

NOC Process Technology Advisory Committee

Meeting Minutes

February 25, 2016

The spring meeting of the Process Technology Advisory Board was held at the Renfro Center on the NOC Campus in Tonkawa, Oklahoma, at 5:30 p.m. Board members present were Jim Hendrix, OMPA; Vince Cain, Phillips 66; and Brian Lane, Oklahoma Manufacturing Alliance. NOC members present were Dr. Cheryl Evans, Dr. Pam Stinson, Anita Simpson, Tricia Moore, Sheri Snyder, Dr. Rae Ann Kruse, and Dr. Frankie Wood-Black.

Dinner was served and Dr. Evans welcomed the committee and gave an update on activities at NOC.

Tricia Moore made introductions of the NOC staff and the Advisory Board members introduced themselves.

Sheri Snyder provided an overview of the NOC Foundation and gave an update of available Process Technology scholarships. Anita Simpson gave a brief history of how the Process Technology program started 15 years ago.

Dr. Frankie Wood-Black, PTEC director, gave an update on the state of the program. PTEC had 34 graduates last year. The 34 graduates had 48 degrees at graduation because many students had double degrees. The 2017 graduates are a mix of 50% traditional students and 50% non-traditional students. About 1/3 are women and the class is a diverse mix. Three students have left the cohort because they were offered really good jobs.

She also explained that the program is designed to certify operators and the curriculum covers safety, employer expectations, and what the job entails. The department received input on the curriculum from industry sponsors. Most classes are offered in the evening to accommodate working students. Dr. Wood-Black was excited to announce updates to the Systems class. A heat exchanger simulator was installed today.

Dr. Wood-Black directed the members to look at a copy of the program application that was included in the packet. The program already has 40 applications for 24 slots and the application deadline is March 15. Program size must be limited to 24 students because of the physical space available and the difficulty to recruit new instructors.

Also in the packet was a proposed graduation checklist for an Engineering Technology degree with an Environmental Science Option that would include program content in soil sampling and environmental assessment. If the degree program were approved by NOC and State Regents, the students would take coursework in Concepts of Chemistry and Concepts of Physics. The option is being provided so students can move toward auxiliary positions in waste water and ammonia applications. The coursework would prepare students for national exams.

- Vince Cain said that Phillips 66 environmental science work is contracted out. Phillips 66 wouldn't hire those students but the contractors might.

- Jim Hendrix from OMPA said that environmental science aspects could be used in many applications, for example, reverse osmosis and mineralized water. He emphasized that those skills are something a student could take with him/her anywhere in the country. He indicated there are job openings every day for environmental safety and health positions.

Tricia Moore asked what curriculum needed to be added to the Environmental Option sheet. Comments included:

- Beneficial to have electrical distribution inside a power plant
- Board members hire 1-2 positions each year
- Important to know voltages and relays

Mr. Hendrix stressed the concern about the personal challenges of shift work and wanted the topic addressed during the coursework as shift work affects lives and can lead to divorce. The employee is going to be able to support the family very well, but the employee will miss important family events. Jim said it takes a special person and until a student has done shift work, they won't understand the challenges. Vince Cain said that Phillips 66 provides orientation sessions for the spouse of shift workers.

Vince Cain explained that Phillips 66 used to hire anyone with an NOC PTEC degree. Currently, they will have 300 applicants for 20 operator positions. Along with applicants from NOC, applicants will come from graduates of programs in Texas, Alaska, and Louisiana. They filter the applicants down to the top 140 and will eliminate an additional 80 through their testing processes. After interviewing about 60, the company will hire the top 20 applicants. If NOC wants to continue to have our graduates at the top of the hiring class, he recommends we compare the quality of our program to other programs. Students need to grasp how serious it is to maintain a high GPA and have some work experience.

- Hands-on experience with simulators stands out
- Previous job experience gets the applicant a better look

Frankie Wood-Black commented that the math test that Phillips 66 gives is an easy way to weed out applicants. She pushes students to take College Algebra rather than just technical math.

Vince went on to say that Texas schools are requiring internships on the degree sheets. Phillips 66 has to negotiate internships with the Union. OSU-IT has an internship agreement with the instrumentation tech program. Vince is hoping that agreement with the Union will be a cookie-cutter agreement for future internship programs.

Vince asked if we are using the NAPTA test. Frankie said we are using parts of it. He said the test is used at their other 11 refineries across the nation. Frankie commented that the NAPTA could be part of the capstone class. Vince said testing was going to become a bigger thing. As a corporation, they have identified a deficiency in console operators. In the past a person would work 10 years outside, but now people are working 3-5 years outside before becoming a console operator. This is an area with lots of mistakes. Phillips 66 would like to test for an aptitude as a console operator. He indicated there are 3-4 companies who have an aptitude test as part of their degree program.

Jim agreed that just because someone is outstanding outside, they might get rattled or excited on the board and make serious mistakes. Companies can create simulators but they are very expensive.

Frankie ended the meeting by stating we are always looking for good instructors.