December 23, 2009

U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety Administration**

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

DOT-SP 10741
(TWELFTH REVISION)

EXPIRATION DATE: September 30, 2013

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Northern Natural Gas Company
Houston, TX

2. PURPOSE AND LIMITATION:

a. This special permit authorizes the use of certain non-DOT specification cylinders mounted securely on flat bed trailers for the transportation in commerce of compressed natural gas. 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 development of this special permit only considered the hazards and risks associated with transportation in commerce.

c. No party status will be granted to this special permit.

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

4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 173.301(h), and 173.302a(a)(4) and 180.205 in that non-DOT specification packaging is not authorized, except as specified herein.

5. BASIS: This special permit is based on the application of Northern Natural Gas Company dated September 28, 2009, submitted in accordance with § 107.109.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Materials Description			
Proper Shipping Name	**Hazard Class/ Division**	**Identi- fication Number**	**Packing Group**
Compressed Gas, flammable, n.o.s. *(contains compressed natural gas)*	2.1	UN1954	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Prescribed packagings are certain non-DOT specification compressed gas cylinders designed, constructed, and tested in accordance with 49 CFR Part 192, except as modified by this special permit. The description of the cylinders is as follows:

(1) The cylinders, also known as "volume bottles" are securely mounted on flat bed trailers as per drawings in Appendix A of Northern's application. A trailer may have from three to six volume bottles.

(2) The volume bottles are of 30 inches outside diameter (nominal) x 0.5 inch thick and of lengths ranging from 33 to 40 feet; with a marked service pressure of 867 psig; and manifolded in accordance with § 173.301(g).

(3) The volume bottles and associated piping and valves meet requirements in 49 CFR Part 192 for Class 3 locations, and the provisions of this special permit:

(i) Each volume bottle is of welded construction. The material of construction is API 5LX pipeline steel sections having a specified minimum yield strength (SMYS) not less than 52,000 psi. The end closures are made in accordance with ANSI B16.9 or MSS-SP-75.

(ii) Each circumferential butt weld joint must have been nondestructively tested in accordance with § 192.243, and the records of the test

results must be maintained at each facility from which the trailers are charged with CNG.

(iii) Fittings, such as end caps, nozzles and valve mountings, on each volume bottle must conform to applicable pipeline standards, and must be at least as strong as the pipeline material used.

(iv) Each volume bottle must be fitted with a pressure relief device valve designed to operate at a set pressure not less than 954 psig but not more than 1000 psig.

(v) All valve assemblies must be protected by means of the rollover protection structure shown in Northern's drawing titled "Planned Rollover Protection for Volume Bottle Piping: So. Sioux City Trailer Shown" dated 1-6-92, on file with the Office of Hazardous Materials Special Permits and Approvals (OHMSPA). If any modification is made to this design, a stress analysis to determine the adequacy of the rollover protection must be approved by OHMSPA and be on file with OHMSPA prior to the modification of the overturn device.

(4) Internal corrosion control:

(i) The composition of the gas must be the same as that specified in Northern's application Appendix G on file with OHMSPA. A volume bottle may not be charged with a compressed natural gas having a water content greater than 6 pounds per million standard cubic feet and/or a hydrogen sulphide of 0.5 grains per 100 standard cubic feet of gas volume.

(ii) Corrosive gas may not be transported under this special permit unless it has been investigated that the corrosive effect of the gas on the volume bottle is not detrimental to its integrity.

(iii) Drain tube: Each discharge end of the volume bottle must be equipped with a bottom drain tube, for semi-annual draining of accumulated water.

(5) Internal corrosion monitoring: Ultrasonic inspection of bottom along the length of each volume bottle must be performed on an annual basis to ensure that any metal loss, or stress corrosion cracking will not be detrimental to its integrity.

(6) Atmospheric corrosion control and monitoring: Must be in accordance with requirements in § 192.479 except that each volume bottle must be reevaluated on annual basis and remedial action must be taken when necessary.

(7) Any volume bottle that failed any of the prescribed tests may not be used under this special permit.

(8) Authorized Trailers:

(i) Only the CNG trailers specified by Model number and serial number specified in APPENDIX B-R1 to this special permit are authorized.

