



**International Isotopes Inc.**

30-35486

July 25, 2012

ATTN: Document Control Desk,  
Director,  
Division of Spent Fuel Storage and Transportation,  
Office of Nuclear Material Safety and Safeguards,  
U.S. Nuclear Regulatory  
Commission, Washington, DC 20555-0001

Subject: Request NRC Authorization to utilize DOT Special Permit 14728

Dear Director,

International Isotopes, Inc. (INIS) is requesting authorization to utilize DOT Special Permit 14728 to transport Co-60 targets from the Department of Energy's Idaho National Laboratory Advanced Test Reactor (ATR) to the INIS facility located in Idaho Falls, Idaho. This special permit was renewed by the US Department of Transportation on July 12, 2012 with an expiration of December 31, 2012 and includes 6 remaining uses.

This special permit allows us to continue our Co-60 source manufacturing operations until we receive delivery of an AOS-100A and approval by the DOE to utilize the package in the ATR Canal. We anticipate delivery of the replacement package in February 2013. The schedule to replace the 20WC-5/2R configuration authorized under DOT SP 14728 is as follows:

Schedule of events to obtain dedicated Model AOS-100A	
Activity	Date
Begin manufacture of Model AOS-100	August 2012
Receive AOS-100 handling and operations procedures from AOS.	September 2012
Forward AOS-100 handling and operations procedures to DOE ATR to support evaluation	September 2012
DOE review and approve Model AOS-100 for use in ATR Canal.	Sept. 2012 – Feb. 2013
Conduct AOS required training on the use of the AOS-100	October 15-18, 2012
Deliver dedicated Model AOS-100A-S for use in ATR canal.	February 2013

4137 Commerce Circle, Idaho Falls, Idaho 83401  
Phone: 208-524-5300, 800-699-3108 Fax: 208-424-1411  
Website: www.intisoid.com

NM5524

The earliest a Co-60 target transfer could occur in the August – September time frame. This schedule is highly dependent on the reactor outage schedule and availability of ATR personnel to support the transfer and shipment of the target.

A copy of the special permit is attached. Should you have any questions, please contact me by phone at (208) 524-5300 or by email at [jjmiller@intisoid.com](mailto:jjmiller@intisoid.com).

Sincerely,

A handwritten signature in black ink, appearing to read 'John J. Miller', with a long horizontal flourish extending to the right.

John J. Miller, CHP  
Radiation Safety Officer

JJM-2012-24

cc.

Mr. Pierre Saverot, via email



U.S. Department  
of Transportation

**Pipeline and Hazardous  
Materials Safety Administration**

East Building, PHH - 30  
1200 New Jersey Avenue, Southeast  
Washington, D.C. 20590

SPECIAL PERMIT AUTHORIZATION

DOT-SP 14728

**EXPIRATION DATE: December 31, 2012**

GRANTEE: International Isotopes Inc.  
Idaho Falls, ID

In response to your April 2, 2012 application for renewal of DOT-SP 14728, the grantee status to DOT-SP 14728 for International Isotopes Inc. is hereby renewed in accordance with 49 CFR § 107.109.

Copies of this special permit may be obtained by accessing the Office of Hazardous Materials Safety Homepage at [http://hazmat.dot.gov/sp\\_app/special\\_permits/spec\\_perm\\_index.htm](http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm). The most recent revision of the special permit supersedes all previous revisions of the special permit. Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

If you have questions regarding this action please call the Office of Hazardous Materials Special Permits and Approvals at (202)366-4535.

Issued in Washington D.C. on **July 12, 2012**.

for Dr. Magdy El-Sibaie  
Associate Administrator for Hazardous Materials Safety

January 6, 2012



U.S. Department  
of Transportation

East Building, PHH-30  
1200 New Jersey Avenue S.E.  
Washington, D.C. 20590

**Pipeline and Hazardous  
Materials Safety Administration**

DOT-SP 14728  
(FOURTH REVISION)

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: (See individual authorization letter)
2. PURPOSE AND LIMITATION:
  - a. This special permit authorizes the transportation in commerce of specified radioactive materials in a designated DOT specification 20WC-5 packaging after October 1, 2008, in order to allow the grantee a transition period to performance oriented package use. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.
  - b. The safety analyses performed in the development of this special permit only considered the hazards and risks associated with the transportation in commerce.
  - c. Unless otherwise stated herein, this special permit consists of the special permit authorization letter issued to the grantee together with this document.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.416(c) insofar as the 20WC-5 packaging and radioactive contents specified herein are authorized for shipments exceeding an A<sub>2</sub> quantity of normal form radioactive material, after October 1, 2008.
5. BASIS: This special permit is based on the application of International Isotopes Inc. dated October 7, 2011 and the additional information dated January 3, 2012, submitted in accordance with § 107.109 and the public proceeding thereon.

