

Final

These notes are in the following order:

1. Attendance
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4. Update – Peconic River
5. Annual Site Environmental Report, Robert Lee, EWMSD
6. Agenda Setting
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8. CAC Discussion to Determine Community Conduit Plan and Action Steps, Membership

1. Attendance

Members/Alternates Present:

See Attached Sheets.

Others Present:

H. Carrano, J. Carter, J. D'Ascoli, D. Gibbs, G. Goode, M. Holland, B. Howe, S. Johnson, T. Kneitel, M. Lynch, R. McKay, P. Tilson

2. Correspondence and Handouts

Items one through six were mailed with a cover letter dated November 2, 2007. Items seven and eight were provided in the member's folders.

1. A copy of the November 8 draft agenda
2. Draft notes for October 11, 2007
3. Final notes for June 14, 2007
4. Final notes for September 13, 2007
5. Consumer's Report Article - Nanotechnology
6. Article from WasteAge – Thinking Small
7. Copy of revised draft agenda
8. Copy of Annual Site Environmental Report presentation, Robert Lee

3. Administrative Items

The meeting began at approximately 6:40 p.m. Reed Hodgkin began by reviewing the ground rules and agenda. Those present introduced themselves.

Approval of Minutes

Reed asked for corrections, additions, or deletions to the October draft notes. The October notes were approved as written with one abstention.

Member Conklin reported that he had been asked to represent the Peconic River Fish Restoration Commission as a community member, as well as the Town of Riverhead.

Les Hill explained that the Laboratory has addressed and resolved all of the regulator's technical comments and questions on the proposed remedy for the HFBR. The regulators are now working on concurrence letters for taking the proposed remedy out for public comment. Right now it is on track for December. We're configuring the comment period so that it will span three CAC meetings. We plan to spend time presenting the final alternatives and the proposed remedy and we want you to have ample time to consider and discuss the path forward. As far as field work goes, the Lab has reached a couple of milestones. Hill reminded the CAC that when the Former Hazardous Waste Management Facility soil was cleaned up in 2005, two acres were separated out as a waste loading area to be used in connection with the reactor projects. The plans have changed and the waste will now be packaged right at the reactor sites. The last two acres are being cleaned up now rather than later. Removal of the last of the contaminated soil began this past week. Another major milestone coming up is that the Lab will begin receiving bids sometime in early December for the graphite and bioshield removal from the BGRR. Hill hopes to begin work by next summer. He expects to have more to report on the BGRR after the new year.

George Goode spoke about waste transportation. He explained that the clean-up at the Waste Loading Area would be conducted in the same manner as the soil project at the Former Hazardous Waste Management Facility. The soil will be removed by rail to Energy Solutions in Utah. Because there is sensitivity to the rail shipments, communications have been initiated with the Emergency Management departments in Suffolk, Nassau, and New York City to go over the shipments, the schedule, and all the details involved.

Member Garber asked if the rail shipments will go through Penn Station or through the Bronx.

Goode said that it will not go through Penn Station. He explained that the rail route is the same as last time. They will use the LIRR system to Queens, then go up through the Bronx, upstate NY, and then to points west.

Mike Holland told the CAC that the BSA (Brookhaven Science Associates) contract with the Laboratory was set to expire in January 2008. He reported that last Friday, the Secretary decided to extend the contract for two more years. This will give the Department time to work through the process of competing the contract and have an award made on or about January of 2010.

Member Evanzia asked how many groups are competing for the contract.

Holland answered that it is too early to tell, the requests for proposals have not gone out yet.

4. Peconic River Update, Skip Medeiros

Skip Medeiros spoke to the CAC as a follow up to discussions in March and April 2007 on the 2006 sediment sampling of the Peconic River. In 2006, there were three sample stations that had elevated concentrations of mercury. Those findings were confirmed with five additional samples taken at each of the three stations. The Laboratory has finished characterizing the spatial extent of the distribution of the mercury and the results were shared with the CAC. Medeiros explained that the information relative to the 2007 surface water and fish results is still being evaluated and when that is complete and the 2007 Annual Report has been submitted to

the regulators and they have evaluated it, he will come back in the spring and share the information with them in greater detail.

He explained that the pre-sample results from 2006 that caused the additional sampling were a 1.9, which is close to the 2.0 parts per million (ppm) maximum goal. The second sample was a value of 7 and the third sample was a value of 14. He explained that the Lab collected numerous samples for a distance of 150 feet upstream and 150 feet downstream of the original sample. At the location that had the 1.9 ppm level, 31 samples were collected. One had a value of 2.1, but all the rest were below the 2.0 maximum goal. At the second and third stations, there were a few exceedances of the 2.0 ppm goal. Medeiros explained that it is important to put the results into context relative to the 20 acres cleaned up, the 19,000 cubic yards of contaminated sediment removed, and the 2,500 samples taken since the cleanup was completed. At the station 2,500 feet offsite (PRSS 10), the original data point in 2006 was 7 mg/kg. The sampling completed in August of this year had seven values above 2 ppm. These were all distributed on the same side of the river and all within a 50-foot area. At the third location sampled there were four exceedances. Three of them were in the same transect, the fourth value was detected in the same transect as the original 14 mg/kg level. The data looks like this is a very well defined and small area. Medeiros will come back in the spring to share all the data results.

