

Community Advisory Council
January 8, 2009
Action Items/Notes

Final

These notes are in the following order:

1. Attendance
2. Correspondence and Handouts
3. Administrative Items, NYS Natural Resource Damage Assessment, Michael Holland
4. BGRR/HFBR Update, Les Hill, Project Consultant
5. Membership
6. Agenda Setting
7. Community Comment
8. Well House Explosion Update, Lanny Bates, Assistant Laboratory Director for Facilities & Operations

1. Attendance

Members/Alternates Present:
See Attached Sheets.

Others Present:

C. Armitage, L. Bates, M. Bebon, P. Bond, F. Carlson, J. Carter, J. D'Ascoli, M. Davis, N. Detweiler, B. Dorsch, K. Geiger, M. Holland, T. Jernigan, S. Johnson, S. Kane, T. Kneitel, S. Kumar, R. Lee, J. Levesque, M. Lynch, R. McKay

2. Correspondence and Handouts

Items one through four were mailed with a cover letter dated January 2, 2009. Items five and six were available as handouts at the meeting.

1. December 11, 2008 draft agenda
2. Draft notes for November 13, 2008
3. Final notes for May 8, 2008
4. Copy of Imaging Nanoparticles with PET presentation
5. Presentation: CAC Update on HFBR & BRGG Decommissioning Projects, Les Hill
6. Presentation: Status on the Explosion of Building 637 at BNL, Lanny Bates

3. Administrative Items

The meeting began at approximately 6:38 p.m. Reed Hodgkin reviewed the ground rules and the draft agenda. Those in attendance introduced themselves.

Approval of Minutes

Reed asked for corrections, additions or deletions to the December 11 draft notes. Member Jordan-Sweet noted that on page six she said, "always coat the particle", instead of, "always code the particle". Member Graves noted that on page five he said, information regarding the "Request for Proposals", not the "LIPA Request for Proposals". The notes were approved pending the requested corrections with no objections and three abstentions.

Michael Holland, Department of Energy (DOE), gave an overview of the Natural Resource Damage Assessment (NRDA) process and an update on the DOE prime contract competition for BNL. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process, that has been used at BNL for the last 10 years to remediate contamination on and off site, allows a resource trustee such as New York State to work cooperatively with the responsible party to look at whether an injured resource, like groundwater, should have damages assessed to it that would allow for the fact that a community has lost use of that resource or if further remediation might be required of that resource. The State approached DOE and there have been some preliminary discussions about entering into a collaborative assessment for resource damages. There have been a few conference calls and a face-to-face meeting with representatives from the New York State Department of Environmental Conservation. There is no set time schedule for this.

Member Esposito asked what initiated the assessment.

Holland replied the NRDA has always been there, but during cleanup it was decided by DOE and all the regulators to focus on the actual cleanup. Now is the time to take a look at this.

Holland reported that there isn't much new from last month on the DOE contract competition and he encouraged the CAC to visit DOE's website <http://rfpbnl.sc.energy.gov/index.html>.

Member Campbell asked about the process for development of the Request for Proposals (RFP), how the contents are determined, and if the next contractor will be required to honor the commitments that BSA has made to retirees.

Holland responded the DOE has put together a Source Evaluation Board (SEB), which consists of contracting and technical specialists. This Board puts the preliminary documents together that will lead to an RFP. He has not seen the RFP yet, but he would think they would want any commitments that are already in place to be honored. There will be opportunities for public input throughout the entire process, but that's not begun yet.

Member Esposito asked if there will be public input into the draft RFP.

Holland said does not know for sure.

Member Esposito asked when the opportunity for public input would be.

Holland replied the draft RFP will probably be put on the website and there will be an opportunity to send in comments about its contents. The Board has only met once so far. The members are each working on their own right now on small pieces of the preliminary documentation.

Reed said the questions are what will the requirements associated with honoring the commitments in the existing contract to retirees be, what will the public process be, and how will it operate.

Member Schwartz said there are other commitments in the existing contract. He asked if they would be extended into the new contract. He said the CAC should make a suggestion or a recommendation before the public comment period and prior to the final RFP.

Holland said that whatever the CAC decides as a group, he will bring back to DOE and the SEB.

