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Docket No. 50-461

10CFR50.90

Document Control Desk
Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Clinton Power Station Proposed Amendment of Facility Operating License No. NPF-62 (PS-95-016)

Dear Sir:

Pursuant to 10CFR50.90, Illinois Power (IP) hereby applies for amendment of Facility Operating License No. NPF-62, Appendix A - Technical Specifications (TS), for Clinton Power Station (CPS). This request consists of proposed changes within the "Administrative Controls" section of the TS, specifically to Section 5.7, "High Radiation Areas." The proposed changes include allowing utilization of a Radiation Work Permit (RWP) "or equivalent" to control entry into a high radiation area, clarifying the example given in the TS of individuals who are qualified in radiation protection procedures, clarifying the requirements for when specified access controls and barriers for high radiation areas within large areas like the containment must be established, clarifying that it is acceptable for an RWP to specify a maximum dose, i.e., a specified setpoint on an alarming dosimeter in lieu of a stay time for entry into a high radiation area where an individual could receive a deep dose equivalent of 3000 mrem in one hour, eliminating the upper dose limit for specifying the applicability of the requirements of Specification 5.7.1, providing additional flexibility regarding who may control the keys to locked doors for preventing unauthorized entry into high radiation areas reorganizing TS Sections 5.7.1, 5.7.2 and 5.7.3 into four sections (5.7.1, 5.7.2, 5.7.3, and 5.7.4), and making minor edits to enhance readability.

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A description of the proposed change and the associated justification (including a Basis For No Significant Hazards Consideration) are provided in Attachment 2. A marked-up copy of the affected pages from the current TS is provided in Attachment 3. Further, an affidavit supporting the facts set forth in this letter and its attachments is provided in Attachment 1.

Please note that IP intends to implement the proposed changes to TS 5.7, "High Radiation Area," just prior to the start of the sixth refueling outage, which is currently scheduled to begin on October 13, 1996. As such, IP respectfully requests review and approval of this amendment in a timely manner to support such implementation.

IP has reviewed the proposed changes against the criteria of 10CFR51.22 for categorical exclusion from environmental impact considerations. The proposed changes do not involve a significant hazards consideration, or significantly increase the amounts or change the types of effluents that may be released offsite, nor do they significantly increase individual or cumulative occupational radiation exposures. Based on the foregoing, IP concludes that the proposed changes meet the criteria given in 10CFR51.22(c)(9) for a categorical exclusion from the requirement for an Environmental Impact Statement.

Sincerely yours,

Wilfred Connell

Wilfred Connell
Vice President

AJP/csm

Attachments

cc: NRC Clinton Licensing Project Manager
NRC Resident Office, V-690
Regional Administrator, Region III, USNRC
Illinois Department of Nuclear Safety

Attachment 1
to U-602591

Wilfred Connell, being first duly sworn, deposes and says: That he is Vice President of Illinois Power; that this application for amendment of Facility Operating License NPF-62 has been prepared under his supervision and direction; that he knows the contents thereof; and that to the best of his knowledge and belief said letter and the facts contained therein are true and correct.

Date: This 21st day of June 1996.

Signed: Wilfred Connell
Wilfred Connell

STATE OF ILLINOIS } SS.
DeWitt COUNTY }

Subscribed and sworn to before me this 21st day of June 1996.

" OFFICIAL SEAL "
Jacqueline S. Matthias
Notary Public, State of Illinois
My Commission Expires 11/24/97

Jacqueline S. Matthias
(Notary Public)

Background

Section 20.1101, "Radiation Protection Programs," of 10 CFR Part 20, "Standards for Protection Against Radiation," requires licensees to develop and implement a radiation protection program appropriate to the scope of licensed activities and potential hazards. Section 20.2102 requires licensees to document these programs. In addition, Section 19.12 of 10CFR19 requires licensees to keep individual radworkers informed of storage, transfer, or use of radiation and/or radioactive material. An important aspect of a radiation protection program at nuclear power plants is the institution of a system of controls that includes procedures, training, audits, and physical barriers to inform and protect workers against unplanned exposures in high and very high radiation areas as defined in 10CFR20.1003. Specific requirements applicable to controlling access to high radiation areas are in 10 CFR 20.1601, and additional requirements to prevent unauthorized entry into very high radiation areas are in 10CFR20.1602. Regulatory Guide (RG) 8.38, "Control of Access to High and Very High Radiation Areas in Nuclear Power Plants," describes methods acceptable to the NRC staff for implementing these requirements.

