

ARLANXEO LDAR COMPONENT LEAK SURVEY PLAN – May 2021

This Leak Component Survey Plan has been prepared to meet the Petrochemical – Industry Standard (“Tech Standard”) S. 41 requirements.

2021 LDAR surveys will include all accessible components in volatile organic compound service (at least 2.0 percent 1,3-butadiene by weight) that are not exempt (<300 hours service). The Individual component records are kept within CNTRAL database and are accessible via the internet.

Components that are not in service during the monitoring survey, and that will not be returned to service before the end date as defined in Tech Standard subsection 39(2), will not be included in the survey. Note that connectors and valves with diameter less than 3/4 inch will not be included in the surveys.

The components that are to be included in the leak survey are identified in the monitoring survey summaries included as Appendix A, and copies of the full reports identifying individual components to be included in the surveys are available from the CNTRAL database. The number of the components included in the surveys for each of the operating units are as follows:

Butadiene Extraction Unit (BE#3): 2105

K-1 East: 1331

K-1 West: 1610

Inventory/database updates since February 2021, that impact survey components, included the following:

K-1 West

3 sources removed (corrected service to non-butadiene stream, Raff product)

017142

O17142 DF

014507 B UF

The following components which were included in the survey plan (monitoring run) but could not be monitored because they were out of service during the monitoring run, are as follows:

K-1 East (11 sources)

2 sources not in hydrocarbon service:

016251 DT2

016246 C

9 sources no longer in service (piping modifications):

016289 UT1

016289 UT2

016289 UT3

016289 A UT2

016289 B DT1

016289 B DT2
016289 B DT3
016289 C UT1
016289 C UT2

K-1 West (7 sources)

3 sources not in hydrocarbon service:

19809 A TR

19809 A DT

014452 DT2

4 sources no longer in service (piping modifications)

007566 B

007566 B UF

007566 B DF

007566 C FL

The expected average percent by weight of 1,3-butadiene for leaks identified in the 2021 LDAR component surveys is 60.

The leak surveys required in 2021 will be accomplished via Method-21, and monitoring personnel have years of practical experience performing Method-21 surveys, as summarized in Appendix B. The monitoring personnel training records, for technicians participating in the second leak survey, are also included in Appendix B.

The checklist of tasks, performed by monitoring personnel at the start of each day of the monitoring survey, includes determination and recording of analyzer response time, response factor and calibration precision. A copy of the daily checklist is attached as Appendix C.