Member Sprintzen asked if there was a sense of any change in direction for DOE.

Holland said it is too soon to tell.

Member Esposito said if the CAC is to have any input it is important that it be done before the RFP is final.

Reed asked how many CAC members would like input to the draft RFP. The CAC indicated, nearly unanimously, that they would like to have input.

4. BGRR/HFBR Update, Les Hill, Project Consultant

Les Hill, Project Consultant for decommissioning of the High Flux Beam Reactor (HFBR) and Brookhaven Graphite Research Reactor (BGRR), explained that the detailed planning and preparation for control rod blade (CRB) and beam plug removal at the HFRB is completed and the procedures have been prepared and issued. The reactor vessel and spent fuel canal have been flooded to the required levels for underwater CRB removal and handling and temporary systems for filtering this water have been installed, tested, and are being operated to maintain water clarity. The equipment to remove and handle the CRBs and casks has been installed and tested. The personnel have been trained on the procedures and are qualified to complete the job. Drills and dry-runs have been conducted to develop worker proficiency under normal and off-normal conditions. The Lab acquired four casks, which are required for the removal and transportation of the CRBs and beam plugs. However, their Certificates of Compliance had an expiration date of September 2008. DOE has extended their certification until September 2009 and the review process that is required for project startup is nearing completion. This review consists of several tiers of reviews and assessments to demonstrate readiness to safely complete CRB and beam plug removal. Reviews by the project team and BNL were started in July and completed in August. Initial DOE review was completed in September and the required actions to address resulting issues/observations were completed by BNL in November. Final DOE review and authorization to proceed are expected early this year and the CRBs and beam plugs are expected to be removed and transported to the Nevada Test Site disposal facility in the spring.

Member Talbot said initially this was supposed to be done last September. He asked if BNL was in compliance to do it then and does the fact that it wasn't completed then affect the funding.

Hill replied the Lab was trying to do it by the end of September but there were some additional reviews done that pushed the date past the end of the fiscal year. He said the incremental cost of the delay is minimal. The largest cost factor is the in-house staff which is still here.

Member Campbell asked for an outline of what happens after the spring.

Hill said after the CRB removal, the Lab will restore the building. The plan is to drain down the reactor and remove the water from the spent fuel canal. The water will be disposed of and the building will be placed in interim safe storage until the next phase. Eventually the fan house, the additional buildings in the yard area, and the stack will be demolished.

Member Mannhaupt asked how far the risk doorway has been closed.

Hill said the most important thing is the proficiency of the workers. They have had extensive training and are very professional.

Member Heil asked how the water will be disposed of.

Hill said either direct disposal through a company in Tennessee that receives the water in tanker trucks, or the water will be solidified here at BNL and then shipped out.

Reed asked what is expected to be in the water.

Hill responded that anytime water is brought into the HFBR it becomes tritium-contaminated just from the transfer. Right now, the levels being seen are below drinking water standards. When the CRBs are handled in the pool, it is expected there will be some contamination, but since there will be no cutting it is expected to be minimal. The workers are drilled as if it is highly contaminated, even though it is not expected to be.

Member Sprintzen asked what the off-normal conditions are that they are preparing for.

Hill said they want to be prepared in case a worker becomes incapacitated in the reactor pit. There will be radiation detectors in place in various places. There are alarms and the workers are expected to exit the area promptly. There have been a lot of drills. Even though high radiation levels are not expected, they have simulated it.

Member Shea asked how much experience the workers have on average.

Hill said the hands-on supervisors worked in the HFBR when it was operational, so they have hands-on experience. The laborers have extensive radiological experience.

Member Jordan-Sweet asked what the ramifications are of a power disruption.

Hill said there is emergency lighting in the facility in all work areas. There was a blackout test conducted to make sure there was enough illumination for all pathways, especially the exits.

