

# Solutions

A Quarterly Publication

ISSUE 1; FEBRUARY 2016

## A MESSAGE FROM OUR PRESIDENT

Customers are the most important people in our business. We exist as a business to satisfy our customers. Without them we will not survive. Our goal is to understand our customers' needs, and offer a product or service to fill those requirements.

A simple thought, but one that many companies fail to realize. Why?

Many companies understand what they are good at doing or providing. They take this perceived strength, and try to force feed it to the customer base. The problem being, that many times, the customer base does not want or need this product. The result is a failed product launch, and wasted marketing and R & D money.

PCC's focus is squarely on meeting and satisfying the needs of our customers. The theme of this first quarterly newsletter will



be to discuss products and actions we are taking as a company to meet the needs of our customers. Meeting a customers' needs can be anything from designing a system to an exact specification, or obtaining ISO certification to ensure a quality process. It can

also be as simple as offering standard designs to insure a fast delivery, or having local representatives close to site for easy communication. Our newsletter will also highlight bio-oxidation, and how this new technology can meet specific market and environmental requirements.

Throughout the world, PCC strives to understand the needs of our diverse customer base, from their perspective, not ours. By keeping our focus on this philosophy, we will continually challenge ourselves to grow and expand our thinking offering innovative environmental solutions to our valued customers.

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## PCC ISO 9001:2008 CERTIFICATION - WHY NOW?

PCC has been in business since 1969 and over the past forty five plus years, the company developed a unique culture with internal standards, processes, and procedures that provided the foundation for generating consistently successful projects and satisfied customers. Based on this unquestionable track record of success, many observers would state "if it isn't broke then don't fix it!" The company's senior leaders, however, have chosen to take a different perspective. As we grapple with the daily consequences of long term change, the question we ask ourselves has been "How can we Do Better?"

Recognizing that PCC operates in a dynamic business environment, it is clearly understood throughout the organization that continuous improvement is essential to long term success.

Market change, while often slow and imperceptible, can also be rapid and unexpected. In response to market changes, PCC's leadership has spent the past two years driving growth oriented adjustments in where we choose to compete, how we win projects, and how we organize ourselves to deliver value to our customers. Some of

the most visible outcomes of this emphasis has been the introduction of Dual-Phase Bio-Oxidation to our product line, increased



pursuit of EPC contracts, and a significant growth in our workforce. For a company to effectively manage change, it must operate from a strong foundation. During the last six months of 2015, PCC established an ISO Implementation Team to establish and/or modify internal Quality Management processes aimed at earning certification for compliance with the International Organization for Standardization Quality Management Standard. The team was assessed by a licensed, third party auditor in November and determined to be in conformance with the ISO 9001:2008 Design standard. This certification effort fortified the foundation upon which PCC built its strong reputation and will have many tangible benefits to both PCC and its customers. First, it provides a baseline upon which the Quality Management System for any new business lines or product offerings must be configured.

This will help PCC to accelerate the learning curve with the fielding of our new Dual-BioPhase™ Bio-Oxidation systems and build confidence in PCC across our expanding customer base. Secondly, it brings PCC in line with marketplace expectations. Customer confidence is essential and over time it has become increasingly clear that there is both an international and domestic expectation that equipment suppliers maintain an ISO compliant Quality Management System. As PCC has increased its efforts to earn more contracts from EPC Firms, PCC's status as an ISO



registered company will greatly reduce their perceived risks of doing business with our company. Last, and perhaps most importantly, PCC's Quality Management System provides a structure for guiding both the organizational learning of our current workforce and the rapid training and integration of future employees. It will help guide not only the assessment of our training needs, but also the targeted investment of our training resources.

PCC's ISO 9001:2008 certified Quality Management System is an essential element of the foundation for the company's future growth. PCC's Quality Goals are simple to remember and understand: Deliver "On" Time, Supply Equipment that Works, and Satisfy the Customer. We measure ourselves both objectively and subjectively and incorporate all feedback into our efforts towards Continuous Improvement. It is through a balanced combination of our "Can Do" spirit and our disciplined approach to project delivery that PCC will achieve our collective expectation to "Do Better". So..... if you were wondering why PCC suddenly decided to pursue ISO certification last year, now you know!

## PCC's New Logo



As part of the re-branding initiative underway at PCC, a new logo was designed through the collaborative efforts of Bob Miller, Leah Duval and Mike Foggia. All of PCC's publications, literature and presentations will incorporate the new design. PCC will continue to review all aspects of our branding, as well as our overall marketing initiatives.

John Dormire has stated, "PCC is an Oxidation Technologies Company. We provide solutions utilizing both Thermal and Bio-oxidation systems to meet our customer's pollution control needs."

PCC's primary goal is to ensure we are recognized as a key supplier within the pollution control technology sector.

## REPRESENTATIVE SPOTLIGHT - APOGEE ENGINEERING (PHIL LUTZ)

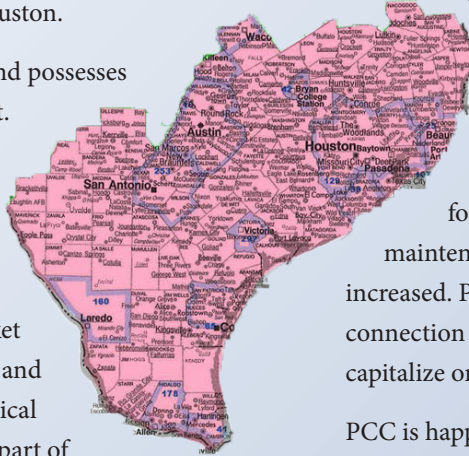
Located in Houston, TX, Apogee Engineering has been a member of the PCC rep network since 2005. Currently, the Apogee team includes Phil Lutz (principal owner), Derek Nuckols, and Jerry Wingo.

