

Oil Industry Safety Directorate, Noida

26th June, 2015

Sub: "Two Wire Based Rim Seal Fire Detection with Automatic Foam Suppression" System for Class 'A' Petroleum Storage External Floating Roof Tanks - Declared as 'Equivalent'.

1. Consequent to successful Bench Scale Trial of the 'Two Wire Based Rim Seal Fire Detection System with Automatic Foam Suppression'; and establishment of its Performance Track Record (PTR) on Petroleum Storage Tanks, the said system i.e. the 'Two Wire Based Rim Seal Fire Detection System with Automatic Foam Suppression' has been declared as 'Equivalent' wrt the provisions of clause 4.2.3 & 4.2.12 of the latest OISD STD 116 and 117 respectively.
2. The systems using Two Wire Based Detection Technology with automatic actuation of foam as suppression can be considered as 'Equivalent' for installation on Class 'A' Petroleum EFRTs.
3. It must be ensured that all such systems shall as a minimum, but not limited to, meet the following 'Technical Expert Committee (TEC)' prescribed performance criteria:
4. The minimum performance criteria for 'Equivalent' Rim Seal Fire Detection and Extinguishing system for Class 'A' Petroleum Storage External Floating Roof Tanks are as under:
 - Heat Detection System shall be of linear type.
 - The system must detect fire in Rim Seal area immediately but not later than 10 seconds and extinguish the fire within 40 seconds.
 - Extinguishing media - foam based system.
 - The extinguishing foam should apply in the seal area @18 LPM per square meter in a uniform manner in maximum 40 seconds.
 - Detection system must have UL listing or VDS/FM/LPC approval.
 - The detection system should be site configurable type.
 - Minimum Guaranteed life of detection and suppression system should be indicated.
 - Various sub-systems of the Rim seal fire detection and suppression system must have necessary statutory approval as per the law of the land.
 - Histogram of data should be available.
 - The system should not be affected by environmental conditions like low / high ambient temperature, dust, external corrosion, rain etc.
 - Un-interrupted Power supply (UPS) must be ensured.

Note: Petroleum Class A means petroleum having a flash point below 23^oC.