Remote asset monitoring at Transpetro-Amazonas reduces use of helicopters and boats for maintenance

RESULTS

- Saves costs related to logistics
- Reduces time spent by maintenance crews
- Increases safety by reducing trips to the field

"We expect to increase the time between calibrations due to remote monitoring."

Kassem Zaidan,
Maintenance Manager

APPLICATION

Field instruments in widespread oil and gas pipelines and terminals are monitored periodically to determine their condition and ability to perform as expected. If the health of field instruments cannot be determined remotely, maintenance crews must be sent to troubleshoot and repair as necessary.

CUSTOMER

Petrobras-Transpetro S.A. with headquarters in Rio de Janiero is the largest oil and gas transportation company of Brazil. A fully owned subsidiary of Petrobras, a major integrated energy company, Transpetro operates a network of more than 7,000 miles (11,000 kilometers) of oil and gas pipelines, connected to a number of terminal facilities.

CHALLENGE

Remote facilities in the Brazilian state of Amazonas have devices responsible for flow control and measurement. Due to the extreme difficulty in accessing these units, it is often necessary for operations and maintenance personnel to use helicopters and/or boats to reach them. Finding ways to reduce the amount of staff time spent getting to these facilities and the high logistical costs have been major challenges for Transpetro-Amazonas. Improving device reliability in order to limit the number of maintenance calls is another factor.

For more information:
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SOLUTION

Remote monitoring of HART field devices using AMS Suite software allows Transperto personnel access to predictive diagnostics. Transmission of signals from the HART devices via the PROFIBUS communications protocol enables AMS Suite to capture data regarding the condition of the devices and equipment on which they are mounted.

The Emerson solution provides management information on a real-time basis, enabling the leaders to make informed decisions regarding the repair/replacement of field devices. Device Alerts indicate when a device is failing so that appropriate action can be initiated. As a result, it is often possible for maintenance teams to avoid unnecessary trips into remote areas to verify device operation.

Another important factor is the increased safety and lower risk of exposure for maintenance teams by reducing the amount of travel into remote locations.

The financial benefits are substantial, considering the reduced staff time and logistics costs. The measurable gains may be even greater, since it was sometimes necessary to travel to a field device to check it out, return to base to find the solution or obtain parts, and then go back into the field to fix the problem. Now, the device can be evaluated from a central location, and if repair/replacement is necessary, the crew goes into the field well prepared.

"Periodic verification of devices using the Quick Check SNAP-ON application eliminates unnecessary trips into the remote areas."

Kassem Zaidan,
Maintenance Manager

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