

# Meetings and Minutes

## Minutes of the November 19th 2005 UEC Meeting

Present: Alton, Bertram (video), Casey, Chertok (video), Diehl, Finley, Gollin (video), Hughes, Kopp, Merritt, Nguyen, Quinn (phone), Trischuk (video). From the GSA: Aguilar-Arevalo, Degenhardt, Maki

The Chair called the meeting to order at 8:30 am.

### CHAIR'S REPORT

As Director Oddone was unable to join the committee on this date, we heard instead a report from our Chair, Sacha Kopp, on his conversation with the Director on topics of interest to the Committee.

The first topic was the status of the URA bid process. The final request for proposals (RFP) is not yet out, but is due by the end of 2005.

The second topic was news from the EPP2010 committee. Director Oddone has answered many in-depth questions from the committee. He believes the committee is very mindful of the impact their report could have on the field as a whole, including the non-ILC portions of the high energy physics program.

The Director wanted to call the UEC's attention to the new report from the National Academies, "Rising Above the Gathering Storm". This report is available online at <http://www.nap.edu/books/0309100399/html> and highlights the need for enhanced investment in research and education in the sciences and technology in order to maintain the competitiveness of the United States in the world marketplace.

Regarding the budget for the coming year, Director Oddone said that HEP was given a cut relative to the 2005 budget, but an increase over the President's request. There is still the possibility of Congress issuing a 2-3% across-the-board rescission to the already-passed budget. The FY07 budget to be submitted to Congress in Feb-March will be the first budget put together by Energy Secretary Bodman.

### UPDATE ON NEW ID BADGE PROTOCOL

In last month's minutes, we reported on a presentation from Associate Director Bruce Chrisman, regarding a new badge ID protocol which was to follow Presidential Directive #12. This month, we are pleased to report that basic research facilities, including Fermilab, have been exempted from this program. This information was already relayed to users by a mailing to [usersorg@fnal.gov](mailto:usersorg@fnal.gov). The UEC Chair has sent a letter to Deputy Secretary of Energy Clay Sell thanking him for his clarification of the Presidential Directive as it pertains to basic research facilities.

The Committee then heard reports from the Quality of Life, International Users, Users Meeting, and Outreach subcommittees.

### **QUALITY OF LIFE (Diehl, Alton, Finley, Merritt, Kopp)**

Subcommittee Chair Tom Diehl reported that the subcommittee met on Nov 4 to clarify its plan for the year's activities, including a focus on womens issues.

At this meeting, the committee heard about contact from Mayor Michael Fortner of West Chicago, who is a physics professor at NIU and a Fermilab User on the DZero experiment. Mayor Fortner has some ideas for providing north-south train service along the east side of the lab with a possible stop outside the Fermilab gate. The committee will follow up this possibility, which potentially could be an energy- and time-saver for some regular commuters, as well as improving access to the metropolitan area for on-site residents.

A main focus of the subcommittee meeting was the discussion of topics for the proposed survey, and specifically the issues raised so far in email to the committee. One of the issues raised was the desirability and practicality of a separate female-only dormitory or dormitory corridor that includes a women's bathroom. Degenhardt and Welty-Rieger are almost finished with a proposal. A second important issue was the effect of children on careers, and how it may disproportionately affect women's careers. Information from previous surveys, at Fermilab and elsewhere, will be used to help create this year's survey. The isolation felt by women scientists was a third issue, and the subcommittee has taken action to see that the existing [women\\_scientists@fnal.gov](mailto:women_scientists@fnal.gov) mailing list is publicized to all new women users and employees. The full committee asked about how to reach summer students as well, and this will be followed up.

More general user complaints received by subcommittee members so far have concerned the quality and extent of taxi service, the relative lack of recycling opportunities at the Lab, and the short season of the Fermilab pool. A comment from the full committee was that in the previous year the UEC had asked for an extension to the taxi service to 4:45 pm and this was done by the lab, and attempts for further extensions to offsite destinations such as grocery stores were not successful. There was some discussion of whether the security force has a role in providing late hour rides around site, particularly when there is a safety concern such as extreme weather.

Aguilar-Arevalo reported that there has been progress on the GSA Guide to Life at Fermilab. It should be published soon and will contain ~70 pages.

### **INTERNATIONAL USERS (Bertram, Finley, Trischuk)**

Subcommittee Chair Iain Bertram reported that the International Users subcommittee has not met. A phone conference will be arranged in the next month to discuss a possible survey. Kopp suggested the committee look at the "Gathering Storm" report, to see what it says about improving or maintaining the environment for foreign scientists and students to come and work in the US. It was observed that the visa situation has been slowly improving. If the survey

documents this, it should be added to the list of items for which we thank the officials responsible.

