

ENVIRONMENTAL TESTING SERVICES

Our measurements are the key to your success.



Innovative Combustion Technologies, Inc. (ICT) has been a service provider for the power industry since 1993. As an extension of our boiler (combustion side) technical and engineering services, ICT has committed resources to establish itself as an emissions testing company that can provide the power industry with testing services required for regulatory compliance, diagnostics, and engineering studies. Unlike other emissions testing companies, ICT does not see the equipment upstream of the stack as a “black box”. We have detailed knowledge and expertise troubleshooting and optimizing pulverizers, burners, combustion systems, boilers, fans, air heaters, and precipitators, which separates us from traditional stack testing companies. Our understanding of how different fuels, equipment condition, boiler operation, and boiler inputs influence boiler emissions data allows us to provide customers with more than just emissions data from the stack or duct; we can provide our customers with recommendations to improve overall unit performance.

In April 2014, ICT finalized its quality program and met the requirements of ASTM D7036 to become a certified Air Emissions Testing Body (AETB). This gives ICT the ability to provide regulatory testing services to Part 60 and Part 75 facilities. ICT's permanent staff includes Qualified Individuals (QI) and Qualified Stack Testing Individuals (QSTI) to lead emissions testing programs.

We have made significant investments to increase our testing capabilities by adding some of the latest testing equipment technologies, including: an FTIR analyzer, multiple CEMS trailers, and equipment to perform almost all EPA test methods that apply to coal, gas, or biomass fired electric generating units. ICT can provide performance testing, RATAs, RAAs, CGAs, fuel conversion equipment acceptance testing, mercury and metal air emissions testing, SCR/AIG tuning, VOC testing for coal to gas conversions, MATS/MACT testing and pollution control equipment specification testing, and manufacturer guarantee and efficiency testing.

As more stringent emissions regulations are imposed on utility power plants with the new EPA MATS (Utility Boilers) and Boiler MACT, maintaining high operating efficiencies for all air quality control systems as well as boilers is of paramount importance. ICT's emissions testing division is working in these areas and is focused on providing these services to our clients. Coupling our environmental testing capabilities with our industry-leading knowledge of the boiler and combustion systems, ICT has the full understanding of the entire system necessary to give our clients a holistic solution to their operational challenges.

1993

ICT founded and begins providing boiler testing, inspection, and combustion optimization to the electric power industry.

1994

Majority of ICT services associated with new low NO_x burner systems and coal-fired units changing from bituminous coals to subbituminous PRB coals.

1995

ICT establishes first “brick and mortar” office in Pelham, AL.

1996

ICT begins offering services internationally.

1997

ICT moves to newly constructed office and equipment shop in Alabaster, Alabama to accommodate expansion in staff.

ICT begins design, manufacture, and supply of engineered products to measure and manage airflow and enhance boiler and pulverizer performance.

2002

ICT moves to new office campus in Hoover, Alabama to accommodate staff expansion.

2006

Affiliate company ThunderFab founded. ThunderFab is a precision CNC machine shop and fabrication shop that manufactures ICT's testing equipment and engineered products sold to the power industry and industrial coal-fired boilers.

2007

ICT begins offering troubleshooting and combustion optimization services to biomass fired boilers.

2011

ICT forms the Environmental Services group to perform EPA Methods testing and stack testing. Two capable CEMS trailers added to ICT field equipment.

ICT active in development of Engineered Feedstock and waste to energy programs to help EGU's reduce CO₂ emissions and comply with the CPP.

2012

ICT develops MillPro systems (patent pending) for coal pulverizers that offer an alternative to steam inerting systems and other fog/swirl/deluge protective systems.

MillPro Joint Venture formed with Benetech and HCT to install and commission MillPro systems.

2013 - 2015

MillPro systems installed at three different utilities in the Midwest.

ICT purchases and moves to new 25,000 square foot office to accommodate staff expansion and consolidate all operations under one roof.

ICT finalizes its quality program and meets the requirements of ASTM D7036 to become a certified Air Emissions Testing Body (AETB) in 2014.

ICT has the capability to provide regulatory and compliance testing services to Part 60 and Part 75 facilities. ICT adds test trailers equipped with FTIR and FID analyzers.



