ENVIRONMENTAL BUSINESS JOURNAL®
Strategic Information for a Changing Industry
Vol. XXXIII, Numbers 7/8, 2019 *REPRINT - **Air Quality & Air Pollution Control*** Environmental Business International Inc.

WESTON'S IAS FOCUSES ON INDOOR AIR QUALITY AND OSHA REQUIREMENTS

***Weston Solutions** a national environmental consulting and engineering firm with a history of over 60 years, gaining invaluable experience serving a diverse client base that includes commercial and industrial clients, municipalities, utilities, and local, state, and federal governments. Weston's 1,000+ employees are nationally dispersed across 25 strategically-located, full-service offices, with additional project offices and remote resources positioned to ensure responsive support.*

Weston's Integrated Air Services (IAS) segment is comprised of three primary offices located in Auburn, AL, West Chester, PA, and Houston, TX. The IAS group provides all varieties of emission testing and ambient monitoring services and is made up of 70 to 80, full-time staff members. Weston's IAS revenues range from $12M to $14M annually. The segment serves a wide array of industries, including all types of manufacturing, power utilities, oil and gas, chemicals, pharmaceuticals, along with multi-party trusts and potentially responsible party (PRP) groups. They have also supported law firms, financial institutions, and real estate developers to manage portfolios of properties with liability risks that support industrial clients. However, the power and utility, chemical, and pulp and paper industries represent the larger percentages of their client portfolio.

Jon Howard, IAS Client Account Manager. Mr. Howard has over 26 years of emission testing experience. He has served a number of clients in the forest products, power, utility, and chemical industries across the United States. Mr. Howard has contributed to data collection and analysis of hazardous air pollutants (HAPs) emission factor development programs in the early 1990s. He managed and coordinated numerous multi-facility testing programs resulting from the U.S. Environmental Protection Agency (EPA) ICR collections for National Emission Standards for Hazardous Air Pollutants (NESHAP) and Mercury Air Toxics Standards (MATS) Rule development.

EBJ: Weston Solutions provides a wide variety of air quality services. Can you provide some information on trends that you have noticed for services such as project planning, facility siting, compliance/permitting, testing, modeling, monitoring and reporting?

Howard: Since the emergence of large-scale NESHAP, such as the industrial, commercial, and institutional boilers and process heaters and MATS for coal and oil-fired electric utility steam generating units and the enormous amount of emission testing resulting from those regulations, there have been limited rules that require significant emission testing activities. Prior to implementation of the above rules, those industries were subjected to information collection requests mandated by EPA; some had to implement new emission controls equipment to comply and all had to undergo initial and periodic testing for a 3-year cycle before testing frequency could be reduced. Those requiring construction of controls equipment most often requested performance guarantee testing to evaluate guarantees of that equipment. This resulted in a large increase in emission testing activities. Most of that activity has been completed, and the emission testing demand is at a normal level.

We have seen an increase in the need for fine particulate matter testing as required when industrial facilities undergo permit activity, such as new source review (NSR) or prevention of significant deterioration (PSD). Additionally, we have seen a substantial increase in the requirement to report and upload emission testing results to EPA databases.

EBJ: How are Weston Solutions' air quality services different from the ones provided by competitors?

Howard: Overall, Weston has 45 years of emission testing success. Our emission testing operations follow a seller-doer model, whereby most of our seasoned Project Managers and Client Account Managers spend a large percentage of their time participating in field projects and interacting with our clients. We have an unusual deep bench of experienced staff, with the average tenure of over 15 years. These individuals are able to assess problems in the field immediately, adjust, and inform the client real-time under changing, complex situations. Weston's emission testing operations have a fixed laboratory at our Auburn, AL office that holds/maintains Louisiana Environmental Laboratory Accreditation Program (LEALAP) and National Environmental Laboratory Accreditation Program (NELAC) accreditations. This is in addition to the LEALAP accreditation maintained by the emission testing operations. With this laboratory we are able to control the quality of testing/results and reduce your costs.

EBJ: How has the laboratory contributed to the growth of your Air Quality Management practice?

Howard: Weston's ownership of a laboratory dedicated to air testing services is unique in our industry. Our laboratory brings advantages such as maintaining our method-dedicated glassware, which they proof blank prior to field efforts. They are under the same complex with our Auburn, Alabama operations and conveniently perform most of our emission testing sample analysis and provide pre-certified reagents and laboratory supplies for our field projects. The laboratory also maintains a revenue base from external clients for activities such as EPA Cluster Rule NESHAP-related sample analysis.

