3.3.5 SCADA system

A computer based control and monitoring system (also known as a SCADA system: Supervisory Control and Data Acquisition System) shall be provided for automatic control and monitoring of the treatment plant. All electrical and electronic equipment used in the treatment plant facilities (even if they are packaged units) shall be controlled and monitored with SCADA.

The control and monitor system of SCADA shall include two individual Local Control Centers. All data from these Local Control Centers shall be transferred to main SCADA system in the Administration Building. The Local Control Centers shall be in Sludge Dewatering Building and CHP room in Digester Control/Operation Building.

Giresun Wastewater Collection System together with seven (7) wastewater pumping stations (Aksu, Boğacık, Saz, Teyyaredüzü-TM2, Küçükköy, Eriklimanı, Göksüz) shall be constructed in the scope of "Lot-2 Construction of Giresun Wastewater Collection System" of this tender. The SCADA system for the operation of wastewater pumping stations shall be established at the Control Room of the Administration Building in the scope of Lot-2 works. All signals obtained from new wastewater pumping station shall be sent to Control Room of Administration Building of Giresun WWTP by the Contractor of Lot-2 works. All furniture, software and hardware of the SCADA System shall be supplied and installed in the scope of Lot-2 contract. The size of control room shall be adequate for operation of two SCADA Systems simultaneously. The Contractor shall facilitate the installation of SCADA System of Lot-2 works at the WWTP site. All necessary cable trays, cable entries etc. required for SCADA System of Lot-2 works in the Administration Building shall be supplied, installed and/or constructed by the Contractor.

The SCADA system detail and requirement are given in Section 8.

3.3.6 Measurement and Instrumentation

Instrumentation shall be provided to enable the required parameters and equipment to be monitored and the plant to be automatically operated and controlled.

The following measurement units shall be provided, but not limited to:

- Inlet pumping station:
    - Ultrasonic or radar level measurement at the pump sump
    - Pressure gauge (manometer) of the submersible pumps
    - Safety measurements for Methane (CH_4) and Hydrogen sulphide (H_2S) with acoustical and optical alarm at the pump room
- Screening:
    - Ultrasonic or radar level measurement
    - Safety measurements for Methane (CH_4) and Hydrogen sulphide (H_2S) with acoustical and optical alarm at the screen room
- Influent flow:
    - Flow measurement
    - pH