

**APPROVED MINUTES OF PSNES QUARTERLY MEETING (Telecon)  
February 15, 2010**

**11:30 Welcome and Member Roll Call** – Pat Loftus called the meeting to order and confirmed a quorum to conduct business. Dial-In number provided by Jim Tusal. (Thank you!)

**Board Participants:**

Pat Loftus – President  
Rick Etling – VP/President Elect  
Dr. Kenan Ünlü – RSEC Director, Faculty Member  
Jack Brenizer – Program Chair

**PSNES Directors:**

Doug Wood  
Jim Tusal  
Jim Stavely  
Ed Klevans  
Jeff Jeffries  
Mark Lloyd – Acting Secretary for 2/16/10  
Richard Martin  
Jim Stover

**PSNES Members:**

Joe Sholtis

**Other:**

Don Lenze – College of Engineering  
Frank Nedwidek – ANS Student Chapter President  
Emily Stumbris – ANS Student Chapter VP  
Traci Shimmel

**Board Proxy Votes (designated via e-mail to PSNES President):**

None

**Old Business**

- **Meeting Minutes Approval** - The November 16, 2009 Meeting Minutes were approved as written. (See Attachment 1)

**PSNES Financial Report**

Cost Center	Cumulative Total to Date	Expenditures	Current Balance
PSNES General Account	\$4400	\$1029.84	\$3370.16
PSNES Student Awards	\$6050	\$4000	\$2050

- The main expenditures from the general account are one-time expenses (50<sup>th</sup> Anniversary Banner, Board approved recognition) and annual expenses including blue-white tailgate and the refreshments provided at the annual PSNES meeting (~ \$333 per year).
- There are sufficient funds to run the student awards for one more year. Additional funds will be needed to sustain the awards beyond the 2010-2011 Academic Year
- It is possible to allocate funding from the PSNES general account to the student Awards account if the Board recommends this.
- Joe Sholtis recommends that a sub-group be formed to discuss funding options to sustain the Undergraduate Student Awards. **ACTION for Pat Loftus, Rick Etling, Don Lenze and Jack Brenizer to discuss this topic offline and bring back to the Board for additional discussion.**

## Nuclear Engineering 50<sup>th</sup> Anniversary Celebration Update and PSNES Support - Jack Brenizer/Don Lenze

Jack reviewed the activities that have been conducted to date in support of the 50<sup>th</sup> Anniversary Celebration, including:

- The first L. E. Hochreiter MNE Distinguished Lecture Series was held in September 2009 with Dr. Aris Candris, President and CEO Westinghouse Electric Co. as the speaker
- The 2009 Nuclear Energy Symposium was held at The Penn Stater Hotel and Conference Center on October 15-16, 2009, lead by Dr. Arthur Motta.
- The annual Nuclear Engineering Program/PSNES Reception was held on November 16, 2009 from 6:30 PM – 8:30 PM in the Palladian Ballroom at the Omni Shoreham Hotel in Washington DC (site of the ANS Winter Meeting).
- The second speaker in the L. E. Hochreiter MNE Distinguished Lecture Series was Mr. Alan Hanson, who is the Executive Vice President, Technologies and Used Fuel Management of AREVA. This lecture was held on January 21, 2010 at Penn State.
- The last major event in the year-long celebration is the Nuclear Engineering Alumni & Friends Reception and Dinner at the Nittany Lion Inn on April 26, 2010. This event will include a dinner and an after dinner speaker.
  - There was an action from the November 2009 meeting to determine if blocks of rooms can be reserved for this event given that the President's Campaign on-campus activities are currently scheduled for Blue-White Weekend which ends on April 25, 2010. Alumni should contact the Nittany Lion Inn directly.
  - For the Dinner and Reception, the Nittany Lion Inn will be able to accommodate 300 individuals. If the response is greater, alternative arrangements would need to be considered.
  - Traci Shimmel reported that the registration for this event will be similar to the MNE Senior Recognition Banquet. There will be tours, etc. that individuals can register for via this web site. We are still awaiting the web site to be ready such that the URL can be included in the invitation letter that will be sent to PSNES members and department alumni. It is expected that the web site will be ready by the end of February. In general, students will not be invited to attend this event. The web site will include a link to sponsor students for alumni that are either attending the event or for those that cannot attend.
  - Per the action from the November 2009 meeting, Don Lenze has drafted an Ambassador letter. The letter requires a few more edits, including insertion of the registration URL into the letter, before it can be issued. It is the hope of PSNES that we will use our network of contacts (friends, co-workers, classmates, etc.) and that they will, in turn, forward the information and encourage attendance at this event.
  - **Action: PSNES to communicate the information and use network of contacts to get the information out.** Jack reminded the group that a "save the date" reminder had previously been sent out to alumni.
- The PSNES 2010 Annual Meeting will be held on Monday, April 26, 2010 from 10 AM-12 PM at Penn State. Dial-In access will also be provided. Following the meeting on 4/26, the Program is tentatively planning a lunch-time alumni networking event to be funded by those attending. The Program will also have other activities in the afternoon, including tours of campus and the RSEC. The MNE area in Reber Building will have posters displayed that show current research projects within Nuclear Engineering.
- The reception will begin at 5 PM with the dinner to follow. Location for the event is at the Nittany Lion Inn.
- We are still looking for pictures or other memoirs of our time at Penn State in support of the 50<sup>th</sup> Anniversary event. Dr. Catchens is working with Victoria Courier to publish a pamphlet containing this information. To support publication of the pamphlet, information needs to be provided by the end of February, although contributions could still be made after the deadline. The letter from PSU will contain a paragraph on how to contribute photographs or memories online.

