Chairperson: Curt Thompson, Site Training Lead, Solutia Chocolate Bayou, Alvin

Meeting Date: December 10, 2008
Meeting Time: 11:30 a.m. to 1:45 p.m.
Meeting Place: Lyondell-Basel Chocolate Bayou plant

Recorder: Mark Demark, Process Technology Department Chair, ACC
Previous Meeting: Oct 22, 2008

Industry Members Present:

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curt Thompson</td>
<td>Site Training Lead</td>
<td>Solutia Inc. Chocolate Bayou</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Alvin</td>
</tr>
<tr>
<td>Douglas Loy</td>
<td>Operations &amp; Training Lead</td>
<td>Lyondell-Basel Chocolate Bayou</td>
</tr>
<tr>
<td></td>
<td></td>
<td>plant</td>
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<tr>
<td></td>
<td></td>
<td>Alvin</td>
</tr>
</tbody>
</table>

ACC Members Present:

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mark Demark</td>
<td>Department Chair, Process Technology</td>
</tr>
<tr>
<td>James Kelly</td>
<td>Continuing Education &amp; Workforce Development (CE &amp; WD), TWC Grant Administrator</td>
</tr>
</tbody>
</table>

ACC & Industry Guests:

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curtis Crabtree</td>
<td>Adjunct Instructor, Process Technology</td>
<td>Alvin Community College</td>
</tr>
<tr>
<td>Don Koster</td>
<td>Adjunct Instructor, Process Technology</td>
<td>Alvin Community College</td>
</tr>
</tbody>
</table>

Agenda Item (see attachment "A")

Action, Discussion, Information

<table>
<thead>
<tr>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mark Demark <a href="mailto:mdemark@alvincollege.edu">mdemark@alvincollege.edu</a></td>
</tr>
</tbody>
</table>

Old Business (repeated for new members & guests):

- Process Technology web page on ACC web site
  - Direct link: [http://www.alvincollege.edu/Current/Process_Technology_Advisory_Committee.cfm](http://www.alvincollege.edu/Current/Process_Technology_Advisory_Committee.cfm)
  - Indirect:
    - go to [www.alvincollege.edu](http://www.alvincollege.edu);
    - click “Site Map” (upper right corner of screen);
    - scroll down to and click “Process Technology”;
    - click “Process Technology Advisory Committee”

- [www.captech.org](http://www.captech.org) Center for the Advancement of Process Technology (CAPT/COM)
  - Resources for educators, students, and industry
  - CAPT / COM is our partner that we have worked with in the past
  - CAPT INC. is a new company started by Joanna Kyle

- [www.gcpta.org](http://www.gcpta.org) Gulf Coast Process Technology Alliance (GCPTA)
  - An industry and education partnership serving the educational needs of the process industries

- Melissa Collins, Assistant Director mcollins@com.edu
- Jerry Duncan, Managing Director jduncan@com.edu
- Martha McKinley, Executive Director exdir@gcpta.org
- Harry Woods, Public Relations hwoods@gcpta.org
### Continuing Business:

<table>
<thead>
<tr>
<th>Item</th>
<th>Information</th>
<th>All present</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welcome, Introduction, and Announcements</td>
<td>Information</td>
<td>All present</td>
</tr>
<tr>
<td>Meeting Minutes - Mar 26 &amp; Jun 7, 2008</td>
<td>Approval</td>
<td>All members</td>
</tr>
<tr>
<td>Agenda Item IV-B: Duties of Advisory Committee Chair and Chairperson-Elect</td>
<td>Discussion</td>
<td>Curt Thompson, Diane McGinn</td>
</tr>
<tr>
<td>Agenda Item IV-E: Plant Tours</td>
<td>Discussion</td>
<td>Curtis Crabtree &amp; Curt Thompson</td>
</tr>
<tr>
<td>Agenda Item IV-A: Adopt Vision, Mission, and Objectives</td>
<td>Discussion</td>
<td>Curt Thompson &amp; all</td>
</tr>
<tr>
<td>Agenda Item IV-C: Curriculum and Budget Update</td>
<td>Discussion</td>
<td>Mark Demark</td>
</tr>
<tr>
<td>Agenda Item IV-D: Other - BP Process Trainer</td>
<td>Action</td>
<td>Mark Demark</td>
</tr>
</tbody>
</table>

