Community Advisory Council
April 14, 2005
Action Items/Notes

Final

These notes are in the following order:

1. Attendance
2. Correspondence and handouts
3. Administrative Items
4. Update on Environmental Issues, Tom Daniels
5. BNL Center for Functional Nanomaterials (CFN), Dr. Laura Lewis
6. Community Comment
7. Urban Dispersion Program, Dr. Creighton Wirick
8. Agenda Setting

1. Attendance

Members/Alternates Present:
See Attached Sheets.

Others Present:
D. Bauer, P. Bond, H. Carrano, J. Carter, F. Crescenzo, P. Chaudhari, J. Clodius, J. D'Ascoli, K. Geiger, L. Hill, B. Howe, S. Johnson, T. Kneitel, S. Kumar, L. Lewis, M. Lynch, F. Petschauer, C. Wirick

2. Correspondence and Handouts

Items one through three were mailed with a cover letter dated April 8, 2005. Item four was placed in the member's folders and item five was available at the meeting as a handout.

1. Draft agenda for April 14, 2005
2. Draft notes March 10 meeting
3. Final notes February 10 meeting
4. Copy the CFN presentation
5. Copy the Urban Dispersion Program presentation

3. Administrative

The meeting began at 6:34 p.m. Reed Hodgin went over the ground rules and the draft agenda. A discussion on drafting a letter concerning Laboratory funding was added to the agenda. Those present introduced themselves.

Jeanne D'Ascoli indicated that there were corrections that needed to be made to Dr. Chaudhari's comments in the March 10 minutes. It was agreed that the minutes would be revised and sent out again for the May meeting.

Frank Crescenzo reported that DOE Site Manager Michael Holland was back after a six-week assignment at SLAC (Stanford Linear Accelerator Center, Menlo Park, CA.) and that he should be attending the next CAC meeting. Crescenzo reported that Federal Project Director Rod Rimando has proposed to EM Senior Management that BSA be the contractor for the BGRR

Decommissioning and Demolition work. Crescenzo said the proposal was well received. There are details that will need to be worked out; the expectations may be different. He said that one of the main reasons Rimando proposed continuing with BSA is because they've done a very good job. Subcontractors do most of the cleanup work and that will be the case as the Lab moves forward. There may be 20 or 30 people who are BSA employees and possibly hundreds who will be large contractors who will sub to BSA. Senior Management will make the final decision.

CAC members asked if a vote of confidence would be helpful.

Crescenzo said that if the CAC believes that BSA is the contractor they prefer, the CAC should express that. He said that there is not a lot of opportunity for public input in the procurement process. It would probably be helpful for DOE to be aware of how the CAC feels BSA has performed.

When asked if there would be any change in funding for the cleanup, Crescenzo responded that the funding source was not proposed to be changed. Funding is coming from the DOE Office of Environmental Management and the only question was whether it would come to BSA as the prime contractor or to another contractor. The total amount of money and the scope of work were never in question.

Member Mannhaupt expressed concern about the terms and conditions and questioned why DOE would want to change them?

Crescenzo explained that the DOE is responsible for the site not BSA. BSA is responsible for what DOE places in their contract. He said DOE is the signatory to the Interagency Agreement. He also said this is a business-risky job, it's a technical challenge. It's been done before but it's a business-risky job and DOE expects top quality performance and for the job to be done on time and on schedule. BSA will have to live up to those terms and conditions and they will be held accountable. We're very optimistic but they may not want to do the work.

Member Mannhaupt – So we have to find out if BSA wants to do the work.

Crescenzo said that if agreement couldn't be reached, they would come back to the CAC. But he thinks BSA has indicated their desire to do the work. They've indicated their willingness to step up to the challenge. They've demonstrated their capability to deliver in the past.

Member Mannhaupt asked the DOE to come back to the CAC before they decide on another contractor.

Crescenzo said the day that DOE walks away from the table and decides they can't do business, the very next day they'll be looking for a new contractor. He said that DOE and BSA will come to the CAC and explain why agreement couldn't be reached. He thinks there's a very low probability of that right now.

Member Guthy asked what would make DOE and BSA not reach agreement?

Crescenzo said that it could be money or it could be the risk. If BSA performs poorly, they loose their fee. That's a big risk.

Member Conklin said the Newsday article seemed to indicate that there are a lot of people who could adequately do this job. He feels that there are actually very few people in the country who have the expertise the BNL group has with the Brokk machine.

Crescenzo said they are very pleased with the work BSA has done. He said there isn't a big competition going on and he can't speak for what Newsday reported but he said there other contractors who can do the work. He appreciates the confidence the CAC has in BSA.