Apogee's geographical responsibility includes the Texas Gulf Coast from Corpus Christi to the Beaumont/Port Arthur/Orange area with offices located in Houston.

The Apogee team is highly technical and possesses above-average knowledge of its market.

The composition of its line card, coupled with the diversity of the market, provides them numerous opportunities.

The Texas Gulf Coast is a unique market due to the concentration of EPC firms and the significant refinery and petrochemical industry. The EPC business is a major part of plant work, but it is cyclical. During a strong business



climate, the plants engage EPC firms to execute major projects. Apogee focuses on its strong relationships, at the EPC firms, during the cycle because this is where most of the revenue exists.

This effort includes working with the corporate offices of the end users. When the EPC projects decline, as evident in the current business climate, focus shifts a bit more to the plant contacts where maintenance, repair, and overhaul (MRO) business is increased. Phil states that the objective is to maintain strong connection to both EPC firms and end users in order to capitalize on all opportunities.

PCC is happy to have Apogee as a valued member of the rep network.

## TEAM MEMBER SPOTLIGHT - KEITH LUSK, VICE PRESIDENT OF FINANCE

A 1992 graduate of California University of Pennsylvania, Keith has spent his career in various Accounting, Consulting and Finance Roles. Keith spent the first decade of his working life in Public Accounting with two regional firms (one located in Randolph, New Jersey and the other in Harrisburg, Pennsylvania). The next eight years were spent consulting in a wide range of areas from interim Controller and CFO positions to start-ups and turn-arounds. Most recently, Keith was employed as the CFO of a 5 plant, plastics manufacturing company headquartered in Monroeville, PA. Keith is also a Certified Public Accountant and holds an MBA from Duquesne University.

In his current position as Vice President of Finance, Keith's main responsibilities involve Accounting, Finance and Cash Management activities. Having now been in the position for approximately six months, Keith is starting to feel at home at PCC and expects to remain with PCC for the long term. Keith added "the people at PCC have been unbelievably welcoming

and helpful during my transition into the company".

Outside of work, Keith is an avid sports fan mainly following the Steelers and Penguins. Keith enjoys golf, but describes himself as an average hacker, at



best. Keith lives in Venetia with his wife, Maria, and 3 children (Nicole 11, Jacob 7 and Emily 6). Keith also enjoys spending time with his family outdoors, doing things such as camping, hiking and biking and also coaches youth sports (basketball and baseball).

## **BIO-OXIDATION - AN EMERGING TECHNOLOGY**

**BOB MILLER - PRODUCT LINE MANAGER - BIO TECHNOLOGIES**

PCC's Dual-BioPhase™ Bio-Oxidation technology primarily competes with two different technologies, Regenerative Thermal Oxidizer (RTO) and Bio-filter. When compared to RTO technology, PCC's Bio-Ox has several distinct advantages: The Dual-BioPhase™ Bio-Oxidizer has lower maintenance cost, does not produce NOx, CO, or SOx, and produces 90% less Co2 when compared to an RTO. The Dual-BioPhase™ technology does not have the strict thermal safety requirements of an RTO nor the additional operational cost for the need to burn natural gas in the thermal oxidation process.



The Bio-Ox technology uses microorganisms for the oxidation process and does not require natural gas. This gives Dual-BioPhase™ technology the major advantage of energy savings. As an example, PCC recently started up a Dual-BioPhase unit, in Korea, designed to eliminate odors from the process of producing asphalt shingles. Savings in operating expense was the key decision factor for this client. Electrical operating cost is similar between the RTO and PCC's Bio-Ox design, however, based on the clients own calculations, there is a savings of \$300,000/yr. for gas

## **PCC'S QUARTERLY PROCESS REVIEW**

### **The Landfill Gas Process**

**SCOTT BURGE, VAUGHN STERLING - PCC SALES/APPLICATIONS**

The United States has several hundred operating landfills which accept waste garbage generated on a daily basis and there are several hundred more proposed landfill projects. Through the anaerobic decomposition process, landfills produce methane, carbon dioxide, water and volatile organic compounds (VOCs).

Most landfill gas projects involve the generation of electricity through the direct combustion of raw landfill gas. Many of the landfills are eventually "capped" to allow the operators to extract and separate the methane gas for introduction into the Nation's natural gas supply grid.

The extraction and separating process produces an off-gas that in the past would typically be emitted to atmosphere or flared. However, as air emission regulations tighten; discharging this off-gas to atmosphere or treating with a simple flare to control VOCs is being replaced with Thermal Oxidizers which achieve higher VOC destruction levels.

PCC initially began supplying systems for landfill gas applications in the mid-1990s and have several successful operating Landfill Gas Thermal Oxidizer systems. Our thermal oxidizers can use "street grade" natural gas, raw landfill gas, and/or some of the partially processed high Btu gases derived from the customer's process as fuel for the burner. In some cases, heat recovery in the form of a heat exchanger is essential to provide heated streams to regenerate the media beds used in the landfill gas processing plants. Heat recovery is also added to

the Oxidizer for preheating the combustion air to the burner to minimize fuel consumption.

Various challenges exist and are dependent upon the type of process the plant uses to separate the gases. A pressure swing adsorption (PSA) system presents dynamic flows, pressures, and compositions that the Oxidizer must adapt to in order to operate effectively. A system using the solvent method has a more consistent flow and composition. A thorough understanding of the customer's overall process and potential operating cases is critical for a properly designed Thermal Oxidizer system. In either case, a Thermal Oxidizer is ideal to achieve the targeted emission levels.

PCC continues to work with our customers and industry partners to pursue these opportunities related to landfill gas applications.

The experience and understanding we have gained over the years with this application provides PCC with the know-how to execute these projects successfully.