Hill gave an update on the Brookhaven Graphite Research Reactor (BGRR). He said that the pile removal will be thoroughly planned and reviewed to ensure safety and compliance with BNL and DOE regulations and policies. The required regulatory documents to complete the BGRR project have been reviewed and approved. All three remedial design/remedial action work plans are now in place (graphite pile removal, biological shield removal, and installation of an engineered cap and monitoring system). BNL continues to have weekly telecom meetings with the regulators. Robots will be used to remove the graphite pile and biological shield remotely. In 2008, a contractor was hired to design and build the special tools for the pile removal. The tools have been designed, fabricated, and tested. Design and fabrication of biological shield removal tools will begin soon. Preparation of the BGRR facility is now underway. Additional power feeds have been installed. Physical interferences have been removed including portions of the freight elevator and other structures in the reactor building. Work is underway to install support structures for the pile removal tools. Detailed work planning is nearing completion for the installation of the contamination control envelope and temporary ventilation system. Equipment installation is expected to be completed in the spring. The same review process used for the HFBR startup will be used for the BGRR. The review process is expected to begin in the spring.

Member Sprintzen asked if there are any off-normal conditions that are unique to the BGRR, which are not a problem for the HFBR.

Hill said the reactor facilities are very different from a decommissioning standpoint. In the HFBR, there are highly radioactive components that are not dispersible. In the BGRR, the dose rates are much lower, but there is dispersible material inside the biological shield.

Member Talbot said a couple of years ago several members of the CAC were able to walk through the site. Is that possible today?

Hill said it is possible.

Reed said we will capture that as a possible CAC activity. Les will let us know about the timing and we will get that information back to the CAC.

ACTION ITEM: CAC visit to the BGRR.

Michael Bebon, Deputy Director for Operations, explained why Les Hill's title had changed. He said Les joined the Lab in 2001 and it was understood that once the projects were completed his job would be over. Bebon said he is happy to report that Les is interested in staying at the Lab and continuing to work here. The Office of Environmental Management indicated a desire to have someone involved in the project with more recent experience, so a decision was made to replace Les with Chuck Armitage as Director of Environmental Projects. For continuity purposes, Les will continue to work on the project half-time and he is working on senior-level project assignments within the Laboratory the other half. The hope is that he will join the Laboratory staff on a full time basis once the environmental restoration projects are over. Bebon thanked Les for his leadership over the past seven years.

Chuck Armitage told the CAC that he had retired from the nuclear Navy in the early 90s and for the last 15 years he has worked at various DOE sites, mostly in Environmental Management. He has done significant work at Savannah River Site, mostly the start-up, operation and shut-down, and decommissioning and decontamination (D&D) of several nuclear facilities. He served as a regulatory programs manager for Washington Safety Management Solutions and was involved in the contract transition at Los Alamos National Lab. He said he has been here at BNL observing since early November and he supports the comments Les made about the readiness of the employees to accomplish the tasks. Les has done a good job and he is happy Les will still be here to provide advice.

Member Mannhaupt asked if two facilities coming down at the same time was a unique situation.

Bebon replied he does not know, but can get that information.

Member Sprintzen asked why there was a need for the change.

Bebon said Headquarters in Washington wanted someone with more recent D&D experience within the DOE complex. Since we were looking to transition Les to a more permanent position at the Laboratory, we thought this was the time to make the change.

Member Mannhaupt said she is happy Les was staying at the Lab and she wishes him well in his new position.

Hill said he is happy to be staying on Long Island and he feels the CAC has made the CERCLA process viable. He said this cleanup process would not be possible without the CAC.

5. Membership

Reed asked Member Heil to give the CAC a brief update on the Solid Waste Managers Workshop that was held at the Lab in December.

Member Heil said the New York State Association of Solid Waste Management is a group of municipal solid waste officials - operators, engineers, and managers – from throughout the state. There are two technical sessions each year to trade information and keep everyone up-to-date on regulations and technical advances. In addition, there are local meetings; he was asked as local director, to arrange something on Long Island. He decided to educate the group on Brookhaven National Lab, so a technical session was arranged at BNL in early December. It was a great day and everyone learned a lot. He said he is still receiving compliments.

Jeanne D'Ascoli gave the CAC a follow-up to last month's conversation regarding new membership. She said she would like to see about bringing in new members and asked the CAC to notify her if they know of anyone interested. She said she would like to bring the topic up during outreach that is done through the Community Relations Office. She said the procedure would be that an interested person would sit in on meetings and determine if they would like to be part of the CAC. If interested, they would present their reasons for wanting to join, and the CAC would have the option of saying yes or no. One of the things that may need to be looked at is the categories that have been established for membership. She asked if there were problems with any of this.