### New Business:

<table>
<thead>
<tr>
<th>Item</th>
<th>Information</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agenda Item V-B: Open House Tuesday, 6-9-2009</td>
<td>Information</td>
<td>Mark Demark</td>
</tr>
<tr>
<td>Agenda Item V-A: Items needed by adjuncts to improve class instruction</td>
<td>Information</td>
<td>Curtis Crabtree &amp; Jimmie Stewart</td>
</tr>
<tr>
<td>Agenda Item V-C: Dual-credit classes</td>
<td>Information</td>
<td>Mark Demark</td>
</tr>
</tbody>
</table>

### Budget:

<table>
<thead>
<tr>
<th>Item</th>
<th>2008-2009 budget</th>
<th>Information</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Update</td>
<td>Mark Demark</td>
<td></td>
</tr>
</tbody>
</table>

### Other:

<table>
<thead>
<tr>
<th>Item</th>
<th>Information</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alvin Community College - Status</td>
<td>Information</td>
<td>Mark Demark</td>
</tr>
<tr>
<td>Next Meeting</td>
<td>Information</td>
<td>Wednesday, Mar 11, 2009 at INEOS Chocolate Bayou plant</td>
</tr>
</tbody>
</table>

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### Minutes

<table>
<thead>
<tr>
<th>Key Discussion Points</th>
<th>Discussion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Old Business (repeated for new members and guests):</strong></td>
<td>Advisory Committee page established on ACC web site. It is updated continuously and serves as a primary communication tool with the Advisory Committee. Our intent is to communicate by email; however, lengthy attachments will be posted to this site.</td>
</tr>
<tr>
<td>Advisory Committee web page on ACC web site <a href="http://www.alvincollege.edu">www.alvincollege.edu</a>; Direct link: <a href="http://www.alvincollege.edu/Current/Process_Tech_Advisory_Committee.cfm">http://www.alvincollege.edu/Current/Process_Tech_Advisory_Committee.cfm</a></td>
<td>These other web sites maintained by the Center for the Advancement of Process Technology (CAPT/COM) and the Gulf Coast Process Technology Alliance (GCPTA) also have valuable information of interest to the Advisory Committee members and meeting guests.</td>
</tr>
<tr>
<td><a href="http://www.captech.org">www.captech.org</a></td>
<td>See <a href="http://www.gcpta.org">GCPTA Minutes</a> of Nov 7, 2008, Isle of Capri, Lake Charles, LA</td>
</tr>
<tr>
<td><a href="http://www.gcpta.org">www.gcpta.org</a> Gulf Coast Process Technology Alliance (GCPTA) (formerly <a href="http://www.processtech.org">www.processtech.org</a>)</td>
<td>Next GCPTA meeting is Jan 30, 2009, South Shore Harbor, League City, TX</td>
</tr>
<tr>
<td>Key Discussion Points</td>
<td>Discussion</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------------</td>
</tr>
<tr>
<td><strong>Continuing Business:</strong></td>
<td></td>
</tr>
<tr>
<td>• Welcome, Introduction, and Announcements</td>
<td>No new committee members attended.</td>
</tr>
<tr>
<td>• Meeting Minutes Oct 22, 2008</td>
<td>Advisory Committee approved the minutes.</td>
</tr>
<tr>
<td>• Adopt Vision, Mission, and Objectives</td>
<td>Attachment &quot;B&quot;</td>
</tr>
<tr>
<td>• Duties of Advisory Committee Chair and Chairperson-Elect</td>
<td>No discussion because Diane McGinn could not attend this meeting. Curt Thompson distributed Attachment &quot;C&quot;, which he downloaded from the GCPTA web site. ACC also developed a &quot;Handbook for Technical Advisory Committees&quot;. Please review both for comments at the next meeting March 11th at INEOS.</td>
</tr>
<tr>
<td>• Curriculum &amp; Budget Updates</td>
