U.S. Department of Transportation

Pipeline and Hazardous Materials Safety Administration

FEB 2 7 2018

1200 New Jersey Avenue, SE Washington, DC 20590

Mr. Terry R. Myers Director of Operations PHI Inc. 2001 Evangiline Thruway Lafayette LA 70508-0808

Reference No. 17-0114

Dear Mr. Myers:

This letter is in response to your October 5, 2017, letter requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to shipment of radioactive materials by air.

We have paraphrased and answered your questions as follows:

- Q1: You ask if drilling mud would be exempt from the HMR under the Naturally Occurring Radioactive Materials (NORM) exception in § 173.401.
- A1: The answer is no. The NORM exception in § 173.401(b)(4) includes "natural material and ores containing naturally occurring radionuclides which...have only been processed for purposes other than for extraction of the radionuclides." The term "natural material" in § 173.401(b)(4) means material existing in a form as it would otherwise be in nature, not in a form manipulated by human application.

Therefore, the exception in § 173.401(b)(4) does not apply, and the waste material is subject to the HMR if the activity concentration of the radionuclides in the waste material and the total activity in the consignment exceed the values specified in § 173.436 or values derived according to the instructions in § 173.433. See the definition of radioactive material in § 173.403.

- Q2: You ask if § 175.75(e)(3) allows for an x-ray technician and his or her assistant to accompany a piece of x-ray equipment shipped as "UN2916, Radioactive material, Type B (U) package non-fissile or fissile-excepted" by cargo-only aircraft.
- A2: The answer is no. The provisions of § 175.75(e)(3) only apply to the transportation of hazardous materials carried on a single pilot cargo-only aircraft in which no person is carried on the aircraft other than the pilot, an FAA inspector, the shipper or consignee of the material, a representative of the shipper or consignee so designated in writing, or a

person necessary for handling the material. Based on the scenario that you describe, PHMSA does not believe that the provisions of § 175.75(e)(3) would apply to the X-ray technician and his or her assistant.

- Q3: You describe a scenario in which a shipment of "UN2910, Radioactive material, excepted package-limited quantity material" consists of a limited quantity shipment of Cesium 137 in a Type A package. You ask if a shipment of Cesium 137 with an activity level of 10 μ Ci per unit consisting of 4 total units is eligible for the limited quantity provisions in §§ 173.421 and 173.425.
- A3: The answer is yes, provided the total activity in the package does not exceed 54 μ Ci and the package meets all of the requirements in §173.421.
- Q4: You ask if the shipment described in Question Q3 needs a shipping paper to specify both the radioactive material as Cesium 137 and the activity level of 40 μCi for transport by air.
- A4: The answer is yes. Since the material is shipped by aircraft, a shipping paper is required showing both the radionuclide and the activity level. (See 49 CFR § 172.202(a).)
- Q5: You ask if a shipper may use a Type A package to transport a limited quantity radioactive material in an excepted package and still classify the material as "UN2910, Radioactive material, excepted package-limited quantity of material," and if there are any restrictions in using a Type A package as an excepted package.
- A5: When shipping a limited quantity of a radioactive material in a Type A package, a shipper would be required to have a shipping paper showing both the radionuclide and the activity level as required by § 172.203(d). Alternatively, the shipper could cover up the markings indicating the package is a Type A package and not be required to have a shipping paper, provided the shipment is not by air.

I hope this information is helpful. Please contact us if we can be of further assistance.

Sincerely, Matta NIS

OV T. Glenn Foster Chief, Regulatory Review and Reinvention Branch Standards and Rulemaking Division

Dodd, Alice (PHMSA)

From: Sent: To: Subject: Attachments: Jones, Jodi CTR (PHMSA) Friday, October 13, 2017 9:34 AM Hazmat Interps FW: Letter of Interpretation PHMSA Interpretation.docx

Hi Alice,

Please submit this as a letter of interpretation. Let me know if you have any questions.

Thanks, Jodi

From: Myers, Terry [mailto:tmyers@phihelico.com] Sent: Thursday, October 05, 2017 11:59 AM To: PHMSA HM InfoCenter <<u>PHMSAHMInfoCenter@dot.gov</u>> Subject: Letter of Interpretation

Attached please find a request for interpretation, I also mailed the letter to PHH-10. Thank You

Terry R Myers Director of Operations PHI Inc. (o) 337-272-4240 (c) 337- 789-7831

Safety, Quality, Efficiency, Customer Service are our Core Values



Mr. Charles E. Betts Director, Standards and Rulemaking Division US DOT/PHMSA (PHH-10) 1200 New Jersey Avenue, SE East Building, 2nd Floor. Washington, DC 20590

Petroleum Helicopter, Incorporate (PHI) of Louisiana operates as an air carrier in the transport of passengers and cargo in support of oil and gas exploration, production and transportation in the Gulf of Mexico and International operations.

