

**Table 9.17.: Other Extinguishing Systems Requirements**

ITEMS	REQUIREMENTS	EPA COMMENTS
<b>1. CARBON DIOXIDE</b>	<ul style="list-style-type: none"> <li>i. Design, Calculations, Design Concentrations, Materials, Installation, Testing, Inspection and maintenance shall be as per the manufacturer's instructions and listed manual.</li> <li>ii. All the material and design manuals shall be listed and approved by Civil Defence.</li> </ul>	<ul style="list-style-type: none"> <li>iii. System design must adhere to OSHA 1910.162(b)(5) and NFPA Standard 12</li> </ul>
<b>2. POWDERED AEROSOLS, D</b>	<ul style="list-style-type: none"> <li>i. Design, Calculations, Design Concentrations, Materials, Installation, Testing, Inspection and maintenance shall be as per NFPA 2010 and the manufacturer's instructions and listed manual.</li> <li>ii. All the material and design manual shall be listed and approved by Civil Defence.</li> <li>iii. All system components shall be located to maintain no less than minimum clearances from energized electrical parts in accordance with ANSI C2, NFPA 70 and 29 CFR 1910, subpart S.</li> <li>iv. Aerosol shall not be installed in the following locations where               <ul style="list-style-type: none"> <li>a. Deep-seated fires in Class A materials</li> <li>b. Certain chemicals or mixtures of chemicals, such as cellulose nitrate and gunpowder, that are capable of rapid oxidation in the absence of air.</li> <li>c. Reactive metals such as lithium, sodium, potassium, magnesium, titanium, zirconium, uranium, and plutonium.</li> <li>d. Metal hydrides</li> <li>e. Chemicals capable of undergoing autothermal decomposition, such as certain organic peroxides and hydrazine.</li> </ul> </li> <li>v. Condensed aerosol generators shall not be used to protect classified hazards or similar spaces containing flammable liquids or dusts that can be present in explosive air-fuel mixtures unless the generators are specifically listed for use in those environments.</li> </ul>	<ul style="list-style-type: none"> <li>vi. Use of this agent should be in accordance with the safety guidelines in the latest edition of the NFPA 2010 standard for Aerosol Extinguishing Systems.</li> <li>vii. For establishments manufacturing the agent or filling, installing, or servicing containers or systems to be used in total flooding applications, EPA recommends the following: adequate ventilation should be in place to reduce airborne exposure to constituents of agent; an eye wash fountain and quick drench facility should be close to the production area; training for safe handling procedures should be provided to all employees that would be likely to handle containers of the agent or extinguishing units filled with the agent; workers responsible for clean up should allow for maximum settling of all particulates before reentering area and wear appropriate protective equipment; and - all spills should be cleaned up immediately in accordance with good industrial hygiene practices.</li> <li>viii. See additional comments i, ii, iii, iv, v. in <b>Table 9.16.16.</b></li> </ul>