<td>Budget: the ACC IT department once again usurped out PTEC Computer Hardware budget. This happened last year, and until we could get the funds of $8,700 back, it delayed purchases of computer and fieldbus equipment for the BP Process Trainer. We thought we had this communication problem fixed but obviously not. This year they spent the money before we were aware that they usurped it. Dr. Bethscheider was able to find about $3,500 to finish buying hardware for the Trainer. Twice burnt, we will fix the problem in the next 2009-2010 budget.</td>
</tr>
<tr>
<td>• BP Process Trainer</td>
<td>Curriculum: we added another MATH class option for our students: MATH-1333 Contemporary Math for Technicians. Also, now our students can substitute PSYC 1300 Learning Strategies (3 crhr) for the two 1 crhr PHED courses.</td>
</tr>
<tr>
<td>• Plant tours</td>
<td>This significant new piece of equipment is being built by Bayport Training and Technical Center, using a seed grant of $90K from BP. Other companies contributing equipment include: Northern Technical Cable Inc., Samson Controls Inc., Emerson Process Management, and Magnetrol/Orion. We hope to have this operational during the Spring 2009 term.</td>
</tr>
<tr>
<td><strong>New Business:</strong></td>
<td></td>
</tr>
<tr>
<td>• Open House</td>
<td>The Committee agreed that they will open their plants to plant tours by our students. The first tour was held at Solutia 1:30-4p Wednesday afternoon, 11-12-2008. The safety plant orientation was given by Solutia personnel at Solutia. A plant gift, cookies, and drinks were furnished. All who attended agreed this was a good event and should be continued. Lyondell-Basell will be next (March/April 2009).</td>
</tr>
<tr>
<td>• Equipment and Items needed by Adjuncts to improve class instruction</td>
<td>The 2009 Process Technology Summer Community Open House will be held Tuesday, June 9, 2009, 5-8 pm in the Nolan Ryan Center</td>
</tr>
<tr>
<td>• Dual credit courses</td>
<td>Curtis Crabtree and Jimmie Stewart prepared Attachment &quot;D&quot;. The Trainer Electrical List was prepared by Jimmie and is what is needed to hook up the BP Process Trainer.</td>
</tr>
<tr>
<td></td>
<td>Both Alvin and Pearland ISD's want to include Process Technology in their Dual Credit programs (AISD: Dana Hall; PISD: Barbara Derrick). We want to teach these classes at ACC one hour in the afternoon M-Th: PTAC-1302 Introduction to Process Technology in the Fall and PTAC-1308 Health, Safety &amp; Environment in the Spring. A meeting with both ISD's was held 1-7-2009 and all parties came to an agreement and these programs will kick-off Fall 2009.</td>
</tr>
<tr>
<td>Key Discussion Points</td>
<td>Discussion</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------------</td>
</tr>
<tr>
<td>Other:</td>
<td></td>
</tr>
<tr>
<td>▪ Next Advisory Committee meeting</td>
<td>▪ Next meeting is scheduled for Wednesday, Mar 11, 2009 at INEOS.</td>
</tr>
<tr>
<td>▪ Meetings are held the second Wednesday of the last month of each quarter 11:30a-1:45p (unless pre-empted by college event or closure). 2009 meetings: Mar 11, Jun 10, Sep 9, Dec 9 - rotating through sites: INEOS, ACC, Solutia, Lyondell</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Chairperson Signature:</th>
<th>Date:</th>
<th>Next Meeting:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curt Thompson, Site Training Lead Solutia Chocolate Bayou, Alvin</td>
<td>Dec 10, 2008</td>
<td>Wednesday, Mar 11, 2009 at INEOS</td>
</tr>
</tbody>
</table>
ATTACHMENT A - AGENDA
Alvin Community College Process Technology Advisory Committee Meeting
Wednesday, December 10, 2008
Held at Lyondell-Basel Chocolate Bayou

