial and total peaking factors, proposed a boron dilution sliding/shutdown margin, requested changes in the INCORE/EXCORE surveillance and calibration intervals, requested changes in the description of the fuel assembly, and finally requested a change in the bases of the rod bow penalty.

Our evaluation indicates that the requested amendments are acceptable. The change in TS 5.3.1 regarding the rod bow penalty is an administrative change in the reference and affects the bases but not the Technical Specification and, therefore, is acceptable.

## 4.0 ENVIRONMENTAL CONSIDERATION

Pursuant to 10 CFR 51.21, 51.32, and 51.35, an environmental assessment and finding of no significant impact have been prepared and published in the Federal Register (53 FR 30355) on August 11, 1988. Accordingly, based upon the environmental assessment, the Commission has determined that the issuance of this amendment will not have a significant effect on the quality of the human environment.