

SCOPE OF WORK

The CCTV cameras are proposed to be installed in the MULT jetty and Barge jetty at Puthuvypeen. Hence the cameras and its accessories shall be explosion proof type. It is proposed to install 4 nos. of 8 MP IP IR VF Bullet Cameras (explosion-protected) and 3 nos. of 5 MP Stainless Steel PTZ Cameras (explosion-protected). **The CCTV cameras offered shall have STQC approval.** We have prepared a BOQ which uses a 16 channel NVR and Storage capacity to retain recordings for up to 3 months using H.265 compression configured for FIFO (First-In, First-Out) overwriting mechanism. Video streams are transmitted to the NVR via optical/network cable. Recorded images/videos can be archived and viewed on an LED display. Important video clips to be copied to external storage devices (USB drives etc.) for permanent archival. Both live feed and recorded videos viewable on LED display. User-friendly interface for retrieval and playback. Entire system powered by UPS (Uninterrupted Power Supply) providing backup power during outages and also under-voltage and over-voltage protection.

<u>SUGGESTIONS FOR THE INSTALLATION OF SURVEILLANCE CAMERAS AT VARIOUS LOCATIONS OF MULT & BARGE JETTY AT PUTHUVYPE, COCHIN PORT AUTHORITY</u>						
Sl. No.	Camera Type	Qty.	Unit	Location	Areas to cover (all lengths are approx.)	Justification
1	PTZ No.1	1	No.	Outside control room facing MULT Berth	To cover entire MULT Berth which having length of 300m. Radial distance at two ends of the berth from the camera location is 116 m and 180 m respectively. Also covers control room during the rotation.	PTZ Camera can cover 500 m radial length and having 360 degree rotation
2	PTZ No.2	1	No.	Outside control room facing MULT Road side	To cover DG Room, Fuel station, MULT manifold, IOC booster Area and Proposed tank farms	Approx. radial distances from the camera location = (1) DG Room 110 m (2) = Fuel station 100 m (3)MULT Manifold 100 m (4)Proposed tank farms 300 m (5) IOC Mixing Plant compound farther end 300 m & (6) MULT Road inside covering whole length
3	PTZ No.3	1	No.	Middle of Barge walk way	To cover Entire Barge Jetty, Barge Walkway, Vypin Beach with Chinese nets, MULT inside Road & MULT Jetty & MULT Control Room	Radial distances from the camera location: (1) Beginning of barge Jetty 40 m and far end of Barge Jetty 110 m, (2) Vypin beach 160 m (3)MULT Jetty control room 450 m and (4) MULT Control room 450 m
4	BULLET CAMERA 1	1	No.	Junction at the entry of MULT Walkway near MULT Gate	To cover gate only	BULLET CAMERAS can cover only fixed locations which is pre focused and will cover distance of 50m.
5	BULLET CAMERA 2	1	No.		To cover MULT Manifold	
6	BULLET CAMERA 3	1	No.	Junction at the entry of BARGE Walkway	To cover BARGE manifold	Location is very close
7	BULLET CAMERA 4	1	No		To cover end of MULT road near to beach	To watch unauthorized entry from beach side
	TOTAL	7	Nos.			