

Appalachian Regional Commission

**Accessing Federal Resources to
Strengthen the Regional Economy:
A Grant Writing & Technical
Assistance Workshop**

October 14, 2011

**Charleston Civic Center, Charleston,
West Virginia**



KANAWHA VALLEY
COMMUNITY & TECHNICAL COLLEGE

Reasons for the Power Plant Technology Program

Many of the area power plants were expected to have a large number of workers retire in the next 10 years plus the need for operators for new scrubber equipment (FGD's).

Due to the increasing complexity of power plant jobs, AEP elected to pursue development of the Power Plant Technology program to help assure the availability of a qualified workforce.

As a result, AEP and West Virginia State Community and Technical College (now Kanawha Valley CTC) formed a partnership to develop a Power Plant Technology program in 2004.

Approximately one year of on-the-job training was eliminated for graduates.



Typical Wage Rate Schedule

Control Room Operator - 30.00/hour

Operator - \$27.00/hour

New Hire – 17:00/hour

Intern – \$16.00/hour

Benefit package of about 37%



PPT Program Funding

AEP

Supporting PPT program with

\$206,260 over three years.

\$190,000 in in-kind services (initial estimate)

**Includes assistance with promotion and recruitment,
curriculum development and membership on the
advisory committee.**

Intern opportunities during the summer.

West Virginia Workforce Development

**Initiative Grant (HB3009) provided matching funds of
\$206,260.**



PPT Program Funding

The program became self-supporting after three years.

After successful start up, additional Funding was needed to place material into a Course Management System for online delivery.

The grant from ARC allowed the development of material for online delivery of all but one PPT class.

The Senior Seminar (Capstone Class) is the only class not delivered online because of accrediting rules and the structure of the class.



Online Courses

First Program in the School to be substantially online

ARC grant provided the means to convert the courses from classroom delivery

Online offering allows flexibility in scheduling classes for local students

Online classes are offered to partner schools



Power Plant Courses

PPT 101, Power Plant Fundamentals

PPT 102, Power Plant Mechanical Equipment

PPT 105, Basic DC Circuits

PPT 106, Basic AC Circuits

PPT 107, Electrical Controls

PPT 150, Power Plant Internship (Optional)

PPT 201, Gas Turbines/Integrated Combined Cycles

PPT 202, Power Plant Instrumentation and Control

PPT 203, Power Plant Electrical Machinery

PPT 204, Advanced Power Plant Systems

PPT 250, Power Plant Seminar (Capstone)

30 credit hours plus 30 hours of general education



Employment Opportunities

Power Companies will consider employing students who obtain the degree in AAS Power Plant Technology.

Interested individuals apply directly to the Power Company for consideration.

Evaluation of student grades, skills and attitude are a part of the selection process.

Students may be eligible to apply for similar work at other non-utility companies needing power plant operators including chemical plants and commercial facilities.



Employee Selection Process

Edison Electric Institute Tests

Plant Operator Selection System (POSS)

Reading Comprehension

Mathematical Usage

Spatial Ability

Tables and Graphs

Maintenance Selection System (MASS)

Aptitude Tests

Background and Opinion Questionnaire

National Database of Results



Employee Selection Process

Interview

Physical Placement Exercises

Lifting

Climbing

Carrying

Dexterity

Shoveling

Competitive Candidates Evaluation



Plant Operator Job Description (Partial Listing)

Monitor and inspect all plant equipment and operate all local controls and devices for proper operations.

Service, adjust, lubricate, clean, inspect and repair plant equipment.

Place into or remove from service plant equipment and execute the plant's clearance permit system.

Operate a steam-electric generating unit composed of boilers, turbines, generators, transformers, pumps, condensers, scrubbers and related auxiliary and accessory equipment.

Perform necessary operating, regulating and adjusting duties in maintaining proper control of plant equipment.



Graduates

Starting December 2006 and ending August 2011

Target 15 per semester

For 9 semesters - 135

Actual to date – 137



Graduates

Graduates not employed in Power Plants

Reasons

Difficult economy

Did not want to leave the Kanawha Valley

Working in other Industries

Continued with current employer

Less than a 2.5 Grade Point Average

Poor performance during the internship

Did not pass POSS-MASS tests



Keys to Success

Industry and Government Support for
Start-up funding

Continuing Industry Support for
Paid Internships
Tours/Special Activities
POSS-MASS Testing
Advisory Committee Participation