EBJ: What other analytical services does Weston Solutions provide? Does your laboratory support other company

practices such as Water and Remediation?

Howard: The Auburn laboratory does perform basic water and wastewater analysis. Our laboratory continues to be a go-to provider for Cluster Rule HAPs, MATS, and Boiler Maximum Achievable Control Technology (MACT) test programs. We now have expanded our scope to include not only air testing and analyses, but also wastewater testing and analyses. Weston's LELAC-accredited IAS laboratory staff have many years of experience with gas chromatography (GC)/flame ionization detector (FID) instruments, Ion Chromatography (IC) analyses, nutrient analyses, and general inorganic analyses, as well as method interpretation and method development.

We are familiar with National Pollutant Discharge Elimination System (NPDES) permits and can prepare Discharge Monitoring Reports (DMRs) for compliance reporting. Our quick turn-around analysis and reporting will meet your compliance and project needs. Weston's Auburn IAS laboratory has been serving air emissions clients for over 25 years and has completed thousands of analyses for demonstration of compliance. With the addition of our wastewater testing services, we can combine our testing and consulting experience to serve as your all-in-one analytical testing resource.

EBJ: What are some highlights of your Emissions Testing business?

Howard: Weston is a leader in our industry with emerging contaminants including per- and polyfluoroalkyl substances (PFAS) and has performed over 200 test runs to date. We offer remote monitoring capability, whereby our clients can observe gaseous emission testing results on a minute-by-minute basis from their desk or phone while we are testing. Additionally, we can provide temporary monitoring equipment that can be calibrated and maintained from our office. Our clients can view that instrumental monitoring data via phone app or desktop computer. The vast reach of our engine testing services allows us to service most Oil & Gas delivery systems in the U.S. Weston's ambient team provides wind and weather monitoring each year for the Macy's Thanksgiving Day Parade.

EBJ: What are the Emissions Testing services that you provide?

Howard: Weston provides all emissions testing services, including highly advanced ambient air monitoring technology.

- Regulatory Compliance Demonstration – Measurement of criteria and HAPs emitted from point sources to demonstrate compliance with state and federal air permits and regulations.

- Continuous Emission Monitoring (CEMS) Certification Testing – We routinely perform relative accuracy test audits (RATAs) on CEMS measuring NOx, CO, SO2, O2, CO2, and volumetric flow rate. Performed in accordance with Performance Specification (PS) Test Procedures set forth in 40 Code of Federal Regulations (CFR) Parts 60 and 75.

- Mercury CEMS RATAs – Performed in accordance with PS-12A and PS-12B, including on-site collection and analysis of mercury sorbent tubes in accordance with EPA Method 30B.

- PM CEMS Certification Testing – Correlation curve development, RRAs and RCAs; Performed in accordance with PS-11.

- Total Reduced Sulfur (TRS) and H2S CEMS RATAs – Performed in accordance with PS-5 and PS-7.

- Temporary CEMS Services – Placement and integration of Weston's mobile CEMS to provide temporary CEMS data. These systems are calibrated, maintained, operated, and reported remotely, minimizing client time.

- Comprehensive performance tests and trial burns for hazardous waste incineration facilities.

- Fourier-transform infrared spectroscopy (FTIR) measurement of a variety of gaseous compounds by FTIR.

- GC – On-site or off-site analysis of pollutant compounds in accordance with EPA Method 18.

- Air pollution control device design engineering testing and vendor guarantee testing.

- Volatile organic compound (VOC) capture and efficiency testing.

- SO3 measurement in high-temp, high-ash laden gas steams in coal-fired power plants.

- Electronic Reporting Tool (ERT) – Preparation and submittal of emissions test data via the EPA ERT.

- Emission Collection and Monitoring

Environmental Business Journal ® (ISSN 0145-8611) is published by Environmental Business International, Inc., 4452 Park Blvd., #306, San Diego, CA 92116. To order a subscription, call 619-295-7685 ext. 15 or visit us online at ebionline.org/ebj. A corporate electronic subscription with internal reproduction license and access to data starts at $1,250 and allows up to five registered users with rates increasing in five user increments. Discounted corporate subscriptions are available for firms with under 100 employees and single-issue access, non-profit or individual subscriptions are $995.

Plan System (ECMPS) – Preparation of monitoring plans and submittals via the ECMPS.

- Indoor Air Quality (IAQ) – Mold surveys and remediation services.

EBJ: What innovative technologies are you using to conduct Emissions Testing? How has information technology/ artificial intelligence/robotics and/or other type of technologies change the way that you conduct business?

