

JUL 7 1986

Docket No. 50-461

Mr. Frank A. Spangenberg
Manager-Licensing and Safety
Clinton Power Station
P.O. Box 678
Mail Code V920
Clinton, Illinois 61727

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Dear Mr. Spangenberg:

SUBJECT: ENVIRONMENTAL ASSESSMENT AND FINAL FINDING OF NO SIGNIFICANT IMPACT

Re: Clinton Power Station, Unit No. 1

Pursuant to 10 CFR 51.119, the Commission has requested the Office of the Federal Register to publish the, "Environmental Assessment and Final Finding of No Significant Impact Regarding Proposed Exemptions from Certain Requirements of 10 CFR Part 50 to the Illinois Power Company." This finding relates to your requests for exemptions dated March 27, 1986 and May 29, 1986, which would defer completion of 10 preoperational tests from prior to fuel load until various milestones between issuance of the low power and full power licenses (i.e. reactor heatup, initial criticality) for Clinton Power Station, Unit No. 1.

A copy of the above cited report is enclosed for your information.

Sincerely,

Original Signed by

Byron L. Siegel, Project Manager
BWR Project Directorate No. 4
Division of BWR Licensing

Enclosure:
Environmental Assessment
and Finding of No
Significant Impact

cc w/enclosure:
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

JUL 7 1986

Docket No. 50-461

Mr. Frank A. Spangenberg
Manager-Licensing and Safety
Clinton Power Station
P.O. Box 678
Mail Code V920
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Dear Mr. Spangenberg:

SUBJECT: ENVIRONMENTAL ASSESSMENT AND FINAL FINDING OF NO SIGNIFICANT IMPACT

Re: Clinton Power Station, Unit No. 1

Pursuant to 10 CFR 51.119, the Commission has requested the Office of the Federal Register to publish the, "Environmental Assessment and Final Finding of No Significant Impact Regarding Proposed Exemptions from Certain Requirements of 10 CFR Part 50 to the Illinois Power Company." This finding relates to your requests for exemptions dated March 27, 1986 and May 29, 1986, which would defer completion of 10 preoperational tests from prior to fuel load until various milestones between issuance of the low power and full power licenses (i.e. reactor heatup, initial criticality) for Clinton Power Station, Unit No. 1.

A copy of the above cited report is enclosed for your information.

Sincerely,

A handwritten signature in cursive script that reads "Byron L. Siegel".

Byron L. Siegel, Project Manager
BWR Project Directorate No. 4
Division of BWR Licensing

Enclosure:
Environmental Assessment
and Finding of No
Significant Impact

cc w/enclosure:
See next page

Mr. Frank A. Spangenberg
Illinois Power Company

Clinton Power Station
Unit 1

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UNITED STATES NUCLEAR REGULATORY COMMISSIONILLINOIS POWER COMPANYCLINTON POWER STATION, UNIT NO. 1DOCKET NO. 50-461ENVIRONMENTAL ASSESSMENT AND FINAL FINDING OFNO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (the Commission) is issuing exemptions from certain requirements of 10 CFR Part 50 to the Illinois Power Company (the Applicant) for the Clinton Power Station, Unit No. 1, (the facility) located in DeWitt County, Illinois.

ENVIRONMENTAL ASSESSMENT

A. Deferral of Preoperational Test Related to the Turbine Electrohydraulic Control System

Identification of Proposed Action: The proposed action would exempt the applicant from having to perform acceptance testing of the turbine electrohydraulic control system prior to fuel load. The request for deferral and supporting justification are contained in a submittal from the applicant, dated March 12, 1986.

The Code of Federal Regulations Title 10 Part 50, Appendix A, General Design Criterion (GDC) 29 requires the protection and reactivity control systems to be designed to assure extremely high probability of accomplishing their safety functions in the event of anticipated operational occurrences.

The applicant has stated that the electrohydraulic control system includes the turbine stop valve position switches that supply a scram signal to the reactor protective system. However, since there will be no steam in the main steam lines prior to reactor heatup, there is no need to initiate a scram from stop

valve closure. Therefore, the turbine electrohydraulic control system is not required to be operational prior to reactor heatup.

The applicant's request for exemption and the associated basis is contained in a letter, dated May 29, 1986.