### ANS Update – Frank Nedwidek and Emily Stumbris

- The ANS Student Conference will be held at the University of Michigan from April 8-11. Twenty ANS members are going, with 6-7 presentations being made.
- Outreach - ANS will host the Boy Scouts at the RSEC on March 20 for a tour and various activities. Participation by the Boy Scouts in this event will allow them to achieve their Nuclear Merit Badge.
- Outreach – a plant tour of the PSEG Salem and Hope Creek reactors is being planned.
- The Penn State Student Chapter of ANS is looking to bring back Alpha Nu Sigma to Penn State. This honors program has been on hiatus at Penn State for the past few years. Emily and Frank will serve as the interim President and Vice President respectively until officers can be formally elected.
- Resume Reviews – this is an on-going need which aligns with PSNES core mission. Alumni who have interest should note their interest on ANGEL. **Action: Board to consider using ANGEL for resume reviews.**

### Potential New Initiative – PSU Nuclear Engineering Living Memorial Proposal

Rich Martin provided the following update on the potential PSU Nuclear Engineering Living Memorial Proposal:

- Rich and Jack have contacted the university Department of Communications to see if we could get someone to help us with storyboarding, potentially shooting some video and providing scripting or voiceover support for us. To date, they have been unresponsive to our requests for support. Apparently we have not connected with the right individual at the Department of Communications and we will try to be persistent.
- **Action will remain open.** The Board will carry the action for one more meeting and then decide at the April 2010 meeting to either move forward with the initiative or put it on hold.

### Nuclear Engineering Fact Sheets (Rich Martin, Jim Stover, Mark Lloyd, Joe Sholtis, Pat Loftus)

- Rich and Mark had the action to send the draft Nuclear Engineering Fact Sheet and individual/company contact information to the Board for final action. This action was completed and that Board agreed to close the action. Jack Brenizer agreed that the Nuclear Engineering Fact Sheets provided a good base of reference and could be used in response to requests or inquiries that the department receives for information from students or from the public.
- The Board discussed if this information should be posted on the department web site or elsewhere. There is a fine line between what is posted on the department site versus what would be placed on ANGEL. The recommendation from the Program was that the Fact Sheet be posted on ANGEL.
- Jack appreciates that he now has a on-call list of names that he can use to direct questions to. (Thank you to Jim Stavely, Jim Tusar, Melissa Hunter, Joe Sholtis and Dick Gill!) **Action: If there are other Board members that would like to have their names added to the list, please indicate your interest via email to Jack Brenizer, Traci Shimmel and Pat Loftus.**
- **Action for Traci Shimmel / Jack Brenizer to confirm that they have the information needed to register Melissa Hunter and Joe Sholtis on ANGEL.**

### Alumni Outreach – Facebook

- As a means of strengthening connections with the Alumni base, the Board considered creation of a PSNES Facebook page. The Program indicated that our Alumni volunteers would need to manage a PSNES Facebook page ourselves and the overhead costs are too high to commit to doing this. It was also discussed that Facebook is blocked by many company servers.
- The College of Engineering (COE) maintains a Facebook page. PSNES has decided to submit articles, information, etc. for consideration by the College of Engineering to be posted on the COE Facebook page versus creating our own PSNES Facebook page.

