

R. W. Smith, Director
Compliance Division, SAN

February 9, 1961

G. A. Blanc, Assistant Director
Compliance Division, SAN

ORIGINAL SIGNED BY:
G. A. BLANC

**RAIL TRANSPORTATION OF RADIOACTIVE WASTE
FROM ISOTOPE SPECIALTIES TO IDAHO FALLS**

SYNOPSIS: CD:GAB

As you are aware, I witnessed the loading of a rail box car with radioactive waste by members of the Isotope Specialties Company. The loading operation took place at the S.F. Depot, Burbank, California and began on January 30th and continued through the evening of January 31st.

The actual loading procedure followed by the licensee is as follows: several large wooden boxes (about 3 x 4 x 5 feet) containing magnesium-thorium scrap and turnings were placed around the inside periphery of the box car and then several 55-gallon drums of waste and concrete were stacked into the inner void. Refer to the attached sketch for a diagram of the loading.

Approximately 30 boxes of magnesium-thorium were utilized, each containing various quantities of thorium up to a maximum of 10 pounds. The drums, which were originally packaged for sea disposal and therefore contained a mixture of waste and concrete, were labeled as containing either cesium-137, cobalt-60, or iridium-192. The external radiation levels on these drums ranged from 0.1 R/hr to 8 R/hr. There were 80 such drums.

Mr. John Vaden, Radiological Safety Officer and Mr. Kenneth Newman, General Manager of Isotope Specialties Company, were in charge of this operation. Work was being performed by Mr. Robert Boswell and two assistants. Mr. Jim Haascock, State Division of Industrial Safety; Paul Caplan, State Department of Public Health and Mr. Wm. Cadillo, Los Angeles County Health Department, observed and monitored this operation. It was noted also that personnel from the Bureau of Explosives, Los Angeles Office, the Union Pacific and Southern Pacific were in attendance.

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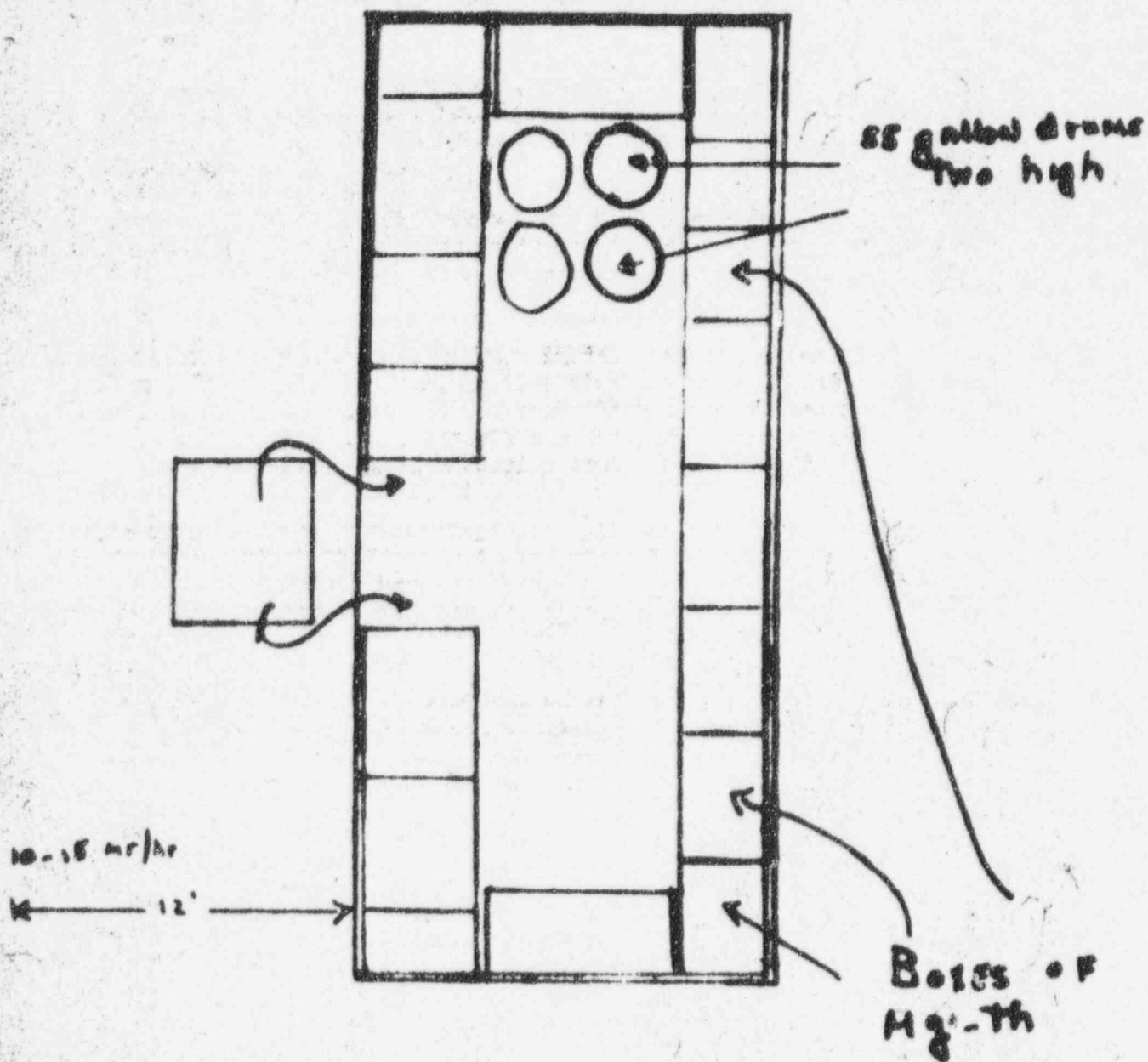
Although I did not review the document, Mr. Newman stated that he had proper authorization in writing from the IGC to make this shipment. It was noted that Mr. Lisle, Bureau of Explosives was fully aware of the quantities of material being shipped and of the radiation levels measured at 12 feet from the box car. Apparently, both the B of E and IGC were prepared to accept any external radiation level primarily because the shipment was to be couriered by an employee of Isotopes Specialties Co., George Berg.

