Procedures and Guidelines For Compressed Air Leak Assessments

The following information outlines the recommended procedures and guidelines for a **Compressed Air Leak Assessment** under FY27 SRP Business Solutions Custom program. Information in this document is designed to provide a basis of standard expectation from a compressed air leak assessment funded by FY27 SRP Business Solutions Custom Program. Compliance with this document will help address any particular configuration and performance requirement of a compressed air leak assessment. Where appropriate, industry specific leak assessment procedures should be used. All tests' results and deliverables should be reviewed carefully before submittal to SRP to ensure that they are complete and accurate.

Overview

Under the program, the leak assessment must:

1. Document the existing inventory of active air compressors, including the following criteria:
    - Size (HP)
    - Capacity (ACFM/SCFM)
    - Capacity Control (e.g. load/no load, inlet modulation, variable displacement, variable speed, etc.)
    - Discharge Pressure (PSI)
2. Document the location and flow rate of each compressed air leak
3. Compile leak assessment results in a predetermined report format in order to provide the Custom an estimate of the potential energy and demand savings and implementation cost for the recommended leak repair activities.

Compressed Air Leak Assessment

The leak assessment is intended to collect compressed air leakage from pressurized compressed air systems. Field data should be collected with calibrated leak detection tools. Field data as collected during the leak assessment must be reliable in order to maintain the quality and accuracy of the energy savings. Collected data, such as decibels, and/or visual/acoustic images must be appropriately logged and recorded for savings validation.

Compressed Air Leak Assessment Equipment

In order to evaluate the total leak rate of a compressed air system, the supply side, distribution, and end uses must be sufficiently evaluated with appropriate equipment. Industry standard ultrasonic sound detector with necessary probes or acoustic imaging cameras can be used to record the sources of all identifiable compressed air leaks. If applicable, the affected pressure (psi) of the identified leak should be documented in order to properly determine the air flow rate (cfm) of the leak. The affected test equipment should be capable of collecting, holding and saving field measured data/images electronically for later review and use.

Deliverable & Documentation

The QSP will be required to complete a Compressed Air Leak Assessment Report in the SRP defined format. A template of this report will be provided to approved Compressed Air Leak Assessment QSPs. The report is prepopulated with basic program information and contains an embedded calculation tool that would work for many applications and is in place to minimize the QSP's time requirement in completing the report. The QSP would need to populate the inputs of this calculation tool using the field test data, provide existing compressed air system description along with recommendations for potential system improvements within the report. The QSP may choose to use any other calculation tool provided that a copy of the analysis file will be made available as part of the deliverable to the Program Administrator for review and approval.

The QSP must deliver a completed Compressed Air Leak Assessment report to the Program Administrator. The QSP will not be submitting the report to the Customer at any point. Upon SRP's review and approval, the Program Administrator will facilitate the assessment results to the customer.

Supporting photographs are encouraged to be collected while on site and provided in the report's appendix.