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Non Intrusive Flow Metering Systems For National Grid

St. Fergus Gas Terminal, Peterhead, Scotland

Installed Meter with Protective Shrouds

Two electrically driven centrifugal compressors, using a variable frequency drive system, are to be installed at National Grid's gas terminal at St Fergus to complement the existing compression facilities. National Grid awarded a contract to design, procure and construct the new compressor units to the joint venture of Land & Marine and IMEG.

As an addition to the main works, the existing metering systems are being upgraded and replaced using ultrasonic technology. The metering system comprises of two separate meter systems, each in turn comprising of three 750mm ultrasonic meters.

Through a tender process, Land & Marine brought ABLE Instruments & Controls on board to design, manufacture and supply a fully engineered metering system which satisfies the National Grid's requirements.

One of ABLE's specialities is totally non-intrusive clamp on flow metering technology, for gas or liquid flow. This negates the need for expensive pipe modifications and plant shutdowns during installation or maintenance. The system comprises of non-intrusive gas flow meters linked to an 'omni flow' computer which interfaces with the distributed control system (DCS). ABLE is using their very own Rigilok clamping system for mounting the transducers to the pipe, offering a secure and robust system providing transducer protection and stability under harsh conditions.

The systems proposed will provide the following unique benefits:

- Transducers frequency matched to pipe sonic properties
- Wide-Beam™ technology to permit accurate operation over a wide range of flow rates and fluid properties
- AutoZero™ to calibrate for zero flow without the need to stop the flow
- Zeromatic Path™ to eliminate the effects of drift by automatically and continuously correcting for the drift-causing factors
- Lowest cost of ownership due to the low installation costs and the intrinsic reliability of transducer
- High Reliability and Robust Rigilok Mounting System

Throughout the on-going project ABLE has been pro-active in customer interface with live system demonstrations during the build, providing an insight into the technologies and customer satisfaction, prior to final installation and commissioning by ABLE's fully trained Service and Commissioning team.

For further information regarding this application story please contact ABLE on Tel: +44 (0)118 9311188 or e-mail info@able.co.uk.

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