Member Sprintzen asked if there any organizations or groups that people were aware of that are not being represented.

D'Ascoli said the Lab has looked at some environmental groups and thought they could possibly be approached. Perhaps someone from a scientific field would be interested. She has not reached out to others yet, she wanted to get feedback from the CAC first. If anyone knows of any organizations, D'Ascoli said she would be happy to reach out to them.

Member Sprintzen asked if anyone knows of any medical organizations that might be interested in CAC membership.

Member Graves suggested a local chapter of AMA (American Medical Association), particularly nuclear medicine may have an interest, various faculty groups, graduate student groups, or someone involved in Lab CRADAs (Cooperative Research and Development Agreements).

D'Ascoli said these are all good ideas. She said perhaps they could reach out to high schools and see if there are any juniors and seniors who might be interested. The junior would then move up to the senior role the following year and a new junior could be brought in. This could bring in a different perspective. She asked for CAC input.

Member Sprintzen said he did not see a problem with that.

Member Esposito said perhaps a college student could get some college credit for participating in the meetings.

D'Ascoli said this is not going happen soon, but we can begin to think about it.

Member Mannhaupt said there are a lot of juniors and seniors in the surrounding high schools and perhaps they could round-robin and possibly get credit from their respective schools. She didn't see how their information would have any bearing on the CAC; it would just be a resource for them.

D'Ascoli said she had a student come to her for information on environmental cleanup. She spoke to the student about the CAC and how they advise the Laboratory and the student was very interested. She said she wished she could have experienced something like this while she was still in high school.

Member Sprintzen mentioned asking Member Carlin if he has any connections since this is his area of expertise.

Member Mannhaupt said perhaps this could be done on both a high school and college level.

Member Amper asked if there ever was a member that specifically represented Shirley and the Mastics. He wondered if it was worth pursuing.

D'Ascoli said they had reached out to an elected official from that area, but not a civic person. She said it is definitely worth pursuing. The Lab has been working on developing a relationship with the William Floyd Summit. She will be meeting with them the end of this month. She said they have representatives from all the major businesses and organizations in the William Floyd area. They have a newly formed leadership council and they invited her to come and speak to them. She said she will ask them at that time if they would be interested in CAC membership.

Member Schwartz said RELI (Renewable Energy Long Island) might be interested since they are active in energy conservation and solar issues.

6. Agenda Setting

Jeanne D'Ascoli said she has a presentation by a researcher for the next CAC meeting and she will go back to nano to see if there is any new information. She asked if the CAC had any requests for next month.

Member Graves suggested putting together a letter in support of the research that Wynne Schiffer and Steve Dewey are doing because they are funded out of a very soft pile of money. He feels their research is very valuable and there is some discrepancy whether their funding should be coming from DOE or NIH. There is no long term commitment by any particular Government agency. He said the agenda item would be to put together a letter to send to Congress to see if they can find a home for their research so they will know where their funding will be coming from.

Reed said if that is acceptable, we will put it on the agenda. The CAC indicated they supported the suggestion to prepare a letter.

7. Community Comment

There was no community comment.

8. Well House Explosion Update, Lanny Bates, Assistant Laboratory Director for Facilities & Operations

Lanny Bates, Assistant Laboratory Director for Facilities & Operations, explained that he has been at BNL for the last 18 months. He came from Oak Ridge National Laboratory, where he did environmental work. He said that Carol Parnell is in charge of the investigation into the explosion at Building 637 and she has a team of people leading the investigation; Bob Lee, Steve Kane, and Joe Levesque.

He explained that the incident occurred on October 13, 2008 at 9:35 p.m. A loud explosion was heard and an immediate search was conducted by the Laboratory Protection Division. It was discovered that Building 637, an unoccupied water pump "well house", had been demolished. It was later confirmed that it exploded from an internal accumulation of propane. The well house was built in 1985 to provide physical protection for the pump and treatment systems in the eastern service area of the site. There are six water wells on site, three on the western side and three on the eastern side of the site. The wells on the western side of the site are the ones that are predominately used. The ones on the eastern side are backup wells, running 10 – 20% of the time. Building 637 was a 680 square foot concrete building. It housed an electric-driven well with propane auxiliary drive for backup power. The well pump was initially diesel driven which is an important fact. In a propane explosion, there is not much dispersion, so the building next to it was essentially undamaged.