### Nuclear Engineering Student Mentoring Program and ANGEL Pilot

- Some Board members indicated that they were unfamiliar with ANGEL or found it difficult to navigate within the system. Jack Brenizer recommended another tutorial be provided or a step-by-step document be created for ANGEL, if necessary. It was also suggested that students could help Board members upload information or help us use the site if it is needed.
- **There is still a need for Board members and alumni to upload their information to ANGEL. Action: Upload information, including a picture to the ANGEL site. This action will be carried forward.** There is an open item for how to handle non-Board alumni who want to be mentors, but do not have access to the ANGEL site. Jack and Traci could add these individuals to ANGEL.

- In terms of mentoring, it is possible that we can use the time after the April Board meeting and before the dinner to meet with prospective mentee.
- It was reinforced by Rick Etling that the mentor program is one of the top priority and focus items for the Board in 2009-2010.
- **Action for Board members to submit interest in being a mentor to Pat Loftus and Rick Etling with copy to Doug Wood and Mark Lloyd.**

## New Business

- **RSEC News – Kenan Ünlü**

- The RSEC includes the following facilities: 1) Breazeale Nuclear Reactor, Gamma Irradiation Facilities, Hot Cells, Radiation Detection and Measurement Facilities, Neutron Beam Lab, Radio-Nuclear Application Lab, Angular Correlation Lab, Low-Pressure Integrated Test Facility and support Facilities.
- Dr. Ünlü provided an update. To summarize:
  1. The focus of the RSEC has been on making several facility improvements. A security upgrade was recently completed and is functioning well. Other upgrades are ongoing and should be complete in time for the 50<sup>th</sup> Anniversary celebration in April.
  2. We applied for a NIST Construction Grant for expansion of the RSEC facilities. The total grant application is for \$6.5M. The State of Pennsylvania provided a \$1.5M match. The result of this application was announced in February 2010 and Penn State was not successful in winning this grant money. Both the Dean of the College of Engineering and the Vice President for research likes this RSEC project very much and we will therefore resubmit our application for this grant next year.
  3. License renewal was received in November 2009. This achievement was cited in the March 2010 Nuclear News (article begins on page 50).
  4. All other RSEC facilities are functioning well.

- **Department and Program Update – Jack Brenizer**

- Student Enrollment - In the fall 2009 semester, there are Nuclear Engineering 47 graduate students on campus, with 24 Masters and 23 PhD candidates. There are 164 undergraduate students in the program with 92 juniors and 55 seniors. It is expected that the program will award 90 Bachelor's degrees. There are ~ 135 students enrolled in the distance learning program with ~70 students participating in the MEng degree program. In terms of freshman enrollment, there are usually approximately 25 Nuclear Engineering students. Currently, there are 48 freshmen that have expressed interest in the program. 120 juniors are expected for next year.
- With the increase in student population, there is a need for additional faculty members. Several faculty candidates have been considered and the top candidate for a position has been identified but not yet landed.
- The department is doing well with grants.
- For incoming freshman to Penn State, the number one degree desired is Mechanical Engineering.
- A priority item for PSNES is student mentoring.
- The Program is in need of presenters for the weekly seminars. The seminars are held weekly during the Fall and Spring semesters on Thursday afternoons from 4:00-5:00 PM, with a reception beginning at 3:30 PM. Approximately 100 students attend these seminars. The Program will pay for a lunch and/or dinner for speakers, but cannot pay travel or living costs. **Action: PSNES to consider an outreach initiative to identify potential opportunities for speakers at the weekly Nuclear Engineering seminars.**
- Keeping in Touch – It was noted that many students lose touch with the university in the first 7-10 years following graduation before they want to reconnect. The University of New Mexico implemented a contact card program to help graduates stay connected with the university. Jack Brenizer noted that there are already tools in place to help students stay connected, but acknowledged that many do not. ANGEL, for example, is only active approximately 3-6 months after the student graduates (typically the amount of time that their Penn State account remains active). **Action for PSNES to give consideration to ways to improve staying connected with young nuclear professionals.**