Need for the Proposed Action: The exemption is required in order to provide the applicant with the ability to load fuel without having the turbine electrohydraulic control system operational. Preoperational testing of this system will be completed prior to reactor heatup, when the system is required to be operational. This exemption will provide the applicant with greater preoperational flexibility and, therefore, expedite the start of power operation.

Environmental Impact of the Proposed Action: The exemption would allow the applicant to defer preoperational testing of the turbine electrohydraulic control system until after the fuel is loaded but prior to reactor heatup.

Since no steam exists in the main steam lines prior to reactor heatup, the staff concludes that granting the proposed relief will not increase the probability of an accident and will not result in post-accident radiological releases that are greater than those previously determined for the Clinton Station. Moreover, the proposed relief will not otherwise affect radiological plant effluents, nor result in any significant occupational exposure. Likewise, the relief does not affect non-radiological plant effluents and has no other environmental impact. Therefore, the Commission concludes that there are no significant radiological or non-radiological environmental impacts associated with this proposed relief.

Alternative to the Proposed Action: The staff has concluded that there is no measurable environmental impact associated with the proposed exemption. Any

alternatives to the exemption will have either no environmental impact or greater environmental impact.

The principal alternative would be to deny the requested relief and exemption. Such action would not reduce environmental impacts of the Clinton Power Station, Unit No. 1 operations and would result in reduced operational flexibility and unwarranted delays in power ascension.

B. Deferral of Preoperational Test Related to the Traversing Incore Probe System

Identification of Proposed Action: The proposed action would exempt the applicant from having to perform the traversing incore probe preoperational test (i.e., operation of the drive control units, verification of control, interlock, alarm and indication functions, and purge operation) prior to fuel load. The request for deferral and supporting justification are contained in a submittal from the applicant, dated March 12, 1986.

The Code of Federal Regulations Title 10 Part 50, Appendix A, General Design Criterion (GDC) 13, requires, in part, that instrumentation be provided to monitor variables and systems over their anticipated ranges for normal operation, for anticipated operational occurrences, and for accident conditions to assure adequate safety including those variables and systems that can affect the fission process.

The applicant has stated that the traversing incore probe is used for recalibration of the local power range monitor (LPRM) detectors and monitoring of core thermal units. However, the first LPRM recalibration will occur at about 15% power which is after preoperational testing of the traversing incore probe.

The applicant's request for exemption and associated basis is contained in a letter dated May 29, 1986.

Need for Proposed Action: The exemption is required in order to provide the applicant with the ability to load fuel without having the traversing incore probe operational. Preoperational testing of this system will be completed prior to exceeding 5% rated power, which is before the system is required for recalibration of the LPRM's. This exemption will provide the applicant with greater flexibility and, therefore, expedite the start of power operations.

Environmental Impact of the Proposed Action: The exemption would allow the applicant to defer preoperational testing of the traversing incore probe until after fuel loading but prior to exceeding 5% of rated power.

Since the system is not required for LPRM calibration until operations at higher power levels, the staff concludes that the probability of an accident has not been increased and post-accident radiological releases will not be greater than previously determined, due to the proposed relief. Moreover, the proposed relief does not otherwise affect radiological plant effluents, nor result in any significant occupational exposure. Likewise, the relief does not affect non-radiological plant effluents and has no other environmental impact. Therefore, the Commission concludes that there are no significant radiological or non-radiological environmental impacts associated with this proposed relief.

Alternative to the Proposed Action: The staff has concluded that there is no measurable environmental impact associated with the proposed exemption. Any alternatives to the proposed exemption will have either no environmental impact or greater environmental impact.

The principal alternative would be to deny the requested relief and exemption. Such action would not reduce environmental impacts of the Clinton Power Station, Unit No. 1 operations and would result in reduced operational flexibility and unwarranted delays in power ascension.

C. Deferral of Preoperational Tests Related to the Off-Gas System

Identification of Proposed Action: The proposed action would exempt the applicant from having to perform a preoperational test prior to fuel load on: 1) the off-gas system (i.e., operation and verification of refrigeration units, dryers, interlocks, controls and alarms, hydrogen analyzers, remotely operated valves, and filter efficiency); 2) the off-gas system's in-place charcoal filter loading/testing; 3) the off-gas vault HVAC system; and 4) the off-gas vault final air balancing. The above four items combined will be referred to hereafter as the off-gas system. The request for deferral and supporting justifications are contained in a submittal from the applicant, dated March 12, 1986.

