

# Analytical Programs for ASU Air Intake Quality

## AIR SEPARATION UNIT SAMPLING AND TESTING

### KEY BENEFITS

Obtaining a detailed picture of the air impurities present at the intake ports of Air Separation Plants (ASU's) & their concentration range is important for:

- Evaluating new ASU plants locations.
- Designing air purification systems & maintenance schedules based upon the intake impurity profile.
- Obtaining "risk assessment" data for LIN, LOX, LAR products used in foods (ex. Food Safety Regulatory Compliance) or ultra-high purity grade applications.
- Checking intake impurity profiles for shifts caused by changing environmental factors.
- Installing analytical equipment for monitoring purifier beds & final ASU products.
- Documenting the purity of your final ASU products.

### TEST PROGRAMS OFFERED

ALI offers several ASU Inlet Air Test Programs. Some programs are customer designed, but if desired, ALI can recommend an appropriate analysis protocol based upon your needs, site character, level of risk & budget.

#### Example 1

On-site sampling by an ALI field chemist. This involves performing some on-site testing (for reactive agents) & taking various air samples for "snapshot", short term (ex. 15 min) & longer term (ex. 2 x 12 hr time-weighted) impurity profiling. These air samples are shipped to us for a target list analysis. High pressure air samples are taken from purification beds to evaluate residual air impurity levels. Final LIN/LOX/LAR final product & particulate samples are also obtained to evaluate the effectiveness of the ASU facility in meeting their product purity requirements.

#### Example 2

On-site sampling & testing (for reactive agents) is performed by customer staff using rented ALI sampling kits & on-site test equipment. In such cases the samples collected are shipped back to ALI for complete analysis & any on-site test data also reported.

**Typical Air Tests Performed:** CO, CO<sub>2</sub>, CH<sub>4</sub>, C<sub>2</sub>-C<sub>10</sub> + volatile hydrocarbons, BTEX, SO<sub>2</sub>, H<sub>2</sub>S & other sulfur agents, oxides of nitrogen (NO, NO<sub>2</sub> etc), acid gases, ozone, volatile halocarbons, volatile oxygenates, semi-volatiles & total particulates (filter membrane test on vaporized liquid products).

**Consult ALI for more details & to obtain a quote for an ASU Intake Air Program that is right for you!**



BTP-2 PUMP & TRUE BLUE BAG SAMPLING



DETECTOR TUBE ANALYSIS



1 LITER SAMPLING  
CYLINDER



CRYOGENIC SAMPLER  
FOR LIN, LOX, & LAR



PARTICULATE FILTER  
SAMPLING



6 LITER SUMMA CAN  
FOR AMBIENT AIR SAMPLING



**Airborne Labs International**

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