Member Talbot asked if it was appropriate for the CAC to indicate its preference to DOE regarding BSA?

Reed Hodgin advised the CAC that they could formulate a recommendation that would be forwarded to BSA.

Don Garber asked if a motion could be floated to see if there was consensus around the table that the CAC has also been quite happy with the performance of and interactions with the BSA management team and that the CAC would certainly like to see them given the opportunity to complete the job.

Reed said the discussion on the recommendation could come after the questions are finished.

Member Giacomaro asked who would be a top contender other than BSA.

Crescenzo said there is a preferred list that the Department of Energy has gone through. There are 30 or 40 contractors who are pre-qualified to bid on this sort of work.

Member Mannhaupt said she understands there is a low probability it will be another contractor, however, if it is another contractor, she would like the minutes to reflect her request that the CAC be involved entirely in the process of the remediation with the other contractor regardless of the fact that the CAC reports to BSA. She also requested immediate notification if BSA does not get the job, she does not want to wait until the next CAC meeting to find out. She thanked Frank for his work since the previous CAC meeting and asked what performance would be based on?

Crescenzo said cost, scope, and schedule.

Member Conklin asked how many graphite air-cooled reactors have been decommissioned and how many there are.

Crescenzo said one that he knows of. He did not know many exist.

Member Giacomaro asked if any of the alternates for contractors were potential subcontractors that BSA would use?

Crescenzo said yes. One of the conditions will be that BSA use the preferred subcontractors.

After discussion on the motion supporting the continuation of BSA on-site management managing the cleanup process, the following language for the CAC recommendation was suggested:

> Like the Department of Energy, the CAC recognizes the excellent performance of BSA with the cleanup to date and recommends to the Department of Energy that BSA be retained as the managing contractor for the cleanup of the Brookhaven Graphite Research Reactor.

Reed asked if there was anyone around the table that could not support consensus on the statement. There being no one who could not support consensus, Reed declared consensus and that the recommendation was complete.

The recommendation is be forwarded to the Department of Energy.

4. Update on Environmental Issues, Tom Daniels

Tom Daniels reported that the Record of Decision for the BGRR had been signed earlier in the week and was official. On the Peconic River he said that the excavation work has been completed and the confirmatory samples are in. All the cleanup goals were met. The goal to Schultz Road was .75 ppm mercury on average. The actual result is .1 ppm. Almost 1,500 samples were taken in the cleanup area and none are greater than 2 ppm. There were a few samples that were greater outside the cleanup area, so they were excavated as well. The average at Schultz Road is about at .1 ppm.

Daniels said that the material has all been brought back to the Laboratory and the last rail cars will be loaded and shipped out by the middle of next week. The area near Wading River-Manor Road is being demobilized. After restoration of the wetlands is completed tomorrow the only thing remaining is that the Lab committed to planting trees where the paths were cut in. That will be done next week. A closeout report will be issued to the Department of Energy in about two weeks and then sent to the regulators sometime in May.

CAC members asked about the status of the phragmites.

Daniels said they haven't started growing yet. He said they are mainly concentrating on the onsite areas. Off-site wasn't a continuous cleanup, so those areas that weren't cleaned will still have last year's phragmites. He said the offsite phragmites would be a challenge.

Member Kaplan asked what was happening to the in-house expertise now that the program was winding down.

Daniels said the Long-Term Response group would be remaining at the Laboratory. The requirements for long-term monitoring will be turned over to them. That includes the water and fish sampling to verify the success of the cleanup.

Kaplan asked if any of the people that worked on the project were loosing their jobs.

Daniels said the program is ending and they are loosing a lot of the staff.

Kaplan asked if they could be used on other projects and what the total number was.

Dr. Chaudhari explained that nine of the 53 employees were going to the Long-Term Response group and that some fraction of those remaining would be staying if the Lab gets the BGRR contract. Les Hill also commented.

Member Mannhaupt asked about the banded sunfish. Daniels said that they are still in the relocation pond. They won't be put back until the aquatic vegetation has had a chance to become established.

Member Hall asked if the Lab would still be taking samples at the Sportsmen's Club. Daniels said they would probably want to do that twice a year through the next Five-Year Review. If the levels drop off they may discontinue that sampling.

Daniels briefed the CAC on an issue involving the soil project at the former Hazardous Waste Management Facility. He said that approximately ten or eleven thousand yards of soil are to be removed. It is being loaded into rail cars and shipped to Utah. In March, the disposal facility called to report that water was draining from the bottom of the cars. Daniels described the loading and shipping process and said that snow may have gotten into the cars prior to or after they were loaded. He said that it was cold until the cars got to Utah and then there was a rapid melt. Utah did samples of the water and took smears of the cars. All the smears were clean but

one water sample had barely detectable levels of radionuclides. After further analysis they said it wasn't a quantitative analysis it was qualitative. Just to be safe, the Lab did a root cause analysis. The processes were looked at and a corrective action plan has been put in place to eliminate the possibility of cross contamination of the liner.