Dose rates in various areas of nuclear power plants accessible to individuals can differ by several orders of magnitude. High radiation areas, where personnel can receive doses in excess of the regulatory limits in a relatively short period of time, require special controls. Very high radiation areas require much stricter monitoring and controls since failure to adequately implement effective radiological controls can result in radiation doses that result in a significant health risk.

As defined in 10CFR20.1003, a high radiation area is an area, accessible to individuals, in which radiation levels could result in an individual receiving a deep dose equivalent in excess of 0.1 rem in 1 hour at 30 centimeters from the radiation source or from any surface that the radiation penetrates. Technical Specification (TS) 5.7, "High Radiation Areas," specifies requirements for controlling access to high radiation areas at Clinton Power Station (CPS). Compliance with these requirements is part of the effective overall program at CPS for controlling access to high and very high radiation areas. However, IP plans to change the Radiation Protection program at CPS to make certain improvements and reduce inefficiencies. Prior to implementing any of these changes IP is proposing to amend the TS to clarify requirements and provide for an orderly transition as these planned improvements to the Radiation Protection program are incorporated into procedures and implemented in work practices.

Description of Proposed Changes

In accordance with 10CFR50.90, the following changes to CPS TS Section 5.7, "High Radiation Area," are being proposed. These changes are intended to improve worker efficiency, increase worker awareness, clarify requirements and enhance readability of the

TS. The changes are briefly described below, followed by the proposed revised text of the TS reflecting the proposed changes. Each of these changes is discussed later in further detail within the "Justification for Proposed Changes" section of this attachment.

IP proposes to revise the TS to provide for the use of a Radiation Work Permit (RWP) or equivalent. Secondly, IP proposes to delete the upper dose limit within Specification 5.7.1 for posting a high radiation area so that only the minimum dose will be specified. Thirdly, IP proposes to revise the description of personnel/positions identified as examples of personnel qualified in radiation protection procedures and who may be responsible for providing positive control over activities in a high radiation area. IP is also proposing to revise the TS to clarify that it is acceptable for an RWP (or equivalent) to specify a maximum dose level (on an alarming dosimeter) as an alternative to specifying stay time for controlling the length of time a person is permitted to remain in a high radiation area. IP proposes to clarify the requirements pertaining to access controls and barriers for high radiation areas within large areas like the containment such that the specified controls and barriers must be established if no lockable enclosure exists and if the area <u>is</u> not continuously guarded (vice "cannot be" continuously guarded). IP proposes within Section 5.7.2 to revise the administrative control of keys for locked doors to high radiation areas to allow the keys to be administratively controlled by the shift supervisor, radiation protection supervisor or respective designee and to delete the requirement that an RWP shall specify the dose rate levels in the immediate work areas. Additionally, IP proposes to revise the TS to enhance readability by relocating (within TS 5.7) the provisions for when an individual may enter a high radiation area and be exempt from an RWP or equivalent. Further, IP proposes to revise the TS to improve readability of the TS by reorganizing the sections (and renumbering them appropriately) into a clearer sequence and separating the sections so that the subject matter of each section is more easily recognized and understood.

With the above-described changes incorporated, IP proposes to revise the text for Section 5.7 to read as follows:

5.7.1 Pursuant to 10 CFR 20, paragraph 20.1601(c), in lieu of the requirements of 10 CFR 20.1601(a), each high radiation area, as defined in 10 CFR 20, in which an individual could receive a deep dose equivalent > 100 mrem in one hour (at 30 cm), shall be barricaded and conspicuously posted as a high radiation area and entrance thereto shall be controlled by requiring issuance of a Radiation Work Permit (RWP) or equivalent.