- **Recognition Initiatives**

- Volunteer Awards – There is a March 1 due date for nominations for Alumni Volunteer Awards. PSNES can submit an activity or program for consideration as an affiliate group. Jack Brenizer recommended that PSNES consider a nomination if we can do it within the timeframe allowed. Jim Tusar recommended that PSNES student awards program be nominated. The submission process is online and straightforward. There was some discussion considering the 50<sup>th</sup> Anniversary Celebration activities as a potential for nomination, but these activities have been mostly run by the program and not by PSNES.
- It was the consensus of the Board to nominate the Undergraduate Student Awards program.  
**Action for Jim Tusar and Ed Klevans to draft the award nomination and review it with Pat Loftus and Rick Etling prior to submittal on March 1st.**

- **PSNES Secretary/Treasurer Position**

- Bill Naughton has resigned from the PSNES Board. Bill's contribution both as a Board Member and Officer were recognized. The Board discussed how to best fill the role of Secretary/Treasurer.
- Articles IV & V of the PSNES Constitution describes what happens when a Board member / Officer resigns their position. In consideration of the Constitution and past practice, options for filling the role considered by the Board included: (1) leaving the office position vacant until the next election and seek volunteers from the Board prior to each meeting to take meeting minutes; (2) appoint an Acting Secretary/Treasurer to fill the remaining term and appoint a new Board Member to fill the remainder of the term for this individual; (3) appoint an Acting Secretary/ Treasurer to fill the remaining term and leave the Board Member's seat vacant; (4) call a special election.
- Mark Lloyd is the acting Secretary for the February 2010 meeting with Doug Wood support and Doug will be the acting Secretary for the April 2010 meeting.
- In general, the PSNES Board supports someone filling the position on an interim basis until the next election in Spring 2011. Mark Lloyd expressed a willingness to fulfill this role on an interim basis.
- **Action: This subject will be discussed at the April 2010 meeting with candidates and volunteers to be considered.**
- The Board provided thoughts on how to fill the Board position left vacant by Bill Naughton's resignation. Consideration was given to others that had previously campaigned for a position on the Board, including Ron Brown and Joe Sholtis. Jack Brenizer thought that the Board would function well whether or not we backfilled Bill's position.
- **Action: Joe Sholtis to let Pat Loftus know privately if he is interested in the open position. Pat Loftus will contact Ron Brown separately. This subject will be discussed at the April 2010 meeting.**

### Upcoming Events & Meetings

- April 26, 2010 – PSNES Annual Meeting @ PSU (including dial-in access)
- April 26, 2010 – Nuclear Engineering Alumni & Friends Dinner @ The Nittany Lion Inn @ PSU
- September 23, 2010 – PSNES Quarterly Meeting (via teleconference) (proposed date)
- November 11, 2010 – PSNES Quarterly Meeting (via teleconference) (proposed date) – note that the ANS winter meeting is at a west coast location, which would not be ideal for the PSNES meeting.
- We will review the overall schedule of events at the Annual Meeting in April.

**Adjourn at approximately 13:05.**

**ATTACHMENT 1**  
**MINUTES OF PSNES QUARTERLY MEETING (WASHINGTON DC & Telecon)**  
**NOVEMBER 16, 2009**

**17:00 Welcome and Member Roll Call** – Pat Loftus called the meeting to order and confirmed a quorum to conduct business. Dial-In number provided by Jim Tusar. (Thank you!)