AGENDA

I. Lyondell - Basel Orientation ................................................................................................................. 11:15a

II. Welcome, Introductions, and Lunch ..................................................................................................... 11:30a

III. Old Business ........................................................................................................................................... 11:45a

   A. Approve minutes of 10-22-2008 meeting - All
   B. Announcements, notices, and current events - important advisory committee news (GCPTA, CAPT, etc.) - All

IV. Continuing Business ............................................................................................................................. 12:00p

   A. Develop Objectives and Goals
   B. Discuss roles of Chairperson and Chairperson-Elect
   C. Curriculum and Budget Updates
   D. BP Process Trainer
   E. Plant Tours

V. New Business .......................................................................................................................................... 12:45p

   A. Items needed by Adjuncts to improve class instruction
   B. 2009 Open House
   C. Dual Credit Classes

VI. Open Discussion - All .............................................................................................................................. 1:30p

VII. Wrap Up - All (next meeting Wed 3-11-2009 11:30a - 1:45p at INEOS) ............................................. 1:45p
ATTACHMENT B
ALVIN COMMUNITY COLLEGE PROCESS TECHNOLOGY DEPARTMENT
VISION, MISSION, and OBJECTIVES

OUR VISION

All entry-level technicians in the processing industries on the U.S. Gulf Coast are filled with Process Technology graduates.

OUR MISSION

We educate people to become entry-level technicians in the Process Industries.

OUR CUSTOMERS

Primary: the companies that hire our graduates

Others: students, the College, the community served, and the GCPTA

OUR OBJECTIVES

- Work with the Center for the Advancement of Process Technology (CAPT/COM), the Gulf Coast Process Technology Alliance (GCPTA), employers, and others to determine employer needs for the number of Process Technicians and their required knowledge and skills.
- Maintain a curriculum that will cost effectively train students in the knowledge and skills required by industry.
- Work with high schools, the community, and other education providers to make them aware of our program, and identify candidates interested in pursuing careers as Process Technicians.
- Work with industry and academia to identify qualified instructors who can endorse our vision, embrace our Mission, further develop our objectives, and have the energy, experience, and resourcefulness to teach and prepare our students for employment.
- As a department, stay abreast of new technologies and industry needs to improve our curriculum and provide industry with highly qualified employees.
- Seek the necessary funding and equipment donations from industry, government, and other private sources to insure that the College has the necessary resources to achieve its vision.

THE PROGRAM

To achieve the vision and accomplish the mission, the staff of Alvin Community College have created a curriculum that will challenge you, the student, expand your expertise, and qualify you to seek a position as a Technician in the Processing Industries.
ATTACHMENT C

MISSION & PURPOSE

The mission & purpose of the Alvin Community College (ACC) Process Technology Advisory Committee is to provide guidance and resources for improving the Process Technology Program, so that it produces highly qualified entry level technicians to meet industry’s changing needs and challenges.

OBJECTIVES

The ACC Process Technology Advisory Committee will drive the program by providing:

- **Resources and Support** – Actively encouraging and soliciting resources and support from local industry, industry associations, and other colleges and businesses.

- **Feedback and Evaluation** – Providing feedback to ACC Process Technology on instructor selection, performance, and continuing education, curriculum and instruction, program quality, facilities and equipment, and student and graduate performance, so that continuous improvement and alignment with industry can be achieved.

- **Communication, Marketing and Placement** – Creating communication links among education, industry, and the community to –
  - Promote awareness and accessibility of the Process Technology program to all groups;
  - Supporting the program with scholarships, internships, and/or and cooperative education opportunities; and
  - Provide feedback on market conditions for graduates. Assist in communication within and between companies on hiring practices and employment possibilities.

- **Curriculum Development** – Utilizing the Gulf Coast Process Technology Alliance’s (GCPTA’s) standardized curriculum to its fullest extent, supplementing the curriculum with additional materials or courses that meet the changing needs of industry, and maintaining the curriculum and materials in an evergreen state.