5. Presentation on the BNL Center for Functional Nanomaterials, Dr. Laura Lewis

Dr. Laura Lewis gave the CAC an update on the science that will be done at the Center for Functional Nanomaterials (CFN). She told about her background and described the new Center. Dr. Lewis explained the Nanoscale and talked about bulk and Nanostructure. Nanoscience is the pursuit of understanding how materials function at the atomic level. Nanotechnology is the use of nanostructured objects to manufacture a device or response. The goals of CFN are to provide the science basis to support the DOE goals of protecting the national and economic security by promoting a diverse supply and delivery of energy, to protect national & economic security by providing world-class scientific research capacity and advancing scientific knowledge, and to protect the environment by providing a resolution to environmental legacy. She said that CFN science will build on and extend historic BNL strengths.

Dr. Lewis spoke about potential CFN contributions to the world's energy equation and science theme areas: catalysis science at the nanoscale, soft matter and biomaterials, and electronic nanomaterials. Catalysis science is the fundamentals of energy conversion and reactions at the atomic scale. Soft matter and biomaterials is the understanding and tailoring properties of organic matter & integrating them with biomatter. She referred to how a mussel shell is constructed as an example of potential research directions. Electronic nanomaterials is the understanding of how to manipulate electric current and magnetism in tiny structures.

Member Mannhaupt asked about the goals and how nanoscience would protect the environment from environmental legacy and how close we are to tangible results. Lewis indicated that the CFN would be examining the basic science underpinning of technologies that may mitigate the environmental legacy from the cold-war and said that increased energy efficiency made possible by nanostructured materials would reduce greenhouse gases going into the air. Dr. Lewis deferred to Dr. Creighton Wirick to answer the second question. He said the DOE has a roadmap for dealing with the environmental legacy with goals and milestones. Ongoing research in various Departments of the Lab participates in these efforts.

Some of the questions that CAC members asked were if the research was proprietary, about Defense Department research, if the CFN would serve as a research incubator with other groups such as MIT etc., where the "bug-a-boos" are with soft matter and biomaterials, to what extent Lab staff would become involved with the technology side, about other countries working on nanoscience, strategic partner universities, and where the CFN is in the ramp-up process. Members also asked if the object was to get down to the atoms, if computer simulation would be part of the CFN facility, and what kinds of controls there are to prevent a release and how it would be detected.

Dr. Lewis said that much of the research does not involve little things floating in the atmosphere. Rather the nanomaterials are internally structured architectures that are fixed to substrates or exist in macroscale samples. The objects are nanostructured but would not shatter in little bits and pieces. Much of what we're doing is that kind of science. The other part, which we are not doing at Brookhaven at all at the current time, where there may be a potential for something tiny to perhaps be made and maybe somehow escape from its research environment has associated with it stringent controls and every step of the way experimental science reviews are carried out to make sure that all negative possibilities are being guarded against. Debbie Bauer, Environmental Science Rep for the CFN, said that her focus was mainly environmental issues but she also works with the industrial hygienist and the safety people because they are

looking at worker safety as well. Right now with what we know about the field and what we know about the basic science and materials we feel very confident that we have good controls and the types of filtration that we use to control the type of working that is being done here. However, no one knows what the future will bring and we're very proactively trying to look at whatever information is coming out in the field. We're following a lot of the research that's being done on these potentially hazardous materials. There's also quite a bit of research being done that is monitored by the regulatory agencies and the universities are looking at control technologies, personal protective equipment, and filtration and measurement devices. I expect by the time the Center is built there will be a greater understanding about whether there are any additional safety precautions that must be established; if there are any advances that need to be made with controls. We're very proactively researching this subject and following what's going on and what is coming out. Not only just in the U.S. but Internationally as well.

Member Shea asked that they report back.

6. Community Comment

There were no comments from the audience.

7. NYC Urban Dispersion Program, Dr. Creighton Wirick, Environmental Sciences

Dr. Creighton Wirick updated the CAC on the results of the Urban Dispersion Program (UDP) study that took place in Manhattan in March. He explained what the program was, how the study was done, how the modeling programs worked, the conclusions, and what's next.