The Code of Federal Regulations Title 10 Part 50, Appendix A, General Design Criterion (GDC) 60 requires, in part, that the nuclear power unit design include means to control the release of radioactive materials in gaseous effluents.

The applicant has stated that prior to reactor heatup, the main turbine condenser will not be utilized and deferral of the installation of the charcoal filters is needed to avoid their contamination from painting, welding and construction fumes.

The applicant's request for exemption and associated basis is contained in a letter, dated May 29, 1986.

Need for Proposed Action: The exemption is required in order to provide the applicant the ability to load fuel without having the off-gas system operational. Preoperational testing of the off-gas system will be completed prior to reactor pressure vessel headset which occurs before heatup. This exemption will provide the applicant with greater flexibility and, therefore, expedite the start of power operations.

Environmental Impact of the Proposed Action: The exemption would allow the applicant to defer preoperational testing of the off-gas system until after fuel loading, but prior to reactor heatup.

Prior to closure of the reactor pressure vessel head, this system is not required; and prior to heatup, no significant radioactive fission products are present in the reactor coolant and the main turbine condenser is not utilized.

The staff concludes that the probability of an accident will not be increased and the post-accident radiological releases will not be greater than previously determined due to the proposed relief. Moreover, the proposed relief will not otherwise affect radiological plant effluents, nor result in any significant occupational exposure. Likewise, the relief does not affect non-radiological plant effluents and has no other environmental impact. Therefore, the Commission concludes that there are no significant radiological or non-radiological environmental impacts associated with this proposed relief.

Alternative to the Proposed Action: The staff has concluded that there is no measurable environmental impact associated with the proposed exemption. Any alternatives to the exemption will have either no environmental impact or greater environmental impact.

The principal alternative would be to deny the requested relief and exemption. Such action would not reduce environmental impacts of the Clinton Power Station, Unit No. 1 operations and would result in reduced operational flexibility and unwarranted delays in power ascension.

D. Deferral of Preoperational Tests Related to Portions of the Containment Monitoring System

Identification of Proposed Action: The proposed action would exempt the applicant from having to complete portions of the containment monitoring pre-

operational tests related to the humidity monitors, containment and drywell H₂/O₂ concentration monitors, hi-range gamma radiation monitors, containment pressure monitors, and suppression pool and drywell excess flow instrument line check valves until after fuel load. The specific requests for deferral and supporting justifications are contained in a submittal from the applicant, dated March 12, 1986.

The Code of Federal Regulations Title 10 Part 50, Appendix A, General Design Criterion (GDC) 41 requires that, in part, systems to control fission products, hydrogen, oxygen, and other substances in the reactor containment be provided. GDC 64 requires, in part, that means be provided for monitoring the reactor containment atmosphere for radioactive releases.

The applicant has stated that the monitors identified above, for which the deferrals are being requested, are not needed prior to initial criticality. Since the reactor coolant temperature during open vessel testing is maintained at less than 140°F, no decay heat is present so a loss of coolant accident would not result in the formation of hydrogen, and prior to initial criticality no appreciable quantities of fission products are present in the fuel. Therefore no significant release of radioactivity is possible.

The applicant's request for exemptions and the associated basis are contained in letters, dated March 27, 1986 and May 29, 1986.

Need for the Proposed Action: The exemption is required in order to provide the applicant with the ability to load fuel without having fully operational portions of the containment monitoring system as identified in the applicant's March 12, 1986 submittal. The operational testing of the portions of the containment monitoring system identified will be complete prior to initial criticality. This exemption will provide the applicant with greater preoperational flexibility and, therefore, expedite the start of power operation.