Member Giacomaro asked if he was talking about mercury levels in the sediment only.

Medeiros replied that right now he is only talking about sediment.

Member Proios asked what the space was in between the transects where the samples were taken.

Medeiros answered 25 feet.

Member Garber asked if these areas underwent a drying a process and asked if this could this be an explanation for the high levels of mercury.

Medeiros replied that it is a possibility.

Member Sprintzen asked where the other two exceedances were in the area that had the seven exceedances.

Medeiros said that they were more widely distributed with no relationship to each other.

Member Mannhaupt commented how far the CAC and the Laboratory had come with all the changes to the Peconic River plan and the monitoring requests. She asked Skip how he felt about being able to define and classify the data to such a degree.

George Goode asked Skip to talk about concentration ranges of mercury in the two other locations that had elevated levels of mercury.

Medeiros explained that in the second sample location (7 ppm) there were four exceedances in the 2 to 4 mg/kg range. In the third location there were exceedances of 2.1, 3.3, 9.8, and 34.5. Three of those were in one transect. Between those and the original 14, that defines an area with several contaminants in it within a 50-foot distance which is a very small section. That was the one single highest level.

Member Chaudhry asked about the depth of the sample, if there is a standard method for taking samples, and if they were taken from the sediment that is sitting on the bed.

Medeiros answered that these samples were collected in sediment below the water surface to a depth of six inches. The cleanup involved the top six to twelve inches which is where most of the contamination was. The areas sampled are in the slowest moving sections of the river which could be why the mercury has settled there.

Member Garber asked if there was anything special about the areas with high levels of mercury. He questioned whether the water level is high enough in those areas to get samples.

Medeiros replied that the water level didn't make a difference for the type of sampling (core sampling).

Member Conklin asked if there is any attempt to age the fish taken for sampling.

Medeiros said that fish scale samples were collected and also they took length and weight information this year to try to age them. He will talk more about fish sampling in the spring.

Member Giacomaro asked if the sampling is taking place in new soil.

Medeiros reminded the CAC that there had been a strong concern about bringing in new soil. He explained that after removing the top 6 – 9 inches, the soil was graded to re-establish the contour and in some places, they were short, so the soil was graded deeper in some areas, but it is all Peconic River soil that was redistributed.

Medeiros also reminded the CAC that the information they were going to hear about in the next presentation (the Site Environmental Report) would be from 2006, so they shouldn't confuse it with the 2007 information that he just told them about.

5. Annual Site Environmental Report, Robert Lee

Robert Lee gave a presentation on the Site Environmental Report. He said that the report was released on October 1 and there were copies available for the CAC members. He explained that the report was required by DOE and is the official record for analytical data and for environmental impacts for the year.

Lee explained the content of the report. Chapter 2 is a complete description of the Lab's Environmental Management System (EMS). He talked about the DOE awards the Lab received for its EMS program, for the onsite composting facility, and for recycling and reusing concrete. He also described the National Partnership for Environmental Priorities awards that the Lab received. He explained that under this program the Lab is reducing its mercury waste and the inventory of PCBs. He also talked about the P2 program and said that 11 new projects were funded in 2006 for a savings of \$74,000.

Member Proios asked what percentage of the savings was due to the employee rewards program.

George Goode said that all of it was from the employee program. There is a pool of funding that they compete for.

Lee reported on the types of waste BNL generated, the amounts, and the trends. He noted that in 2008 rad waste would most likely go up with the waste from the BGRR. He talked about the Lab's energy consumption, the environmental restoration projects, community involvement, and the 9,700 samples collected under the monitoring program.

Lee stated that the Laboratory has 34 permits that they are required to comply with and there was a 99% compliance rate in 2006. He talked about NEPA compliance, PCBs, and compliance with air emission permits. He went on to say that since 2003 there has been a 90% reduction in PCBs.

Member Evanzia asked how the Lab reduced the inventory of PCBs and if they have been replaced with something else.

Lee explained that the Laboratory had a voltage regulator on site that contained PCBs that was no longer needed so it was gotten rid of. In the Collider Accelerator Department, there are large capacitors that contain PCBs, so the Lab has implemented a program to remove them. The Lab expects to remove the remainder by 2008. The Laboratory disposed of these items through the waste management facility.

Member Proios asked if there was an assessment done for the Nanotechnology facility under NEPA.

Lee responded that there was and it was determined to be categorically excluded.

Member Mannhaupt asked why it was excluded.

Lee answered that the building itself is what they look at; the impact of building the facility.

