SF\textsubscript{6} Gas Management
On-site gas integrity and leak detection service

Application
As a leader in SF\textsubscript{6} gas management, ABB provides an on-site SF\textsubscript{6} gas integrity service while detecting any SF\textsubscript{6} leaks all in an effort to help you comply with mandated EPA SF\textsubscript{6} emission reporting.

ABB will test for external SF\textsubscript{6} gas leaks along with measuring SF\textsubscript{6} gas purity, air, dew point, SO\textsubscript{2}, HF, CF\textsubscript{4} and R-12. A written report will be submitted with the switchgear results.

You will gain knowledge of the “bad actors” on the system allowing you to categorize, plan, and prioritize work schedules to eliminate leaks to comply with the EPA mandate. Along with quantifying SF\textsubscript{6} emissions, bringing SF\textsubscript{6} gas levels in your circuit breakers to CIGRE usable standards (3% impurities) will ensure your SF\textsubscript{6} switchgear operates safely and reliably.

Your actions will fall into four categories:
1. Compliance with EPA mandated annual reporting of SF\textsubscript{6} gas emissions.
2. Compliance with the California Air Resources Board (CARB) which as imposed stringent guidelines on expected SF\textsubscript{6} emission reduction rates through 2020.
3. Compliance with the northeastern Regional Greenhouse Gas Initiative (RGGI) which as implemented a mandatory cap and trade program to reduce greenhouse gas emissions.
4. Future preparation for legislation (Cap & Trade) or taxes levied on SF\textsubscript{6} emissions.

When to schedule a test:
Testing is highly recommended anytime the temperature is above freezing (32°F / 0°C). As the ambient temperature rises moisture moves more freely in the gas volume which provides a truer reading. Moisture adheres to solid surfaces when the temperature is below freezing.

Call now to schedule your complete SF\textsubscript{6} fleet analysis.
724-696-1300

Benefits:
• Greatly reduces gas analysis and leak costs
• Significantly reduces outage time - only minutes per breaker for each test
• Outsources non-core process to switchgear experts
• Convenience of using one vendor to support entire fleet (ABB & non-ABB switchgear) for SF\textsubscript{6} management
• Real-time results
• Decrease downtime with leak repair kits on stock for most ABB and heritage brand SF\textsubscript{6} dead tank circuit breakers
• Receive recommendations for improving the fleet's gas management health
• Focus field and operations personnel on their primary responsibilities

Complete SF\textsubscript{6} gas management
Additional services offered by ABB include recycling, consolidation, purification, gas buy back services, best-in-industry gas handling training, leak detection, and on-site gas testing.

Please ask your ABB sales representative for further information on these additional services.
Features:
Standard gases measured:
SF$_6$ Purity
Range: 60-100% vol, repeatability: +/- 0.5%
Dew Point
Range: -70 to +20°C, repeatability: +/- 0.5°C at -30°C
HF
Range: 0-200ppm, repeatability: +/-10ppm
SO$_2$
Range: 0-150ppm, repeatability: +/-2ppm
Air
Range: 0-40% vol, repeatability: +/- 0.5%
Optional gases:
CF4
R-12
- Smallest SF$_6$ gas use - less than 1 litre per analysis
- Work performed by ABB field engineer
- Repair parts available through ABB HV Service
- Inspection Certificate included with switchgear fleet results

FAQ:
Q: How much does this cost?
A: Please consult with your ABB representative. Depending on the number of samples taken, the per day cost is very market competitive.

Q: How many SF$_6$ gas samples can be checked in one day?
A: The average is 20 - 30.

Q: What do I need to provide?
A: Only access to the site is required. ABB uses a 100% portable devise which provides instantaneous results.

Q: Why is SF$_6$ gas management a concern?
A: According to a 2005 EPA report, an estimated 6% of tanks and 21% of overall SF$_6$ circuit breakers leak.

Q: Why haven't I heard of this service before?
A: ABB continues to be the market leader - product availability, service capability, and environmental stewardship.

Q: Why is the CIGRE purity standard 97% or greater for SF$_6$ gas?
A: A circuit breaker will not operate properly with more than 3% moisture in the SF$_6$ gas. The higher the impurity level, the higher the risk for failure.

For more information please contact:
ABB Inc.
High Voltage Service
100 Distribution Circle
Mount Pleasant, Pennsylvania, USA
Phone: +1 (724) 696-1300
Fax: +1 (724) 696-1379
www.abb.us/hvservice