MEMBERSHIP

The ACC Process Technology Advisory Committee voting membership will be comprised of the following:

- Process industry representatives, including subject matter experts in the areas of operations, health, safety and environmental, training and development, human resources, engineering, and management.

- ACC adjunct faculty who hold full-time positions within the process industry career field, or those who have retired from such positions.

- No more than one ACC student who is currently enrolled in the Process Technology Program.

The Process Technology Department Chair and other full-time faculty members may be voting members of the Committee, and also serve in ex-officio roles.

Members are expected to attend and participate in the meeting processes on a regular basis. Meetings will be open to anyone wishing to attend. Special non-member guests such as ACC administrators, students, graduates, and subject matter experts may be invited to attend specific meetings and be asked to assist with projects and research on an “as needed” basis.
OFFICERS AND TERMS OF OFFICE

The ACC Process Technology Advisory Committee officers will consist of a Chairperson and Vice-Chairperson. Both officers will be from industry and will serve two-year terms. Terms will begin on September 1 and end on August 31 to roughly match the academic calendar year. The Vice-Chairperson will succeed the Chairperson unless the Vice-Chairperson is unable to assume office. The Administrative Assistant for the ACC Process Technology Department will assist the Process Technology Department Chair.

RESPONSIBILITIES

- **Responsibilities of the Committee Chairperson …**
  - Provide leadership, direction and oversight to the Advisory Committee.
  - Provide input into the preparation of agendas, and convene and facilitate Committee Meetings.
  - Assign the work of the Committee to appropriate members.
  - Maintain contact with the Process Technology Department Chair.
  - Maintain contact with the Gulf Coast Process Technology Alliance, including attending their meetings as often as possible.

- **Responsibilities of the Vice-Chairperson …**
  - Assist and assume the responsibilities of the Chairperson as needed.
  - Attend GCPTA meetings as often as possible, but especially when the Committee Chair cannot.

- **Responsibilities of the Administrative Assistant …**
  - Maintain a current list of Committee members.
  - Provide members with notices of each upcoming meeting at least thirty (30) calendar days prior to the meeting.
  - Distribute copies of each meeting agenda to the members at least seven (7) calendar days prior to the meeting.
  - Prepare minutes of meetings and forward to Process Technology Department Chair for review and approval before distribution to members.
  - Distribute approved minutes to members no later than thirty (30) calendar days after each meeting.
  - Send a copy of the approved minutes to the Executive Director of the GCPTA and others as appropriate.

- **Responsibilities of the Process Technology Department Chair …**
  - Solicit items for meeting agendas from members and coordinate preparation of each final agenda.
  - Arrange for ACC adjunct faculty attendance at meetings when possible.
  - Report program status to the Committee.
  - Assist the Committee Chairperson in conducting meetings as needed.
  - Maintain contact with the GCPTA, including attending their meetings as often as possible, notifying Committee members of GCPTA meeting dates, and providing updates to the Committee on the GCPTA’s initiatives.
Responsibilities of Members …

- Provide input on agenda items.
- Work on Committee projects.
- Attempt to make every committee meeting.
- Support functions of the Committee and ACC Process Technology Program.
- Maintain contact with the GCPTA, including attending their meetings as often as possible.

MEETING FREQUENCY

The ACC Process Technology Advisory Committee will meet at least four times per year. Additional meetings may be called on an “as needed” basis.

VOTING RIGHTS

All Committee members will have the right to vote on issues that come before the Committee. In all voting instances, however, there must be more votes cast by industry members than by ACC members (e.g., if five industry members vote on an issue, no more than four ACC members will be allowed to vote on that same issue).
ATTACHMENT D
MATERIALS REQUEST FROM AREA PLANTS
(Complete development of this list is still in progress by Don Koster and Curtis Crabtree)

Following items will be used as teaching aids for ACC Process Technology.