Lee discussed compliance with waste water permits. He explained that there were a few violations, but all were minor and have been corrected. He discussed the DOE order to reduce water consumption, and said the Lab has already reduced pumping by 800 million gallons a year. Lee noted that spills were down 21% in 2006.

The Lab monitors three facilities for radiological air emissions – BLIP, the Target Bldg., and the HFBR. The releases from BLIP are approximately .08 mrem per year. All ambient levels are at background. Lee reported that there were no emissions exceedances at the Central Steam Facility.

Lee noted that the storm water outfall at the Central Steam Facility had been cleaned up in 2006. The Lab removed about 1,700 tons of lead-contaminated soil and disposed of it off site.

Lee reported on non-radiological monitoring for water quality. At the Sewage Treatment Plant the radiological releases have gone down to almost zero with the shutdown of the HFBR. Tritium released totaled .006 Ci which was 85% less than 2005. He also talked about the recharge basins reporting that there was a single detection of tritium ~430 pCi/L. He also reported that some disinfection by-products from potable water were seen in some of the basins.

Member Kaplan asked about the disinfection by-products.

Lee explained that potable water is used for once-through cooling on site in many facilities. The water is chlorinated for disinfection purposes and one of the by-products is that the chlorine reacts with naturally organic materials in the water and forms very small levels of chloroform, bromodichloromethane, chlorodibromomethane, and bromoform.

Member Kaplan asked if the levels were below regulatory concern.

Lee said they were trace levels and below concern.

Lee spoke briefly about monitoring water quality in the Peconic River. He explained what the Lab monitored for and the results.

Chapter 6 of the SER reported on Natural and Cultural Resource Management. Lee explained the population surveys for turkey and deer, the environmental education programs onsite, and talked about the Foundation for Environmental Research in the Northeast (FERN).

Lee reported that the deer sampled offsite were found have higher levels of Cs-137 than those onsite. The deer are getting to the background levels. He said that was good because it indicates that a lot of the radioactivity has been removed through the environmental restoration program and they are no longer getting the exposure. The trend for the past eight years shows a slight uptake in 2006. There was one deer sample that measured 9 pCi/g, but that is still in the normal range for what's been seen in the past. The overall trend is downward.

Member Garber asked if the deer sampling was destructive.

Lee replied that it was opportunistic; the Lab tried to sample any deer killed on site and those that they are made aware of offsite.

Member Mannhaupt questioned why the deer sampled off site had a higher concentration of Cs-137 than those onsite and asked for clarification that the trend showed the onsite deer were "cleaner" than those offsite.

Lee explained that the number of deer sampled was small. He said there was one deer collected offsite with high levels which could have skewed the results.

George Goode said that it is important to note that the deer off site within one mile of the Lab were higher. There is another data set for those deer greater than a mile away.

Lee further explained the data.

Member Biss asked if the problem was the small number of deer sampled and that each one was an anomaly.

Member Hall commented that you only have four deer collected outside the one mile perimeter, but you have 11 that were harvested onsite.

There was further discussion on the data and whether or not true conclusions could be drawn. Goode said that the conclusion was true for that set of data.

Member Kaplan asked if the same part of the deer was always sampled.

Lee responded that the Lab usually tries to get three samples. A sample of the horn from a buck or bone if it's a doe which is then analyzed for Sr-90. Typically Sr-90 is not seen in the samples. Then they try to get a piece of the hind quarters and the liver.

Member Anker asked if there is a chance that a hunter could get a deer with a high level of contamination.

Lee replied that along with the NYSDEC, they have determined there is no risk or threat to the hunter. He explained that even the highest concentration that was found in deer to date would not present a risk and the DOH has determined that based upon the concentration there was no risk.

Lee told the CAC that vegetation restoration of the Peconic River is at 92%. And in 2007 it's even better. There are very few invasive species present.

In regard to Cultural Resources, Lee reported on the National Historical Preservation Act review of the Camp Upton buildings, NHPA determination for the HFBR, and an archaeological survey of the NSLS-II site.

On groundwater cleanup, he reported on the impact of the cleanup, two of 16 treatment systems have met their goal. Based on 2006 monitoring results a new extraction well was added to the HFBR tritium plume system, a new well was added to the Airport system, and two new wells were added at the Chemical Holes.

The final chapter of the SER discussed the radiological dose/risk assessment. Lee said the total dose in 2006 was 3.11 mrem.

Member Evanzia asked if the Laboratory is replacing incandescent light bulbs with fluorescent light bulbs.

Lee replied that yes, the Laboratory has a program where all the light bulbs are being replaced with low energy fluorescents as well as low mercury fluorescents.

Member Evanzia stated that the only negative is they contain mercury.

Lee explained that the Lab has an active program where all the bulbs are collected and sent off site for bulb reclamation and reuse.

Member Anker asked if there should be legislation to push for recycling of light bulbs containing mercury.

Lee thought that there should be legislation, but he felt that the typical homeowner would not recycle them.

Member Anker asked what facility on site used the most energy.