Bates explained that the area of the incident was searched, stabilized, and secured by emergency response personnel within the first few hours. The propane tank valves were manually closed to prevent further release. BNL's Emergency Operations Center was opened and staffed to manage the event. Notifications were made to key stakeholders, including government officials and agencies, employees, media, and the community. There were no injuries or additional property damage. There was no risk to the general public and no evacuation of facilities or employees was required. This was a very localized event.

During the next few days outside law enforcement agencies and Laboratory Security conducted an investigation and confirmed that the incident was not a criminal or terrorist event. The propane valves at two other well houses were turned off as a precautionary measure. Sampling was done in the area to confirm there was no environmental damage. A Laboratory accident-investigation committee was appointed to assess the event, identify contributing factors, determine causes, and recommend corrective actions. In the days prior to the event, there was some preventative maintenance (PM) being conducted on the propane auxiliary engine. Two inadvertent actions during this maintenance activity provided for the release of the propane gas. The individual who was doing the PM had logged out and tagged out the engine because he had not finished and it was the end of the day. He attempted to cut off the ignition switch, but the switch was disassembled at the time and he accidentally switched it on. He also thought he had disconnected the power from the solenoid valve that released the gas, but he didn't realize there was a battery charger that was connected to the cable, so there was still a flow of power. He thought he had left everything in a safe mode when he left for the day, but he had left a valve open and there was an ignition source from within the motor control center. The propane ignited and an explosion occurred after a five and a half hour build-up of propane gas in the building.

Bates explained that the hazards of the propane were not recognized. Previously, the Laboratory had worked with wells that had diesel back-ups. Propane was used in this case to avoid the potential for environmental insult. It has been determined that the facility was not designed to required standards. There was not enough ventilation. Design reviews, construction reviews, and subsequent assessments did not identify code deficiencies. It was discovered that the interlock system for the propane gas delivery to the engine had been bypassed sometime during the past 22 to 23 years. Work planning did not properly consider the hazards of propane and workers were not adequately trained to work with propane systems. The investigation will be completed by the end of January and will then go into a review process. Development of a Comprehensive Corrective Action Plan is underway and corrective actions based on preliminary findings are already being implemented. The Lab's Facility & Operations organization has gone through a reorganization process which addressed several of the key improvement areas. A Chief Engineer position has been established to serve as an internal control on technical rigor. The Lab has also established a Facility Operations Planning and Management Office.

Member Mannhaupt said that the Facilities & Operations reorganization that occurred in July 2008 was supposed to implement a Safety Plan. Then there is this problem in October and one of the contributing factors was that workers were not properly trained. Didn't they know the difference between diesel and propane?

Bates replied that the employees knew the difference, but the procedures and training had not been properly tuned for propane rather than a diesel engine.

Member Mannhaupt asked if there will be a work plan from now on. Does this mean the workers were prepared to handle diesel and not propane?

Bates replied that there is always a work plan. There is a rigorous work control process that varies from task to task. The key issue is the lack of recognition of the hazards of propane as opposed to diesel.

Member Mannhaupt said the level of this accident concerns her, especially when a worker wasn't adequately trained. Where else onsite are there simple things that workers might not be properly trained to handle. She finds this unacceptable for BNL and looks forward to reading the corrective action review and seeing what will come out of all of this. She commented that she no longer fears radiation, now she has propane fears.

Member Schwartz said he was struck by the fact that the interlock system had been bypassed and no one knows how long it was like that. Secondly, he said that because the worker thought he had left everything in a safe position when in fact he had not, shows that there should be a second person there at all times to double check things like this. This should be built into the procedures. Many times an accident occurs because there isn't a second person there. He feels that it was just a matter of luck that there were no fatalities or serious injuries associated with this incident.

Bates replied that in a large facility it is necessary to grade things on a risk basis. Every facility has a Facility Use Agreement. There is a rigorous process with the building managers where the activities and hazards associated with that building are looked at. He said this is not a pervasive problem. This one slipped through the cracks. In this incident, the hazards between propane and diesel engines were not adequately recognized. The Lab will do everything possible through the corrective action plan to make sure this does not happen again.

