VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

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United States Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D. C. 20555

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Docket Nos. 50-280
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License Nos. DPR-32
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NPF-4
NPF-7

Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION UNITS 1 AND 2
NORTH ANNA POWER STATION UNITS 1 AND 2
10 CFR 73 EXEMPTION REQUEST

Pursuant to 10 CFR Part 73.5, Virginia Electric and Power Company requests specific exemptions from the requirements regarding physical protection of licensed activities in nuclear power reactors against radiological sabotage. In particular, we request an exemption from the requirement that authorized individuals not employed by the licensee receive a picture badge upon entrance into the protected area and return the badge upon exit from the protected area.

As shown in Attachment 1, the exemption request is based on the alternative which utilizes a hand geometry biometrics system in the process of gaining unescorted access to the protected area at Surry and North Anna Power Stations. The request is further supported by continued use of approved, existing security systems. The intent of 10 CFR 73.55 is more than adequately met by the addition of this dependable personnel identification device in lieu of manual picture badge verification. The change recommended herein will not alter any other plant security feature of the protected area entry process. Furthermore, both employees and contractor personnel will be screened by this means of positive identification.

Approval of this exemption is requested to reduce costs associated with elements of site security which are otherwise routinely performed as part of Virginia Electric and Power Company's Security Plans. We believe that the practice currently required is unnecessarily burdensome given the technology which is now available to ascertain the identity of authorized individuals. This request is being submitted as part of our Cost Beneficial Licensing Actions (CBLA) program and complies with NRC guidelines for consideration as a CBLA submittal.

Justification of this exemption request is based on demonstrated performance as evidenced through several assessment mechanisms. These mechanisms include the Systematic Assessments of Licensee Performance and our in-depth Quality Assurance Audit Review Program. In addition, we obtain an independent assessment

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of performance whenever necessary. These components of our program are designed to maintain a high standard of access control and security at both Surry and North Anna.

For these reasons, we conclude that the requested exemption is authorized by law and will not endanger life or property or the common defense and security, and is otherwise in the public interest as provided for in 10 CFR 73.5. The appropriate security plan changes will be submitted to the NRC under separate cover pending approval of this exemption.

Very truly yours,

J. P. O'Hanlon
Vice President - Nuclear Operations

Attachment
1. 10 CFR 73 Exemption Request

cc: Mr. Stewart D. Ebneter
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ATTACHMENT 1

SURRY POWER STATION UNITS 1 AND 2
NORTH ANNA POWER STATION UNITS 1 AND 2
10CFR73 EXEMPTION REQUEST

EXEMPTION REQUEST SUMMARY

Virginia Electric and Power Company requests, in accordance with the provisions of 10 CFR 73.5, "Specific exemptions," an exemption from certain requirements of 10 CFR 73.55, "Requirements for physical protection of licensed activities in nuclear power reactors against radiological sabotage." This exemption request is submitted for Surry Power Station Units 1 and 2 and North Anna Power Station Units 1 and 2. Specifically, we request exemption from the portion of 10 CFR 73.55(d)(5) which states, "An individual not employed by the licensee but who requires frequent and extended access to protected and vital areas may be authorized access to such areas without escort provided that he receives a picture badge upon entrance into the protected area which must be returned upon exit from the protected area..."

10 CFR 73.55(a), "General performance objective and requirements," states, "The licensee shall establish and maintain an onsite physical protection system and security organization which will have as its objective to provide high assurance that activities involving special nuclear material are not inimical to the common defense and security and do not constitute an unreasonable risk to the public health and safety... The Commission may authorize an applicant or licensee to provide measures for protection against radiological sabotage other than those required by this section if the applicant or licensee demonstrates that the measures have the same high assurance objective... and that the overall level of system performance provides [equivalent] protection against radiological sabotage..."

Virginia Electric and Power Company seeks this exemption in order to allow the use of a hand geometry biometrics system to control unescorted access to the protected areas located at Surry and North Anna Power Stations while the required picture badges and access control cards will be retained by the individuals to whom they were issued upon exiting the protected area.

BACKGROUND

Currently, employee and contractor identification badges coupled with their associated access control cards are issued and retrieved on the occasion of each entry to and exit from the protected area. Station security personnel are required to maintain control of the badges while the individuals are offsite. This practice has been in effect at Surry and North Anna Power Stations since each operating license was issued. Security personnel retain each identification badge, as well as the associated access control card, when not in use by the authorized individual, within appropriately designed storage receptacles inside a bullet resistant enclosure. An individual who meets the access authorization requirements is issued an individual picture identification card and an individual access control card which allows entry into preauthorized areas of the station. While entering the plant in the present configuration, an authorized

individual is "screened" by the required detection equipment and by the issuing security officer. Having received the badge, the individual proceeds to the access portal, inserts the access control card into the card reader, enters a personal identification number (PIN), and passes through the turnstile which unlocks if the preset criteria are met. Once inside the station, the individual's PIN is not required in order to further utilize the access authorization card.

This present procedure is labor intensive since security personnel are required to verify badge issuance, ensure badge retrieval, and maintain the badges in orderly storage until the next entry into the protected area.