Lee replied that the Central Steam Facility uses the most fuel oil. Some of the user facilities, like the accelerators, use the most electrical energy.

Member Anker asked if the Lab has on site solar or wind or any other type of alternative energy.

Lee answered no; however, the Lab does purchase a portion of its electricity through renewable resources.

Member Anker asked if alternative energy is something the Laboratory should be doing.

Lee said that energy consumption and using energy from renewable resources is a goal of the Executive Order and the Lab will have to start looking into alternate sources of energy.

Member Graves commented he had read in Audubon magazine that when a regular incandescent light bulb is burned, over the lifetime of the bulb, the coal-fired energy that powers the bulb releases a lot more mercury to the atmosphere than the mercury that is in a compact fluorescent. So if you're worried about mercury certainly it is good to try to dispose of the compact fluorescent where they collect mercury, but you're still reducing overall mercury by using the compact fluorescent even if it isn't disposed of at a recovery facility.

Member Mannhaupt went back to the deer statistics and asked if the downward trend was actually a solid scientific trend or if it was information that had been put together for the report. She wondered if it was good enough data to be in the Site Environmental Report.

Member Proios said that because it is opportunistic, there are not enough samples to get accurate statistics.

Member Mannhaupt said so "the nine-year trend continues to show a decline in Cs-137 concentrations, slight increase for 2006 due to one elevated sample" is supposed to be a true statement?

Lee responded that is about onsite results and yes it is a true statement. If you look at the data trend, it is a downward trend from 1998.

Member Proios asked if the 200 lbs. per year of mercury used is all accounted for at the end of each year.

Lee explained that approximately 80 lbs. of the mercury is used in specialized equipment on site, it is enclosed in the equipment and it is all accounted for. There is one other use on site where they deposit a very thin polymer film on the surface of mercury and that surface allows the material to be recovered which accounts for about 30 lbs. of the mercury. The remaining mercury is in switches and specialized thermometers. He explained that the Lab has changed over a lot of the controls that contained mercury and converted to electronic controls.

Member Proios commented that it seems like nothing really has a direct discharge anymore. He asked if the Lab has replaced all of the traps in the laboratories that used to have mercury thermometers.

Lee responded not all the laboratories have been done, but Bldg. 555 has been cleaned out several times. He clarified that the traps weren't replaced, there is a drawer in the trap, the drawer is pulled out, dumped, and whatever mercury is in the trap is collected.

6. Agenda Discussion

Jeanne D'Ascoli reported that in December the CAC will be hearing a presentation on the alternatives for the HFBR. She said that Prof. Gil Hanson, from Stony Brook University, has

been invited to give a presentation on global warming also in December. In January, the HFBR discussion will continue and whatever the CAC decides this evening will be followed up on.

Reed stated that the two topics already on the agenda for December are likely to generate a good deal of discussion and he advised the CAC to be careful about adding more topics to the December agenda. The CAC agreed to stay with just those two topics for the December meeting.

Member Kaplan asked how Gil Hanson was selected to give the presentation on global warming.

Member Garber answered that it was his suggestion. He had heard his presentation already and said it was fascinating.

Reed asked the CAC if they wanted to add anything to the January agenda with the HFBR discussion.

Member Giacomaro suggested they add nano safety.

Reed said that was something the Laboratory could do. He asked if there were any other ideas for January.

Member Garber asked if the CAC was following the list of agenda items that they voted on.

Reed pulled up the agenda list and went through it. He replied that continuing nanotechnology is consistent with the list and where the CAC said its priorities were. He asked the CAC if they would like to put nano safety on the agenda for January. The CAC agreed. He again recommended that they leave it at two agenda topics, since they are both big items. He said that the priority list would continue to be followed but that it was not set in stone, it could be revisited.

Member Garber commented that global warming is a huge topic and may require more than the one presentation.

D'Ascoli replied that the Laboratory plans on pursuing the topic and it will be back on the agenda in the future.

Member Mannhaupt suggested that maybe in February global warming can go back on the agenda.

D'Ascoli told the CAC that she has been using the list of agenda items as a guide, but it depends on the availability of presenters.

Member Proios added that people might be interested in hearing from one of Al Gore's trainees (1000 foot soldiers). He said that he's seen presentations by a scientist and one by a sociologist which each had different perspectives. Also, the DEC has created a new section to focus on this issue. He mentioned the Northeast Regional Greenhouse Gas Initiative and how it is coming together, carbon-trading, credits, selling the credits etc. The Initiative has been signed by nine states and perhaps Albany could be contacted next year to see if someone could update us on what is happening.

D'Ascoli said that she would like to go back to Lab management and talk to them. The charter of the CAC is to advise the Director of the Laboratory. The CAC is beginning to move in different directions. When we talked about nanoscience, the NSLS-II is going to be doing a lot of nanoscience research and it appeared that it fit into the mission of the Lab and your learning more about it. If we begin to talk about these other subjects, I would like to have the opportunity to talk to Dr. Aronson and others about it. They don't fit with the charter, we would be moving in a different direction.