Environmental Impact of the Proposed Action: Requiring that the portions of the containment monitoring system identified in the applicant's March 12, 1986, submittal to be fully operational at fuel load would result in a hardship for the applicant without a compensating increase in safety. The staff concludes that the probability of an accident will not be increased and the post-accident radiological releases will not be greater than previously determined due to the proposed relief. Moreover, the proposed relief will not otherwise affect radiological plant effluents, nor result in any significant occupational exposure. Likewise, the relief does not affect non-radiological plant effluents and has no other environmental impact. Therefore, the Commission concludes that there are no significant radiological or non-radiological environmental impacts associated with this proposed relief.

Alternative to the Proposed Action: The staff has concluded that there is no measurable environmental impact associated with the proposed exemption. Any alternatives to the exemption will have either no environmental impact or greater environmental impact.

The principal alternative would be to deny the requested relief and exemption. Such action would not reduce environmental impacts of the Clinton Power Station, Unit No. 1 operations and would result in reduced operational flexibility and unwarranted delays in power ascension.

E. Deferral of Preoperational Tests Related to the Leak Detection System

Identification of Proposed Action: The proposed action would exempt the applicant from having to complete preoperational testing of the leak detection system prior to fuel load. The specific request for deferral and supporting justification are contained in a submittal from the applicant, dated March 12, 1986.

The Code of Federal Regulations Title 10 Part 50, Appendix A, General Design Criterion (GDC) 30 requires, in part, that means be provided for detecting and identifying the location of the source of reactor coolant leakage. GDC 64 requires, in part, that means be provided for monitoring the containment atmosphere, spaces containing components for recirculation of loss-of-coolant accident fluids, effluent discharge paths and plant environs for radioactivity. Operability of the leak detection system is normally demonstrated during the preoperational testing based on the acceptance criteria specified in these operational test specifications.

The applicant has stated that the leak detection system, for which the deferral is being requested, is not required prior to initial criticality, since no appreciable quantities of fission products exist in the reactor coolant prior to that time.

The applicant's request for exemption and the associated basis is contained in a letter, dated March 27, 1986.

Need for the Proposed Action: The exemption is required in order to provide the applicant with the ability to load fuel without having the leak detection system operational. Preoperational testing of the leak detection system will be completed prior to initial criticality. This exemption will provide the applicant with greater preoperational flexibility and, therefore, expedite the start of power operation.

Environmental Impact of the Proposed Action: The proposed exemption would allow the applicant to defer preoperational testing of the leak detection system until after fuel loading but before initial criticality. During initial fuel loading and precritical testing, the reactor will remain at essentially ambient

temperatures and atmosphere conditions. Under these conditions, no radioactive species will be produced; therefore, there are no environmental impacts associated with the proposed action.

The staff concludes that the probability of an accident will not be increased and the post-accident radiological releases will not be greater than previously determined due to the proposed relief. Moreover, the proposed relief will not otherwise affect radiological plant effluents, nor result in any significant occupational exposure. Likewise, the relief does not affect non-radiological plant effluents and has no environmental impact. Therefore, the Commission concludes that there are no significant radiological or non-radiological environmental impacts associated with this proposed relief.

Alternative to the Proposed Action: The staff has concluded that there is no measurable environmental impact associated with the proposed exemption. Any alternatives to the exemption will have either no environmental impact or greater environmental impact.

The principal alternative would be to deny the requested relief and exemption. Such action would not reduce environmental impacts of the Clinton Power Station, Unit No. 1 operations and would result in reduced operational flexibility and unwarranted delays in power ascension.

F. Deferral of Preoperational Test Related to a Portion of the Fuel Pool Cooling and Cleanup System

Identification of Proposed Action: The proposed action would exempt the applicant from having to complete that portion of the fuel pool cooling and cleanup system's preoperational test related to the demonstration of design ability to maintain and alter pool water levels (water level control function) prior to fuel load. The specific request for deferral and supporting justification are contained in a submittal from the applicant, dated March 12, 1986.

The Code of Federal Regulations Title 10 Part 50, Appendix A, General Design Criterion (GDC) 61 requires, in part, that the fuel storage and handling systems be designed to prevent a significant reduction in fuel storage coolant inventory under accident conditions. Operability of the fuel pool cooling and cleanup system is normally demonstrated during the preoperational testing based on acceptance criteria specified in the preoperational test specification.

