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PG&E Letter DCL-22-010

10 CFR 50.90  
10 CFR 73.55(r)

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D.C. 20555-0001

Diablo Canyon Units 1 and 2  
Docket No. 50-275, OL-DPR-80  
Docket No. 50-323, OL-DPR-82  
Materials License No. SNM-2511, Docket No. 72-26  
Diablo Canyon Independent Spent Fuel Storage Installation

License Amendment Request 22-01  
Request for Approval of Alternative Security Measures for Early Warning System

Reference 1: NRC Letter "DIABLO CANYON POWER PLANT – SECURITY BASELINE INSPECTION REPORT 05000275/2021404 AND 05000323/2021404," dated January 13, 2022.

Dear Commissioners and Staff:

Pursuant to 10 CFR 50.90, Pacific Gas and Electric Company (PG&E) hereby requests approval of the enclosed proposed amendment to Facility Operating License Nos. DPR-80 and DPR-82 for Diablo Canyon Power Plant Units 1 and 2, respectively. The enclosed license amendment request (LAR) requests NRC approval in accordance with 10 CFR 73.55(r) of proposed alternative security measures for the implementation of an Early Warning System.

PG&E has discussed the intent to submit this LAR with the NRC Nuclear Reactor Regulation project manager because approval of this LAR is being requested in less than the normal 12 months.

This submittal contains security-related information and is being protected pursuant to 10 CFR 2.390. The affected attachment has been identified and marked to reflect that it contains security-related information.

A member of the STARS (Strategic Teaming and Resource Sharing) Alliance  
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~~THE ATTACHMENT 2 TO THE ENCLOSURE OF THIS LETTER CONTAINS SECURITY-RELATED INFORMATION. THIS INFORMATION MUST BE PROTECTED ACCORDINGLY. UPON REMOVAL OF ATTACHMENT 2 TO THE ENCLOSURE, THIS LETTER IS DECONTROLLED~~

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The Enclosure provides a summary of the proposed changes, a no significant hazards consideration, and an environmental consideration. The Attachment 2 to the Enclosure (Security-Related Information) includes an evaluation of the proposed changes, including a detailed description, technical evaluation, and assessment of the proposed alternative security measures.

PG&E requests approval of this LAR within six months to address the two NRC findings of very low security significance (Green), identified in Security Inspection Report 2021404 (Reference 1), in an expeditious manner. PG&E requests the license amendment be made effective upon NRC issuance, to be implemented within 90 days from the date of issuance.

PG&E makes no new or revised regulatory commitments (as defined by NEI 99-04) in this submittal.

Pursuant to 10 CFR 50.91, PG&E is sending a copy of this proposed amendment to the California Department of Public Health.

If you have any questions or require additional information, please contact James Morris, Regulatory Services Manager, at 805-545-4609.

I state under penalty of perjury that the foregoing is true and correct.

Executed on Date: 02/16/2022

Sincerely,



Adam S. Peck  
*Site Vice President*

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PG&E Letter DCL-22-010

kjse/51134627

Enclosure

cc: Diablo Distribution

cc/enc (without Enclosure Attachment 2)

Neil H. Day, Acting NRC Senior Resident Inspector

Samson S. Lee, NRR Project Manager

Scott A. Morris, NRC Region IV Administrator

Gonzalo L. Perez, Branch Chief, California Department of Public Health

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### **Evaluation of the Proposed Change**

Subject: License Amendment Request 22-01, Request for Approval of Alternative Security Measures for Early Warning System

1. SUMMARY DESCRIPTION (uncontrolled)
  2. APPLICABLE REGULATORY REQUIREMENTS (uncontrolled)
  3. NO SIGNIFICANT HAZARDS CONSIDERATION ANALYSIS (uncontrolled)
  4. ENVIRONMENTAL CONSIDERATION (uncontrolled)
  5. REFERENCE (uncontrolled)
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#### **ATTACHMENTS:**

1. Summary Description, Applicable Regulatory Requirements, No Significant Hazards Consideration Analysis, Environmental Consideration, Reference
2. Summary Description, Detailed Description, Technical Evaluation and Assessment of Alternative Security Measures for Detection and Assessment Systems, Regulatory Evaluation, Precedent, References (Security-Related Information)