Member Mannhaupt suggested a spring Global Warming Day, like the P2 Conference. There could be a guest speaker and different things that Member Proios just brought up. Maybe the CAC could put together a Global Warming Day and bring all of this together.

Member Kaplan said that at the August meeting when the CAC discussed the different topics, he felt that they focused on areas that related to the charter. He wished that educational programs had placed higher on the list of priorities. He feels that the CAC should focus more on things that relate to the Laboratory and science. He recalled that at the August meeting some of these topics were addressed. One thing that he felt very strongly about was the fact that they focused on areas that do relate to the charter which is to advise the Director. He said this institution can play such a major role locally and nationally, and it does play a large role nationally, in bringing in women, minorities, and stoking the interest outside our institution in science and engineering and mathematics and computations. This is the kind of thing that he feels the CAC should be doing. The CAC should be focusing on issues that relate directly to this institution. If the Lab management wants to allow us to in some way bring people in to talk about these larger issues like global warming. But there are so many issues in my opinion that relate directly to this institution and to science in general. The need for more attention to be focused in this area to the younger people coming up. So while I like all of these issues, they're all very interesting, but as I said in August, let's focus more on items related to Brookhaven and science.

Reed suggested that the CAC take their break and return and continue the conversation.

Member Kaplan asked to speak during the Community Comment period.

Member Mannhaupt suggested voting on December's agenda items, Global Warming and the HFBR, before the break and asked for clarification that the Lab was ready to discuss those topics.

D'Ascoli said that as long as the HFBR public comment period is ready to begin the day of the CAC meeting. If it is not ready, she said she could invite someone to do a presentation on nanotechnology.

Member Evanzia said that before there is a vote, he would like to know if the Laboratory is doing significant work on global warming because he also feels that the topics of discussion should be relevant to what is going on at the Lab.

Member Conklin stated that it was his understanding at the August meeting that this was going to be a 50-50 proposition. He thought that the majority of topics would be geared toward the CAC's role in relationship to the Lab. The Lab would bring forth these topics in a timely manner that met their needs and schedule and that was the priority that came first, with the idea that the other topics that the group wanted would be worked in.

Member Proios stated that the Laboratory is transitioning out of the cleanup operation and at some point there isn't going to be anything left to clean up. He questioned whether the CAC will have a future role. He said one of the biggest areas that the Labs' future lies in is technology transfer. There are things that the Lab has done like the Brookhaven House, an energy efficient home. There is a lot that could have been continued there, that wasn't done to bring us to the point now where everyone is concerned about greenhouse gas emissions. Are there people at the Lab that have the expertise that fits into what the State of New York and the northeast states are doing in terms of cutting carbon emissions? There is research that needs to be done that this facility has the capability of doing. One of our functions to advise the Director may be that in an area where they're going after dollars now with Homeland Security, they may need to shift over to energy. Maybe we should make recommendations for how the Lab can fit into that area.

D'Ascoli said that in the past presentations on current research in areas that we thought you were interested in have been given to you. The Lab has a researcher, Steve Schwartz and his group who are studying global warming issues. She hoped that that he would give a follow up presentation after next month's presentation by Gil Hanson.

Steve Schwartz said that much of his research has to do with the influence of energy-related emissions on climate and vice versa. What are the climate constraints from carbon dioxide emissions going to do to the nation's and world's energy futures? His group is trying to distinguish between mitigation and adaptation, recognizing that some climate change is inevitable and what is going to be done about it. He thought that Member Proios' point was good in that research opportunities for the Lab could be developing new energy technologies and greater energy efficiency. He doesn't think the Lab does enough research now, it could be expanded. On the climate side, the Lab does a lot of research toward addressing the question of the consequences of CO₂ in the atmosphere. That is his expertise and he could talk to the CAC about it.

Reed suggested that the CAC vote on the agenda for December: HFBR and global warming with a back up of nanotechnology. They voted with one opposed, and two abstentions for the agenda as proposed. Reed said the CAC will discuss the January agenda in December.

7. Community Comment

Member Kaplan spoke as a community member and said that having read the minutes from last month he was reminded of when RHIC first started. He said there were quite a number of articles in newspapers suggesting that a catastrophe could happen. He said that BNL has more physicists that are real experts in their own field, and they understood what the potential was for the end of humanity when someone flipped the switch on for RHIC. But nanotechnology is a totally new and different thing. The potential environmental, health and safety impacts are totally unknown, even for those who we think are in the know. Unfortunately, he commented, we don't have many of those people. He said he was struck by how many people were asking the same question: How can you talk about the safety when you know so little about the technologies? Statements were made that they are aware that there are some risks, but don't know what they are. Kaplan feels they need to stay focused on nanotechnology and nano health and environmental safety aspects. He said that every scientist that wants to start a program has to go through a review process to try and identify potential impacts. He said Brookhaven people are the ones who evaluate them and he feels there aren't enough experts here who are capable of answering the question of the potential environmental, health, and safety issues related to some of the nanotechnologies. He would like to focus on whether or not the Lab should have a group of experts in this area - outsiders who are empowered to review all

proposed work that is going to go on at the Center and at NSLS-II. He has two students doing research on this topic and they are having trouble, not only defining what the problems might be, but finding people with any expertise to address these potential problems. He feels they have to focus on advising the Director after they learn enough about these issues on how to go about ensuring that the best effort has been put forth before any project begins in this area. Kaplan was pleased that so many CAC members are saying they want to hear about nano. He doesn't think the CAC can spend enough time on this topic and he feels they need to focus on this at every meeting.