Any individual or group of individuals permitted to enter such areas shall be provided with, or accompanied by, one or more of the following:

a. A radiation monitoring device that continuously indicates the radiation dose rate in the area.

b. A radiation monitoring device that continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. Entry into such areas with this monitoring device may be made after the dose rates in the area have been determined and personnel have been made knowledgeable of them.

c. A individual qualified in radiation protection procedures (e.g., a radiation protection technician or supervisor) with a radiation dose rate monitoring device. This individual shall be responsible for providing positive radiation protection control over the activities within the area and shall perform periodic radiation surveillance at the frequency specified by radiation protection supervision.

5.7.2 In addition to the requirements of Specification 5.7.1, high radiation areas in which an individual could receive a deep dose equivalent ≥ 1000 mrem in one hour (at 30 cm) shall be provided with locked or continuously guarded doors to prevent unauthorized entry. The keys to such locked doors shall be administratively controlled by the shift supervisor or radiation protection supervisor (or respective designee). Doors shall remain locked except during periods of access by personnel under an approved RWP or equivalent.

Individual high radiation areas in which an individual could receive a deep dose equivalent ≥ 1000 mrem in one hour (at 30 cm), accessible to personnel, that are located within large areas such as reactor containment, where no enclosure exists for enabling locking, or that is not continuously guarded, and where no lockable enclosure can be reasonably constructed around the individual area, shall be barricaded and conspicuously posted, and a flashing light shall be activated as a warning device.

5.7.3 In addition to requirements of Specification 5.7.1 and 5.7.2 for high radiation areas, if an individual could receive a deep dose equivalent > 3000 mrem in one hour (at 30 cm), the RWP or equivalent shall also specify the maximum allowable stay time or dose (on an alarming dosimeter) for individuals in those areas. In lieu of the stay time or dose specification of the RWP or equivalent, direct or remote (such as closed circuit TV cameras) continuous surveillance may be made by personnel qualified in radiation protection procedures to provide positive exposure control over the activities being performed within the area.

5.7.4 Individuals qualified in radiation protection procedures or personnel continuously escorted by such individuals may, for the performance of their assigned duties in high radiation areas in which an individual could receive a deep dose equivalent

≤ 3000 mrem in one hour (at 30 cm), be exempt from the requirements of Specifications 5.7.1 and 5.7.2 for issuance of an RWP or equivalent provided they are otherwise following plant radiation protection procedures for entry into such high radiation areas.

The proposed TS changes are also reflected on a marked-up copy of the affected pages from the current CPS TS in Attachment 3.

Justification for Proposed Changes

As explained above, these proposed changes are being sought by IP to improve worker efficiency, increase worker awareness, clarify requirements and enhance the readability of Section 5.7, "High Radiation Area." The justification and a more detailed explanation for each change is provided below.

IP is proposing wherever within Section 5.7 that an RWP is required for entry into a high radiation area that the TS be revised so that an RWP or equivalent may be utilized. This proposed change would provide clarification regarding the use of other radiological work documents to control access to high radiation areas at CPS that are not specifically called "radiation work permits." Given that the NRC has not defined "Radiation Work Permit (RWP)," or what specifically constitutes an RWP, the term "Radiation Work Permit" may have a generic meaning or intent as it is used in the TS. However, at CPS, several different documents are used to control access to high radiation areas. All of these documents may be considered to be a "Radiation Work Permit" in purpose and effect, but only one of these documents is specifically identified as a "radiation work permit." For example, one kind of document is used at CPS to control access to a high radiation area when the radiation worker(s) will only enter and remain in the area for a short time for the purpose of making an observation, performing a routine check or performing a straightforward task (e.g., to open a valve). Another kind of document is used when the radworker(s) will be performing non-routine work or a special evolution in the area. The former document is referred to as a Radiological Surveillance Permit (RSP) at CPS; the latter is referred to as a Specific Radiation Work Permit. Incorporating the words "or equivalent" wherever "RWP" appears in TS 5.7 will avoid confusion in use of the term "RWP."