The applicant has stated that testing of the level control function of the fuel pool cooling and cleanup system, for which the deferral is being requested, cannot be completed prior to fuel load since the initial core fuel load is currently being dry stored in these pools. Testing the level control function will be performed after the fuel is transferred from the pool area into the reactor vessel and prior to exceeding 5% of rated reactor power.

The applicant's request for exemption and associated basis are contained in a letter, dated March 27, 1986.

Need for the Proposed Action: The exemption is required in order to provide the applicant with the ability to load fuel without having the demonstrated ability to maintain and alter fuel pool water levels. Demonstration of operability of the water level control function of this system prior to fuel load would require filling the pools with water (where the initial fuel load is currently dry stored) or relocating the fuel until testing is complete. Either of these approaches would impose an undue burden on the applicant. Preoperational testing of this function of the fuel pool cooling and cleanup system will be completed prior to exceeding 5% of rated reactor power.

Environmental Impact of the Proposed Action: The exemption would allow the applicant to defer preoperational testing of the portion of the fuel pool cooling and cleanup system related to the demonstration of design ability to maintain the water level control function until after fuel loading but prior to exceeding 5% of rated reactor power. Since the initial fuel load at Clinton Power Station, Unit No. 1 will be performed under dry conditions and no water is presently in the pools, testing of the water level control function of this system cannot be completed until after the initial fuel load is transferred to the reactor vessel. Requiring this portion of the system to be fully operational at fuel load would result in a hardship for the applicant without a compensating increase in safety.

The staff concludes that the probability of an accident will not be increased and the post-accident radiological releases will not be greater than previously determined due to the proposed relief. Moreover, the proposed relief will not otherwise affect radiological plant effluents, nor result in any significant occupational exposure. Likewise, the relief does not affect non-radiological plant effluents and has no other environmental impact. Therefore, the Commission concludes that there are no significant radiological or non-radiological environmental impacts associated with this proposed relief.

Alternative to the Proposed Action: The staff has concluded that there is no measurable environmental impact associated with the proposed exemption. Any alternatives to the proposed exemption will have either no environmental impact or greater environmental impact.

The principal alternative would be to deny the requested relief and exemption. Such action would not reduce environmental impacts of the Clinton Power Station, Unit No. 1 operations and would result in reduced operational flexibility and unwarranted delays in power ascension.

G. Deferral of Preoperational Test Related to a Portion of the Fuel

Handling System

Identification of Proposed Action: The proposed action would exempt the applicant from having to complete that portion of the fuel handling system preoperational test related to the transfer of fuel bundles under wet loading conditions. The request for deferral and supporting justification are contained in a submittal from the applicant, dated March 12, 1986.

The Code of Federal Regulations Title 10 Part 50, Appendix A, General Design Criterion (GDC) 61 requires, in part, that the fuel handling system be designed to prevent significant reduction in fuel storage coolant inventory under accident conditions.

The applicant has stated the initial fuel load at Clinton Power Station, Unit No. 1 will be performed under dry conditions (i.e., with reactor vessel water level near the main steam lines and cavities and pools dry). Therefore, operation of the fuel handling system under wet conditions (i.e., water in the fuel transfer tubes) is not required. The portion of the fuel handling system's preoperational phase testing, required to support operability needs for transferring fuel to the reactor, will be completed prior to fuel load.

The applicant's request for exemption and the associated basis is contained in a letter dated March 27, 1986.

Need for Proposed Action: The exemption is required in order to provide the applicant the ability to load fuel having only that portion of the fuel handling system needed to handle the initial fuel bundles under dry conditions operational. Preoperational testing of that portion of the fuel handling system required to transfer fuel bundles under wet loading conditions will be completed prior to exceeding 5% of rated reactor power. This exemption will expedite the start of power operations.

Environmental Impact of the Proposed Action: The exemption would allow the applicant to defer preoperational testing of the portion of the fuel handling system related to the transfer of fuel bundles under wet loading conditions. Since the initial fuel loading at Clinton Power Station, Unit No. 1 will be performed under dry conditions, operability of that portion of the fuel handling system associated with the handling of fuel under wet conditions is not necessary. Requiring this portion of the system to be fully operational at fuel load would result in a hardship for the applicant without a compensating increase in safety.