Reed asked for other comments from the members of the audience. There were none.

9. CAC Discussion to Determine Community Conduit Plan and Action Steps, Membership

Member Anker also thought education should have been placed higher in importance on the list of agenda topics. She said she is on the Mt. Sinai School Board and they are hoping someone from BNL will be coming to talk to them about science programs. She thinks that BNL's contribution to education is one of its most important attributes to the community. She would like to see a presentation on BNL's education programs and would like to know what schools are involved.

Reed explained that even though the list is prioritized, every item on the list is important and subject to go on the agenda. He said it is not necessary to follow down the list exclusively.

Member Mannhaupt agreed with Member Kaplan and said she believes that education process and the different ways the CAC could offshoot programs for education is on how we become a community conduit. She believes that the Lab needs its own nano committee that would then report back to the CAC. She realizes that the CFN is very important and said the CAC needs to be part of the process. She said perhaps there could be people on that committee that are not members of the CAC, but there needs to be a few CAC members included to focus on what research is being done at the Center, how it is being done, and on the regulations. She spoke about possibly developing a CAC website for information purposes that could connect with the schools and civic organizations.

Member Proios stated that he feels that education is not a problem because there already are excellent programs in place at BNL. He said a good word for nanotechnology is hubris. He feels there is excessive pride in all the research facilities. He gave an example of when scientists first developed Freon. He said when it was first used, it was determined to be safe, but later found out to be harmful to the ozone layer. He feels that we keep repeating history. He said that with nanotechnology you can take the whole chemistry and physics handbook and throw it out the window because these things no longer apply to material that is one billionth of a meter in size. Proios said right now there is a worldwide race to get patented material and technological applications out there because of the belief by companies that they are going to make a fortune in this area. There are five national laboratories competing to be the first to come up with it. He said he is afraid that what is going to happen is that there is going to be some kind of a serious accident and then the public will say there needs to be a halt. He feels that this is out of our hands and the CAC has no control over what is going to happen at other labs and in other countries. He feels there is nothing the CAC can do that will make a significant impact.

Member Sprintzen agreed with what Member Proios said on nano. On education, he suggested that the CAC do some kind of public education event, possibly around Earth Day, regarding global warming.

Member Martin asked about the process for adding to the list of agenda topics.

Reed replied that perhaps every few months, they could re-vote and re-prioritize the list.

Member Campbell drew an analogy to another type of review committee at the Laboratory. He explained that there is a committee that reviews animal experimentation. The committee has a wide variety of members and he thought that it could be a model for a review committee for nanotechnology.

Member Garber brought up the topic of deer management. He considers it one of the major environmental problems at the Lab and on Long Island. He feels that the CAC is in a good position to work with the Lab Director to come up with some solutions that could be a national model for how to get the deer population from 120 per square mile to 8 or 9, where it belongs. He doesn't feel hunting is a viable option in urban areas, but this is a tremendous opportunity for the Lab to come up with a solution. He'd like to see the CAC discuss deer management.

Member Conklin commented that during the presentation on nanotechnology the speaker explained that there is a group overseeing it, but they don't seem to have any power. He feels that they should be given some power of authority to overlook these things on a national basis. He also agreed with other members that there should be a non-technical committee together with a technical committee from the Lab on nanotechnology to advise and become educated and to make some community decisions.

Member Mannhaupt agreed with Member Conklin and said that nanotechnology does not have experts like the other disciplines. With nanotechnology, things change. The CAC has a different way of looking at things and she feels that together with the scientists they could make some good decisions. She is not saying not to do nanotechnology, but together, making the mistakes of the past could be avoided.

Reed responded by saying that the CAC's interest in playing a role in and making nano science work safely looks like an upcoming priority. He said that the CAC seems close to making a recommendation as to how they would like to go forward in supporting the Lab in that role as a group. He asked the CAC if they would like to establish a committee to figure out how they would like to go forward.

Member Mannhaupt said she doesn't think the CAC can do it by themselves. She suggested that they sit down with the scientists that are working in this discipline and come to an understanding and agreement.

Member Giacomaro said that an indication was given to them at the last meeting that there are already methods in place in the field of biology about handling these materials that can be detrimental to human beings and the earth. He thinks that if they already have safeguards in place to prevent accidents from happening we should follow them. He asked how there can be experts before the research is done.