Presently, TS 5.7.1 specifies requirements for barricading, posting and controlling entrance into high radiation areas wherein "an individual could receive a deep dose equivalent to > 100 mrem but < 1000 mrem in one hour (at 30 cm)." IP proposes to revise this TS so that the upper limit ("but < 1000 mrem") is deleted. Within 10CFR20.1003 a high radiation area is defined as an area accessible to individuals in which radiation levels could result in an individual receiving a dose equivalent in excess of 0.1 rem in 1 hour at 30 cm from the radiation source or from any surface that the radiation penetrates. Therefore, all areas with dose rates greater than 100 mrem per hour (as

defined) are high radiation areas. While the intent of the inclusion of the upper limit ("but < 1000 mrem") had been to aid the reader in realizing the applicable range for which the requirements of Section 5.7.1 apply, deletion of the upper limit allows the TS to read consistent with the 10CFR20 posting requirements. Further, deletion of the upper limit from this section improves TS 5.7 to more clearly require that, for increased levels of dose (e.g., for dose levels > 1000 mrem), the actions required at the higher dose levels, as specified in other sections of TS 5.7, include or are in addition to the requirements specified in Section 5.7.1.

IP proposes to revise part c of TS 5.7.1 to include additional guidance on individuals who may be responsible for providing positive radiation protection control over the activities within a high radiation area. Specifically, IP proposes to revise the parenthetical example ("e.g., radiation protection technician/supervisor") to clarify what individuals are qualified in radiation protection procedures, i.e., that such individuals may be radiation protection technicians or radiation protection supervisors. This position is consistent with Health Physics Position (HPPOS)-021, "Enforceability of NRR Letter Regarding Individuals Qualified in Radiation Protection Procedures." Including radiation protection supervisors (e.g., Radiation Protection Shift Supervisors, Supervisor-Radiological Operations) in the example provides clarity and flexibility in defining personnel who are qualified in radiation protection procedures to provide positive radiation protection control over the activities within a high radiation area.

The present TS require that stay times be identified on an RWP (or equivalent) for high radiation areas where an individual could receive a deep dose equivalent greater than 3000 mrem in any one hour. IP proposes to revise the TS to allow an RWP to specify a maximum dose corresponding to the dose setting on an alarming dosimeter as an alternate to specifying a stay time. The use of an alarming dosimeter is very much like a stay time because the dose setting of the alarming dosimeter is based on the maximum dose that an individual will be allowed to receive during entry into a high radiation area. Using the setpoint on the alarming dosimeter as an alternate to stay time will allow radiation protection personnel to be more efficient because these personnel may be assigned to other tasks instead of performing a timekeeping chore. Because the dose setpoint of the alarming dosimeter corresponds to the maximum dose that an individual will be allowed to receive during entry into a high radiation area and is a function of the dose rate within the area, the use of the dose setpoint of the alarming dosimeter is equivalent to use of stay time for the purpose of ensuring that a predetermined maximum dose is not exceeded.

Within the present TS Section 5.7.3 there is the requirement that areas in which an individual could receive a deep dose equivalent ≥ 1000 mrem in one hour (at 30 cm) shall be provided with locked or continuously guarded doors to prevent unauthorized entry. Further, the present TS states that for an individual high radiation area that is located

within large areas such as reactor containment, where no enclosure exists for purposes of locking, or that cannot be continuously guarded, and where no enclosure can be reasonably constructed around the individual area, that individual area shall be barricaded and conspicuously posted, and a flashing light shall be activated as a warning device. IP proposes to revise the TS so that instead of ". . . where no enclosure exists for purposes of locking, or that cannot be continuously guarded, and where no enclosure can be reasonably constructed . . ." the TS will read ". . . where no enclosure exists for enabling locking, or that is not continuously guarded, and where no enclosure can be reasonably constructed . . ." The words "cannot be continuously guarded" can be interpreted to mean that every effort must be made to continuously guard such an area before the specified alternate measures can be employed. The proposed wording provides a more reasonable requirement to permit use of the alternate measures in lieu of continuously guarding the area. For example, following removal of a shield plug in preparation for work, in lieu of posting a guard around the clock at the shield plug access, the access could be barricaded, posted appropriately and have a flashing light activated to warn personnel. The proposed change would improve IP's ability to efficiently utilize resources in more meaningful tasks so that unnecessary deployment of resources to guard high radiation areas might be avoided. Therefore, revising the TS to allow not continuously guarding high radiation areas when the area has otherwise been barricaded, posted and has a flashing light activated as a warning device will provide needed flexibility for IP in providing necessary and adequate control of high radiation areas. Additionally, IP proposes to delete the words "that individual area" from this sentence to make it read more smoothly.

