

National Chemical Technician Award Candidate Form

Candidate information

Name: Steve Newland **Title:** Associate Staff Technician
Company name: Phillips 66
Complete work address: 158-02, PL, PRC, Bartlesville, OK
Work phone: 918-977-4414 **Email:** Steve.newland@p66.com

Candidate's immediate supervisor's information

Supervisor's name: Maziar Sardashti **Supervisor's title:** Principal Scientist Lead
Work Phone: 918-977-5150 **Email:** Mazi.sardashti@p66.com

Nominator's information

Nominator's name: Maziar Sardashti **Nominator's title:** Principal Scientist Lead
Work Phone: 918-977-5150 **Email:** Mazi.sardashti@p66.com

Candidate Eligibility

All three boxes in the Eligible column must be checked for candidate to be eligible.

	Eligible	Ineligible
1. Is the candidate a chemistry-based laboratory technician, process technician, operator, analyst, or other applied chemical technology professional?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
2. Has the candidate been employed for at least five years as an applied chemical technology professional?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
3. Is the candidate currently a member of the Committee on Technician Affairs Executive Board and/or Advocacy & Public Relations Subcommittee?	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes

Candidate's contribution in six areas of award criteria

Make space as necessary under each category. Total packet, including letter(s) of recommendation, must not exceed 6 pages, minimum 10-point font. Do not include proprietary, confidential, or private information..

Technical Achievements (worth 60%)

Steve has a Bachelor of Science Degree in Secondary Education and taught middle school science for two years after graduation. He then worked at Continental Carbon Company for about 8 years as a Quality Control Technician. While at Continental Carbon, Steve was responsible for performing analytical testing in an ISO 9001 environment. Experience gained during his tenure in this position provided an excellent background in good laboratory practice.

Since coming to ConocoPhillips/Phillips 66, Steve has demonstrated an ability to very quickly master his assignments in high tech analysis areas including the ICP-MS, NMR and IR labs. Because of his superior performance, he has quickly advanced in his job grade.

In addition to his contributions in the ICP-MS, IR and NMR areas, Steve has been involved in a process analysis project. After initially working with the professional in charge of the project, when the professional left the company, he became and continues to be the recognized technical expert for this technology. His contributions to the project included fabrication work, programming the data acquisition and control systems, installation, making presentations and writing reports. This was a major undertaking that he handled very professionally and completed it with utmost satisfaction of all the parties involved. He also played a major role in licensing of this technology to an outside vendor for fabrication and installation. Furthermore, he solved a technical problem with the commercially built analyzer that the manufacturer could not resolve.

He independently manages his time and work priorities to ensure that samples in both the IR and NMR areas are analyzed in a timely and efficient manner and that his assignments on the project

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team are completed on schedule. Steve has demonstrated a remarkable ability to juggle responsibilities in multiple areas, resulting in quick turnaround and low sample backlogs.

Steve communicates well in both written and verbal formats. His training as a teacher undoubtedly helped him sharpen his skills in this area. He has repeatedly demonstrated an ability to organize and process data and to communicate technical issues to customers.

Steve has set up several complex data acquisition / process control systems for both laboratory and field analyzer units. These projects included a remote communications interface and presented technical challenges that are typically handled by software specialists.

He is very proactive in reviewing and improving instrument operation. He has revised existing procedures and developed new microwave digestion procedures for both the ICP-AES and ICP-MS areas. He was instrumental in discovering and documenting operational problems in a microwave digester that lead to replacement of that instrument.

More recently, Steve has been involved in assisting with chemometrics modeling of near IR data for on-line process applications at the refineries. He has quickly learned the methods and has been helping to develop chemometrics models for refinery applications.

Other (Considered together to make up the remaining 40%)

Leadership/Mentoring (15%)

Steve has trained several new technicians and exempt employees on tests and procedures in the ICP, ICP-MS, NMR and IR areas. These include sample preparation methods, instrument operation and troubleshooting, and processing and reporting of the data.

When sample flow through the ICP-MS and ICP-AES sample prep areas became a problem, Steve worked closely with another technician to develop a protocol that eliminated the operational issues that were resulting in lost samples.

For his process analyzer work, he had to organize installations, meetings with the plant personnel, provide training and work with the legal group and the outside vendor to transfer the technology. He later had to help the outside vendor with training and troubleshooting of their manufactured systems.

