

HAZARDS ANALYSIS

by the

RESEARCH AND POWER REACTOR SAFETY BRANCH

DIVISION OF LICENSING AND REGULATION

in the matter of

PACIFIC GAS AND ELECTRIC COMPANY

DOCKET NO. 50-133

AMENDMENT NO. 4

Introduction

By application dated June 18, 1963, the Pacific Gas and Electric Company requested an amendment to Facility License No. DPR-7 to permit receipt, possession and use of 10.0 grams of uranium-235 in ionization chambers at the Humboldt Bay reactor. The amendment was requested in order to permit the use of such chambers as in-vessel neutron detectors during reactor core alterations.

Hazards Analysis

Section VI.B.2.a. of the technical specifications for the Humboldt Bay reactor requires that during core alterations which increase reactivity at least one of the two startup neutron monitoring channels shall be connected to a detector located in the reactor vessel near the area where the alterations are being made. During initial loading, B-10 chambers and gamma compensated ion chambers were used as in-vessel neutron detectors. PG&E considers that fission chambers will be more suitable for future in-vessel use during core alterations with irradiated fuel.

The material requested will be incorporated as part of one or more ionization chambers which are similar to, but larger than, the fission-type ionization chambers already in use at the Humboldt Bay reactor as in-core flux monitors. PG&E has indicated that procedures for handling and storing the new chambers will be similar to those used for the existing ones. There are adequate facilities for storage of both new and used ionization chamber assemblies at the plant. Extended storage of used, radioactive assemblies in the spent fuel pool, the solid waste storage vaults, or the Waste Storage Building will decrease the hazard of final handling and ultimate shipment from the site in that radioactivity levels of the contaminated material would be considerably reduced. Further, there are no criticality problems associated with the storage of these assemblies since criticality of the small mass of U-235 involved is not possible.

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Conclusion

In our opinion, no significant hazards consideration is presented by the proposed license amendment, and operation of the reactor in accordance with the license, as amended, will not present undue hazard to the health and safety of the public.

Original signed
by Robert H. Bryan

Robert H. Bryan, Chief
Research & Power Reactor Safety Branch
Division of Licensing and Regulation

JUN 26 1963

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ROBERT LOWENSTEIN, DIRECTOR
DIVISION OF LICENSING AND REGULATION
U. S. ATOMIC ENERGY COMMISSION
WASHINGTON 25, D. C.

RICHARD H. PETERSON
PACIFIC GAS AND ELECTRIC COMPANY
245 MARKET STREET
SAN FRANCISCO 6, CALIFORNIA

PURSUANT TO YOUR APPLICATION OF JUNE 18, 1963, WE HAVE ISSUED AMENDMENT
NO. 4 TO FACILITY LICENSE DPR-7. AMENDMENT NO. 4 AUTHORIZES RECEIPT,
POSSESSION, AND USE OF 10.0 GRAMS OF URANIUM-235 IN IONIZATION CHAMBERS
PURSUANT TO THE ACT AND 10 CFR 70, "SPECIAL NUCLEAR MATERIAL".

COPIES OF THE LICENSE AMENDMENT, RELATED NOTICE TO THE OFFICE OF
THE FEDERAL REGISTER AND THE AEC'S HAZARDS ANALYSIS ARE BEING TRANSMITTED
TO YOUR OFFICE.

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R. O. S. Boyd Ext. 7441 SURNAME ▶	DLOR RSBoydxbh DATE ▶ 6/21/63	DLOR EGChse DATE ▶ 6/24/63	DLOR RLowenstein DATE ▶ 6/ /63			
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