



"The Tungsten Electrode Experts"

13 February 2015

RE: US NRC (Xu, S. correspondence of 26 January 2015) request for additional information per 10 CFR 40.52

- I. Description of Material Source
 - a. Origin
 - b. Packaging
- II. Product form (individual)
 - a. Packaging
 - b. Identification
- III. Warehouse storage
 - a. Location
- IV. Packaging components
 - a. Cardboard box type
 - b. Labeling
 - c. Comments on dimensions and weight
- V. Radiological considerations
 - a. Test equipment
 - b. Calibration status
- VI. Documentation
 - a. MSDS
 - b. Certificates of Conformance

1/5

- I. Description of Material Source
 - a. All material containing thorium oxide (Th₂O₂) imported by Diamond Ground Products, Inc. comes from either Germany or China. For all material received, thorium does not exist in the free state but as an alloying element in a tungsten base. Please refer to attachment AWS/ANSI document A5.12M_2009 (PDF) for reference.
 - b. Typical packaging as received from manufacture is shown with UN 2909 identification (20" x 17" x 7", source: GERMANY):



- II. Product form (individual) "What Diamond Ground, Inc. distributes"
 - a. Individual TIG welding electrode packages measure 8" x 2" x ¼" as shown in attachment TIG_PACKAGING (PDF).
 - b. Document TIG_PACKAGING(PDF) shows typical form commonly shipped to customer. Page 1: Left box/package is Wolfram (German sourced) material for contracts requiring Defense Federal Acquisition Regulations compliance (15%). Middle box/package marked RADNOR is China sourced and labeled specifically according to customer's request and branding (Airgas / RADNOR) (15%). Right box/package marked Diamond Ground represents the majority or all shipments bearing company labeling (70%). Page 2: Back of box with warning labels.
- III. Warehouse storage
 - a. Controlled (locked with limited access) warehouse storage shown (two leftmost and far right shelves are nonradioactive (non-thorium oxide) material):

2/5

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- IV. Packaging components (shipping)
- a. Double wall cardboard boxes and Styrofoam peanut buffer material is used when packaging TIG welding electrode boxes (Section II. Above)



(Un-assembled)

(Completed or ready-to-ship)

(Top, 12" x 6" x 6", Bottom, 14" x 10" x 8")

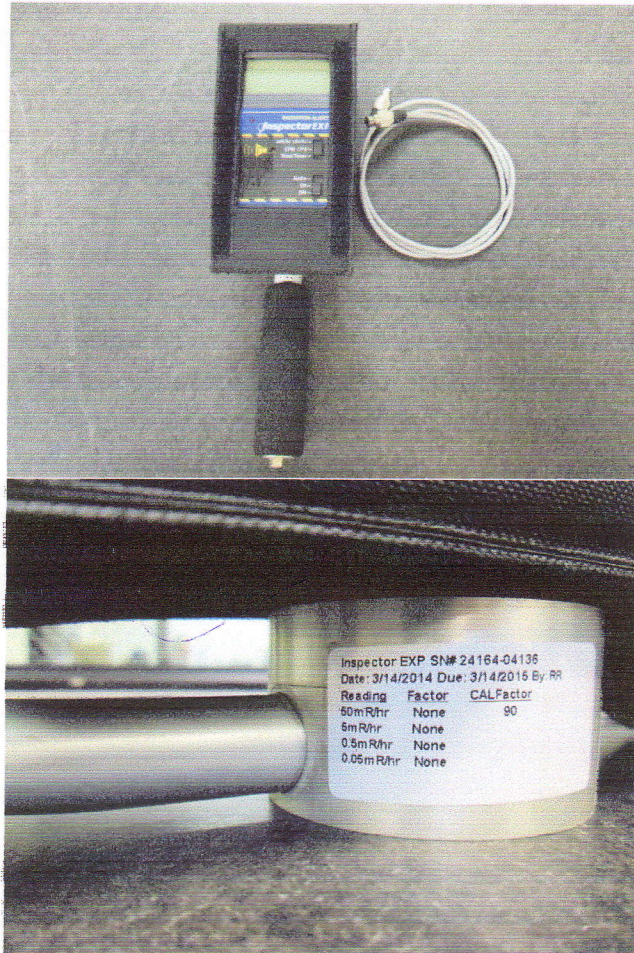
- b. Labeling identifying UN 2909 is used for all packages containing thorium material:

3/5



- c. Depending on TIG electrode diameter and density, weight per cardboard box will vary but all radiological measurements will be less than maximum DOT threshold of .5 mR/hr due to established packaging guidelines developed internally.
- V. Radiological considerations
 - a. All out going packages is scanned at surface for DOT max emission compliance .5mR/hr. Device used is a SE International Radiation Alert Inspector EXP+.

4/5



- b. Device is currently calibrated and due for calibration on 03/14/2015 (see photo above).
- VI. Documentation
- a. All material is accompanied by MSDS documentation from both Diamond Ground products, Inc. and the source. Refer to DGP-MSDS-TIG_N (PDF) and DGP-MSDS_TIG-W (PDF) for reference.
- b. All material shipped is accompanied by Certificates of Conformance identifying material type. Refer to DGP-CoC_DFAR (DFAR German source requirement) and DGP_CoC_STD (PDF) for all others as reference.

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5/5