

Closed-loop sampling and advanced planning provides real-time data to ensure client-set KPI's are achieved

THE CHALLENGE

While clearing the hot and cold sides of an ethylene unit, 125+ sample points were needed to verify that equipment met the client-set KPI's. Excessive delays were typical in the past due to a lack of comprehensive testing and sampling plans, and it was difficult to accurately measure samples under an inert atmosphere using traditional gas testing methodologies. Also, moving from a time-based to a condition-based clearing strategy — while being able to accurately represent the current status of the equipment — proved demanding.

THE SOLUTION

CruzAlta adapted the use of a closed-loop sampling process to reduce sampling delays and identify cross contamination of equipment during the validation process. Employing specific preconfigured sampling equipment aided in successfully measuring KPI's. CruzAlta worked with the operations team to identify sample locations ahead of time to reflect system cleanliness, and locations were clearly documented on all clearing drawings and procedures. In addition, CruzAlta provided experienced operations personnel to not only collect the samples, but also provided the expertise to test and interpret the samples; results were entered into a prepopulated SharePoint sample sheet which provided real-time data before, during and after the event — all of which allowed for condition-based decisions to support achievement of the KPI's.

THE RESULTS

- Offered a process to validate equipment identified to be opened to the atmosphere while still under an inert atmosphere.
- Ensured the equipment meets Federal, State and client regulations/targets before opening.
- Prevented any confusion on the sampling plan by having preset targets and locations identified pre-TA.
- Caught samples using a method that collects just the effluent from inside the equipment without using an open bleeder to the atmosphere.
- Provided real-time data clients can review during the execution and data that can be provided for future inquiries.
- Reduced manpower and equipment load on the product control lab and the shift operations team.
- Reduced the time it takes to run samples and provide the client with results.
- Provided client operations team with experienced support to help with the troubleshooting of potential decontamination problems.
- Resulted in the client reaching its shutdown duration target for the first time with this sampling plan that was part of a comprehensive clearing strategy.

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REAL-TIME DATA

Technology that utilizes "conditioned" samples for enabling expedited troubleshooting capability to resolve problems