The staff concludes that the probability of an accident will not be increased and the post-accident radiological releases will not be greater than previously determined due to the proposed relief. Moreover, the proposed relief will not otherwise affect radiological plant effluents, nor result in any significant occupational exposure. Likewise, the proposed relief does not affect non-radiological plant effluents and has no environmental impact. Therefore, the Commission concludes that there are no significant radiological or non-radiological environmental impacts associated with this proposed relief.

Alternative to the Proposed Action: The staff has concluded that there is no measurable environmental impact associated with the proposed exemption. Any alternatives to the exemption will have either no environmental impact or greater environmental impact.

The principal alternative would be to deny the requested relief and exemption. Such action would not reduce environmental impacts of the Clinton Power Station, Unit No. 1 operations and would result in reduced operational flexibility and unwarranted delays in power ascension.

H. Deferral of Preoperational Testing of the In-Place Filters on the Control Room Heating, Ventilating and Air Conditioning (HVAC) System

Identification of Proposed Action: The proposed action would exempt the applicant from having to complete preoperational testing of the in-place filters for the control room HVAC system prior to fuel load. The specific request for deferral and supporting justifications are contained in a submittal from the applicant, dated March 12, 1986.

The Code of Federal Regulations Title 10 Part 50, Appendix A, General Design Criterion (GDC) 19 requires, in part, that a control room shall be provided from which actions can be taken to operate the nuclear power unit safely under normal conditions and to maintain it in a safe condition under accident conditions. The applicant proposes to defer installation of the activated charcoal into the HVAC filters and installation of HEPA filters into the control room HVAC until after fuel loading but prior to initial criticality. This would also require a deferral of the final in-place filter testing of this system until prior to initial criticality.

The applicant's request for exemption and associated basis are contained in a letter, dated March 27, 1986.

Need for Proposed Action: The exemption is required in order for the applicant to defer installation of activated charcoal and HEPA filters and final in-place filter testing (preoperational testing) of the control room HVAC system until prior to initial criticality to avoid contamination of filters from fumes (e.g., welding, cleaning fluids) generated during construction.

Environmental Impact of the Proposed Action: Requiring that preoperational testing of the in-place filters for the control room HVAC system to be performed prior to fuel load would result in a hardship for the applicant in the form of time delays and filter replacement costs without a compensatory increase in safety.

The staff concludes that the probability of an accident will not be increased and the post-accident radiological releases will not be greater than previously determined due to the proposed relief. Moreover, the proposed relief will not otherwise affect radiological plant effluents, nor result in any significant occupational exposure. Likewise, the relief does not affect non-radiological plant effluents and has no other environmental impact. Therefore, the Commission concludes that there are no significant radiological or non-radiological environmental impacts associated with this proposed relief.

Alternative to the Proposed Action: The staff has concluded that there is no measurable environmental impact associated with the proposed exemption. Any alternatives to the exemption will have either no environmental impact or greater environmental impact.

The principal alternative would be to deny the requested relief and exemption. Such action would not reduce environmental impacts of the Clinton Power Station, Unit No. 1 operations and would result in reduced operational flexibility and unwarranted delays in power ascension.

I. Deferral of Three Sets of Tests of the Heating, Ventilation and Air Conditioning (HVAC) System

1. Deferral of Preoperational Tests Related to the Drywell Purge System and the Auxiliary Building System

Identification of Proposed Action: The proposed action would exempt the applicant from having to perform acceptance testing of the drywell purge system

and the auxiliary building HVAC system prior to fuel load. The request for deferral and supporting justification are contained in a submittal from the applicant, dated March 12, 1986.

The Code of Federal Regulations Title 10 Part 50, Appendix A, General Design Criterion (GDC) 41 requires, in part, that systems to control fission products, hydrogen, oxygen and other substances which may be released into the reactor containment be provided to reduce the concentration of fission products released to the environment and to control the concentration of hydrogen or oxygen and other substances in the containment atmosphere following postulated accidents.

The Code of Federal Regulations Title 10 Part 50, Appendix A, GDC 60 requires, in part, that the nuclear power unit design shall include means to control the release of radioactive materials in gaseous effluents.

