Sample Specification for Level Monitor
(Arjay Model 4100-HCF)

The floating oil sensor shall be of a high frequency capacitance technology to monitor for oil on a water surface. The sensor monitors the dielectric change as oil accumulates on the water.

The main controller shall be mounted remote from the sensor up to 1 km using two-conductor shielded hook-up wire (contractor supplied). This cable shall provide both the power to and a frequency signal from the sensor. A sensor embedded circuit shall translate the sensor signal to a frequency for high accuracy transmission to the controller. Analog signals to the controller shall not be used.

The main controller shall be mounted remote from the sensor in an IP 66/Type 4X housing. All calibration, diagnostics and menu selection shall be accessed via the LCD touch screen display at this controller. The display shall indicate the oil thickness in user defined engineering units such as mm or inches. Calibration shall be a single point entry after installation.

The main control output shall include four discrete relays. Two of the relays shall be designated for setpoint control. A third relay shall be user defined as a fault or setpoint control relay. The fourth relay shall provide a user programmable pump run with auto-reset feature. Optional outputs shall include a 4-20 mA proportional to oil thickness and a Modbus communication and shall be supplied if specified.

Optional audio and visual alarms on the main control unit shall be available and supplied if specified.

An optional intrinsic safety barrier mounted at the main controller shall be available to make the field wiring and sensor intrinsically safe for applications where the probe is mounted in a Hazardous Location classified area.

The float sensor shall be available for a 0-25mm sensing range or for a 0-300mm sensing range. The appropriate unit shall be specified.

The controller unit shall be cCSAus and IEC CB Scheme certified for electrical safety and CE Declared. The probe shall be Ex db Class 1 Zone 1 & 2 certified to cCSAus, ATEX and IECEx. An optional Intrinsic Barrier and certification shall be available to make the probe Intrinsically Safe Ex ia, Class 1 Div 1 & 2 and Zone 0, 1 & 2 where applicable.

The unit shall be manufactured in an ISO 9001:2015 certified facility.

The model shall be as the Arjay Engineering 4100-HCF series Oil Thickness Monitor. www.arjayeng.com