INVESTIGATION REPORT

A

DIVISION OF INDUSTRIAL HYGIENE
RADIOLOGICAL UNIT

1 NAME OF FIRM	2 REGISTRATION NO	3 DATE OF REGISTRATION
Olympic Division Nat. Radiator	0159	2/20/56
4 ADDRESS		
127 47th St Niagara Falls		
5 REPORT PREPARED BY	**6 REVIEWED BY**	**7 DATE REPORT PREPARED**
[illegible]		2/5/67

Mr. Schmitt [illegible] survey made on 2/7/67 regarding the dust collected from a thermo-couple [illegible]

The dust collected from the pressure [illegible] was measured by a Ray-O-Tex [illegible] The results of the readings taken of the vapor in the [illegible] were found to be below [illegible]

Also, the reading with the Ray-O-Tex was just [illegible] when taken in the same dust that was [illegible]

[illegible] the dust with a Ray-O-Tex and found no readings.

Based solely on [illegible] as the question is going on and the dust will be [illegible] a single time.

Respiration for [illegible] should be [illegible] if the point is [illegible]

UCCNHT0000396

INVESTIGATION REPORT

B

DIVISION OF INDUSTRIAL HYGIENE
RADIOLOGICAL UNIT

1 NAME OF FIRM	2 REGISTRATION NO	3 DATE OF REGISTRATION
Olin Division Olin Corp	0139	2-20-56
4 ADDRESS 137 47th St Springdale Valley		
5 REPORT PREPARED BY	6 REVIEWED BY	7 DATE REPORT PREPARED
[illegible]		2-22-67

On 2-21-67 Mr. E. Shutt, RDO, inspected a visit at the plant regarding activity of the dust collected from a smelting operation. This activity decayed to 0 in the within 4 days. The operation is scheduled as they receive the product which is from mid-Nov. Thereafter activity is.

Readings with Rayo-Tex were:

3.5 mr/hr on side of 55 gal drum of dust ½ hr after collection

1.75 " " " " " " 3 hrs " "

0 " " " " " " 1 wk " "

There was little difference with end cap off and on. Samples were taken & sent to R. Blair

Res. held for results of analysis.

SURVEY RESULTS

LR _____ 6 7 Lab Page _____

Firm _____ Install # _____ ☐ Sealed, ☐ Unsealed

# of Samples _____ ☐ Q tip, ☐ Filter, ☐ Other Nuclides _____ Survey Date 2/21/67 Radiophysicist _____

SAMPLE #	GROSS COUNTS	T (MIN)	CPM GROSS	CPM NET	ACTIVITY (pCi)	REMARKS

Count for _____ vs _____ Std, Instrument _____ Detector _____

Voltage _____ Gain _____ Date Counted _____ Radiochemist _____

Background _____ CPM, Factor _____ pCi/cpm (net)

3/31/67

SIGNATURE (UNIT REVIEW)

SIGNATURE (SECTION REVIEW)

UCCNHT0000398

SURVEY RESULTS

Lab Page _____

LR _____ 67

Install # _____ ☐ Sealed, ☐ Unsealed

Firm _____

# of Samples _____ ☐ Q tip, ☐ Filter, ☐ Other Nuclides _____ Survey Date _____ Radiophysicist _____

SAMPLE #	GROSS COUNTS	T (MIN)	CPM		ACTIVITY (pCi)	REMARKS
			GROSS	NET		

Count for _____ vs _____ Std, Instrument _____ Detector _____

Voltage _____ Gain _____ Date Counted _____ Radiochemist _____

Background _____ CPM, Factor _____ pCi/cpm (net)

SIGNATURE (UNIT REVIEW)

SIGNATURE (SECTION REVIEW)

UCCNHT0000399

DEPAR ENT OF LABOR - INTER-OFFICE MEM ANDUM

(2)

Date: April 19, 1967

To: William O'Brien
Sr. Radiophysicist

Office: Radiological Health Unit - DIH -Buffalo

From: Francis J. Bradley

Office: Administration - RHU - N.Y.

Subject: Union Carbide - Olefins

I am enclosing the results of Mr. Blais' study on the dust from the Oelfins Division of Union Carbide. The spectrum on this material which was observed 10 days after collection so far as one can tell is identical to that from natural thorium. The observation of a high reading initially after collection which then decays with a half life of approximately 3 hours can be explained, in all probability, by the separation of the daughter products of thorium-232 which in the smelting process are differentially evolved. It seems that a nuclide such as actinium-228 (mesothorium 11) with a 6 hour half life may be given off preferentially over the other nuclides in the series. This radionuclide would decay into thorium-228 and the other daughter products in the series. Then after a few days the spectrum becomes identical from that of thorium-232. Furthermore, as Mr. Blais has indicated, there can also be the evolution of thoron. One reason why I suspect that this is not the full story since after the decay of radon-220, we would not clearly see the complete thorium-232 spectrum which, according to Bob Blais, is seen. In any case, the 0.3% thorium by weight of the dust clearly indicates that it is above exemption #3 and has to be treated as radioactive material.

FJB

Principal Radiophysicist

FJB:fh
Encls.