

Statement of Qualifications  
for  
Providing Professional  
Air Quality Services

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# **CORPORATE PROFILE**

Grace Consulting Inc. (**GCI**) is a closely held corporation dedicated exclusively to the sampling of air pollutants. Since its inception in April of 2000, **GCI** has grown to approximately 30 employees with an average testing experience level of over 8 years.

**GCI** is devoted to providing our clients with superior technical expertise in air emissions sampling. Our staff consists of specialists in the latest sampling techniques and technical advancements. **GCI's** extensive inventory of sampling equipment allows our staff to perform tests at numerous locations simultaneously, while maintaining adequate backup equipment to prevent delays due to malfunction.

**GCI's** corporate headquarters is located near the Cleveland, Ohio area in Wellington, Ohio, with a branch office in Hickory, N.C and Brownsburg, IN. These three locations allow us to provide professional expedient service at attractive prices. **GCI** offers nationwide services to its clients, which include those, both in the public and private sector. Previous and current clients include power plants, integrated steel making facilities, chemical manufacturing companies, asphalt batch plants, emissions control equipment manufacturers, and A&E firms.

The principal's of **GCI** are closely involved in all aspects of work performed by the company. This personal commitment insures that the highest quality of work is provided and a clear understanding of the client's needs. This is accomplished through adherence to business principles, which guide the conduct of our company and guarantee the provision of the most cost-effective and highest quality services to our clients.

- **GCI** employs the most experienced technical professionals to promise the delivery of accurate and exact results.
- Our team(s) of professionals is dedicated on a project-by-project basis to providing correct service throughout the duration of the project.
- Prior to the start of any project, our team leaders discuss job specifics with the client to assure proper understanding of all job requirements. Each project is reviewed to confirm that proper testing procedures and methodologies will be employed. Our objective is to address each job requirement with maximum efficiency, in terms of utilizing the most proven technologies, while minimizing time for completion. Whenever possible, **GCI** will propose an optional test program, which will reduce the cost of the plan, and/or more fully address the client's needs.
- Team leaders are committed to working very closely with the client's designated facility staff. This means that the client will be kept correctly informed of the project status and results, as well as the disclosure of any information, which may necessitate revisions to the project scope of work to meet job requirements.
- **GCI** is sensitive to our clients' schedules and will plan the required work to meet those needs. Setup of test equipment is generally performed the day prior to the test. This normally reduces the amount of overtime by the client's employees by reducing the time spent at the site during testing.
- **GCI** maintains a network of pre-qualified subcontractors who have demonstrated reliability, consistent quality services, responsiveness to **GCI's** clients' project needs, flexibility in dealing with unique work situations, and competitive pricing.

# **AIR QUALITY SERVICES**

Selection of **GCI** for the various environmental services necessary to address emissions sampling issues will provide a single source of accountability for all of its facilities or clients.

We have extensive experience in all the aspects necessary to address the issues of source emissions testing, emissions monitoring equipment, emissions inventory development, control equipment evaluation, EPA Compliance, and the like.

Our experience, coupled with the aptitude of our employees in three (3) offices offers the competence and expertise necessary to coordinate with federal, state, and local government authorities to address the issues needed to obtain approval for the selected work options and related courses of action.

The primary focus of long-range involvement for **GCI** is on the interaction with corporate staff and local facility management on emissions sampling services.

**GCI's** quality derives from its specific project experiences regarding emissions sampling services. Our association with private industry, utilities, A&E firms, and government sectors provide the management credentials for this process. **GCI's** involvement with both regulations and regulatory agencies may provide a cost-effective alternative in interaction with local, state, and federal environmental agencies. Our goal is to provide our clients the input necessary to address emissions sampling services in a manner that is economical to the practical extent and consistent with responsible care practices.

