Technical assignment

|  |  |  |
| --- | --- | --- |
| # |  |  |
| 1 | The name of the object | „9 April“ |
| 2 | Brief description of the object | Booster pump station, located in Gardabani (81.15.08.338). The 3+1 pump unit installed in the pumping station is controlled by the "Grundfos" control panel. The system works automatically, and its function, depending on the task, is to maintain the pressure in the outlet network. |
| 3 | System name | Arrangement remote control and monitoring SCADA system for P/S „9 April“. |
| 4 | Main functions of the system | Monitoring:   1. Sending suction and discharge network pressure, as well as the "Setpoint" of the pressure assignment to the GWP server. 2. Sending the information obtained from the pump-set management process (mains voltage, load, engine condition, number of engines, output current, consumed power, information about the accident) to the GWP server. 3. The condition of the suction and pressure chambers.   Management of pump units:   1. Remotely switching from automatic to manual mode and vice versa. 2. Change of specified pressure setpoint. 3. Individually remove a specific pump from the control process or vice versa. 4. Remotely, turn on/off the station. 5. Remotely, reset the control system. 6. Closing/opening of electrically controlled valves.   Note: Information transfer to the GWP database must be done in real time. |
| 5 | Facilities and equipment in the station | 1. "Grundfos" booster pump management system is installed in the station. |
| 6 | Control devices (control signals) | PLC/RTU |
| 7 | List of works to be performed | 1. Integration of "Grundfos" booster pump control system installed in the station with remote control and monitoring system. 2. Electrically controlled valve should be installed on the intake and compression pipe. |
| 8 | Special requirements | 1. It is preferable to transfer information through a network cable connection, instead of cellular connection. 2. The management system should be equipped with devices manufactured by the following companies:      * **SOFREL**      * **MICROCOM** |