



May 2, 2000

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555

Braidwood Station, Units 1 and 2  
Facility Operating License Nos. NPF-72 and NPF-77  
NRC Docket Nos. 50-456 and 50-457

Byron Station, Units 1 and 2  
Facility Operating License Nos. NPF-37 and NPF-66  
NRC Docket Nos. 50-454 and 50-455

Dresden Nuclear Power Station, Units 1, 2 and 3  
Facility Operating License Nos. DPR-2, DPR-19, and DPR-25  
NRC Docket Nos. 50-10, 50-237, 50-249

LaSalle County Station, Units 1 and 2  
Facility Operating License Nos. NPF-11 and NPF-18  
NRC Docket Nos. 50-373 and 50-374

Quad Cities Nuclear Power Station, Units 1 and 2  
Facility Operating License Nos. DPR-29 and DPR-30  
NRC Docket Nos. 50-254 and 50-265

Subject: Request for Exemption from Certain Requirements of 10 CFR 73  
"Physical Protection of Plants and Materials"

In accordance with 10 CFR 73.5, "Specific Exemptions," we are requesting NRC approval of exemptions from certain requirements of 10 CFR 73, "Physical Protection of Plants and Materials," that will support future revisions of the Security Plans and Personnel Training and Qualification Plans for Braidwood Station, Byron Station, Dresden Nuclear Power Station, LaSalle County Station, and Quad Cities Nuclear Power Station.

May 2, 2000  
U.S. Nuclear Regulatory Commission  
Page 2

Commonwealth Edison (ComEd) Company, working with the Nuclear Energy Institute (NEI) Task Force on Security, has identified several changes to utility security plans which involve an exemption from NRC requirements. These changes would provide relief from unnecessary resource burdens, and are candidates for adoption by other utilities to establish consistency in the industry while continuing to maintain the level of security appropriate for operating nuclear power plants in the United States.

The exemptions requested in this letter will not reduce the measures currently in place to protect these facilities from radiological sabotage. Therefore, granting the requested exemptions will not endanger life or property. The requested exemptions are as follows:

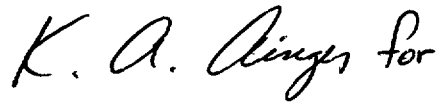
1. Exemption from the requirement in 10 CFR 73.55(d), "Access Requirements," to escort any vehicle by a member of the security organization.
2. Exemption from the lighting requirements in 10 CFR 73.55(c.), "Physical Barriers," for selected exterior areas of the Protected Area.
3. Exemption from the requirement to have a 12-month requalification for security personnel physical examinations and training in 10 CFR 73, Appendix B, "Employment Suitability and Qualification."
4. Exemption from the requirement to re-qualify security personnel with weapons as specified in 10 CFR 73, Appendix B(IV), "Weapons Qualification and Requalification Program."

The Attachment, "Exemption Request," identifies the specific requirements in 10 CFR 73.55 that are the subject of these exemption requests and contains the associated justifications. These items have been previously discussed during meetings between NRC representatives and the NEI Security Working Group. Based on these discussions, ComEd is requesting approval of these exemptions by August 1, 2000. Prior to implementing any approved exemption, each Station Security Plan and Personnel Training and Qualification Plan will be revised in accordance with 10 CFR 50.54(p), "Conditions of Licenses."

May 2, 2000  
U.S. Nuclear Regulatory Commission  
Page 3

Should you have any questions concerning this letter, please contact Mr. Joe Sipek at (630) 663-3741.

Respectfully,



R.M. Krich  
Vice President – Regulatory Services

Attachment – Exemption Request

cc: Regional Administrator – NRC Region III  
NRC Senior Resident Inspector – Braidwood Station  
NRC Senior Resident Inspector – Byron Station  
NRC Senior Resident Inspector – Dresden Nuclear Power Station  
NRC Senior Resident Inspector – LaSalle County Station  
NRC Senior Resident Inspector – Quad Cities Nuclear Power Station

## ATTACHMENT

# EXEMPTION REQUEST

### **Introduction:**

In 1999, the Commissioners directed the NRC to develop a regulation requiring licensees to identify equipment target sets necessary to maintain safe operation or safe shutdown, develop strategies to protect such equipment, and exercise the strategies periodically. In November 1999, the NRC advocated a comprehensive review of 10 CFR 73.55, "Physical Protection of Plants and Materials," while concurrently approving a shift from NRC evaluated Operational Safeguards Response Evaluation (OSRE) exercises to an industry self-assessment program (SAP). This fundamental change represented a departure from compliance-based assessment with the emphasis aimed at program performance - resulting in the development of Nuclear Energy Institute (NEI) 99-07, "Security Contingency Response Self-Assessment Program," draft 4, which was submitted to the NRC by NEI letter dated April 24, 2000. In order for ComEd, and the industry as well, to effectively implement the SAP, changes to certain commitments and/or regulations are necessary. These changes, if implemented, will allow the licensee to re-allocate resources to the areas that directly support protection of the public health and safety. Accordingly, we have identified a number of exemptions to requirements that, if granted, will allow this re-allocation of resources