The applicant has stated that the drywell purge system is not required to support personnel access to the drywell during initial criticality testing for the following reasons: prior to operation, no appreciable amounts of airborne radioactivity in the drywell will be present; prior to heatup, no significant heat loads will develop inside the drywell; and prior to power operation, a design basis LOCA would not result in any appreciable quantities of hydrogen (hydrogen control is only a secondary or backup function of this system). The applicant has further stated that although the testing of the auxiliary building HVAC system will not be completed prior to reactor heatup, vital areas throughout the building will be maintained by the switchgear heat removal system and the ECCS equipment cooling system. Additional area heat loads beyond that controlled by these two systems are not expected prior to power ascension.

The applicant's request for exemption and associated basis are contained in a letter dated May 29, 1986.

Need for Proposed Action: The exemption is required in order to provide the applicant with the ability to load fuel without having the drywell purge system or the auxiliary building HVAC system operational. Preoperational testing will be completed prior to reactor heatup when the system is required to be operational to perform its intended function. This exemption will provide the applicant with greater preoperational flexibility and, therefore, expedite the start of power operations.

Environmental Impact of Proposed Action: The exemption would allow the applicant to defer preoperational testing of the drywell purge system and the auxiliary building HVAC system until after fuel loading but prior to reactor heat-up. Since the systems will not be required until reactor heatup, the staff concludes that the probability of an accident will not be increased and the post-accident radiological releases will not be greater than previously determined due to the proposed relief. Moreover, the proposed relief will not otherwise affect radiological plant effluents, nor result in any significant occupational exposure. Likewise, the relief does not affect non-radiological plant effluents and has no other environmental impact. Therefore, the Commission concludes that there are no significant radiological or non-radiological environmental impacts associated with this proposed relief.

Alternative to the Proposed Action: The staff has concluded that there is no measurable environmental impact associated with the proposed exemption. Any alternatives to the exemption will have either no environmental impact or greater environmental impact.

The principal alternative would be to deny the requested relief and exemption. Such action would not reduce environmental impacts of the Clinton Power Station, Unit No. 1 operations and would result in reduced operational flexibility and unwarranted delays in power ascension.

2. Deferral of In-Place Filter Tests Related to the Drywell Purge System and the Radwaste Building HVAC System

Identification of Proposed Action: The proposed action would exempt the applicant from having to complete preoperational testing of the in-place filters for the drywell purge system and radwaste HVAC system prior to fuel load. The specific request for deferral and supporting justifications are contained in a submittal from the applicant, dated March 12, 1986.

The Code of Federal Regulations Title 10 Part 50, Appendix A, General Design Criterion (GDC) 60 requires, in part, that the nuclear power unit design include means to control suitably the release of radioactive materials. The applicant proposes to defer installation of the activated charcoal into the HVAC filters and installation of HEPA filters for the drywell purge system; and installation of the HEPA filters for the radwaste building HVAC system, until after fuel loading but prior to reactor heatup. This would also require a deferral of the final in-place filter testing of these systems prior to reactor heatup.

The applicant's request for exemption and associated basis are contained in letters, dated March 27, 1986 and May 29, 1986.

Need for Proposed Action: The exemption is required in order for the applicant to defer installation of activated charcoal and HEPA filters and final in-place filter testing (preoperational testing) of the drywell purge system and the radwaste building HVAC system until prior to reactor heatup to avoid contamination

of filters from fumes (e.g., welding, cleaning fluids) generated during construction.

Environmental Impact of the Proposed Action: Requiring that preoperational testing of the in-place filters for the drywell purge system and the radwaste building HVAC system be performed prior to fuel load would result in a hardship for the applicant in the form of time delays and filter replacement costs without a compensatory increase in safety.

The staff concludes that the probability of an accident will not be increased and the post-accident radiological releases will not be greater than previously determined due to the proposed relief. Moreover, the proposed relief will not otherwise affect radiological plant effluents, nor result in any significant occupational exposure. Likewise, the relief does not affect non-radiological plant effluents and has no other environmental impact. Therefore, the Commission concludes that there are no significant radiological or non-radiological environmental impacts associated with this proposed relief.

Alternative to the Proposed Action: The staff has concluded that there is no measurable environmental impact associated with the proposed exemption. Any alternatives to the exemption will have either no environmental impact or greater environmental impact.