IP also proposes to revise TS Section 5.7.1 such that the description of circumstances when individuals may be exempt from the requirement for use of an RWP (or equivalent) during the performance of assigned duties in high radiation areas in which an individual could receive a deep dose equivalent ≤ 3000 mrem in one hour will be relocated from Section 5.7.1. This exemption will be stated in Section 5.7.4 (a new section). This relocation/reorganization is being proposed to segregate requirements for clarity and arrange them in a more logical order. The relocated text includes editorial changes to enhance readability.

Likewise, the requirements within Sections 5.7.2 and 5.7.3 are proposed to be reorganized such that Section 5.7.2 will discuss requirements applicable for areas where an individual could receive a deep dose equivalent ≥ 1000 mrem in one hour and Section 5.7.3 will only contain the discussion of requirements for areas where an individual could receive a deep dose equivalent > 3000 mrem in one hour. Finally, as explained above, the requirements for exemption from an RWP (or equivalent) are proposed to be relocated to Section 5.7.4.

Within the present Section 5.7.2 the second sentence presently reads, "Doors shall remain locked except during periods of access by personnel under an approved RWP that shall specify the dose rate levels in the immediate work areas." IP proposes to delete the provision that the RWP "shall specify the dose rate levels in the immediate work areas,"

because there may be instances when the actual dose rate in the immediate work area is unknown until an RP technician has entered the area and performed a radiological survey. Also, specifying the content of a licensee's RWP (i.e., requiring the RWP to specify the dose rate levels in the area) does not give allowance for use of alternate methods to inform a radiation worker of the levels of radiation.

Finally, IP also proposes to revise Section 5.7.2 as it pertains to key control for locked doors to high radiation areas. These changes are being made because of a desire for flexibility in authorizing who can control such keys. For example, on some shifts there may not be a radiation protection shift supervisor, and during those shifts the keys for the locked doors are proposed to be controlled by the supervisor's designee. This proposed change to provide that a respective designee may have administrative control of the keys would continue to provide adequate control of the keys. IP also proposes to edit the first sentence forming instead two sentences as an editorial change to improve the readability of this section.

Basis For No Significant Hazards Determination

In accordance with 10CFR50.92, a proposed change to the Operating License (Technical Specifications) involves no significant hazards considerations if operation of the facility in accordance with the proposed change would not: (1) involve a significant increase in the probability or consequences of any accident previously evaluated, or (2) create the possibility of a new or different kind of accident from any accident previously evaluated, or (3) involve a significant reduction in a margin of safety. The proposed changes are evaluated against each of these criteria below.

(1) None of the proposed changes involve a significant increase in the probability or consequences of any accident previously evaluated.

The proposed changes do not change the design or the operation of the plant. The proposed changes are only related to the control of access to high radiation areas for the purpose of controlling dose to plant personnel. Because no change to plant design is proposed, there is no impact to any accident mitigating system. Likewise, because there is no proposed change to plant operating procedures, plant operation is not impacted. This proposed change does not impact any accident scenario or the previously calculated post-accident doses. Therefore, the limits of 10CFR100 will continue to be met. No probability or consequence of any accident previously evaluated is impacted by the proposed changes to TS.

(2) None of the proposed changes create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed amendment is administrative in nature and does not impact directly or indirectly the design or the operation of CPS, thus no new accident can be created.

(3) None of the proposed changes involve a significant reduction in a margin of safety.

There is no reduction to the margin of safety because the operating limits and functional capabilities of plant safety systems are unaffected by the proposed changes to administrative requirements. As noted previously, the proposed changes do not impact any accident analyses, including the associated dose calculations. With respect to controls for controlling operational dose to plant personnel, the proposed changes are intended to provide clarity and/or flexibility with respect to the administration and programmatic controls for controlling such dose, and yet maintain an adequate margin of safety for minimizing dose to site personnel consistent with the requirements of 10CFR20 and the guidance of RG 8.38.

Based on the foregoing, IP concludes that this request does not involve a significant hazards consideration.