ComEd is requesting the following exemptions for Braidwood Station, Byron Station, Dresden Nuclear Power Station, LaSalle County Station and Quad Cities Nuclear Power Station. Additionally, this Exemption Request will be used as the model for the industry's efforts in requesting relief from those requirements that provide little or no value in the protection of the facility with regards to the Design Basis Threat described in 10 CFR 73, "Physical Protection of Plants and Materials," paragraph 1(a).

### **I. SPECIFIC EXEMPTION REQUEST**

In accordance with 10 CFR 73.5, "Specific Exemptions," we are requesting exemptions from certain requirements of 10 CFR 73.55. The specific requirements that are the subject of the exemption request are as follows.

- (1) 10 CFR 73.55(d), "Access requirements," Subsection (4) – the requirement to escort any vehicle by a member of the security organization.
- (2) 10 CFR 73.55(c), "Physical barriers," Subsection (5) – lighting requirement of 0.2 ft.-candles in all exterior areas of the Protected Area (PA) with the exception of the isolation zone.

- (3) 10 CFR 73 Appendix B (I), "Employment suitability and qualification," Subsection (E) and (II), "Training and qualifications," Subsection E – the requirement to have a 12 month requalification for security personnel physical examinations and training.
- (4) 10 CFR 73 Appendix B (IV), "Weapons qualification and requalification program" Subsection (D) – the requirement to requalify security personnel with weapons at least every 12 months in accordance with the NRC approved licensee training and qualification plan and in accordance with the requirements stated in subsections A, B and C of this Appendix.

## **II. BASIS FOR EXEMPTION REQUEST**

The criteria for granting specific exemptions from 10 CFR 73 requirements are stated in 10 CFR 73.5. Specifically, the NRC is authorized to grant an exemption upon determining that the exemption is authorized by law, will not endanger life or property or the common defense and security, and is otherwise in the public interest.

Furthermore, as stated in 10 CFR 73.55(a), the NRC may authorize a licensee to provide alternate means for protection against radiological sabotage, other than those required by 10 CFR 73.55(b) through (h), if the licensee demonstrates that the measures have the same high assurance objective as specified in 10 CFR 73.55(a). Furthermore, the alternative measures must have an overall level of system performance that provides protection against radiological sabotage equivalent to that which would be provided by 10 CFR 73.55(b) through (h) and meets the general performance requirements of 10 CFR 73.55(a).

The efforts of the NRC's previous Regulatory Effectiveness Review (RER) and the current OSRE critique the security program relative to performance based criteria rather than compliance to specific regulations. These NRC programs have demonstrated that the established defensive strategies are adequate to protect against the threat of radiological sabotage. These defensive strategies have been proven to be effective without reliance on the requirements of the regulations for which we are requesting exemptions; these items do not provide a benefit to the overall protection (i.e., defensive strategy) of the facility and in fact may detract manpower resources from the protection of the facility.

### **The criteria of 10 CFR 73.5 are satisfied**

The requirements of 10 CFR 73.55 and the existing security plans for our nuclear stations are predicated on the objective of protecting the health and safety of the public from acts of radiological sabotage. The requested exemptions will not reduce the effective measures required to protect these facilities from radiological sabotage. Therefore, granting the requested exemptions will not endanger life or property. The requested exemptions would allow us to enhance our security by focusing on the defense of the stations rather than on additional areas that add little or no value to the overall protection of the stations. Therefore, granting the requested exemptions will not endanger the common defense and security.

The requested exemptions allow resources to concentrate on the implementation of a security plan that strictly focuses on the safeguarding of the target sets while eliminating those activities that do not contribute to the defensive strategy of the facility. Continued compliance with the current requirements would result in unnecessary expenses without providing any additional safety or security benefit. Therefore, granting the requested exemption is in the public interest.