THE ATTACHMENT 2 TO THE ENCLOSURE OF THIS LETTER CONTAINS ~~SECURITY-RELATED INFORMATION~~. THIS INFORMATION MUST BE PROTECTED ACCORDINGLY. UPON REMOVAL OF THE ATTACHMENT TO THE ENCLOSURE, THIS LETTER IS DECONTROLLED

## EVALUATION

### 1. SUMMARY DESCRIPTION

This license amendment request requests NRC approval in accordance with 10 CFR 73.55(r) of proposed alternative security measures for the implementation of an Early Warning System (EWS) with respect to the 10 CFR 73.55(e), (i), (n), and (o) requirements.

The Diablo Canyon Power Plant (DCPP) EWS is comprised of barriers and a separate Intrusion Detection System (IDS). It is designed to supplement the Protected Area (PA) barrier and IDS and provides delay and early indication of unauthorized entry into areas of the owner controlled area adjacent to the PA. This allows a more rapid security response and a more effective and efficient use of security personnel, equipment, and programs. Detection at the EWS has been used to develop responder timelines and, as a result, the EWS is considered required to meet the requirements of 10 CFR 73.55(b).

A limited capability version of the EWS was initially developed and installed at DCPP in 2005 to supplement the PA barrier and IDS in certain locations. At that time, no specific NRC guidance was in place to address the use of a system that supplemented the required PA system. However, the system was installed, maintained and tested, and was credited in the responder timelines analysis. In 2011, DCPP developed and installed a more advanced EWS which was put into operation in 2013. The EWS is maintained and tested to meet the guidance in Regulatory Guide 5.44, Revision 3, "Perimeter Intrusion Alarm Systems."

The EWS supplements the PA barrier and IDS, and as a result has the potential to introduce activities that would interfere with alarm station operator's assigned duties, which is prohibited by 73.55(i)(4)(ii)(C). As a result, the system was designed and implemented to minimize these concerns.

Although no formal NRC guidance has been issued on these systems, based on various NRC correspondence, EWSs that must meet the requirements of 10 CFR 73.55(b) must also meet the applicable requirements for barriers and IDS set forth in 10 CFR 73.55(e), (i), (n) and (o). Additionally, the licensee Physical Security Plan (PSP) must describe the intended function of the EWS, how the EWS is designed, constructed and equipped to perform the intended function, personnel duties and responsibilities, the equipment components and systems used provide the capability to perform the intended function; communication and information transmission methodologies, EWS maintenance and testing, and appropriate measures taken to maintain and restore the EWS function in the event of failure/degradation. The DCPP PSP was revised in accordance with 10 CFR 50.54(p) to include the EWS in August 2016.

In order to ensure a common understanding of the applicable requirements and implementation of the EWS, Pacific Gas and Electric Company (PG&E) is requesting NRC review and approval of the proposed alternative security measures in accordance with 10 CFR 50.90.

The Attachment 2 to the Enclosure of this letter provides the proposed alternative security measures, the technical basis for each proposed alternative security measure, and assessment that they meet the same performance objectives of the 10 CFR 73.55(i) requirements and provide a level of protection that is at least equal to that which would otherwise be provided by the 10 CFR 73.55(i) requirements.

## **2. APPLICABLE REGULATORY REQUIREMENTS**

10 CFR 73.55(i)(1), "Detection and assessment systems," requires the licensee shall establish and maintain intrusion detection and assessment systems that satisfy the design requirements of 10 CFR 73.55(b) and provide, at all times, the capability to detect and assess unauthorized persons and facilitate the effective implementation of the licensee's protective strategy.

10 CFR 73.55(i)(2) requires that intrusion detection equipment must annunciate and video assessment equipment shall display concurrently, in at least two continuously staffed onsite alarm stations, at least one of which must be protected in accordance with the requirements of the central alarm station within this section.

10 CFR 73.55(i)(3)(iv) requires that licensees ensure that detection and assessment systems, "alarm devices to include transmission lines to annunciators are tamper indicating and self-checking."

73.55(i)(4)(ii)(C) requires licensees shall not permit any activities to be performed within either alarm station that would interfere with an alarm station operator's ability to execute assigned duties and responsibilities.