**Board Participants:**

Pat Loftus – President \*  
Rick Etling – VP/President Elect (via telecon)  
Dr. Kenan Ünlü – RSEC Director/Faculty Member \*

**PSNES Directors:**

Doug Wood \*  
Jim Tusar \*  
Jim Stavely \*  
Ed Klevans \*  
Jeff Jeffries \*  
Mark Lloyd (via telecon)  
Richard Martin (via telecon)

**PSNES Members:**

Eileen Supko \*  
Ron Brown (via telecon)

**Other:**

Don Lenze – College of Engineering \*

**Board Proxy Votes (designated via e-mail to PSNES President):**

Dick Gill  
Bill Naughton  
Len Pasquini  
Jack Brenizer (report provided via advance telecon & slide pack)

**\* Participation in Washington, DC**

**Old Business**

- **Meeting Minutes Approval** - The October 1, 2009 Meeting Minutes were approved as written. (See Attachment 1)

**PSNES Financial Report**

- PSNES Undergraduate Student Awards
  - Total Alumni contributions designated for PSNES Student Awards: \$6900
  - Board approved expenditures for two (2) 2008-2009 Academic Year Awards: \$2000
  - Board approved expenditures for 2009-2010 Awards with Selection in October 2009
  - Balance (after awards expenditure): \$2900
  - Additional funds will be needed to sustain the awards beyond the 2010-2011 Academic Year
  - Individual alumni can make contributions to directly support the Student Awards. To ensure that gifts go to the intended organization, place "Nuclear Engineering - PSNES" on the check for it to end up in the PSNES general gift fund. For a specific gift to the Awards Initiative, place "Nuclear Engineering – PSNES Service and Leadership Awards" on the check.
- PSNES General Account
  - Total Alumni contributions balance: \$3694
  - Board approved expenditures for 50<sup>th</sup> Anniversary Banner: \$324
  - Balance (after Banner invoice paid): \$3370
- Alumni Contributions to support other Initiatives should be sent to the Nuclear Engineering Program with a brief note indicating the intended purpose. The Program is continuing to work with the University to make it possible to designate funds contributed in other ways to reach the PSNES accounts.

**Nuclear Engineering 50<sup>th</sup> Anniversary Celebration Update and PSNES Support** - Jack Brenizer/Volunteers  
(Doug Wood, Jeff Jeffries, Jim Tusar, Pat Loftus, Rick Etling)

Pat received a briefing from Jack and plans remain as defined:

- Celebration of 50 Years of Nuclear Engineering at Penn State will take place through a series of events throughout the 2009-2010 academic year.
- The celebration commenced September 3<sup>rd</sup> with the first speaker in the L. E. Hochreiter MNE Distinguished Lecture Series, Dr. Aris Candris, President and CEO Westinghouse Electric Co. It was estimated that approximately 300 people attended this Lecture held at the HUB.
- PSNES completed the initiative to create a re-useable, easily transportable 50th Anniversary Banner (including banner stand) which was on display at the PSNES reception in Washington DC.
- Nuclear Energy Symposium 2009 was held at The Penn Stater Hotel and Conference Center on October 15-16, 2009. The Nuclear Power Advisory Board assisted the Program under the lead of Dr. Arthur Motta. Tom Ridge was the plenary speaker. A poster session at the end of the day on October 15th highlighted research done at Penn State that is related to nuclear power.
- The annual Nuclear Engineering Program/PSNES Reception was held on November 16, 2009 from 6:30 PM – 8:30 PM in the Palladian Ballroom at the Omni Shoreham Hotel in Washington DC (site of the ANS Winter Meeting).
  - Posters displayed at Nuclear Energy Symposium 2009 as well as additional posters and information were available to alumni and friends of the NucE Program.
- After further consideration following the October PSNES Meeting, the “50<sup>th</sup> Anniversary Fellow concept has been withdrawn from consideration at the request of the Program. The Program recommended that PSNES consider an Ambassador Concept instead (see Alumni Outreach section for further discussion).
- The 2<sup>nd</sup> speaker in the L. E. Hochreiter MNE Distinguished Lecture Series will be Mr. Jacques Besnainou, President of AREVA. This lecture is scheduled for January 21, 2010 at Penn State.
- The MNE Department, with support from PSNES, will host the Nuclear Engineering Alumni & Friends Dinner @ the Nittany Lion Inn on April 26, 2010. This will be the last major event in the year-long celebration. This event will include a dinner and an after dinner speaker. Action: Traci Shimmel to determine if blocks of rooms can be reserved for this event given that the President's Campaign on-campus activities are currently scheduled for Blue-White Weekend which ends on April 25, 2010.
- The PSNES 2010 Annual Meeting will be held on Monday, April 26, 2010 at Penn State. Dial-In access will also be provided.