**GCI** is prepared to assist in complying with regulations resulting from the Clean Air Act. Our service package for emissions sampling services provides the information essential in devising plans, certifying monitor systems, and determining compliance status and operational efficiency. Specific capabilities include:

1. Compliance and diagnostic emissions testing
2. Performance specification and control efficiency testing including SCR, SNCR, Air Heaters, Scrubbers, Precipitators, Baghouses, etc.
3. Continuous Emissions Monitoring Systems (CEMS) Certification with Relative Accuracy Test Audits (RATA's) and bias testing
4. Combustion Turbine Tuning, Performance and Compliance testing
5. CEMS Maintenance and QA/QC
6. Reference method emissions testing
7. Air toxins emissions testing
8. Boiler efficiency testing
9. Various other testing including acid dew point, mist eliminator efficiency, and fly ash resistivity

**GCI** currently operates a fleet of eleven (11) complete source emissions sampling mobile monitor laboratory trailers equipped with the required apparatus to perform emissions sampling on a continuous basis. These trailers can also be equipped with analytical equipment to enable us to perform a variety of analyses on-site and provide immediate results. These trailers are able to be mobilized on-site allowing us to be responsive to the most demanding sampling requirements.

### Analytical Services

During the process of evaluation of compliance status, it may be necessary to perform analytical testing. It is **GCI's** policy that it can best utilize its resources by employing a small select group of outside laboratories. In this manner, we can effectively control both the quality and cost of services provided. We assure that these facilities employ state-of-the-art technology and have an experienced staff to provide competent results on time within competitive pricing guidelines.

### Summation of Services

**GCI** will provide the most comprehensive, knowledgeable, and experienced team of professionals to provide technical expertise and support to your company in order to address the broad scope of specific concerns at its facilities.

The aptitude of our project management provides **GCI** the ability to effectively interact with both corporate and local facilities' staffs, as well as environmental agencies.

To summarize our approach, we commit the individuals and technical resources of **GCI** to get the job done. Your company's needs require experienced individuals with a thorough knowledge of the existing and future environmental testing requirements resulting from the Clean Air Act. You need qualified people who can mobilize quickly, follow directions faithfully on the job, and provide you with the professional expedient service you desire at an attractive price. Our project teams are fully capable of meeting those needs.

**GCI** looks forward to a long-term working relationship with your company in developing solutions to issues raised by future Clean Air Act regulations. We believe that our qualifications make **GCI** the "consultant of choice" for this work and hope for your highest consideration. We appreciate the opportunity to submit our qualifications for providing emissions sampling services to your company for its review. We now invite you to request additional information including references and professional profiles.

# **Quality Assurance / Quality Control**

Grace Consulting, Inc. has considered quality assurance/quality control as one of our top priorities since the inception of the firm. In addition to the concepts described regarding TOTAL QUALITY, **GCI** has complete QA/QC packages for all of our field sampling for air emissions work, and also requires QA/QC of all engineering and science activities.

**GCI** implements a comprehensive Quality Assurance Program, which applies for initial preparatory activities through report generation. This includes the following measures:

- Technical staff follows standard operation procedures under the direct supervision of a senior staff member.
- Any field measurements taken are directly recorded on field data forms and input into an on-site computer.
- Proper chain-of-custody is followed for all samples collected in the field for analysis at the analytical laboratory.
- All data records are filed and archived.
- Data submittals and reports are validated, reviewed, and approved by management prior to release.

## **FLEXIBLE PROJECT MANAGEMENT**

The key to a successful project is effective project management. Without it, additional expenditures are imminent and cost overruns are likely to occur. Since its founding, **GCI** has structured project management programs that maximize the opportunity for timely completion and effective cost control.

**GCI** builds flexibility into our management program. This enables us to draw on the expertise and talents of our staff from all of our locations. On a project specific basis, **GCI** assigns a staff, which can review each project's technical complexity and provide expert advice into these technical aspects. Upon completion of this review, the project team is assembled to conduct the work.

**GCI** promotes constant interaction between our field offices, our corporate office, and each member of the project team. This cooperation, not competition, insures a consistent effort and approach to the completion of the work. In this manner, each project detail is addressed to assure timely and thorough completion of your requirements.