Howard: Other than the remote monitoring capabilities that I previously mentioned, Weston developed its own data acquisition software beginning in the early 1990s, maintained it privately, and upgraded it into Microsoft over the years.

EBJ: What are issues related to quality in the emission testing industry and what are the solutions?

Howard: Over the last 10 years, we have been impacted by a number of requirements in our field of practice. Those requirements were created in good intention and in an effort to improve quality in emission testing. Some of those requirements include **Qualified Source Testing Individual** (QSTI) exams and certifications of the emission testers; accreditation of emission testing practices as required by **American Society for Testing and Materials International** (ASTM) standards; related requirements to maintain a Quality System for a company's emission testing practice; and undergoing annual third-party audits of emission testing bodies and laboratories.

We have seen an increase in oversight and involvement from some state agencies and a decline from others. Most of the projects we perform that are observed by state agency staff are limited to a checklist of activities during the actual field collection. Much of the quality associated with a test even occurs during sample recover procedures, laboratory analytical procedures, and data reduction and calculation. The bottom line is that there still is not one system or process that ensures quality of an emission test, and, in a number of cases, test methods are not followed properly. Quality still resides with ethics and integrity of the persons and/or company performing the work. Until other procedures are implemented that vastly improve quality collection, quality will continue to be at risk.

EBJ: What is needed to generate more growth in U.S. air quality consulting?

Howard: New regulatory drivers for air.

EBJ: What can you tell us about the trends in Indoor Air Quality?

Howard: Insurers and property managers seem to have increasing demand for IAQ-related consulting and testing services. Mold is still a hot topic for tenants and employees, and they tend to cite indoor environmental quality (IEQ) concerns whenever they associate their work environment with any allergy-like or upper respiratory symptoms. Asbestos still poses challenges for any renovation or redevelopment project, particularly in jurisdictions with prescriptive, often draconian, regulations that treat all asbestos as equal risks to public health despite overwhelming evidence that the type of asbestos and the building material matrix are both important in determining exposure and toxicity potential, and ultimately the human health risk associated with abatement activities.

The list of other indoor environmental contaminants of concern continues to grow with mercury vapor from elemental mercury-containing devices and fluorescent lamps and PFAS being just two examples. Emerging IEQ concerns that get media and news attention seem to get the general public's attention in real time. Increased scrutiny inevitably leads to increased concerns and complaints, and then to the demand for consulting services. Successful, and even unsuccessful, litigation drives the adoption of best professional practices in building management, operation, and maintenance. Those owners, property managers, and employers who wish to avoid being targeted in personal injury class actions by employee or tenant groups typically use consultants to provide the necessary expertise and state-of-the-art solutions.

EBJ: How is Indoor Environmental Quality consulting being impacted by OSHA?

Howard: Although the **Occupational Safety and Health Administration** (OSHA) does not have an IAQ standard per se, at least two state plans, New Jersey and California, do have IEQ standards. Obviously, OSHA has standards that apply to IAQ for exposure to lead-containing paints and coatings, asbestos in building materials, anesthetic and sterilizing gasses in health care. OSHA can and often does issue the "You have 10 days to investigate and report your findings and corrective actions" letter as a result of any credible employee complaint regarding poor IAQ, including perceived mold exposure.

EBJ: Do you think OSHA should incorporate Air Quality standards?

Howard: In cases where OSHA enforcement believes that IAQ is adversely affecting employees' health, the agency can and will use the General Duty Clause to enforce generally accepted standards promulgated by other organizations, including **National Institute for Occupational Safety and Health** (NIOSH), **American Conference of Governmental Industrial Hygienists** (ACGIH), **Sheet Metal and Air Conditioning Contractors' National Association** (SMACNA), **National Air Duct Cleaners Association** (NADCA), and A**merican Society of Heating Refrigerating and Air-Conditioning Engineers** (ASHRAE). For example, OSHA can cite employers for failing to follow EPA guidance regarding Indoor Air Quality (IAQ) guidance concerning soil vapor intrusion, large building IAQ management programs, and a host of other potential IEQ problems. Given the difficulty of setting standards for mold exposure, for example, it may be better for OSHA to regulate IAQ using the General Duty Clause and other organizations' generally accepted standards, than to have the agency enter the expensive morass of litigation that inevitably follows any formal attempt at rulemaking. Professional and trade organizations are better equipped to respond quickly to advances in the basic science, technology, and standard of care because OSHA has to consider cost-benefit in any rulemaking. □