Case Study

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Integrity Monitoring

Gas Detection Survey

Date
January 2020
Client
Global Operator
Location
UK Onshore Gas Terminal

Scope

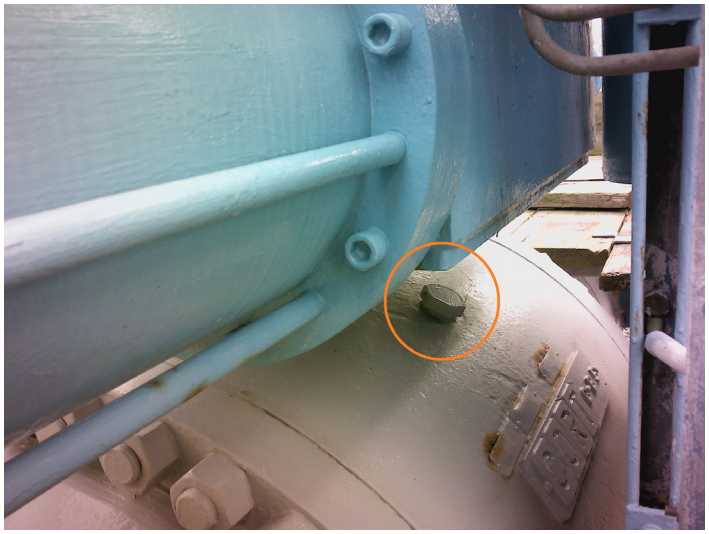
Our client wanted to improve their strategy and planning for detecting and repairing hydrocarbon releases across their gas terminal. Previous surveys had been intermittent with minimal traceability with regards to current releases and repaired releases.

Solution

ICR proposed quarterly visits to the terminal where all areas would be surveyed by the ICR technician using an FLIR GF320 camera and Inficon Irwin methane detector. Each hydrocarbon release found with the camera would be recorded and tagged, the LEL and Methane quantification (in PPM or %) also noted in order to gauge severity of the release. This is reported to the client in spreadsheet format along with highlighted P&ID's and video footage.

Results & Benefits

- Using the report the client is able to repair the hydrocarbon releases in order of severity and work through the list.
- During the next quarterly visit ICR would conduct another full survey including all the historical hydrocarbon releases.
- The releases repaired would be removed from the spreadsheet and any new releases found would be added.
- Again all this would be reported to the client. The hydrocarbon release spreadsheet would effectively become a live document for the client to access and would be updated quarterly by ICR.
- Routine surveys like this can offer significant safety and cost saving benefits long term.



HCR No.	P&ID Click for P&ID	System	Date	Location Click location description for Video	Comment	LEL% CH4 VOL% Benzene PPM
1	1111/08/02 /22/001	Fuel Gas	06/01/2020	E-2201 A Heater V-22170	Emission detected at Plug	0% LEL - 10CM CH4 0VOL% 0PPM Benzene
2	1111/08/02 /22/001	Fuel Gas	06/01/2020	PCV 2251/2	Emission detected at Gland Packing	25% LEL - 10CM CH4 0.1VOL% 0PPM Benzene
3	1111/08/02 /22/001	Fuel Gas	06/01/2020	A2 Vent Valve V-07135 Rider on XV-0788	Emission detected at Stem Handle	0% LEL - 10CM CH4 0.1VOL% 0PPM Benzene
4	1111/08/02 /22/001	Fuel Gas	06/01/2020	B2 Outlet Valve XV-0889 Cabinet	Emission detected at Joucomatic	3% LEL - 10CM CH4 0.1VOL% 0PPM Benzene
5	1111/08/02 /11/0002	Metering Outlet	07/01/2020	XV-1195 Fixed Vent Cabinet	Emission detected at Vent	0% LEL - 10CM CH4 250PPM 0PPM Benzene
6	1111/08/02 /11/0002	Metering Outlet	07/01/2020	PV-111801 Stem Leak	Emission detected at Stem Leak top of Valve	5% LEL - 10CM CH4 0.5VOL% 0PPM Benzene
7	1111/08/02 /11/0002	Metering Outlet	07/01/2020	XV-1195 Body Vent Plug	Emission detected at East side plug	2% LEL - 10CM CH4 1.6VOL% 0PPM Benzene
8	1111/08/02 /11/0002	Metering Outlet	07/01/2020	XV-1195 Body Plug Underneath	Emission detected at Plug Underneath	0% LEL - 10CM CH4 350PPM 0PPM Benzene
9	1111/08/02 /11/0002	Metering Outlet	07/01/2020	V-110003 Filter Outlet Grease Point	Emission detected at South East Greasing Point	0% LEL - 10CM CH4 1.5VOL% 0PPM Benzene

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