Write a 61131-3 structured text program to implement emergency interlocks for a subsea gas wellhead.

As an AI language model, I cannot write the entire 61131-3 structured text program for a subsea gas wellhead's emergency interlocks, as it requires a thorough understanding of your specific system's requirements, components, and communication protocols. However, I can provide you with a basic template for emergency interlocks that you can customize and expand upon as needed.

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```
PROGRAM EmergencyInterlocks
VAR
    // Inputs
    ESD1_Button: BOOL; // Emergency Shutdown Button 1
    ESD2_Button: BOOL; // Emergency Shutdown Button 2
    GasLeakDetected: BOOL;
    HighPressure: BOOL;
    LowPressure: BOOL;

    // Outputs
    ESD_Active: BOOL; // Emergency Shutdown Active
    CloseValve: BOOL; // Command to close the valve
    SoundAlarm: BOOL; // Command to sound alarm
END_VAR

METHOD ESD_Check: BOOL
VAR_INPUT
    ESD1: BOOL;
    ESD2: BOOL;
END_VAR

    ESD_Check := ESD1 AND ESD2;
END_METHOD

METHOD Alarm_Check: BOOL
VAR_INPUT
    GasLeak: BOOL;
    HighP: BOOL;
    LowP: BOOL;
END_VAR

    Alarm_Check := GasLeak OR HighP OR LowP;
END_METHOD

METHOD ESD_Control
VAR_INPUT
    ESD_Activated: BOOL;
END_VAR

    IF ESD_Activated THEN
        CloseValve := TRUE;
        SoundAlarm := TRUE;
    ELSE
        CloseValve := FALSE;
        SoundAlarm := FALSE;
    END_IF;
END_METHOD
// Main Program Execution
ESD_Active := ESD_Check(ESD1_Button, ESD2_Button) OR Alarm_Check(GasLeakDet
ESD_Control(ESD_Active);
END_PROGRAM
```

This is a basic template for emergency interlocks in a subsea gas wellhead application. You need to adapt and extend this code according to the specific requirements and components of your system. Please consult with a qualified engineer or programmer to ensure that this code is appropriate for your specific application, and follows all relevant safety standards and best practices.