Throughout all shipments of hazardous material (HAZMAT), PHI checks for consistency in the proper identification of the HAZMAT, the proper packaging and correctly filled out shipping papers.

Periodically we are presented with several forms of radioactive material (RAM) for shipment. These shipments typically come in three forms normally occurring radioactive material (NORM), UN2916, and UN2910.

PHI request a Letter of Interpretation on the shipment of these types of RAM.

- a. Normally occurring radionuclide material (NORM)
- b. UN2916, Radioactive material, Type B(U) package non-fissile or fissile-excepted
- c. UN2910, Radioactive material, excepted package-limited quantity of material

First requested Interpretation:

Subpart I - Class 7 (Radioactive) Materials,

§173.401(a) This subpart sets forth requirements for the packaging and transportation of Class 7 (radioactive) materials by offerors and carrier subject to this subchapter. The requirements prescribed in this subpart are in addition to, not in place of, other requirements set forth in this subchapter for Class 7 (radioactive) materials and those of the Nuclear regulatory Commission in 10 CFR part 71.

(b) This subpart does not apply to:

(4) Natural materials and ores containing naturally containing naturally occurring radionuclides which are either in their natural state, or which have only been processed for purposes other than for extraction of the radionuclides, provided....

Based on our reading of this regulation (§173.401), naturally occurring radionuclide materials (NORM) occurring in drilling mud would not be classified as a hazardous material and as such are not subject to the HMRs.

Furthermore, as NORM is not a HAZMAT it does not require shipping paperwork as specified in Subpart C –Shipping Papers §172.200 and may be transported in a passenger carry aircraft.

Second requested Interpretation:

The second request comes from the shipment of UN2916, Radioactive material, Type B (U) package *non-fissile or fissile-excepted*. This shipment is in the form of x-ray equipment used offshore on the oil and gas platforms. PHI is currently accepting shipments of UN2916 and restricting the transport to Cargo Only aircraft. The interpretation request arises from the following:

§175.75(e)(3)(i) No person is carried on the aircraft other than the pilot, an FAA inspector, the shipper or consignee of the material, a representative of the shipper or consignee so designated in writing, or a person necessary for handling the material;

Is it within the interpretation of this regulation to allow the x-ray technician and his/her assistant to accompany the shipment on the Cargo Only aircraft?

Third requested Interpretation:

The third request comes in several parts and stems from the shipment of **UN2910**, **Radioactive material**, **excepted package-limited quantity of material**. This shipment consist of Cesium 137 in a limited quantity being shipped in a Type A package. The shipper's declaration specifies Passenger and Cargo Aircraft in addition to the following;

NATURE AND QUANTITY OF DANGEROUS GOODS						
Dangerous Goods Identification						
UN of ID No.	Proper Shipping Name	Class or Division (Subsidiary Risk)	Packing Group	Quantity and Type of Packing	Packing Instruc- tions	Authorization
UN2910	Radioactive Material, Excepted Package-Limited Quantity of Material	7	N/A	1 Quart of Radioactive Material in metal can enclosed in fiberboard box Total Weight: (4.54 kilograms)		

First part of this interpretation;

TRICAN of Calgary, Alberta Canada publishes an MSDS for Cesium 137. As specified on this MSDS, Cesium 137s proper Shipping Name/Description is RADIOACTIVE MATERIAL TYPE A PACKAGE, SPECIAL FORM, UN3332

§173.421 Excepted packages for limited quantities of Class 7 (radioactive) materials.

A Class 7 (radioactive) material with an activity per package which does not exceed the limited quantity package limits specified in Table 4 in §173.425, and its packaging, are excepted from the requirements in this subchapter for specification packaging, marking (except for the UN identification number marking requirement described in §173.422(a)), labeling, and if not a hazardous waste, shipping papers, and the requirements of this subpart if;

The first part, can Cesium 137 with an activity level of 10μ Ci per unit and consisting of four units (total activity 40μ Ci) meet the requirements of Limited quantity requirements of §173.425? According to our reading and understanding, Special Form has a limit of 54μ Ci for limited quantity.

Second part, if this shipment meets the requirements for Limited Quantity as specified in §173.421 and 425, does the UN2910 Declaration form need to specify both the RAM as Cesium 137 and activity level of 40μ Ci for transport by air?

The third part of this request is revolves around using a Type A shipping package for the transport of UN2910, Radioactive material, excepted package...

Can a shipper present for transport a Type A package containing a limited quantity of RAM and still classify it as UN2910? If so, what must be indicated on the shipper's declaration paperwork? Are there any restrictions in using a Type A package as an excepted package?

Sincerely,

Jun R. Myers

Director of Operations PHI, Inc.