Member Schwartz said he is more concerned about the fact that an interlock was bypassed.

Bates said the important thing is to recognize the safety issue. There is a culture change to think about safety first and the Lab has been working diligently on the mindset of its employees.

Member Lynch asked if the building was originally built for propane use or was it converted from diesel.

Bates said it was originally propane.

Member Lynch then asked who did code enforcement at BNL and if they were nationally or state certified code enforcement officials or if they were building engineers? He also asked if there were plans to modify the other two structures.

Bates said the other two structures have been shut down. Part of the investigation process will be to go back and look at the design requirements and if we have to make changes we certainly will do that. The chief engineer will be the one to make sure the codes are enforced.

Joe Levesque, Acting Manager, Emergency Service Division, explained that DOE enforces the National Fire Protection Association standard and there are two BNL employees going through the NYS Code Enforcement training right now. Twenty years ago when the building was built, this was not available.

Member Lynch stated that there were cracks in the foundation in the building next to the well house. He asked if that was from settling or from the explosion.

Levesque said the structural engineers looked at that and they are not concerned.

Member Garber asked if the adoption of the ISO standard has had any effect on this specific accident scenario.

Carol Parnell, Assistant Director for Environment, Safety and Health, explained that adoption of ISO standards mean you put in procedures and check and evaluate them. It is a continuous

improvement process. Procedures are in place for 350 buildings, which means the hazards in every building have to be checked. ISO says we investigate, plan, and prepare to make sure that this will not happen again.

Member Garber asked if the OSHAS study process ever got to this propane tank building.

Bates replied that there is a Facility Risk Assessment activity, but it is done more on higher risk facilities. It is not done on every building onsite. A small unoccupied well house would not trigger that kind of attention.

Member Jordan-Sweet asked why there wasn't a propane detector put in place.

Levesque said the emphasis is on the engineering controls. Detection alarms are a problem. If the Fire Department responds, then there is a hazard to the individuals. It has been more reliable to concentrate on the interlocks. As long as they are kept in good working condition the interlocks are very successful.

Member Andrejkovics said sensors would be good in case the interlocks didn't work.

Levesque said that is not the normal approach. Normally if you rely on the interlocks, everything is fine. One of the corrective actions could be to evaluate that approach.

Bates said the first thing is to eliminate the hazard, then put in engineering controls. Relying on people and sensors is at the bottom of the scale. The Lab has not decided how to solve this problem, but one option is that we no longer use propane engines. It might be decided to replace all three with a single diesel powered portable generator which could be moved around when necessary. That would totally eliminate the hazard.

Member Graves asked for clarification on the battery charger. He asked if it was typical to charge the battery while doing work.

Bates said the charger was still connected to the battery cable. After the battery was disconnected, it was still energized. It is normal to keep a trickle charge because it sits idle for a long period of time.

Member Schwartz said that seems like a point of failure.

Member Graves said if you have a trickle charge to the battery then you have power to the building, so why do you need a battery to start the engine.

Bates explained the propane is back-up in case there is a loss of power.

The meeting adjourned at approximately 9:04 p.m.

Agenda Topics	Votes
Global Warming, Stony Brook, Pine Barrens (1-10-08)	15
CAC as a conduit/resource to the community (11-08-07)	13
Emergency Operations Center tour and drill (6-12-08)	12
Nano technology (12/11/08)	11
CERN—problems and implications (4-10-08)	11
Site Environment Report—good and bad (11-8-07)(10-2-08)	11
Nano safety (3-13-08)	10
Regulator presentations on areas they oversee	10
Energy	9
Overview of programs	9
Deer Management (4-10-08)	8
Anti-terrorism update	7
NSLS-II briefing (12-11-08)	7
Nuclear power plant safety	6
Education Programs (10-2-08)	6
Energy efficiencies (9-13-07)	6
Sustainable transportation	4
Natural Resources management (11/13/08)	4
Nano ES & H (10-11-07)	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 (12-11-08)	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 (5-8-08)
- Nano toxicology
- Nano ES&H issues at BNL and beyond (5-8-08)
- Nanotechnology/science at BNL (12-11-08)
- Nano management policy issues
- Nano panel discussion with the DOE, EPA, and FDA
- Renewable energy research at the Lab
- BNL/CSHarbor/Stony Brook collaboration

