



UNITED STATES  
ATOMIC ENERGY COMMISSION  
DIVISION OF COMPLIANCE, REGION IV  
10395 WEST COLFAX, ROOM 200  
DENVER, COLORADO 80215

40-6659

*[Handwritten signature]*

March 15, 1971

Gen W. Roy, Chief  
Materials and Fuel Facilities Branch  
Division of Compliance, HQ

PETROTOMICS COMPANY, CASPER, WYOMING  
LICENSE NO. SUA-551

Please refer to the CIM dated February 23, 1971, which reported a tailings pond effluent spill at the Petrotomics' Shirley Basin mill, which occurred on February 15, 1971.

The licensee has now submitted a written report which submits the report of analysis of the samples taken. Copies are enclosed.

As you will note, the concentration of  $^{230}\text{Th}$ , at sample point 2, on adjoining property is  $56 \text{ uCi/ml} \times 10^{-6}$ , or about 28 times the 10 CFR 20.106(d) MPC of  $2 \text{ uCi/ml} \times 10^{-6}$  for unrestricted areas. However, Condition 13 of the license permits dilution at 100 gallons per minute averaged over one year, and a final release permit of 8 times MPC. Since the incident occurred under conditions when the spill was quickly frozen in place, it will be greatly diluted by the spring thaws. The sampling to be done then may put the concentration within the MPC limit of the license.

Region IV will examine the records during the next inspection. A visit to the mill was made by Mr. Ward on March 9, in connection with a trip to Casper on other business. Photographs of the sump pond were taken which confirm its repair and good condition.

ORIGINAL SIGNED BY  
G. D. BROWN

Glen D. Brown  
Senior Radiation Specialist

CO. IV: *[initials]*

Attachments:  
Ltr dtd 3/10/71  
Area Map  
Analytical Results

8507300501 850530  
PDR FOIA  
BURR85-229 PDR