

Progress Report on SF₆ Emissions Management

Greg Barrett
Environmental Engineer
Argonne National Laboratory

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Fugitive Emissions Working Group



Assessment of SF₆ User Facilities

- High energy physics consultant evaluated several facilities that use SF₆ for opportunities to reduce, recover, or reuse it.
- Facilities in the assessment included:
 - Accelerators (ATLAS, Wakefield),
 - Electron microscopes,
 - Electrical switch gear,
 - Resistive plate chamber.
- Each system was analyzed from cylinder to exhaust vents.
- Portable Freon detector was used during the assessment to detect leaks.



General Findings from Assessment



- SF₆ use and requirements vary widely.
- Consider age and future use of equipment when assessing SF₆ reduction potential (ATLAS is 40+ years old).
- Evaluate existing SF₆ reclamation systems that may not be in regular use (APS).
- Leak detection revealed low cost methods for SF₆ emission reductions.
- Consider installing fixed position SF₆ monitors.
- Additional fixed and portable SF₆ recovery systems are needed.

Additional Efforts to Improve SF₆ Management

- Funds for FY11 have been requested according to recommendations from assessment to purchase recovery equipment.
- Argonne is exploring opportunities to work with Praxair to collect on-site recovered SF₆ for processing and reuse.
 - Important for managing SF₆ in systems that require high purity for operations.
- Efforts are also underway to understand SF₆ use in on-site electrical equipment.
 - Argonne used contractor to remove/recover SF₆ from on-site switch gear.



Questions?

Greg Barrett
630-252-2854
gbarrett@anl.gov