P = Present	2009	Affiliation		First Name	Last Name	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
ABCO	(Garber added on 4/10/02)	Member	Don	Garber	P												
ABCO		Alternate															
Brookhaven Retired Employees Association		Member	Graham	Campbell	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													
(added 12/08)			Robert	Andrejkovics	P												
Citizens Campaign for the Environment		Member	Adrienne	Esposito	P												
Citizens Campaign for the Environment (Ottney added 4/02-takenoff 1/05 Mahoney put on)(7/06 add Kasey Jacobs)(K. Jacobs off 1/08)		Alternate															
E. Yaphank Civic Association		Member	Michael	Giacomaro													
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													
Educator (B. Martin - 9/01)		Alternate	Bruce	Martin													
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)(resigned 6/08)		Member	George	Proios													
Fire Rescue and Emergency Services		Member	Joe	Williams													
Fire Rescue and Emergency Services		Alternate	Don	Lynch	P												
Fire Rescue and Emergency Services		Alternate	James	McLoughlin													
Friends of Brookhaven (E.Kaplan changed to become member 7/1/01)		Member	Ed	Kaplan													
Friends of Brookhaven (Schwartz added 11/18/02)		Alternate	Steve	Schwartz	P												
Health Care		Member	Jane	Corrarino													
Health Care		Alternate															
Huntington Breast Cancer Coalition		Member	Mary Joan	Shea	P												
Huntington Breast Cancer Coalition		Alternate	Scott	Carlin													
Intl. Brotherhood of Electrical Workers/Local 2230 (S.Krsnak replaced M. Walker 1/11/07)		Member	Scott	Krsnak	P												
IBEW/Local 2230		Alternate	Philip	Pizzo													

P = Present	2009	Affiliation		First Name	Last Name	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
		L.I. Pine Barrens Society	Member	Richard	Amper	P											
		L.I. Pine Barrens Society (added P. Loris 6/05)(Alayeva off 6/08)(Irina Itriyeva added 1/09)	Alternate	Irina	Itriyeva												
		L.I. Pine Barrens Society	Alternate	Susie	Husted												
		L.I. Progressive Coalition	Member	David	Sprintzen	P											
		L.I. Progressive Coalition	Alternate	None	None												
		Lake Panamoka Civic Association (Biss as of 4/02)	Member	Rita	Biss	P											
		Lake Panamoka Civic Association (Rita Biss new alternate as of 3/99)	Alternate	Joe	Gibbons												
		Long Island Association (Groneman replace 10/05)	Member														
		Long Island Association	Alternate	William	Evanzia												
		Longwood Alliance	Member	Tom	Talbot	P											
		Longwood Alliance	Alternate	Kevin	Crowley												
		Longwood Central School Dist. (switched 11/02)	Member	Barbara	Henigin												
		Longwood Central School Dist.	Alternate	Allan	Gerstenlauer												
		NEAR	Member	Jean	Mannhaupt	P											
		NEAR (prospect taken off 3/04) (Blumer added 10/04)	Alternate	Karen	Blumer												
		NSLS User	Member	Jean	Jordan-Sweet	P											
		NSLS User	Alternate	Peter	Stephens												
		Peconic River Sportsman's Club (added 4/8/04)	Member	John	Hall	P											
		Peconic River Sportsman's Club	Alternate	Jeff	Schneider												
		Ridge Civic Association	Member	Pat	Henagan												
		Science & Technology (added 1/13/05)	Member	Iqbal	Chaudhry												
		Town of Brookhaven (Graves made member 6/06)	Member	Anthony	Graves	P											
		Town of Brookhaven	Alternate	None	None												
		Town of Brookhaven, Senior Citizens	Member	James	Heil	P											
		Town of Brookhaven, Senior Citizens (open slot as of 4/99)	Alternate	None	None												
		Town of Riverhead	Member	Robert	Conklin												
		Town of Riverhead (K. Skinner alternate as of 4/99)	Alternate	Kim	Skinner												
		Wading River Civic Association	Member	Helga	Guthy												
		Wading River Civic Association	Alternate	Sid	Bail												