10 CFR 73.55(i)(4)(ii)(F) requires the licensee ensure that an alarm station operator cannot change the status of a detection point or deactivate a locking or access control device at a protected or vital area portal, without the knowledge and concurrence of the alarm station operator in the other alarm station.

10 CFR 73.55(i)(4)(ii)(G) requires the licensee ensure that operators in both alarm stations are knowledgeable of the final disposition of all alarms.

10 CFR 73.55(r) Alternative measures states:

(1) The Commission may authorize an applicant or licensee to provide a measure for protection against radiological sabotage other than one required by this section if the applicant or licensee demonstrates that:

(i) The measure meets the same performance objectives and requirements specified in paragraph (b) of this section;

(2) The licensee shall submit proposed alternative measure(s) to the Commission for review and approval in accordance with §§ 50.4 and 50.90 of this chapter before implementation.

(3) In addition to fully describing the desired changes, the licensee shall submit a technical basis for each proposed alternative measure. The basis must include an analysis or assessment that demonstrates how the proposed alternative measure provides a level of protection that is at least equal to that which would otherwise be provided by the specific requirement of this section.

Regulatory Guide 5.44, Revision 3, "Perimeter Intrusion Alarm Systems" describes the functions of perimeter intrusion detection methods that are acceptable to the NRC. Sections 1.4, Tamper protection, and 1.5 System line supervision, provide guidance for meeting the requirements of 10 CFR 73.55(i)(3)(iv). The guidance, in part, states that all signal lines connecting detection devices to alarm stations should be supervised. If the processing electronics are separated from the sensor elements and are not located within the detection area of the sensor elements, the signal lines linking the sensors to the processing electronics should also be supervised.

### **3. NO SIGNIFICANT HAZARDS CONSIDERATION ANALYSIS**

PG&E has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The proposed 10 CFR 73.55(r) alternative security measures for the security detection and assessment systems provide a level of protection that are at least equal to that which would be provided by the specific requirements of 10 CFR 73.55(e), 10 CFR 73.55(i), 10 CFR 73.55(n) and 10 CFR 73.55(o). The security detection and assessment systems are not an initiator of any Updated Final Safety Analysis Report

Chapter 6 or 15 design basis accidents or events, and therefore, the proposed change does not increase the probability of any accident previously evaluated and does not significantly increase the likelihood of the malfunction of facility system, structures, and components (SSCs). The security intrusion detection and assessment systems detect and assess unauthorized persons and facilitate the effective implementation of the security protective strategy and have no significant impact on accident consequences. The proposed change does not physically impact the plant SSCs or the manner in which SSCs perform their design function and does not change how the plant would mitigate an accident previously evaluated. A concurrent accident with a hostile action is not assumed to occur.

Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed change create the possibility of a new or different accident from any accident previously evaluated?

Response: No.

The proposed 10 CFR 73.55(r) alternative security measures involve security equipment and do not result in a change to plant SSCs credited to mitigate design basis accidents or the manner in which the plant SSCs provide plant protection. The plant SSCs will continue to perform their function to mitigate a design basis accident or event. The proposed change will not introduce failure modes that could result in a new accident.

Therefore, the proposed change does not create the possibility of a new or different accident from any accident previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

Response: No.

Margin of safety is associated with the ability of the fission product barriers (i.e., fuel cladding, reactor coolant system pressure boundary, and containment structure) to limit the level of radiation dose to the public.

The proposed change does not involve a change to the fission product barriers and does not alter the manner in which technical specification safety limits, limiting safety system settings, or limiting conditions for operation are determined. The safety analysis acceptance criteria are not impacted by this change. The proposed change will not result in plant operation in a configuration outside the existing design basis since the



plant SSCs will continue to perform their function to mitigate a design basis accident or event.

Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above evaluation, PG&E concludes that the proposed change does not involve a significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and accordingly, a finding of “no significant hazards consideration” is justified.

In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission’s regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

#### **4. ENVIRONMENTAL CONSIDERATION**

PG&E has evaluated the proposed amendment and has determined that the proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

#### **5. REFERENCE**

1. Regulatory Guide 5.44, Revision 3, “Perimeter Intrusion Alarm Systems,” October 1997.