# **Total Quality Commitment**

## **HISTORY**

Client satisfaction through quality service has been **GCI's** primary objective. **GCI's** Quality Assurance Program uses a process, which defines problems, develops solutions, and continuously improves the results within **GCI**. **GCI's** Quality Assurance Program utilizes the FADE process: Focus, Analyze, Develop, and Execute. This process is structured to lead to fact-based solutions complete with implementation and measurement plans.

The main area of focus is client satisfaction issues of both external and internal clients.

**GCI** also plans to develop a systematic process to more formally involve outside clients in client/supplier relationships, and to meet and exceed client needs.

## **OBJECTIVES**

**GCI's** Total Quality goals are simple and straightforward:

- 1) To improve quality to zero defects and
- 2) Retain all clients

# **How to Plan for Emissions Testing**

When planning for an emissions test, there are many factors that the test team will need to be made aware of in order to complete a successful test in a timely fashion. Many times, these same factors can influence the cost of the project; therefore it may be beneficial to mention any pertinent information in your Request for a Quotation.

## **CLIENT RESPONSIBILITIES:**

- 1) Type of source and operational hours
- 2) Location of source (maps are beneficial)
- 3) Name of plant technical contact, telephone, and facsimile numbers
- 4) Safe access to source, physical dimensions of source, elevation, and any special requirements (i.e., confined space entry)
- 5) Proposed test dates and special schedule requirements (i.e., test between certain hours)
- 6) Operational permits and any special request from the regulatory agency
- 7) Clearance of testing personnel and vehicles
- 8) Coordination of process conditions

## **TEST TEAM RESPONSIBILITIES:**

- 1) Prepare necessary pretest documentation for notification to regulatory agency
- 2) Setup of sampling equipment and modification to allow for test to be accomplished in a timely fashion
- 3) Test in accordance to USEPA or State's Reference Methodology
- 4) Coordination of test times with facilities representative
- 5) Calibration of test equipment
- 6) Analysis of test samples, computation, and reporting of final results

## **SAMPLE SITE REQUIREMENTS**

One of the most important aspects of the emissions test is the location of the sample ports. Acceptability of the sample port location is determined by the distance upstream and downstream of any Flow Disturbance.

If there are no existing sample ports or new ports need to be installed, **GCI** will assist with the sample port layout and the number of ports required. This service is generally free of charge, as many times **GCI** can make recommendations that will allow for safer and easier sampling conditions.

Generally, four (4) inch inside diameter ports are adequate for the majority of the tests, however some test apparatus require up to a six (6) inch inside diameter test port.

## **FACILITY SERVICES REQUIRED**

The majority of the test equipment requires a single-phase, 220-volt, 30 amp grounded electric service generally within 50 feet of the sample location. (**GCI** has some Mobile Monitor Trailers that require 110 volt). The test location power requirements include two, 110 Volt 20 amp individual power circuits. Other plant services may be required from time to time, such as plant air, etc., depending on the test methodology. The test team will notify the client of any additional services required prior to mobilization.

Because of the amount of equipment necessary to perform the test, it is always appreciated if the test crew is allowed to bring the cargo vehicle onto the test site.

# REPRESENTATIVE CLIENT LIST

Alcan Aluminum  
Allegheny Energy Services, Inc  
American Municipal Power-Ohio  
Archer Daniels Midland  
Buffalo Trace Distillery  
Carolina Paving  
Carolina Power and Light  
Commercial Testing and Engineering  
Commonwealth Technology, Inc.  
Duke Energy Corporation  
Environmental Elements Corp.  
Environmental Projects  
ESC  
First Energy  
General Electric  
Gunther/Shackelford Associates  
Indianapolis Power and Light  
Jacksonville Electric Authority  
Johns Manville International, Inc.  
KVB Testing Services  
McDermott  
Merck and Co.  
Mobotec USA, Inc.  
Monitor Labs  
NIPSCO  
Orlando Utility Commission  
Portside Energy  
Progress Energy Company  
RTP Associates  
Reliant Energy  
S/D Engineers, Inc.  
Seminole Electric Cooperative, Inc.  
Shelly Company  
Solid Fuel Technology, Inc.  
St. Joseph Light and Power

# **Carl S. Vineyard, P.E., QSTI**

PRESIDENT —GRACE CONSULTING INC.

