**FIRE SPRINKLER SYSTEMS, CORROSION MITIGATION PROGRAM, DRY OR PREACTION**

1. NITROGEN GENERATION SYSTEM
2. Potter IntelliGen Nitrogen Generator (INS EU Series) CE Approved
3. Furnish and install a nitrogen generator system in each fire sprinkler riser room to service all dry/pre-action zones as required by the system size and pressure requirement stipulated in the engineering drawings. Install per manufacturer's instructions.
4. The nitrogen generator shall have an air compressor that is sized appropriately for the application and capable of achieving system supervisory pressure within 30 minutes in accordance with requirements of NFPA 13.
5. The nitrogen generator shall provide a minimum of 98% purity nitrogen to the fire sprinkler system.
6. The nitrogen generator shall be equipped with a filtration system to remove residual water and all hydrocarbons from the air stream.
7. The nitrogen generator shall have a nitrogen control panel capable of monitoring compressor runtimes, nitrogen generator pressure, as well as its operational mode locally and via the internet.
8. The nitrogen generator shall have a leak detection system capable of determining sprinkler system leak rates, giving alerts if leaks develop within the sprinkler piping, nitrogen generator system or air compressor.
9. Alerts shall be capable of being e-mailed.
10. The nitrogen generator systems shall have the ability to automatically switch between air bypass mode and nitrogen generating mode based on the demands of the sprinkler system.
11. The nitrogen generator shall have a nitrogen storage tank that conforms to the PED standard for pressure vessels.
12. Potter Nitrogen Self Purge Valve (NGP-SPV) RoHs Compliant
13. Supply and install a nitrogen purge valve at the furthest, accessible point from the fire sprinkler riser for each fire sprinkler riser.
14. The nitrogen purge valve shall be supplied with a restricted orifice with size determined by the total system pressure requirements.
15. The nitrogen purge valve shall vent to attain a minimum level of 98% nitrogen purity throughout the fire sprinkler system
16. The nitrogen purge valve shall be supplied with a sampling port to monitor the nitrogen purity within the system piping using a portable nitrogen purity analyzer.
17. The nitrogen purge valve shall be closed during hydrostatic and air pressure testing of the fire sprinkler system Once the sprinkler system is to be commissioned, the purge valve shall be opened for a period long enough to ensure the sprinkler system has achieved 98% nitrogen purity. The purge valve shall then be shut to prevent excess running of the nitrogen generator.
18. Air Maintenance Device
19. Supply and install an Air Maintenance Device for each dry or preaction fire sprinkler system.
20. The Air Maintenance Device shall be equipped with an adjustable pressure regulator that is capable of setting the required pressure for the fire sprinkler system.
21. The Air Maintenance Device shall be listed or approved for fire sprinkler application.
22. The Air Maintenance Device shall be installed per manufacturer’s specifications