Member Proios said that it is important to first gather the information. He said that the science is progressing faster than the regulatory agencies. He commented that the DEC is incapable

right now of protecting the environment because they do not have physicists working for them. He said there are a couple of knowledgeable people in the EPA that are participating with DOE and USDA, but they are not on the cutting edge of research and sometimes do not know what is going on. He feels the regulatory area is something the CAC should be paying attention to by asking EPA what's going on. He said there aren't people in the government qualified in nanotechnology, so the integrity of the scientists has to be relied on and he is concerned about that. He said when dealing with economics and possible loss of funding at national labs, he is concerned that they will move on before knowing what they are getting into. He reiterated that the CAC needs to be educated, and then come back and see what the issues are.

Member Chaudhry commented that nanotechnology is a thing of the future and we shouldn't overemphasize it. He said we need to be careful not to overlook other important issues like global warming.

Member Henagan commented that Member Mannhaupt's suggestion of a nanotechnology sub-committee makes a lot of sense. He made an analogy to a pregnancy and remarked that they have the opportunity to produce an Albert Schweitzer and prevent an Adolf Hitler. He feels they can set an example on how to do responsible science. He said that it was an inside joke of the pharmaceutical company that someone who claims to know everything about a subject is called an idiot, because nobody knows everything. That's the way we have to approach this.

Member Kaplan said that Member Proios was right on target about hubris and that was what got the Lab in trouble in the first place. Why not help the Lab put on a series of workshops devoted to this whole issue – the Center that we've got, the kind of work that's being done, some considerations that go into this kind of work, bring in some experts to discuss this and educate us and the community. Do an Open House and invite the community in to hear people talk who are actually considered experts. It will be good for the Lab. It's an idea.

Member Conklin asked Member Campbell if the committee he referred to earlier could be used as a template for the CAC to apply to nanotechnology.

Member Campbell replied that it was just an example because it has technical experts on it from outside the Lab as well as inside the Lab and also community representatives. He said it was that type of mix of ingredients so you get a conduit from the safety reviews into the community. He feels it is a lack of awareness about what is being done rather than that what is being done that is inadequate. I think that what's being done is adequate; it just isn't being communicated very well.

Reed concluded that it appears that nanotechnology needs to be one of the priorities for the CAC. Figuring out what is the appropriate community process around nanotechnology is also an important discussion. There isn't a lot about community process in nanotechnology. Whether it's how community gets involved in the onsite safety reviews or how things get taken to the community to talk about the subject. That doesn't exist yet; maybe the CAC is a place where some of that process can be created. He said next month the CAC can decide where to put those things on the agenda.

Meeting adjourned at 9:29 p.m.

Flip Chart Notes

CAC as a Conduit

- Global Warming public ed forum
- Nano at BNL & community education
- Deer population control for Lab site

Agenda

Education

- BNL program
- CAC recommendation to BNL
- CAC as education conduit

Nano

- CAC committee on nano
- Nano safety
- CAC recommendation re nano safety

Agenda Topics	Votes
Global Warming, Stony Brook, Pine Barrens	15
CAC as a conduit/resource to the community	13
Emergency Operations Center tour and drill	12
Nano technology	11
CERN – problems and implications	11
Site Environment Report – good and bad	11
Nano safety	10
Regulator presentations on areas they oversee	10
Energy	9
Overview of programs	9
Deer Management	8
Anti-terrorism update	7
NSLS-II briefing	7
Nuclear power plant safety	6
Education Programs	6
Energy efficiencies	6
Sustainable transportation	4
Natural Resources management	4
Nano ES & H (October 11, 2007)	3
Safety and Security	3
Experimental Review Process	3
Latest RHIC findings	2
How the Lab supports nuclear facilities in the N/E region	2
Status of P-2 road show	2
Heating plant and efficiency research	2
Lyme Disease	2
CAC process	2
Alternative fuels	2
Update on phyto/bacterial contamination remediation research	1
Deforestation	0
Work planning process	0

New Topics Added After September 2007 Vote

Global warming – BNL research
 Nano toxicology
 Nano ES&H issues at BNL and beyond
 Nanotechnology/science at BNL
 Nano management policy issues
 Nano panel discussion with the DOE, EPA, and FDA