### **Issues associated with each specific exemption requested**

#### Exemption from 10 CFR 73.55(d), "Access requirements," Subsection (4)

We are requesting an exemption from the requirement of 10 CFR 73.55(d)(4) that states a member of the security organization must escort all vehicles requiring entry into the Protected Area (PA). While the requirement allows for certain exceptions, such as designated licensee vehicles or licensee owned or leased vehicles, the requested exemption proposes that no vehicle entering the PA would require an escort by a member of the security organization. Vehicles entering or operating within the PA would either be driven by individuals badged and granted unescorted access or escorted by individuals who are badged and granted unescorted access. The vehicles in either case will be properly searched and driven or escorted by persons determined with high assurance to be trustworthy and reliable.

Necessary actions that assure adequate vehicle searches for detection of firearms, explosives and incendiaries will be maintained. The vehicle would be searched in accordance with 10 CFR 73.55(d)(4), packages for delivery into the PA would be handled in accordance with 10 CFR 73.55(d)(3), and personnel operating or escorting the vehicle would be subject to the search requirements of 10 CFR 73.55(d)(1). Badged individuals acting as escorts are subject to continual behavioral observations and are trained in escort duties to include Fitness for Duty responsibilities in accordance with 10 CFR 26.22, "Training of supervisors and escorts," subsection (b). Therefore, there is no increased risk to the facility by escorting or operating vehicles in the PA by badged personnel versus escorting vehicles in the PA by a member of the security organization.

The rationale discussed above is equally applicable to an exemption from the requirement to exercise positive control of unattended vehicles (e.g., removal of keys or otherwise secure unattended vehicles). Vehicles by themselves do not pose a threat since they have been searched and are within the PA where they are accessible only to screened or escorted persons. Securing the vehicle therefore yields no security benefit.

#### Exemption from 10 CFR 73.55(c), "Physical barriers," Subsection (5)

We are requesting an exemption from the provision of 10 CFR 73.55(c)(5) that requires the isolation zone and all areas within the PA be provided with illumination of not less than 0.2 ft.-candles measured horizontally at ground level. We propose that the requirements of not less than 0.2 ft.-candles illumination within the isolation zone be maintained, but are requesting an exemption from maintaining not less than 0.2 ft.-candles from "all other areas within the PA." The

lighting requirement for the isolation zone would be maintained to ensure the assessment capability for the detection of penetration or attempted penetration of the PA or the isolation zone adjacent to the PA barrier as required by 10 CFR 73.55(c)(4). Assessment capability in this area is critical to determining whether or not a threat exists and the subsequent initiation of actions immediately necessary to neutralize the threat by security response personnel as required by 10 CFR 73.55(h)(4). The ability to immediately assess the threat at the isolation zone and PA barrier and ultimately neutralize the threat is critical to the overall timing strategy employed by security response personnel to protect the stations from radiological sabotage. At the time of a confirmed intrusion or attempted intrusion, security response personnel implement actions necessary to neutralize the threat. Lighting of no less than 0.2 ft.-candles within the PA does not add any value to assessing the threat which occurs at the isolation zone and is the point at which security response personnel initiate actions to neutralize the threat. We propose to maintain lighting within the PA to the United States Occupational Safety and Health Administration (OSHA) standards. Maintaining PA lighting to the OSHA standard is sufficient for the security response force to initiate and carry out response actions within the PA. However, the burden to maintain the "not less than 0.2 ft.-candles measured horizontally at ground level" does not enhance the protective strategy because the protective strategy does not rely on this element of lighting.

Exemption from 10 CFR 73, Appendix B (I), "Employment suitability and qualification," Subsection (E) and 10 CFR 73, Appendix B (II), "Training and qualifications," Subsection (E)

We are requesting an exemption from the requirement of 10 CFR 73, Appendix B (1)(E) and (II)(E) that security personnel physical examinations and training re-qualification be completed at least every 12 months. We propose that physical examinations and training re-qualification be conducted on a frequency no greater than 15 months (i.e., 12 months times 1.25). Extensions of recurring activities with similar 12-month time frames in other areas have been allowed. For example, NUREG 1433, "Standard Technical Specifications General Electric Plants, BWR/4," allows the frequency of surveillance testing to be satisfied as long as the testing is performed within 1.25 times the interval specified by the specific surveillance requirement. Similarly, the physical and proficiency abilities of security personnel who are under continued observation, can be reaffirmed on a periodicity that allows a 25-percent extension.