**Alumni Outreach**

- PSNES Members, all Nuclear Engineering Alumni and Friends of the Nuclear Engineering Program are requested to share photos, including pictures of PSU buildings, faculty and students working together, etc, plus any anecdotal stories about their nuclear engineering experience at PSU including insights on the faculty. **Action: PSNES will work with the Program to broadly communicate this request. The preferred method of sharing this information is via electronic means. (Digitized versions of hardcopy materials are preferred.) Check the MNE website for details.**
- Don Lenze discussed opportunities to engage Nuclear Engineering alumni who have not previously been engaged. One concept discussed was to have Nuclear Engineering alumni class ambassadors for a five or ten-year time period. Alumni could volunteer for a short-tem involvement in this role. Another concept was to encourage alumni to submit a bio and picture for the PSNES website. The 50-year celebration is an engagement opportunity and we should use it to encourage additional alumni to become PSNES Members as well as to indicate interest to participate in new initiatives including the future student mentoring program. Don committed to develop a draft letter that ambassadors or points of contacts within companies with a large number of NucE alumni could distribute. **Action: Don Lenze to develop a draft letter for ambassadors or other points of contact to distribute to alumni. The Board will review and comment on the draft.**

**PSNES 2009-2010 Undergraduate Student Awards** - Update from the Awards Committee (Pat Loftus, Jim Tusal, Ed Klevans, and Jeff Jeffries)

- Four (4) nominations were received for the Leadership and Service Award. The overall quality of the nominations was a step above last year. Recent modifications to the forms by the Committee helped to get the nominations focused on the specific leadership and service attributes that the committee desired.
- Jim Tusal developed a matrix scorecard to evaluate each candidate. This was a helpful tool that should be used going forward.
- The winner of the PSNES 2009-2010 Undergraduate Student Service and Leadership Award was Emily Stumbris. The other nominees were Rachael Sakurai, Zachary Kosslow, and Zacchary Van Horn.
- The winner of the PSNES 2009-2010 Undergraduate Student Academic Award was Christopher Joe Ulmer. This award is presented to the student with the highest GPA.
- The two awardees received monetary recognition (\$1000/award) made possible through generous alumni gifts. Formal Award recognition will take place at the February 15, 2010 MNE Senior Recognition Banquet.
- The Committee felt that critique/lessons learned session was not necessary.
- Congratulations cards for the award winners and other nominees were signed by the PSNES Officers and Board of Directors.
- Pat congratulated the Undergraduate Student Awards Committee for a job well done.

**Potential New Initiative – PSU Nuclear Engineering Living Memorial Proposal**

Rich Martin provided the following overview on the potential PSU Nuclear Engineering Living Memorial Proposal:

- As for the 50th anniversary (online) display at the department, here are budget related data points:

Expenses:

1. Display monitor: LG 37" HG37 \$545
2. Display Mount, wall: \$49.00
3. Display Mount, floor stand: \$840.00 (optional)
4. DVD Player (stand alone): Sony DVP-SR200P: \$39.95
5. Misc Power Strip/Surge Protectors, cables: \$100.00
6. Blank DVD (sleeve): \$15.00
7. Duplication for resale to PSNES members/Alumni (\$4/DVD copy)

Estimated Expenses: \$748.95 (not including optional stand and duplication)

Donations:

1. Time for scripting and resource gathering: 80 - 120 hours
2. Video Shooting: 16 - 24 hours
3. PSU College of Arts, TV Production time/editing: 20 hours
4. Video Shooting: 16 - 24 hours

A discussion occurred on the potential of convincing the PSU Communications Department / School of TV Production to take on this project. The overall cost is estimated to be less than \$1000. The overall feedback was that it is a good initiative and can be used by the Department in several forums including a recruiting tool.