### **USERS MEETING (Casey, Trischuk, Bertram, Alton, Nguyen, Kopp)**

Subcommittee Chair Brendan Casey discussed their meeting on Oct 29. A list of possible keynote speakers has been circulated, and the Public Affairs Office has been extremely helpful with advice and offers to contact people. Part of the advice was to invite several people on the list at once, not serially. The subcommittee is on track to get letters of invitation out by Dec. 1. They will also be working on lists of public lecture speakers, dignitaries to invite as attendees, and HEP dignitaries to invite as speakers. They will have another meeting this month to discuss these lists. Casey and Kopp attended the GSA meeting to discuss the New Perspectives conference and how it connects with the Users Meeting with a goal of integrating several NP talks for students into the Users Meeting itself. Aguilar-Arevalo commented that there would likely be interest in such talks but also having the informal NP sessions available. It is under discussion how to arrange this.

### **OUTREACH (Gollin, Quinn, Casey, Kopp)**

Subcommittee Chair George Gollin reported that he has distributed to the UEC a rough draft of a letter for universities to send their Congressperson. It is proposed to rework the letter to have a firmer call for Fermilab support, to revamp the phrasing so that it can be shared by other Users with their universities. Also, it should be more aligned with the "Gathering Storm" report. Having the draft is a very positive step and the timescale is to have another draft for the December UEC meeting, and to take it to universities by January or February.

### **NEW FERMILAB SAFETY REQUIREMENTS FOR USERS**

The committee heard a report from Martha Heflin, Senior Safety Officer for PPD, on the new requirements that users comply with Fermilab safety regulations and training requirements. Heflin chaired an ad hoc committee to look at issues of user safety. The origin of the committee was a general feeling of discomfort, coupled with a DOE audit on fall protection which exposed the issue of user training as a weak area. There have also been serious incidents with users at other labs, and minor incidents at Fermilab.

The committee members were Martha Heflin (PPD, Chair), John Cassidy (ESH), Dee Hahn (CDF), Jack Hawkins(LS), Maxine Hronek(PPD), Mary Logue (ESH), and John Scott (DOE).

There was a comment that the committee did not include any non-FNAL users, or any FNAL experimenters.

The committee identified gaps in the current user safety process, reported to Jed Brown in the Directorate, and began implementation of an action plan. Its recommendations were:

- 1) hold users to same ESH expectations as employees and give them the same tools (i.e., access to training) to meet those expectations

2) require the experiments to assign point of contact to act as supervisor for each user. The point of contact must

- be knowledgeable about the experiment and hazards associated with the user's activities
- complete an Individual Training Needs Assessment (ITNA) for the user and ensure compliance with the training plan which is produced from the ITNA
- follow up for incident investigations involving this user

3) require users to attend training as specified on the ITNA

4) make the process easy to follow

The process is tied to issuance of the ID card; only a temporary card is provided until the user completes New Employee Orientation (NEO). The temporary card is good for a week, and the NEO class will now be offered on both Monday and Thursday each week.

Fermilab ESH chap 1080 describes new users safety program - available online at <http://www-esh.fnal.gov/FESHM/1000/1080.htm>

Divisional and Section Senior Safety Officers will provide additional help as needed. The Divisional SSO's are:

John Anderson, Accelerator Division  
Amy Pavnica, Computing Division  
Martha Heflin, Particle Physics Division  
Richard Ruthe, Technical Division

The UEC raised some concerns about aspects of this process, including

- What happens to users who must, according to visa regulations, renew their ID cards much more frequently than once a year? (Apparently, the NEO need only be taken once, but it was not clear if an ITNA needed to be completed again by the point of contact.) - What happens for users who are only applying for an ID card in order to receive a computing account, and will only visit for meetings but will not be in residence for work at the lab? (It appears there will still need to be an ITNA filled out, but one of the questions will indicate no need for NEO. It was suggested that there be a way to avoid the ITNA and the temporary ID card for this case.)
- There is some confusion in the presentation regarding the role of the point of contact. Although some of the structure which applies to Fermilab line management is being used here, the point of contact will NOT be able to act as strongly as a Fermilab line management chain (to give one trivial example, the POC is not backed up by others when unavailable for vacation or other reasons). It should be clear throughout the process that it is not a transition of users into a Fermilab line management chain, and the use of the ITNA mechanism should not obscure this point. This can be viewed as a tool to help university groups make use of Fermilab training resources to increase the safety level of their personnel at Fermilab.

- The logistics of providing safety documentation, access to the ITNA web interface, and other ESH resources offsite, will require some attention. The current access is thought from anecdotal experience of committee members to be non-uniform. The UEC recommends that this be addressed, since insuring that the bureaucratic load can be handled offsite as well as onsite will minimize any loss of time during (expensive) user visits.

The UEC thanked Heflin for bringing this process to its attention and for a full presentation and discussion.

