



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

OCT 24 2019

Charles Denny

Duke Energy

410 S. Wilmington Street, NC15

Raleigh, NC 27601

Reference No. 19-0084

Dear Mr. Denny:

This letter is in response to your June 19, 2019, email requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to lithium metal batteries contained in equipment. Specifically, you provide the following scenario and ask whether the lithium battery mark requirement applies to your packages:

- You state Duke Energy receives smart grid electric meters that each contain a single lithium metal battery with a content of ≤ 2 grams of lithium per battery;
- Each smart grid electric meter containing a single lithium metal battery will be classified as “UN3091, Lithium metal batteries contained in equipment, 9”;
- Each consignment includes individual non-specification packages sent from the manufacturer containing four smart grid electric meters per box, with 30 of these non-specification packages shrink-wrapped together to a pallet, for a total of 120 smart grid electric meters per pallet; and
- You state the shipments of these smart grid electric meters will be transported by highway.

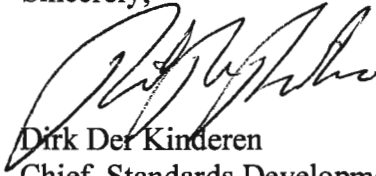
We have paraphrased and answered your questions as follows:

- Q1. You ask whether each package would be required to be marked with the lithium battery mark.
- A1. The answer is yes. Based on the information you provided, each package must display the lithium battery mark as required in § 173.185(c)(3) since there are more than two packages in the consignment.
- Q2. You inquire about the marking requirements if the manufacturer decides to ship all 120-smart grid electric meters in one non-specification rigid outer package (rather than four smart grid electric meters per box).

A2. Based on the information you provided, the outer package containing the 120 electric meters must display the lithium battery mark (see § 173.185(c)(3)) as the package contains more than two lithium batteries contained in equipment.

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Dirk Der Kinderen', written in a cursive style.

Dirk Der Kinderen
Chief, Standards Development Branch
Standards and Rulemaking Division

Baker

19-0084

Dodd, Alice (PHMSA)

From: INFOCNTR (PHMSA)
Sent: Wednesday, June 19, 2019 12:28 PM
To: Hazmat Interps
Subject: FW: Lithium Metal Battery in Electric Meters

Hello Alice and Ikeya,

Below is a request for letter of interpretation.

Thanks,

Jonathon

From: Denny, Chuck [mailto:Chuck.Denny@duke-energy.com]
Sent: Wednesday, June 19, 2019 10:10 AM
To: PHMSA HM InfoCenter <PHMSAHMInfoCenter@dot.gov>
Cc: Denny, Chuck <Chuck.Denny@duke-energy.com>
Subject: Lithium Metal Battery in Electric Meters

PHMSA,

We receive electric meters that each contain a single lithium metal battery (not a button cell battery) which has a content of ≤ 2 g lithium. The smart grid meters would be considered "lithium metal batteries contained in equipment." Individual non-specification packages from the manufacturer contain four electric meters per box. 30 non-specification boxes with the electric meters are shrink-wrapped to a pallet. Each pallet contains a total of 120 meters (4x30). Shipments from the manufacturer are made by highway.

- Due to there being over 2 packages per consignment (30 boxes) even if there is only one battery per box, is it correct that each box would be required to be marked with the lithium battery hazard communication marking identified in 49 CFR 173.185(c)(3) when shipped by highway?
- If the manufacturer decides to ship the 120 meters in one non-specification package (rigid outer container) rather than 4 meters per box, what are the marking requirements for the one package when shipped by highway? Each of the 120 electric meters would contain one lithium metal battery (≤ 2 g lithium per battery) and there would only be one package for the consignment.

Thanks in advance for responding to these questions.



Thanks,
Charles (Chuck) Denny, CHMM
Duke Energy Corporation
DOT Hazmat and Waste SME
Environmental Services
Environmental Programs

410 S. Wilmington Street, NC15
Raleigh, NC 27601
919-546-6716 (Office)
980-312-4232 (Cell)
919-546-3669 (Fax)