The principal alternative would be to deny the requested relief and exemption. Such action would not reduce environmental impacts of the Clinton Power Station, Unit No. 1 operations and would result in reduced operational flexibility and unwarranted delays in power ascension.

3. Deferral of Pressure Boundary Testing

Identification of Proposed Action: The proposed action would exempt the applicant from having to perform acceptance testing of the pressure boundary of the radwaste, auxiliary, fuel and containment buildings prior to fuel load.

The specific request for deferral and supporting justification are contained in a submittal from the applicant, dated March 12, 1986.

The Code of Federal Regulations Title 10 Part 50, Appendix A, General Design Criterion (GDC) 57 lists requirements for containment isolation valves.

The Code of Federal Regulations Title 10 Part 50, Appendix A, General Design Criterion (GDC) 60 requires, in part, that the nuclear power unit design include means to control suitably the release of radioactive materials.

The Code of Federal Regulations Title 10 Part 50, Appendix A, General Design Criterion (GDC) 61 requires, in part, that fuel storage and handling, and radioactivity waste systems be designed to assure adequate safety under normal and postulated accident conditions.

The Code of Federal Regulations Title 10 Part 50, Appendix A, General Design Criterion (GDC) 63 requires, in part, that appropriate systems be provided to monitor fuel storage and radioactive waste systems and associated handling areas.

The Code of Federal Regulations Title 10 Part 50, Appendix A, General Design Criterion (GDC) 64 requires, in part, that means be provided for monitoring radioactivity releases.

The applicant has stated that all vital areas (i.e., main control room and secondary containment) will be pressure boundary tested prior to fuel load. However, prior to reactor heatup, there will not be any appreciable quantities of airborne radioactivity in the areas for which the test deferral is being requested.

The applicant's request for exemption and associated basis are contained in a letter, dated May 29, 1986.

Need for Proposed Action: The exemption is required in order to provide the applicant with the ability to load fuel without having the pressure boundary testing of the radwaste, auxiliary, fuel and containment buildings completed. The testing will be completed after fuel loading but prior to reactor heatup, when the pressure boundaries are required to perform their intended functions, controlling the release of radioactive material. This exemption will provide the applicant with greater preoperational flexibility and therefore, expedite the start of power operations.

Environmental Impact of Proposed Action: The proposed exemption would allow the applicant to defer pressure boundary testing of the radwaste, auxiliary, fuel and containment buildings until after fuel loading but prior to reactor heatup. Since prior to reactor heatup, there will not be any appreciable quantities of airborne radioactivity in these areas, the staff concludes that the probability of an accident has not been increased and the post-accident radiological releases will not be greater than previously determined due to the proposed relief. Moreover, the proposed relief will not otherwise affect radiological plant effluents, nor result in any significant occupational exposure. Likewise, the relief does not affect non-radiological plant effluents and has no other environmental impacts. Therefore, the Commission concludes that there are no significant radiological or non-radiological environmental impacts associated with this proposed relief.

Alternative to the Proposed Action: The staff has concluded that there is no measurable environmental impact associated with the proposed exemption. Any alternatives to the exemption will have either no environmental impact or greater environmental impact.

The principal alternative would be to deny the requested relief and exemption. Such action would not reduce environmental impacts of the Clinton Power Station, Unit No. 1 operations and would result in reduced operational flexibility and unwarranted delays in power ascension.

Alternative Use of Resources: These actions associated with the granting of the proposed exemptions as detailed above do not involve the use of resources not previously considered in connection with the "Final Environmental Statement Related to Operation of the Clinton Power Station, Unit No. 1" dated May 1982.

Agencies and Persons Consulted:

The NRC staff reviewed the applicant's submittals that support the requested exemptions A thru I above. The NRC staff 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 exemptions.

Based upon the foregoing environmental assessment, the Commission concludes that the proposed actions will not have a significant effect on the quality of the human environment.

For further details with respect to this action, see the requests for the exemptions as listed herein, which are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D.C. 20555 and at the Vespasian Warner Public Library, 120 West Johnson Street, Clinton, Illinois 61727.

Dated at Bethesda, Maryland, this 7th day of July 1986.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in cursive script that reads "Walter R. Butler".

Walter R. Butler, Director
BWR Project Directorate No. 4
Division of BWR Licensing