**Action: Rich to discuss with Jack and establish a contact in the Department for follow-up.**



## Nuclear Engineering Fact Sheets (Rich Martin, Jim Stover, Mark Lloyd, Joe Sholtis, Pat Loftus)

- **Action: Rich and Mark to send the draft Nuclear Engineering Fact Sheet and individual/company contact information to the Board for final action.**

## Nuclear Engineering Student Mentoring Program and ANGEL Pilot

ANGEL could be used as a communication vehicle for the mentoring program and then the individual mentor-mentee relationship would be managed per the agreement between the two parties. The program would include both graduate and undergraduate students. Mentors would be allowed to choose who they would prefer to mentor. Pat Loftus, Doug Wood, Jim Tusar and Mark Lloyd indicated that they were willing to mentor either graduate or undergraduate students.

- Everyone on the Board signed up with ANGEL. Traci Shimmel will provide Board Members with access instructions soon (now complete). **Action: Board Members to go to the ANGEL site and add picture and bio and let others know if successful and if there were any issues.**
- A couple students requested that a resume review be performed. Jim Stavely and Mark Lloyd volunteered to perform the reviews. A Word version of the resumes was requested so that the resumes could be edited during the review cycle. **Action: Jim Stavely and Mark Lloyd to perform the resume reviews.**

## New Business

### • RSEC News

- The RSEC includes the following facilities: 1) Breazeale Nuclear Reactor, Gamma Irradiation Facilities, Hot Cells, Radiation Detection and Measurement Facilities, Neutron Beam Lab, Radio- Nuclear Application Lab, Angular Correlation Lab, Low-Pressure Integrated Test Facility and support Facilities.
- Dr. Ünlü provided an update. To summarize:
  - 1) We are working very closely with DOE- NNSA to voluntarily improve safety and security at the RSEC. Some security components of the project are complete. We will also have a new fence, new kiosk and new gate at the facility. Construction of the fence started recently and will be completed by March 2010. Overall cost of these improvements is approximately \$2M. A majority of the funds are being provided by DOE-NNSA.
  - 2) Our License renewal was in the final stages of NRC approval when we had the meeting. As of November 20, 2009, we have the new license for the next 20 years. An article appeared in the WNN related to this topic.
  - 3) We received \$250K from DOE Nuclear Engineering University Program (NEUP) for infrastructure improvement at the RSEC.
  - 4) We also received \$90K from the NRC for curriculum development for radiochemistry education. The education and curriculum grant will focus on a radiochemistry education program at Penn State. Part of this effort includes establishment of a new course, Laboratory Experiments in Applied Nuclear and Radiochemistry, to provide hands-on experience for students. The course will improve general nuclear education and provide expertise in safe, secure and environmentally sound handling of radioactive materials.
  - 5) We applied for a NIST Construction Grant for expansion of the RSEC facilities. The total grant application is for \$6.5M. The State of Pennsylvania provided a \$1.5M match. The result of this application will be announced in February 2010.