## **ACCELERATOR DIVISION SHUTDOWN WORK**

Dave McGinnis, Accelerator Division Associate Head, reported to the committee on the planned work schedule for the March 2006 shutdown.

[Note added in proof: As many readers will already know, the plans described below for the 2-week pbar study in December were altered by events - the Tevatron went down for repairs on November 21, and the pbar study was commenced, with a revised 3-shift schedule, and was projected to run through the holiday weekend at least. Plans for low luminosity stores were unclear at the time of this writing. The UEC would like to thank the Pbar group for its dedication in assuming a difficult job on short notice over a holiday.]

McGinnis first remarked on the purpose of the shutdown - to increase luminosity and protons available for the neutrino program. He commented that shutdowns in winter are problematic because it limits some of the maintenance work, but otherwise his major concern about the shutdown is not when it happens, but its length of interruption, and the necessary recovery time.

The strategy for increasing luminosity is to increase the number of antiprotons.

- increase pbar production rate (the Run II Upgrades)
- provide a third stage of cooling with the Recycler
- increase transfer efficiency

He listed the Run II upgrades and the work needed to move from the base specification to the design.

They are currently operating at the base goals in the stacking rate components. A key component to move forward is increasing the aperture of the AP2 line and the Debuncher. When AD was asked what could best be accomplished with study time prior to the shutdown, this component was chosen as the item which would benefit most from focused study time. The beam-based alignment which is needed for this increase is a procedure which is not compatible with normal operations (it requires running with reversed protons through the debuncher and the transfer line) and requires long setup times. It does not progress well when done piecemeal. So there will be a 2 week study period Dec 5 - Dec 19 to complete this alignment.

The first week of studies will focus on the Debuncher, and there will be little effect on the neutrino program. The second week will focus on the AP2 line, and there will be a 50% reduction of the NUMI flux. Throughout the two weeks, the pbar studies will occupy 2 shifts per day, with stacking during the other shift. (The pbar group is not large enough to staff three shifts of studies.)

During the first week, the Tevatron will provide low luminosity stores for the collider experiments. The experiments will use these stores for their diffractive programs. The Tevatron will do proton-only studies during the second week, if the collider needs for low luminosity stores have been met.

He reported on the organization for this December study period, which includes planning meetings to voice requests (done), to draft a schedule, and to finalize a schedule. The pbar studies have 20% contingency, and if they end early, the machines will return to normal operations. If the pbar studies take longer, the study period will continue until they are finished. McGinnis noted that a 2 week study period is long for the Tevatron and restoring to normal operation may not be immediate. He was asked about how soon the results of the December studies would be known. He said that the increase in aperture which they achieve will be known at once, but whether that translates into an immediate increase in luminosity depends on whether other limitations kick in. He was asked how much the results of the December studies would influence the work during the March shutdown, and he answered "Not at all."

Next, McGinnis turned to the March shutdown. This will be 14 weeks in length, followed by 2 weeks of startup. All the machines will be down for the entire 14 weeks. The jobs to be done are limited by the available human resources: the Accelerator Division has 33 technicians, and has requested a loan of ~30 more. This allocation has not been made final yet. Following previous practice, the jobs list for the shutdown will be frozen December 15.

The focus of the accelerator work during this shutdown is the work for the neutrino program. There is a list of several major jobs which **MUST** be done. The other focus is routine maintenance, and finally some collider jobs. The shutdown worklist can be viewed from <http://www-bd.fnal.gov/worklist> (but requires a VPN from offsite).

He was asked, is electron cooling commissioned? Yes, it is completely committed to operations. The goal was November 1, and they beat it by a month, although it is not as smoothly operational as the specifications. There has been no accumulator-only shot in last 40 stores. They keep the accumulator-only capability only as a contingency, but using it would require retuning the machine.

The committee thanked McGinnis for his detailed and informative report and for the very professional efforts of those in the AD.

### **DC TRIP (Quinn, Chertok, Diehl, Finley, Hughes, Nguyen, Merritt)**

Subcommittee Chair Breese Quinn reported that the subcommittee has met three times in the previous month. They have decided the trip date is March 8-10, 2006. They have contacted

SLUO for date for joint planning meeting, probably one of the last 2 Saturdays in January. The subcommittee has made most of the assignments of jobs, and will go to weekly meetings after Thanksgiving.

## **NEW BUSINESS**

Wyatt Merritt, webmaster, showed the committee new template web pages for the UEC, provided by the web consultants in the Public Affairs Office. The new pages are more in keeping with other lab pages in style. This effort was initiated by last year's committee at the end of its lifetime, and will be followed up this year with a deployment of the new pages anticipated within the next month.

James Degenhardt noted that the GSA had a successful Halloween party on October 28. The GSA thanks all who helped, especially Dee Hahn.

## **FUTURE MEETINGS**

Future meeting dates: December 10.