ICT has been offering boiler and combustion testing and optimization services to electric generating units for over two decades. As the environmental regulations of the industry are changing, ICT has adapted its testing capabilities and now offers services associated with environmental compliance that include:

VOC TESTING FOR NATURAL GAS CONVERSION:

ICT can provide all testing services required for optimization and acceptance programs for units

converting to natural gas.



FID & FTIR

UTILITY MACT/MATS HAPS:

ICT is staffed with qualified individuals and equipped to measure

hazardous air pollutants



(HAPs) and assess compliance with emissions regulations for the MATS/MACT rule.

- Hg
- PM
- HCl
- SO₂ / SO₃
- METALS

SCR/AIG TUNING:

ICT can provide all the

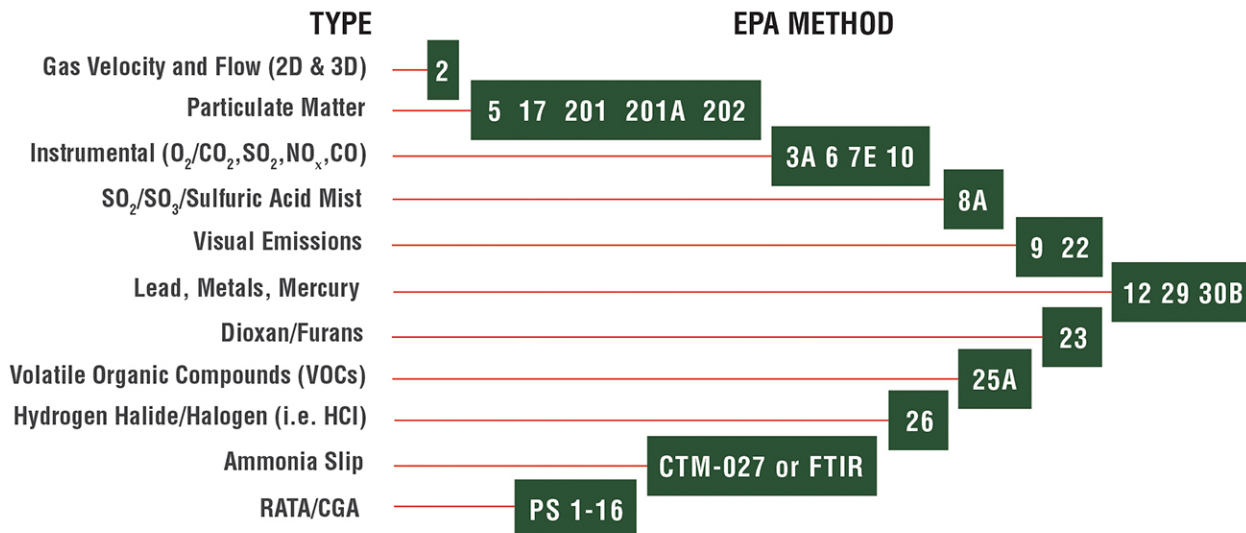
testing & engineering services

required to tune SCR systems to achieve MAXIMUM NO_x removal efficiency while minimizing ammonia usage and slip.



- % DeNO_x
- SO₂ / SO₃
- NH₃ Slip

ICT's environmental testing service department, established in 2011, has 40+ years of experience and has employees on staff with QI/QSTI with Groups 1-4 certification. ICT has implemented and performed emissions testing programs for a variety of industries including electric utilities, pulp and paper, metals, mining, and manufacturing. Various tests performed include RATA; HAP compliance testing; CEMS design, installation, and maintenance; and research work. The experience of ICT's environmental department is not only limited to the hands on portion of getting the job completed, but members of the staff have also worked in the capacity of project manager, State regulator, and consultant to the government on technical and quality assurance for emissions testing programs.



While ICT is well known for its capabilities associated with pulverizer, airflow, boiler performance, and fan testing, you may not have been aware of our environmental testing capabilities and services. Please consider us a resource for these services when needed and we assure that the quality of work and our professionalism is of the same caliber as our services associated with boiler and pulverizer testing and performance optimization with which you are familiar.