I examined at least 20 of the boxes and about 70 of the drums and determined that they were properly labeled as required by 10 CFR 80. I noted that all employees of ISU were wearing film badges and the entire operation was monitored by Mr. Vaden.

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The operation was carried out without incident to the point of time when I left. The box car, at that time, was 90% loaded with only about eight drums and two boxes left to be placed on board. In one instance, Mr. Boswell ran one end of a fork lift through the side of a magnesium-thorium containing box and several scraps of magnesium-thorium waste were released. However, Mr. Newman quickly cleaned the box car and placed this material back into a container. It was noted also that the containers had been stored in the open yard at IGC and as a consequence had gathered rain water. Some of this liquid leaked onto the loading dock. Mr. Newman stated that radiochemical analysis showed it contained no radioactive contaminant.

X
Although we have not been so informed by the licensee, this box car apparently left Burbank either late Tuesday, January 31st or early Wednesday morning, February 1st. The car should reach Idaho Falls on Thursday or Friday, February 2 or 3, 1961. Mr. Will Johnson, Division of Compliance, IDO, has been fully informed as to the details of this shipment and its expected date of arrival.

Attachment:
Sketch



Box Car Loaded With Waste
ANNEX A

RECEIVED
JAN 20 1950

U.S. DEPT. OF JUSTICE
WASHINGTON, D. C.





victoria 9-1648

nuclear corporation of america

research chemicals division

p. o. box 431 • 170 west providencia • burbank, california

Sc														
Y														
La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu

Phillips Petroleum Company
February 21, 1961

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You state still further that we failed to obtain shipping instructions. The shipping instructions were completely outlined in the letter received from Phillips Petroleum Company dated 8/15/60 entitled, "Instructions and Procedures Pertaining to Land Burial of Solid Packaged Radioactive Wastes at the National Reactor Testing Station". We call attention to a paragraph 7 g which states: "Forward ALL CARLOAD (CL) shipments prepaid to Phillips Petroleum Company, Central Facilities Area, National Reactor Testing Station, Scoville, Idaho."

We agree to accept charges of .70¢ per cubic foot. Payment of any additional charges will be subject to examination of the nature of the charges.

Very truly yours,

Kenneth W. Newman
Kenneth W. Newman, PhD
Nuclear Corporation of American

KWN/cja
cc: J. R. Mason, AEC
J. Rydz
D. A. Thomas
M. Chanko