## **PROFESSIONAL SUMMARY:**

Mr. Vineyard is President of Engineering for Grace Consulting Inc. In addition to his administrative duties, he coordinates all air quality testing projects from initial planning through issuance of the final report. He directs a staff of test technicians in equipment calibration, test performance, and laboratory work. He oversees quality control of projects through review of test reports, quality control training and development of test procedures. He consults with clients on test regulations and performs air pollution control systems evaluations.

## **FIELDS OF EXPERTISE:**

Air quality; ambient monitoring and source emission testing; air pollution control system evaluations; Continuous Emissions Monitoring Systems evaluations; heat rate monitoring; and evaluation support.

## **SELECTED PROJECT EXPERIENCE:**

Mr. Vineyard has experience in numerous field test projects. This experience extends to the following source types:

- Power Generation Units
- Oil Refinery Catalytic Crackers
- Incinerators
- Process Steam Boilers
- Munitions Facilities and Furnaces
- In addition to the above testing experience, Mr. Vineyard has applied the procedures for the New Source Performance Standards in determining control requirements for Particulates, NO<sub>x</sub>, SO<sub>2</sub>, VOCs and CO.
- He has performed numerous tests associated with determining the efficiencies of gas cleaning systems for both diagnostic and compliance purposes.
- He has performed studies to determine laminar flow, dust resistivity, particle sizing, and plume opacity.

## **EDUCATION:**

University of Missouri – Rolla, MO  
Bachelor of Science Degree, Mechanical Engineering

## **REGISTRATION / CERTIFICATIONS:**

Professional Engineer, State of Ohio  
Professional Engineer, State of Texas  
Professional Engineer, State of New York  
Qualified Stack Test Individual

## **PROFESSIONAL AFFILIATIONS:**

Air and Waste Management Association  
National Society of Professional Engineers  
National Society of Mechanical Engineers  
Source Evaluation Society

**Grace Consulting, Inc**  
**Emissions Testing Services**

# **Harold E Stiles, QSTI**

## **Manager of Operations**

### **PROFESSIONAL SUMMARY:**

Mr. Stiles is the Manager of Operations of **GCI** Inc. In addition to his administrative duties, he supervises test crews in the performance of air pollution testing programs. Additionally, he coordinates the performance of monitoring applications and analysis. Mr. Stiles works with field teams to provide on-site coordination of equipment handling and operation procedures. He is responsible for assuring that field personnel are aware of equipment standards and serviceability.

### **FIELDS OF EXPERTISE:**

Continuous Emissions Monitoring Systems evaluations, Mercury Emissions, PM and PM10, Resistivity, 3-D Flow Tests, and Multimetals.

### **SELECTED PROJECT EXPERIENCE:**

Since 1984, Mr. Stiles has had experience in numerous field test projects. This experience extends to the following source types:

- Coal and Oil-fired Boilers
- Industrial Sources
- Incinerators
- Gas Turbines
- Foundries

### **EDUCATION:**

Coffeyville Kansas Community College  
Columbia Scientific Industries

“Continuous Emissions Monitoring System Operation and Maintenance”

### **PROFESSIONAL AFFILIATIONS:**

Air and Waste Management Association  
Source Evaluation Society

# **Frank Whitt**

## **North Carolina Office Manager/CEMS Specialist**

### **PROFESSIONAL SUMMARY:**

Supervises test crews in the performance of air pollution test programs, as well as in monitoring applications and analysis. Mr. Whitt has extensive experience in Relative Accuracy Testing of Continuous Emissions Monitoring Systems. Since 1989, he has supervised numerous tests or units including the following:

- Coal and Oil-fired boilers
- Various industrial sources
- Gas turbines
- Foundries
- Incinerators

Works with teams in the field to provide on-site coordination in equipment handling and operation procedures. Awareness of equipment standards and serviceability stems from his test crew experience and project management.