2007	Affiliation		First Name	Last Name	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Chart Key - P = Present																
ABCO	(Garber added on 4/10/02)	Member	Don	Garber	P		P	P	P	P				P	P	
ABCO		Alternate	Doug	Dittko												
Brookhaven Retired Employees Association		Member	Graham	Campbell	P	P	P	P		P			P	P	P	
Brookhaven Retired Employees Association (L. Jacobson new alternate as of 4/99)(A. Peskin 5/04)		Alternate	Arnie	Peskin		P										
CHEC (Community Health & Environment Coalition (added 10/04)		Member	Sarah	Anker		P	P	P		P					P	
			Ann Marie	Reed												
Citizens Campaign for the Environment		Member	Adrienne	Esposito		P			P				P	P		
Citizens Campaign for the Environment (Ottney added 4/02-takenoff 1/05 Mahoney put on)(7/06 add Kasey Jacobs)		Alternate	Kasey	Jacobs	P		P			P						
E. Yaphank Civic Association		Member	Michael	Giacomaro	P	P	P	P	P	P			P	P	P	
E. Yaphank Civic Association (J. Minasi new alternate as of 3/99) (M. Triber 11/05) (Munson 6/06)		Alternate	Brian	Munson												
Educator (changed 7/2006)		Member	Adam	Martin	P										P	
Educator (B. Martin - 9/01)		Alternate	Bruce	Martin					P	P						
Educator (A. Martin new alternate 2/00) (Adam to college 8/01)(add. alternate 9/02) (changed 7/2006)		Alternate	Audrey	Capozzi												
Environmental Economic Roundtable (Berger resigned, Proios became member 1/01)		Member	George	Proios	P	P	P		P					P	P	
Environmental Economic Roundtable (3/99, L. Snead changed to be alternate for EDF)		Alternate	None	None												
Fire Rescue and Emergency Services		Member	Joe	Williams												
Fire Rescue and Emergency Services		Alternate	Don	Lynch	P	P	P	P	P				P	P	P	
Fire Rescue and Emergency Services		Alternate	James	McLoughlin												
Friends of Brookhaven (E.Kaplan changed to become member 7/1/01)		Member	Ed	Kaplan			P	P							P	
Friends of Brookhaven (E.Kaplan changed to become member 7/1/01)(Schwartz added 11/18/02)		Alternate	Steve	Schwartz			P			P				P	P	
Health Care		Member	Jane	Corrarino			P			P				P		
Health Care		Alternate														
Huntington Breast Cancer Coalition		Member	Mary Joan	Shea	P	P	P	P		P			P	P		
Huntington Breast Cancer Coalition		Alternate	Scott	Carlin												

2007	Affiliation	Member	First Name	Last Name	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	Intl. Brotherhood of Electrical Workers/Local 2230 (S.Krsnak replaced M. Walker 1/11/07)	Member	Scott	Krsnak	P	P	P	P					P			
	IBEW/Local 2230	Alternate	Philip	Pizzo												
	L.I. Pine Barrens Society	Member	Richard	Amper		P	P						P			
	L.I. Pine Barrens Society (added P. Loris 6/05)	Alternate	Elina	Alayeva	P	P		P		P				P		
	L.I. Pine Barrens Society	Alternate	Susie	Husted												
	L.I. Progressive Coalition	Member	David	Sprintzen	P	P	P	P	P	P			P	P	P	
	L.I. Progressive Coalition	Alternate	None	None												
	Lake Panamoka Civic Association (Biss as of 4/02)	Member	Rita	Biss	P	P			P	P					P	P
	Lake Panamoka Civic Association (Rita Biss new alternate as of 3/99)	Alternate	Joe	Gibbons												
	Long Island Association (Groneman replace 10/05)(Deering replaces Hill 9/07)	Member	Michael	Deering												
	Long Island Association	Alternate	William	Evanzia	P				P							P
	Longwood Alliance	Member	Tom	Talbot	P	P		P	P	P			P			
	Longwood Alliance	Alternate	Kevin	Crowley												
	Longwood Central School Dist. (switched 11/02)	Member	Barbara	Henigan	P		P		P	P					P	
	Longwood Central School Dist.	Alternate	Allan	Gerstenlauer												
	NEAR	Member	Jean	Mannhaupt		P			P	P			P	P	P	
	NEAR (prospect taken off ¾)(Blumer added 10/04)	Alternate	Liz	Bowman												
	NSLS User	Member	Jean	Jordan-Sweet	P	P	P			P			P	P		
	NSLS User	Alternate	Peter	Stephens												
	Peconic River Sportsmen's Club (added 4/8/04)	Member	John	Hall		P	P	P	P				P	P	P	
	Peconic River Sportsmen's Club	Alternate	Jeff	Schneider												
	Ridge Civic Association	Member	Pat	Henagan	P	P		P	P	P			P	P	P	
	Science & Technology (added 1/13/05)	Member	Iqbal	Chaudhry	P		P			P			P	P	P	
	Town of Brookhaven (Graves made member 6/06)	Member	Anthony	Graves		P	P	P	P	P			P	P	P	
	Town of Brookhaven	Alternate	None	None												
	Town of Brookhaven, Senior Citizens	Member	James	Heil	P	P	P	P	P	P			P	P		
	Town of Brookhaven, Senior Citizens (open slot as of 4/99)	Alternate	None	None												
	Town of Riverhead	Member	Robert	Conklin	P	P	P	P	P	P			P	P	P	
	Town of Riverhead (K. Skinner alternate as of 4/99)	Alternate	Kim	Skinner												
	Wading River Civic Association	Member	Helga	Guthy	P		P		P				P	P		
	Wading River Civic Association	Alternate	Sid	Bail												