Managing SF6 Gas Inventory and Emissions
Implementing Digital SF6 Tracking Solutions

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**Digital SF6 Tracking Solutions**

**Advantages**
- All data accessible through single database
- No end of year data crunching necessary
- Instantaneous access to SF6 inventories, leak rates, Nameplate capacity, Acquisition and Disbursement activity assuming proper data entry
- All SF6 transfers recorded
- Exportable / Printable data for

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Digital SF6 Tracking Solutions

Dis-Advantages
- Resistance to digital change within an organization
- No paper trail for all transactions
- Database is only as good as the data that is entered
- Requirement to log two transactions (Maximo, COINS, SAP, Eta And SF6 Tracking Solution)
Keys to Successful Implementation

- Plan your Work / Work your Plan
- Consistency through training
- Vendor support
- Efficient End of year data collection
- “If you can’t measure it, you can’t manage it”

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Plan Your Work / Work Your Plan

Never put the cart in front of the horse!
- Collect the proper data to start with!!!!
- Make changes in your procedures to account for software recording
- Create applicable forms needed for good data keeping

Single point of data control
- Use paper reports to record transfers in the field
- Assign a single individual to handle data entry/management

Data review opportunities
- Random field audits (Tanks, gas carts, equipment)
- Random report audits (Location inventory = digital inventory)
Consistency Through Training

Data collection is as important as aggregating data
- Proper weighing procedures (NO CAP)
- How to identify cylinder markings (TW, Cylinder ID’s)
- Equipment Identification
- Completing and submitting forms

Field Recovery Procedures
- Cart inspections
- Annual filling and recovery techniques

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Vendor Support

Virgin Gas Supplier
- Require spreadsheets (excel) for all gas purchases including following data: Cylinder ID, Serial #, TW, GW, Location Shipped To, Date
- Require cylinder tagging for easy tracking
- Have vendor supply scale calibrations
- Spot check vendors tanks

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# SF6 DELIVERY CERTIFICATE

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<tr>
<th>Serial #</th>
<th>Cylinder ID</th>
<th>Cylinder TW</th>
<th>Cylinder Gross Weight</th>
<th>Gas Weight</th>
<th>Delivery Location</th>
<th>DOT Expiration</th>
<th>SF6 Purity (%)</th>
<th>O2 Content (ppm)</th>
<th>N2 Content (ppm)</th>
<th>H20 (ppm)</th>
<th>DewPoint (degrees celcius)</th>
<th>SF6 Batch Number</th>
<th>Capital Acct</th>
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Vendor Support

SF6 Re-claimer or “empty” Cylinder Returns
- Require spreadsheets (excel) for all gas returns including following data:
  Cylinder ID, Serial #, TW, GW, Location shipped from
- Heels can account for 3-12 lbs in an “empty cylinder”
- Require third party site visits (re-claimer) to confirm recycling/weighing techniques

Vendor Data
- Require vendors to report all SF6 activity quarterly via excel
- Implement a single format for required data for easy upload

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### SF6 RETURN CERTIFICATE

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End of Year Data Collection

Spot audits
- Perform spot audits to confirm location inventory etc

Automatic e-GGRT integration
- Require software to output e-GGRT required
- Store data digitally on database for 10 years
- Allow for output of excel/other formats for sharing of data

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If you can’t measure it, you can’t manage it

Let software be your Keystone to efficient / accurate / compliant SF6 management.

If there is weakness in a single support block the whole arch will tumble.

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Questions?

Polar Technology
SF6 LIFECYCLE MANAGEMENT

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Thanks For Your Attention!