### **PROFESSIONAL AFFILIATIONS:**

Air and Waste Management Association  
Source Evaluation Society

# **Timothy C. Moody, QSTI**

## **PROFESSIONAL SUMMARY:**

Since 1994 Mr. Moody has supervised test crews in the performance of air pollution test programs, as well as in monitoring applications and analysis. Verify compliance with federal regulations. He has supervised many tests or units including the following:

- Coal and oil-fired boilers
- Various industrial sources
- Foundries
- Incinerators

Mr. Moody works with teams in the field to provide on-site coordination in equipment handling and operation procedures.

## **EDUCATION**

California Polytechnic University (San Louis Obispo)  
Embry-Riddle Aeronautical University  
University of Chicago  
Military NCO Academy—Wiesbaden Air Base, Germany  
US Air Force, Staff Sergeant  
Total Quality Management Training  
EPA 40 CFR, Parts 60, 75. and 266 Training

## **PROFESSIONAL AFFILIATIONS:**

Air and Waste Management Association  
Source Evaluation Society

# **Scott A. Teague, QSTI**

## **Project Manager / CEMS Specialist**

### **PROFESSIONAL SUMMARY:**

Since 1991, Mr. Teague has gained extensive experience in Relative Accuracy Testing of Continuous Emissions Monitoring Systems utilizing our mobile monitor laboratories. He has participated in numerous tests at sources located throughout the United States serving as a crew chief, and trailer operator, while also providing on-site coordination in equipment handling and laboratory equipment modification and repair. He is familiar with all test phases performed by **GCI** including testing for VOC's, monitor certification, and particulates.

### **EDUCATION:**

Wellington High School – Wellington, Ohio

### **PROFESSIONAL AFFILIATIONS:**

Air and Waste Management Association  
Source Evaluation Society

# **Michael F. Whitt**

## **PROFESSIONAL SUMMARY:**

Mr. Whitt has been supervising test programs while serving as a North Carolina Crew Chief or trailer operator since 2001. Mr. Whitt has become proficient in the repair and maintenance of air sampling equipment and works to gather data in the laboratory.

## **FIELDS OF EXPERTISE:**

He has gained extensive experience in the following test methodologies:

- USEPA Method 20
- Flow and Gas RATAs
- Ontario Hydro
- PM 10 Testing
- HVT Testing
- VOC Testing.

## **EDUCATION:**

Hickory High School – Hickory, NC  
Catawba Valley Community College  
RBTC

# **Nathan C. Vineyard, QSTI**

## **Indiana Office Manager**

### **PROFESSIONAL SUMMARY:**

Supervises test crews in the performance of air pollution test programs, as well as in monitoring applications. Mr. Vineyard specializes in on-site recovery and analysis, as well as, serving as the Laboratory Manager. He is familiar with all test phases performed by **GCI** including testing for VOC's, monitor certification, visible emissions, and particulates.

### **SELECTED PROJECT EXPERIENCE:**

Mr. Vineyard has provided on-site sample recovery or analysis under many test methodologies, some of which include:

- Control Condensate Ammonia (CTM-027)
- Phenol (CTM-032)
- Method 5E, 5/202, and 5D
- Method 17
- Method 18 (Gas Chromatograph)
- Method 26A (HCl)

### **EDUCATION:**

Wellington High School – Wellington, OH  
Environmental Technical Association – Visible Emissions Evaluation  
Seminar for Gas Chromatography

### **PROFESSIONAL AFFILIATIONS:**

Source Evaluation Society

## **References**

### **UTILITIES**

RELIANT ENERGY  
Mr. Joe Rada  
33570 Lake Rd  
Avon Lake, OH 44012  
(440) 930-6566

FIRST ENERGY  
Mr. Morgan Jones  
76 South Main Street, 13<sup>th</sup> Floor  
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DUKE ENERGY  
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1000 East Main St.  
Plainfield, IN 46168  
(317) 838-4445

PROGRESS ENERGY  
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Raleigh, NC 27601  
(919) 546-2799

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