

OUR PROJECTS

Air Quality Monitoring & Strategies





Strategy for the OpCos (2025)

Location: Bahrain

Client: Bapco Energies, Bapco Upstream, Bapco Gas &

Bapco Gas Expansion

Scope:

 Review of key process operations across OpCos to identify potential emission sources.

 Evaluation of air pollutants of concern including SO₂, NOx, VOCs, and particulates.

 Selection of suitable air quality monitoring equipment with reference to international standards.

 Determination of monitoring locations considering sensitive receptors, meteorology, and fenceline exposure.

 Development of an integrated ambient air quality monitoring strategy that complies with SCE requirements.



Project: Bapco Refining Ambient Air Quality Monitoring

Strategy (2024)

Location: Bahrain

Client: Bapco Refining

Scope:

Site surveys and mapping of emission points.

- Identification of both stack and fugitive sources with preliminary emission profiling.
- Recommendation of equipment calibrated to measure refinery-specific pollutants (SO₂, NOx, VOCs, etc.).
- Selection of downwind and upwind monitoring stations considering worker exposure and community receptors.
- Development of an integrated ambient air quality monitoring strategy that complies with SCE requirements.







Strategy (2024)

Location: Bahrain Steel

Scope:

 Detailed survey of raw material handling, pelletizing, and emission hotspots.

 Evaluation of particulates and gaseous emissions using process chemistry.

 Equipment selection prioritizing real-time PM and gaseous monitoring.

- Selection of monitoring stations along fenceline.

 Development of an integrated ambient air quality monitoring strategy that complies with SCE requirements.



Project: SULB Ambient Air Quality Monitoring Strategy

(2024)
Location: Bahrain
Client: SULB
Scope:

 Survey of steel manufacturing units with emphasis on combustion and material handling emissions.

Identification of priority pollutants including PM,
 NOx, SO₂, and metal fumes.

 Specification of high-accuracy monitoring equipment for continuous and campaign-based monitoring.

 Siting of monitoring locations based on emission dispersion pathways.

 Development of an integrated ambient air quality monitoring strategy that complies with SCE requirements.



Project: GPIC Ambient Air Quality Monitoring Strategy

(2024)

Location: Bahrain

Client: Gulf Petrochemical Industries Company (GPIC)

Scope:

 Review of petrochemical process units for emission characterization.

 Profiling of SO₂, NH₃, and VOC emissions against baseline data.

Recommendation of equipment with trace-level detection capability.

- Selection of monitoring stations along fenceline.

 Development of an integrated ambient air quality monitoring strategy that complies with SCE requirements.







Strategy (2024)

Location: Bahrain **Client:** Midal Cables

Scope:

 Survey of casting and cable manufacturing units with emission point mapping.

Evaluation of gaseous, metal fume and VOC emissions relevant to processes.

Recommendation of monitoring equipment specific to industry pollutants.

 Siting of monitoring locations considering wind directions and worker exposure.

 Development of an integrated ambient air quality monitoring strategy that complies with SCE requirements.



Project: ALBA Ambient Air Quality Monitoring Strategy

(2024) **Location:** Bahrain

Client: Aluminium Bahrain (Alba)

Scope:

 Review of smelter processes, potlines, and ancillary units for emission sources.

 Prioritization of SO₂, HF, PM, and VOC monitoring in line with international smelting benchmarks.

 Recommendation of continuous monitoring systems for critical parameters.

 Location determination through review of dispersion modelling reports and receptor analysis.

 Development of an integrated ambient air quality monitoring strategy that complies with SCE requirements.

Project: GARMCO Ambient Air Quality Monitoring

Strategy (2024)

Location: Bahrain

Client: Gulf Aluminium Rolling Mill

Scope:

- Survey of melting, foil mill, rolling and heattreatment processes for emission potential.

- Identification of particulate and gaseous pollutants of concern.

 Recommendation of continuous monitoring systems for critical parameters.

Monitoring location determination near operational boundaries.





 Development of an integrated ambient air quality monitoring strategy that complies with SCE requirements.