U.S. Department
of Transportation

**Research and
Special Programs
Administration**

400 Seventh Street, S.W.
Washington, D.C. 20590

JAN 26 1999

DOT-E 12097

**EXPIRATION DATE: December 31, 1999**

(FOR RENEWAL, SEE 49 CFR SECTION 107.109)

1. GRANTEE: Qual-X Inc.
   Powell, Ohio

2. PURPOSE AND LIMITATION:

   a. This exemption authorizes the one-time transportation in commerce of a Type A quantity of radioactive gas (approximately 2 Curies of Krypton-85 in a mixture with nitrogen) in a non-DOT specification packaging (Trio-Tech 40010 activation console). This exemption provides no relief from any Hazardous Materials Regulation (HMR) other than as specifically stated herein.

   b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce.

3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.

4. REGULATIONS FROM WHICH EXEMPTED:

   a. The definition for "Type A package" of 49 CFR § 173.403 in that packages which have not been tested against the provisions of §§ 173.410, 173.412, 173.465, and 173.466 are authorized as Type A packages.

   b. The performance test requirements for Type A packages of 49 CFR § 173.412 in that packages which have not been tested against these provisions are authorized.

   c. 49 CFR §173.415 in that non-authorized packagings are allowed for transportation as a Type A packages.

d. 49 CFR 172.310 in that non-authorized packagings are marked as a "TYPE A" packagings.

5. BASIS: This exemption is based on the application of Qual-X, Inc. dated June 11, 1998 and supplemental information dated October 28, 1998, submitted in accordance with 49 CFR 107.105 and the public proceeding thereon.

6. HAZARDOUS MATERIALS (49 CFR 172.101):

| Proper Shipping Name/ Hazardous Materials Description | Hazard Class/ Division | Identi-fication Number | Packing Group |
|---|---|---|---|
| Radioactive material, n.o.s. | 7 | UN 2982 | N/A |

For the N.O.S entries above, the requirements of 49 CFR 172.203(k) must be met

7. SAFETY CONTROL MEASURES:

a. PACKAGING -

(1) The radioactive gas transported under this exemption must be at a maximum pressure of 40 psia and be contained in a non-DOT specification cylinder manufactured and stamped in accordance with the ASME Code and rated at 2000 psi. This cylinder must be contained within a lead shielded assembly which is an integral part of a Trio-Tech 40010 activation console.

(2) The packaging (Trio-Tech 40010 activation console) and any sensitive inner components must be blocked and braced to prevent shifting during transport.

b. OPERATIONAL CONTROLS -

(1) The Trio-Tech 40010 activation console will be shipped in a dedicated motor vehicle which will be placarded and consigned as exclusive use.

(2) All controls, provisions and routes specified in Qual-X, Inc. application and technical data must be followed.

8. SPECIAL PROVISIONS:

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

b. MARKING - The package must be plainly and durably marked "Radioactive material, n.o.s, UN 2982", "TYPE A", and "DOT-E 12097".

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle

10. MODAL REQUIREMENTS: A copy of this exemption must be carried aboard the motor vehicle used to transport the package covered by this exemption.

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

- All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
- Registration required by 49 CFR 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in 49 CFR 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by 49 CFR 172.700 through 172.704.

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

JAN 26 1999

12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (49 CFR 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must inform the AAHMS, in writing, of any incident involving the package and shipments made under the terms of this exemption.

Issued at Washington, D.C.:

JAN 26 1999

Alan I. Roberts
Associate Administrator for
Hazardous Materials Safety

(DATE)

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590. Attention: DHM-31.

The original of this exemption is on file at the above office. Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

Copies of exemptions may be obtained from the AAHMS, U.S. Department of Transportation, 400 7th Street, Washington, DC 20590-0001, Attention: Docket Section, 202-366-5046.

Dist: FHWA
PO: AWC