- **Department, Program News (On behalf of the Program Chair, Pat extracted key information from a state of the MNE Department/Program presentation for discussion with a more complete summary included in these minutes)**
  - Conclusions:
    - Good time for PSU's NE Program.
    - New faculty hires in NucE will be important.
    - NucE well positioned to continue to play a major role in national resurgence of nuclear power.
    - NucE has strong relationships with industry and key government labs and agencies. NucE is conducting research in key areas of interest.
    - Good collaboration with other universities.
  - MNE awarded a high number of degrees: 35 BS NucE and 14 Concurrent Major, 11 NucE MS, 20 NucE Masters Engineering, 4 NucE PhDs.
  - PSU was successful in being awarded a Faculty Development Grant from the US NRC.
  - \$400K funding for the PSU Nuclear Engineering Education Fellowship Program sponsored by the US NRC was received which included two \$50K graduate fellowships for a 4-year period.
  - Toshiba-Westinghouse awarded PSU MNE a \$2M gift to be spent over 10 years. Among the applications are alterations to NucE 431 (NucE Capstone Design Course), creation of Toshiba-Westinghouse Undergraduate and Graduate Research Fellows programs, and a PSU-Westinghouse day.
  - PSU NucE Goals:
    - Turn out the best nuclear engineering students in the country.
    - Have the top ranked BS NE program in the U. S.
    - Have the top ranked Graduate NE program in the U. S.
    - Be the first place recruiters visit.
    - Be the first place people turn to for research projects.
    - Involve our Alumni.
  - PSU MNE Fall 2009 Enrollment – NucE: ~ 164 Undergraduate and 50-70+ graduate; ME: ~ 662 Undergraduate and 226 graduates.
  - NucE Fall 2009 Enrollment: ~ 164 juniors and seniors in BS, 26 MS, 24 PhD and 70 in MEng (distance learning). Approximately 35% of majors chose concurrent degrees. Undergraduate enrollment increased at steady 12% rate from 2000 to 2005 but is now growing again. NucE is attracting the very best (academics) students in the College of Engineering.
  - NucE Graduate Program: Granted an average of 14 graduate degrees per year (~ 9 MS and 4.6 PhDs). Active research programs in both nuclear power and nuclear science. Good mix of industry and federal funding with current projects sponsored by DOE, NRC and Naval Reactors.
  - NucE Distance Education – Currently offered as Masters of Nuclear Engineering (MEng). The program started in the Summer 2002 and now enrolls over 135 students with approximately 70 degree status. Courses are taught to Westinghouse, Bettis, KAPL and others. Visit the website for additional info: <http://www.engr.psu.edu/cde/nuce/index.html>
  - Funding – ME and NE programs are among the largest in the U. S. Together MNE conducted ~ \$30M in research last year vs. a College of Engineering total of \$105M and a PSU total of approximately \$717M. NE and ME ~ \$600K/faculty member.
  - Research Activities – Historically the majority of the research has been focused on Nuclear Power Engineering. In the last few years, research has begun on HTGRs and FBRs as part of the Gen IV and GNEP initiatives. Four new areas are receiving strong funding nationally: nuclear fuels, radiation detection and measurement, materials science and radiochemistry.
  - Impact of Current Trends on PSU's NucE Program:
    - Undergraduate: 1) Enrollment continuing to grow, 2) GPAs are up+, 3) stronger students, and 4) ~ 100% placement – multiple job offers or grad school.
    - Graduate: 1) Increased number of US students, 2) Equal mix between PhD and Masters, 3) Distance Learning (MEng) enrollments increasing, 4) graduate stipends are growing nationally.
    - Research funding grew from 2000-2004, steady in 2005-2007, now is slowing rising.
    - DOE NE restructuring has changed their programs.

- **Recognition Initiatives** – As previously reported under Undergraduate Student Awards, NucE 50<sup>th</sup> Anniversary, and PSU Nuclear Engineering Living Memorial

### **2009-2010 PSNES Priorities and Focus Items:**

On behalf of the Program Chair, Pat summarized four proposed focus areas. Priorities for 2010 were discussed and consensus was achieved on the following four priorities which aligned with the Program needs:

- Continue PSNES Undergraduate Student Awards for the 2010-2011 academic year. These awards are made possible by generous alumni gifts. Note: Sustainability beyond the 2010-2011 academic year is contingent upon new gifts from alumni.
- Strengthen Alumni Outreach activities to enable reconnection & participation.
- 50<sup>th</sup> anniversary celebration support – Special attention to share stories, photos and help with the “history of the program (Jan-Feb 2010).
- Student Mentoring Program implementation including ANGEL application.

The Board agreed to consider additional initiatives throughout the year provided that they can be accomplished without loss of focus on the above priorities.

### **Upcoming Events & Meetings**

- January 21, 2010 – L. E. Hochreiter Distinguished Lecture: Mr. Jacques Besnainou, President of AREVA
- February 15, 2010 – PSNES Quarterly Meeting (via telecon & On-campus)
- February 15, 2010 – MNE Senior Recognition Banquet (Penn Stater Conference Center)
- April 26, 2010 – PSNES Annual Meeting @ PSU
- April 26, 2010 – Nuclear Engineering Alumni & Friends Dinner @ The Nittany Lion Inn @ PSU

**Adjourn at approximately 18:10**