Steve is well liked and respected by the technicians, exempts, and customers with whom he works. He communicates well, both in verbal and written mediums. He is not afraid to voice his concerns/ideas and graciously accepts those voiced by others.

He coordinates his schedule with others in IR and NMR areas to maximize efficient use of resources and get work done on time.

He works very hard on a daily basis to deliver exceptional service to his customers and add value to Phillips 66.

Number of communications/publications (5%) Please do not include titles.

>5

External publications, presentations, patents

>5

- Co-inventor on 1 pending patent
- Presentation at the Culf Coast Conference in November 2013 on On-line Monitoring of ABS
- Presentation(s) to Invensys on the ABS technology

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Internal presentations, publications Include SOPs, presentation to teams, etc.

- Gave 3 safety meeting presentations
- Authored 5 Standard Operating Procedures
- Authored 3 Technical Memorandum
- Co-authored 5 TM's

Contribution to quality, safety, and other initiatives (5%)

Safety:

Since joining ConocoPhillips/Phillips 66, Steve has been very active in our safety program. Within his first few months on the job he made several suggestions to improve the safety of the mechanical shaker utilized for homogenizing crude oil samples as well as writing an SOP for the operation of this device. In addition, he worked with a chemist to identify and then remedy a potential safety hazard related to xylene dilution of ICP samples. Steve pointed out and scoped the solution for a potential exposure problem by installation of a vented hood that protected operators from exposure to solvent fumes during the sample dilution procedure. He also investigated and worked with the vendors, scientists in the ICP area, and customers to modify microwave digestion procedures when scorching problems were encountered with certain sample types.

He has worked on multiple LHR and SOP preparations for new instruments that have been installed in NMR and IR laboratories in the past year.

In 2008, Steve took over as second floor assistant building marshal for PL. In addition, he became a member of the Bartlesville BST Committee. In late 2008, Steve undertook the responsibility for maintaining the observation database for BST. Steve was also a member of the Analytical Services incident investigation team and has been involved in several incident/near miss investigations.

In 2011 Steve assumed the role of PL Building Marshal. In this role he has been working closely with the facilities personnel, management and building occupants to schedule and carry out drills, inform everyone of upcoming utility related issues, train new employees on PL building related safety topics and give presentations on new topics. He is always keeping up to date with the latest changes to safety protocols and other requirements and implements these changes very quickly. He also effectively communicates the building maintenance activities that could pose a risk to people and/or equipment. Steve has taken the role of building marshal to a new level at the Phillips Research Center.

Quality:

Steve strives for continuous improvement in everything he does. For example, when the Biofuels group expressed concern with the reported Ca levels in diesel/tallow blends, Steve immediately reran samples and blanks in an effort to understand their concerns. Steve, along with an exempt employee, began reviewing sample preparation procedures and testing procedures in order to isolate the cause. Action was taken based on this review that markedly reduced the observed variation in the Ca results and positively impacted Biofuel's studies on basic metal removal from tallow.

He also is the main person in charge of the Statistical Quality Control (SQC) programs of the NMR and IR areas. He regularly runs the standards and uses NWA software to keep track of the performance of various tests to ensure that high quality results are provided for the customers.

Continuing Education:

Since starting to work at ConocoPhillips, Steve has taken several university-level computer

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programming classes at Rogers State University. He has also taken two advanced Excel classes and a class on the LabView data acquisition and control software. Through independent study he learned to program two process control systems that each operated under vendor-specific software packages.

Awards (5%)

Steve has received very high ratings in his job grade for most of the years that he has been here. He has received numerous letters of recognition for both his technical and safety contributions.

Professional and community activities (ACS, AIChE, outreach, etc.) (10%)

- Steve is active in his church youth program. Teaching youth classes and helping with Sunday school.
- Assists with the Gifted and Talented (GT) program at the Dewey Schools.
- Assistance with the Robotics program at On the Rock Ministry
- Volunteers every year for the National Chemistry Week
- Volunteers for the Energy Days

June 20, 2015

**Mazi Sardashti, Principal Scientist
Analytical Sciences**

Recommendation Letter for Steve Newland

It is my pleasure to recommend Steve Newland for the Northern Oklahoma Technician of the Year Award. I was not the hiring manager when Steve was hired in 2007, but I have known and worked with him right from the beginning. He came to us with a great deal of laboratory testing experience and started his career in Analytical Sciences in ICP and NMR areas.