Exemption from 10 CFR 73, Appendix B (IV), "Weapons qualification and requalification program," Subsection (D)

We are requesting an exemption from the requirement of 10 CFR 73.55, Appendix B (IV)(D) that armed security personnel undergo weapons re-qualification at least every 12 months in accordance with the NRC approved licensee training and qualification plan, and in accordance with the requirements stated in subsections A, B, and C of section (IV). We propose to continue to initially qualify armed security personnel as set forth in our approved training and qualification plans. This will allow us to ensure that we have proficient responders. However, annual firearms proficiency requalification would be revised to be consistent with our defensive strategy positions and not the

“courses of fire” currently identified in our training and qualification plans. With the evolution of the NRC’s OSRE program, which focuses on performance based objectives rather than compliance to specific regulations, responders are required to demonstrate their weapon skills in a “stressed” environment and in positions that replicate their defensive posture within the defensive strategy. Under the current NRC weapons qualification requirements coupled with the OSRE evaluation criteria, we are conducting two weapons training and qualification programs annually. Replacing the annual compliance based training and qualification with a performance based training and qualification program would result in a more realistic evaluation of the security responder’s ability to protect the facility. The regulatory “course of fire” provides little or no value to the protection of the facility as it requires stationary target shooting under mild conditions. However a training and qualification program that incorporates weapons proficiency shooting (e.g., tactical and combat shooting under stressful conditions) would meet the performance based criteria designed to evaluate the ability to protect the facility from acts of radiological sabotage.

Therefore, we propose to maintain the initial qualification in accordance with our approved training and qualification plans and replace the annual requalification training, required by 10 CFR 73.55, Appendix B, with the weapons proficiency program outlined in our defensive strategy for each site.

### **Overall level of assurance that 10 CFR 73.55(a) is maintained**

The underlying basis of the requirements in 10 CFR 73.55 is to provide reasonable assurance that adequate security measures can be taken to protect against an act of radiological sabotage. The requirements in 10 CFR 73.55 that we have requested exemptions from were developed during a time when defensive strategies and the understanding of nuclear power plant security were in the early stages of implementation. World events and terrorist activities during the time of the establishment of these requirements are dramatically different from what they are today. The methods used to combat nuclear sabotage have been greatly enhanced since the regulations were implemented. In implementing focused and effective defensive strategies, it became evident that certain requirements, such as the requirements that are the subject of the requested exemptions, do not impact the objective of protecting the stations against the threat of radiological sabotage. Therefore, granting these exemptions does not reduce the overall level of protection of the facilities or the level of assurance required by 10 CFR 73.55(a). The remaining requirements addressed by security plans still provide for reasonable assurance that the appropriate response capability is established and maintained commensurate with the purpose of protecting the stations from an act of radiological sabotage.

### **III. ENVIRONMENTAL ASSESSMENT**

In accordance with 10 CFR 51.30, “Environmental assessment,” and 10 CFR 51.32, “Determinations based on environmental assessment,” the following information is provided in support of an environmental assessment and finding of no significant impact for the propose action of granting the requested exemptions.



The proposed action would grant exemptions from certain provisions of 10 CFR 73.55, which contain requirements for physical protection of nuclear power reactors against radiological sabotage. Specifically, the exemptions will modify security requirements to maintain certain systems, re-assign responsibilities, and eliminate activities that are not required to maintain an adequate level of protection in defense of the stations.

The requested exemptions from portions of 10 CFR 73.55 allow resources to be utilized in focusing on defending the stations using assumptions based on a risk informed performance based evaluation rather than a compliance based evaluation which provides for improved defensive strategies at the stations. The principle alternative to the proposed action would be to deny the requested exemption. Denial of the exemption request would result in no change in environmental impacts.

The proposed action (i.e., granting the exemptions) will not decrease the overall effectiveness of the defensive strategy of the security program nor increase the probability or consequences of accidents or the ability of an individual(s) to exploit the security of the stations. There is no increase in the occupational or public radiation exposure. Therefore, there are no radiological impacts associated with the proposed action.

The proposed action does not affect non-radiological plant effluents and has no other environmental impact. Therefore, there are no significant non-radiological impacts associated with the proposed action.

Based on the assessment above, granting the exemptions will not have a significant effect on the security organization's ability to defend the stations against radiological sabotage and therefore, will not have a significant effect on the quality of the human environment.

There are no adverse environmental impacts associated with this specific exemption.

#### **IV. CONCLUSION**

We consider that this exemption request is in accordance with the criteria of 10 CFR 73.5. Radiological risk to the public from an act of radiological sabotage would not be increased as a result of granting this exemption request. The level of protection has been enhanced by re-allocating security resources to areas that provide for meaningful protection of the stations while maintaining the objective and the general performance requirements of 10 CFR 73.55 for security threats associated with an operating reactor power plant.