cameras throughout the facility on a 24/7 basis shall be required for historical video retrieval. All video signals transmission shall use the copper and fiber optic backbone; coaxial cables with necessary analog/digital converters could be used where distance limitations prevent copper connectivity.

11.4.3 The access control system shall allow authorized personnel to access the offices areas, general buildings' access points, and other restricted areas throughout the MRO Hangars, as applicable and/or required by the Client.

11.4.4 The access control system shall allow selective entry to secured areas and provide a historical record of personnel accessing secured areas.

11.4.5 The access control system shall allow for the immediate disabling of card keys that are lost or have expired, giving a higher level of security for restricted areas of a building.

11.5 FIRE ALARM SYSTEM

11.5.1 The MRO Hangars shall have a Fire Detection and Alarm System implemented. The system shall be designed to provide early detection, accurate localization of zones and points of origin, and automatic control of the ventilating air-conditioning systems. The system shall be of the analogue addressable type with voice command feature, microprocessor based, audibly and visually supervised, with detection and alert devices distributed where dictated by codes.

11.5.2 Various types of detectors shall be used for rapid and assured detection of fire hazards. In that extent, automatic initiation devices shall be of the addressable type. Following are the initiation devices to be used:

- Intelligent optical smoke detectors, with continual monitoring for changes in sensitivity due to environmental accumulation of dirt, shall be generally used to cover all areas like offices, service areas, stores, etc.
- Manual alarm box installed at the control desk (monitor office) and manual fire alarm boxes (Locked Type) provided near each final exit door and every 60 m.
- Heat Detectors shall be used in kitchens/pantries and the like.
- Beam detectors which detect smoke in wide spaces. It shall be applied in wide areas within the hangars where detector beams are not intercepted by high moving structures like a crane or a plane.
- Air sampling detection system shall be utilized in wide areas within the hangar open areas where beam detectors can't be used. It is a technology which sniffs the air and analyzes the sample to detect any fire smoke residues above the average and provide necessary alarm when needed.
- Monitor modules monitoring the water flow and tamper switches shall be used at each sprinkler zone.
- Monitor modules monitoring the water flow switch at manual hose reel station.
- Notification shall be based on a positive alarm sequence and signals that is audible above the ambient noise level. Horns with strobe light shall be provided.