I think one of Steve's best attributes is his ability to multitask. In fact, he is the best multitasker that I have ever known. For the first 4 years of his career here he was in charge of doing ICP, ICP/MS and NMR analysis. He did all of that without ever falling behind in any of those areas. More specifically in the NMR area, he has always kept track of the backlog, prepared and run the samples, and reported the results on time.

He is also constantly looking for opportunities to learn new things and improve his knowledge base. He has learned a number of quantitative NMR methods including aromaticity of crude oil, certification of base oils, and olefins by 1-decene internal standard. He also knows the sample prep steps for most other types of NMR samples and how to run them. Since the beginning of this year, he has been training Jinfeng Lai, our new NMR specialist, on the quantitative methods, sample prep and other functions in the lab. He also assisted with the installation and has been trained on the new Bruker 400 NMR instrument.

Early in 2014 we lost our vibrational spectroscopy expert and could not get a replacement for him until recently. We had asked Steve to step in and train with our expert for a couple of weeks before he left and he did. For the past six months, he has been running all the FTIR tests in the lab which include sample preparation, obtaining the spectra and even doing some interpretation. He has done all of this mainly through self-learning and his personal drive and desire to learn new things

A major project that Steve has been involved in for several years is the development of a Ammonium Bisulfide (ABS) analyzer. He worked with Charley Lord to develop this on-line system and has installed it at several refineries including LAR and Rodeo. Most recently he was involved in negotiations with several vendors for transferring the ABS analyzer technology for mass production. He is now the major expert and a consultant to the outside vendor for the analyzer.

Steve is also a safety champion. He has been on the BST steering committee for several years where he has made presentations and provided training. He started as a PL building assistant marshal and last year became the building marshal. He is constantly informing the occupants of the new policies, organizing the building drills and updating the personnel about the ever changing policies. He keeps the Cispro updated in several labs and has written multiple SOP's and LHR's.

I think Steve is one of those rare technicians who are capable of doing many things in the lab and more importantly, doing them really well. Although he has been here for a relatively short time, he has proved himself as a very valuable employee of Analytical Sciences, R&D and Phillips 66.

To: NO ACS Technician of the Year Selection Committee

This letter supports the nomination of Steve Newland for the Oklahoma Technician of the Year Award. I've worked with Steve off and on for the last 6 years. He is always a pleasure to work with and brings his best to any project he approaches. In the most recent collaboration, I've been assisting Steve in efforts to have a third party vendor build and market an on-line analyzer which Steve co-invented. In the course of this association, Steve has been the primary technical contact between Phillips 66, the vendor and the refinery operations as part of the preparations to install 3 of the vendor analyzers. He was also responsible for on-site installation of several of the Phillips 66 analyzers. In that role he's been responsible for working with the refineries to document the unique characteristics of each site and make the associated changes in the analyzer. Those changes include understanding safety processes associated with each facility. Over the last six months, Steve has been responsible for ensuring the third party vendor's version of the analyzer can duplicate the performance of the 66 Analyzer. His knowledge of the analyzer design, electronics and signal processing were invaluable in both recognizing key difference in the analyzers and developing solutions to minimize those differences.

Steve is well known for his ability to quickly come up to speed in just about any technical area. Most recently he was asked to move into the IR lab to cover until a new employee takes over the area. In addition to analyzer support and design, Steve has worked in ICP-MS and NMR. He has the ability to work across several areas at once and manage multiple projects in those areas.

Steve is well respected by his peers and is always a welcome addition to any team. He's always positive and brings out the best in those he works with. Steve exemplifies all the qualities desired in an outstanding technician. I recommend that Steve be considered as a candidate for the Northern Oklahoma Technician of the Year Award.

Sincerely,
Kathy Swallows
Chief Chemist
Phillips 66, Analytical Sciences.

Steve Newland Recommendation

Steve Newland uses his leadership skills, and his drive to ensure the safety of PL employees and visitors to excel in his role as the PL Building Marshal. Steve has coordinated semiannual fire drills to test the occupant's knowledge of the PL Emergency Action Plan, evaluates PL occupant's response to annual facility drills and provides feedback. Steve works tirelessly to ensure that the PL Emergency Action Plan is current and posted throughout the PL. As material within the Emergency Action Plan change Steve is always in the forefront to ensure the plan is correct and that the PL occupants understand the changes.

Jerry Wade
Shift Superintendent

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PRC Fire Station