(ii) The use of these trailers is limited to providing a temporary natural gas source at a Northern's customer facility when an emergency such as pipeline service interruption arises. Northern's customers are natural gas distribution companies located in Class 1, Class 2, or Class 3 location defined in § 192.5.

b. TESTING:

(1) Prior to use under this special permit, each volume bottle must be hydrostatically tested in accordance with 49 CFR Part 192 Subpart J to at least 1.5 times the marked service pressure, unless a hydrostatic test was performed after March 1, 1993. The test pressure must be maintained for 8 hours. Any evidence of leak, distortion or defects that may be detrimental to the integrity of the volume bottle must be corrected prior to shipment.

(2) As an alternate to hydrostatic testing specified in paragraph (1) above, each volume bottle may be pneumatically tested to 1.25 times the service pressure. Suitable safeguards must be provided to

protect personnel and property, should there be a failure during the test. Each volume bottle must be pressurized with dry nitrogen gas or natural gas. The tank must be pressurized gradually to one-half of the test pressure. Thereafter, the pressure must be in steps of approximately one tenth of the test pressure until the required test pressure has been reached. The test pressure must be held for at least 8 hours. The pressure must then be reduced to about service pressure, and maintained at that pressure when the entire volume bottle is inspected for leaks. Any evidence of leak, distortion or defects that may be detrimental to the integrity of the volume bottle must be corrected prior to shipment.

(3) Each volume bottle must be retested and re-qualified as above once every year as specified in paragraphs (1) and (2) above.

(4) Any volume bottle that failed the annual proof pressure testing prescribed above shall not be used under this special permit.

(5) No repair by field welding on a volume bottle is permitted.

8. SPECIAL PROVISIONS:

a. MARKING

(1) Each volume bottle must be marked: "DOT-SP 10741 (CNG)".

(2) Each volume bottle passing a periodic inspection and re-qualification under the provisions of this special permit must be marked as specified herein:

(i) Each volume bottle must be durably and legible marked with the date (month and year) and the type of test performed.

(ii) The marking must be visible near the rear end of the volume bottle, at least 1 inch high.

(iii) The type of test may be abbreviated as follows: V for external visual inspection and test, P for pressure test, and T for thickness testing. For example, the markings "05-94 P, V,

T" will indicate that in May 1994, the volume bottle passed the required pressure test, external and internal visual and thickness tests.

(iv) Each motor vehicle must be plainly marked "DOT-E 10741" on both sides of the roll-over protection frame, in letters and numerals at least 2 inches high on a contrasting background.

b. The owner of the volume bottles or his authorized agent must retain record of all test results and the name and the address of the retest facility. The records must be made available to a DOT official or a DOT authorized agent when requested.

c. Shippers using the packaging covered by this special permit must comply with all provisions of this special permit, and all other applicable requirements contained in 49 CFR Parts 171-180.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle.

10. MODAL REQUIREMENTS: 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*:

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

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
Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: sln

APPENDIX B-R2

Authorized Trailers under DOT-SP 10741

(1) Trailer Transcraft Model TL-2000H F2 (45'x102"), serial number 1TTF4520891087313 containing volume bottles with serial numbers 06-78-A-1, 06-78-A-2, 06-78-A-3, and 06-78-A-4, operating from NORHTERN'S Farmington, Minnesota facility.

(2) Trailer Model HPL-41T, serial number 1DW1B4120ES445701, containing volume bottles with serial numbers 04-78-A-1, 04-78-A-2, 04-78-A-3, 04-78-A-4, 04-78-A-5, and 04-78-A-6, operating from NORTHERN'S North Branch, Minnesota facility.

(3) Trailer Lufkin Model FB-EP-39 serial number 1L01B422081, containing volume bottles with serial numbers 18-79-A-1, 18-79-A-2, 18-79-A-3, 18-97-B-1, and 18-97-B-2, operating from NORTHERN'S Ogden, Iowa facility.

(4) Trailer Transcraft Model TL-2000H (45'x102"), serial number 1TT4520X91087314 containing volume bottles with serial numbers 29-80-A-1, 29-80-A-2, 29-80-A-3, 29-00-B-1 and 29-00-B-2 operating from NORTHERN'S Palmyra, NE facility.

(5) Trailer model FB-EB-39, serial number FHV329303 containing volume bottles with serial numbers 32-80-A-1, 32-80-A-2, 32-80-A-3, 32-87-B-1, and 32-87-B-2 operating from NORTHERN'S South Sioux City, Nebraska facility.

(6) Trailer model FL-II, serial number 1L01B422671164962 containing volume bottles with serial numbers 22-80-A-1, 22-80-A-2, 22-80-A-3, 22-96-B-1 and 22-96-B-2 operating from NORTHERN'S Waterloo, Iowa facility.