DISCUSSION

Under the proposed system, individuals authorized to gain unescorted access will have the physical characteristics of their hand (hand geometry) recorded with their badge number. Since the hand geometry is unique to each individual and its application in the entry screening function would preclude unauthorized use of a badge, the requested exemption would allow employees *and contractors* to keep their badges at the time of exiting the protected area. The process of verifying badge issuance, ensuring badge retrieval, and maintaining badges could be eliminated while the balance of the access procedure would remain intact. Firearm, explosive, and metal detection equipment and provisions for conducting searches will remain as well. The security officer responsible for the last access control function (controlling admission to the protected area) will also remain isolated within a bullet-resisting structure in order to assure his or her ability to respond or to summon assistance.

TECHNICAL BASIS

Use of a hand geometry biometrics system exceeds the present verification methodology's capability to discern an individual's identity. Unlike the photograph identification badge, hand geometry is nontransferable. During the initial access authorization or registration process, hand measurements are recorded and the template is stored for subsequent use in the identity verification process required for entry into the protected area. Authorized individuals insert their access authorization card into the card reader and the biometrics system records an image of the hand geometry. The unique features of the newly recorded image are then compared to the template previously stored in the database. Access is ultimately granted based on the degree to which the characteristics of the image match those of the "signature" template.

CONCLUSION

Granting the requested exemption from the requirement for contractors to return their picture badges and access control cards when departing from the protected area is warranted based on the ability of a biometrics system to assure the identity of authorized individuals, the licensee's continuing capability to render an access authorization card ineffectual, and reliance upon firearm, explosive, and metal detection equipment and provisions for conducting searches. Furthermore, the

security officer responsible for the last access control function (controlling admission to the protected area) will also remain isolated within a bullet-resisting structure in order to assure his or her ability to respond or to summon assistance.

JUSTIFICATION

10 CFR 73.5 states that the Commission may grant exemptions from the requirements of the regulations contained in the 10 CFR 73 provided that: (1) the exemption is authorized by law, (2) the exemption will not endanger life or property, (3) the exemption will not endanger the common defense and security, and (4) the exemption is otherwise in the public interest.

1. The Requested Exemption is Authorized by Law

   No law exists which would preclude the activities covered by this exemption request, thus the Commission is authorized to grant this exemption.

2. The Requested Exemption Will Not Endanger Life or Property

   The exemption from the requirement to issue and retrieve contractor picture badges upon entering and exiting protected areas at Virginia Electric and Power Company does not present an undue risk to the public health and safety. Addition of a hand geometry biometrics system will provide a significant contribution to effective implementation of the security plan at each site. Therefore, an exemption of this nature does not increase the risk to the public health and safety.

3. The Requested Exemption Will Not Endanger the Common Defense and Security

   The common defense and security are not negatively impacted by this exemption request. An exemption granted contingent upon the utilization of a hand geometry biometrics system will augment the process by which Virginia Electric and Power Company permits unescorted access to the protected areas located at Surry and North Anna Power Stations.

4. The Exemption is Otherwise in the Public Interest

   The subject exemption would allow Company resources and management attention to be more focused on areas of nuclear safety significance. Generally, the public interest would be served by reducing the Company resources presently dedicated to identity confirmation and badge issue, collection, and storage.

SAFETY IMPACT

Virginia Electric and Power Company has reviewed this exemption and determined that nuclear safety will not be impacted. This exemption request provides for meeting the intent of the regulations by implementing a hand geometry biometrics system as an

alternate means to determine the identity of badged individuals. This technology will improve the reliability of the access screening process and obviate the need to issue, retrieve, and store contractor picture badges. Thus, operation of Surry and North Anna Power Stations in accordance with this request will not:

1. Involve an increase in the probability of occurrence or consequences of an accident or malfunction of equipment important to safety in the safety analysis report. The process for granting unescorted access to the protected areas at Surry and North Anna is not directly associated with the design, function, or operation of plant equipment described in the safety analysis report. Thus, the probability of accident occurrence cannot be impacted by the elimination of the picture badge issue, collection, and storage functions. Likewise, such an exemption has no bearing on the consequences of an accident as analyzed in the safety analysis reports for either station. Additionally, as noted throughout this request, replacing the function required by the regulations with a superior identity verification device does not reduce the effectiveness of the overall security and access control programs in place at Surry and North Anna.

2. Create the possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report. Again, the process for granting unescorted access to the protected areas at Surry and North Anna is not directly associated with the design, function, or operation of plant equipment and plant operations will not be changed due to this request. No new accident precursors will be generated, therefore no new or different kind of accident will be created by this request.

3. Involve a reduction in the margin of safety as defined in the basis for any technical specification. Plant operations are not being changed nor are any of the accident analysis assumptions being modified or exceeded by this exemption request. Therefore, the accident analysis assumptions remain bounding and safety margins remain unchanged. Furthermore, as noted above, replacing the functions of verifying identity and issuing, collecting, and storing picture badges with a hand geometry biometrics system does not reduce the effectiveness of the security plans which are currently in place.