Materials for classroom:
• Assorted highlighters
• Pens & pencils
• Staplers
• Hole punch
• Note pads

Chapter 2 Valves:
1. List cutaway valves available in the plant
2. Valve cutaways to purchase
3. Valve packing material
4. List of cutaways & valve examples at ACC:
   1) Gate cutaway
   2) High pressure gate cutaway
   3) 1" 150 gate cutaway
   4) Orbit valve cutaway
   5) Various steam traps cutaway
   6) 1" 150 ball
   7) ¾" 150 screw gate
   8) ½" 800 socket weld gate
   9) 1 ½" 3-way ball
  10) 2 – ¾” 150 socket weld gate
  11) 1 ½" bronze gate
  12) 2 – 2" butterfly
  13) Needle valves
  14) Ball
  15) Safety valve

Chapter 3 Piping & Vessels:
1. Pipe examples:
   a. Prepare pipe pieces of various schedule sizes 2” long
   b. Label by size and schedule
   c. 2”, 4”, 6” of schedule 10, 40, 80
   d. Include a piece of cast iron pipe
   e. Include 2 socket weld pipe (1 welded; 1 not welded)
   f. Include lined pipe
2. Fitting examples:
   a. Various selection including carbon steel & stainless
   b. Include lethal service
   c. Various materials & designs
   d. Label by size and pressure service
   4. Flanges: (1 each)
      a. 150 #
      b. 300 #
      c. 600 #
   5. Pictures of storage tanks roof designs
      a. Cone roof
      b. Floating roof
      c. Other designs of interest in the plant
      d. Vessel vent systems
      e. Dike walls and signage

Chapter 4: Pumps
1. Coupling examples
2. Labyrinth ring & carbon seals
3. Photos & video of seal flush systems

Chapter 5: Compressors
1. Photos of compressor damage
2. 

Chapter 6: Turbines & Motors
1. Photos of turbine damage
2. Motor cutaway (AC & DC)
3. Video of 4160 volt motor startup with sound

Chapter 7: Heat Exchangers:
1. Tube repair samples:
   a. Various plugs
   b. Samples of tubing materials & designs
   c. Photos or video of hydro blasting

Chapter 8: Cooling Towers:
1. Photos or video of analyzer house
2. Photos or video of auxiliary equipment and vessels focus on safety and signage
Chapter 9: Boilers
1. Photos or video of boiler:
   1) Walk thru showing boiler, feed water, flash tank, blowdowns, instruments
   2) Photos of burners
   3) Photos of steam traps showing pipe loop
   4)

Chapter 10: Furnace
1. Photos of internal damage
2.

Chapter 11: Instruments
1. Examples of various meters (defunct & decontaminated)
   1) Mag-meter, ultrasonic, vortex, thermal, Coriolis,
   2)

Chapter 12: Process Diagrams
1. Set of P&ID’s of discontinued process:
2.

Chapter 13: Utilities
1.

Chapter 14: Reactors
2. Example of Rx sequence & interlock (a couple of pages for demo)
3.

Chapter 15: Distillation
1. Photos of internals
2. Photos of damage
3.

Chapter 16: Extractions 7 other Separations
1.

Chapter 17: Plastics
1.
Electrical Transformer

30 KVA to 40 KVA Shielded Isolation Transformer, three phase, 60HZ
480v Delta primary, 240v Delta / 120v Tap secondary

Cable

500 feet of Stranded THHN 6 AWG Black
200 feet of Stranded THHN 6 AWG Green
150 feet of Stranded THHN 4 AWG Black

Conduit

80 feet of 1” EMT conduit
8 EMT 1” couplings
25 feet of 1” Liquid- tight flexible conduit industrial steel core
2 straight connector 1” Liquid- tight flexible conduit fittings
2 45 degree connector 1” Liquid- tight flexible conduit fittings
1 Indoor Pull Box Enclosures 8x8x4
2 LR conduit body 1”
1 LB conduit body 1”

Safety Switch

1 GE TH4323R - 100 Amp, NEMA Type 3R Safety Switch
Fusible, Four-wire SN, 240 Volts AC

1 GE THN3362 - 60 Amp, NEMA Type 3R Safety Switch