1. **GRANTEE:** MEMC Pasadena, Inc.
   Pasadena, TX

2. **PURPOSE AND LIMITATION:**
   
   a. This special permit authorizes the transportation in commerce of silicon tetrafluoride, Division 2.3, in DOT Specification 3AAX cylinders subject to the limitations specified herein. 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. Party status will not 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 § 173.40(e) in that cylinders may not be manifold or connected, except as specified herein.

5. **BASIS:** This special permit is based on MEMC Pasadena, Incorporated's application dated January 26, 2015, submitted in accordance with § 107.109, and additional information dated June 15, 2015.
6. **HAZARDOUS MATERIALS (49 CFR § 172.101):**

<table>
<thead>
<tr>
<th>Proper Shipping Name</th>
<th>Hazard Class/Division</th>
<th>Identification Number</th>
<th>Packing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silicon tetrafluoride</td>
<td>2.3</td>
<td>UN1859</td>
<td>NA, Hazard Zone B</td>
</tr>
</tbody>
</table>

7. **SAFETY CONTROL MEASURES:**

a. **PACKAGING** - Packaging prescribed is a DOT Specification 3AAX cylinder manufactured from 4130-X alloy steel with minimum service pressure of 2200 psi. The cylinders are arranged in ISO modules as shown on FIBA Drawing Number SK-05-SiF4-MEMC-01 and may be manifolded in accordance with MEMC Drawing Number 02-20-92-00-ME-02 Rev. 8 on file with the Office of Hazardous Materials Special Permits and Approvals (OHMSPA).

b. **TESTING** - Each cylinder must be reinspected and hydrostatically retested in accordance with §§ 180.205 and 180.209 as prescribed for DOT 3AAX cylinders.

c. **OPERATIONAL CONTROLS** - After filling the cylinders and prior to each shipment, MEMC must:

   (1) ensure that each cylinder’s shut-off valve is in the closed position;

   (2) purge the manifold and related piping (pigtails) with nitrogen or another inert gas; and

   (3) ensure that the manifold master valve is closed and tightly plugged upon completion of purging.

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 modifications or changes are made to the package 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. **MARKING** - Each cylinder must be marked "DOT-SP 9408".

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 cylinders 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. Section 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 the special permit has expired or is otherwise no longer in effect.

“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


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: MT/kah