January 6, 2012

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Radioactive material, transported under special arrangement, <i>non fissile or fissile-excepted</i>	7	UN2919	N/A

7. SAFETY CONTROL MEASURES:a. PACKAGING -

(i) This special permit is limited to DOT 20WC-5 Specification Packaging Serial No. 2228 containing DOT Specification 2R Serial No. INIS-2R-1 and the tungsten/lead shield insert referred to as the INIS-2 Isotope Transfer Container with inner tungsten sleeve (single target use) or without inner tungsten sleeve (2 or 3 target use).

(ii) The packages must be in conformance with all aspects of the requirements of 49 CFR Subchapter C in effect on October 1, 2003.

b. OPERATIONAL CONTROLS -

(i) The package/contents combination and consignments must be as described in the application of International Isotopes, Inc. dated June 23, 2008 and the additional technical information dated August 6, 2008, November 19, 2010, October 7, 2011, and January 3, 2012.

(ii) This special permit authorizes up to seven (7) exclusive use transports during calendar year 2012 from the U.S. Department of Energy's Advanced Test Reactor located in Scoville, ID to the International Isotopes, Inc. facility in Idaho Falls, ID.

(iii) This special permit authorizes radioactive material package contents of 1 mm x 1 mm pellets of solid metal, normal form Cobalt-60 housed in either 1, 2, or 3 seal welded and leak checked aluminum irradiation targets.

**January 6, 2012**

(iv) Each package may contain no more than 370 TBq (10,000 Ci) of Cobalt-60 when 1 target is transported. Each package may contain no more than 230 TBq (6,216 Ci) of Cobalt-60 when 2 or 3 targets are transported.

(v) The use, repair, and maintenance of the specification packages must be conducted in accordance with a current U.S. Nuclear Regulatory Commission Quality Assurance Program Approval.

(vi) Inspections and shipments must be conducted in accordance with the current revision of the following documents, as applicable:

- 1) OP-SRC-003, Loading and Unloading the INIS - 2 Isotope Transfer Container at the ATR Canal
- 2) OP-SRC-010, Unloading and Loading 20WC5

(vii) The State of Idaho must be notified in advance concerning the details of each shipment.

(viii) Transport must be planned during daylight hours and be scheduled to avoid peak traffic times.

(ix) Transport must be planned during favorable weather conditions.

(x) Transports must be escorted in accordance with the Idaho Administrative Code.

(xi) Escort and transport vehicle speed must not exceed posted speed limits or 50 miles per hour, whichever is lower.

(xii) As replacement packages become available that are permitted for use in accordance with 49 CFR § 173.416(a), they must be used to the extent practical in lieu of the specification package described herein.

c. COMMUNICATIONS -

(i) Each shipping paper issued in connection with a shipment made under this special permit must bear the notation "DOT-SP 14728" and be located so that the notation is clearly associated with the description to which the special permit applies.

(ii) The outside of each package used under the terms of this special permit must be plainly and durably marked "DOT-SP 14728".

8. SPECIAL PROVISIONS:

a. A person who is not a holder of this special permit who receives a package covered by this special permit may reoffer it for transportation provided no modification or change is made to the package or its contents and it is reoffered for transportation in conformance with this special permit and the HMR.

b. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.

c. A quarterly update of package transition activities (actual vs. scheduled milestones for design, testing, application, certification, production, and completion) must be provided to the Office of Hazardous Materials Approvals and Permits by January 1, April 1, July 1, and October 1 of each year this special permit is in effect.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor Vehicle.

10. MODAL REQUIREMENTS: Motor vehicle transport must be consigned as exclusive use. A current copy of this special permit must be carried aboard each motor vehicle used to transport packages covered by this special permit.

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:

o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.

o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.

o Registration required by § 107.601 et seq., when applicable.

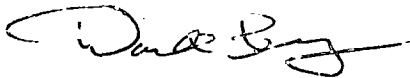
Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)—"The Hazardous Materials Safety and Security Reauthorization Act of 2005" (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term "exemption" to "special permit" and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR 171.15 Immediate notice of certain hazardous materials incidents, and 171.16 Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:



for Dr. Magdy El-Sibaie  
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Material Safety Administration, U.S. Department of Transportation, East Building PHH-30, 1200 New Jersey Avenue, Southeast, Washington, D.C. 20590.



**January 6, 2012**

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at [http://hazmat.dot.gov/sp\\_app/special\\_permits/spec\\_perm\\_index.htm](http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm). Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: JW