Dr. Wirick said the purpose of the program is to model, or predict, the airborne dispersion or transport of harmful materials such as chlorine gas, smoke, or radiological or biological materials. The program is funded by DHS, DTRA, EPA, and DOE. In addition to the March field study, there will be studies in August and in the Spring of 06. Dr. Wirick reported that they worked with students from the New York Institute of Technology and Medgar Evers College on outreach. The general objectives of the program are to: advance the understanding and characterization of the effects of urban environments on atmospheric dispersion in large cities leading to improved and validated urban atmospheric dispersion models; to enhance NYC's emergency capabilities for addressing potential airborne releases of harmful materials; and to couple indoor and outdoor studies to further the understanding and characterization of outdoor-indoor exchange.

The science goals for the March program were to understand the flow and dispersion in deep urban canyons including the rapid vertical transport and dispersion in recirculating eddies adjacent to very tall buildings, to carry out tracer experiments with concurrent detailed meteorology to map actual dispersion and aid in development and evaluation of models, to conduct concurrent evaluation of personal exposure dose to citizens in the vicinity of the release, and to provide guidance for planning future UDP experiments in NYC.

Conclusions and lessons learned included the complexities in operating a large field study in NYC cannot be overestimated, coordination with city agencies, community groups, and local businesses was required, following an organized public affairs strategy led to a very positive reception for the press and public, collaboration among the four funding agencies was challenging but successful, and involvement with the students was win-win.

The next steps are another experiment will be done in August and one in the winter. They will be working on the models trying to see how well they do against the field data and a meteorological network will be installed to assist with predicting plumes under actual conditions.

CAC members asked questions about the analysis, about the parameters factored into the study, the confidence level of the model, if the information in the model is specific or if there is a standard block that is used, what's the grid relating to the block, about the sensors, how enough information can be gotten based on the release of a tracer, how the model can be used to simulate real life when there are so many parameters, about the monitoring, if there will be another test in August, if inside MSG was monitored, about the data being available to the public, and about controlling wind patterns.

8. Agenda Setting

Member Garber requested that the letter on funding he had suggested be drafted after Dr. Dewey's presentation in February be placed on the agenda for next month. He further suggested that since the CAC learned about the additional layoffs that it might be useful to discuss the larger problem.

Member Kaplan mentioned the LIPA contract negotiations and said that could have a $30 million impact on the Lab. He thinks this is a serious problem and should not be put off to the end of the meeting.

Reed said the request is to find out if there are renegotiations of the agreement with the electrical company that will increase the cost of electricity to the Laboratory, which could lead to additional layoffs.

Marge Lynch said that she could address the issue briefly and then it could be included in the presentation on the Budget at the next meeting. Lynch said the Lab has been engaged in negotiations with the NYPA. It is DOE that holds the contract and Lab management negotiates it on their behalf. The Lab has been working with the Empire State Development Corp., the governor's office, our state senator, and people in NYPA and LIPA. She thinks that the Lab is close to an agreement, although there's no number yet, that will result in an increase in the power costs but not at the current market rate which would threaten the life of the Lab. She believes the Lab is close to a decision and all parties are working very diligently. They should be hearing soon.

Member Walker asked if someone could explain how the 145 layoffs were worked out and who decides what people actually go. He's seen friends go out the door, but hasn't seen a comparable number of management or non-bargaining unit people. He asked what the rationale was for who goes and when?

Mannhaupt said she thinks the budget and layoff issues need to be first on the agenda.

Reed said he thinks that's obvious at this point. So the budget situation, the layoff situation, the electrical power budget will all be rapped up into a discussion on the finances and how they affect the labor force leading to a potential recommendation from the CAC concerning funding for the Lab. This should be first on the agenda.

Member Chaudhary asked if the Labs are allowed to get private funding?

Member Mannhaupt asked how the CAC could help with the NYPA negotiations.

Lynch replied that everyone understands the importance of getting a lower number and getting it quickly because it is impacting the 06 budget and the planning numbers for the science facilities.

Jeanne D'Ascoli said that she thought it would be worthwhile to have an update on all of the environmental projects that are coming to a close next month. She said that Les had agreed.

She also said part of the Five-Year Review includes the opportunity for interviews. Some of the regulators and one or two community members will be interviewed. She thought it would be important for the CAC to weigh-in and evaluate how the Laboratory has done communicating and involving the community during the remediation projects. She said that she would like to do a survey of the members and that there was also an opportunity to submit written comments that would also be included in the record as part of the Five-Year Review package.

Anthony Graves wondered if there would be enough time to include all the items on the May agenda and asked if everything but the NYPA and layoff discussions could be put off. Member Mannhaupt suggested postponing the CERCLA project closeouts. Jeanne said that it might be a matter of the appropriate people being available. There was some discussion and it was agreed that Jeanne would make the decision.

May Agenda
CERCLA Project Update (June?)
Five-Year Review Survey (June?)
Letter on the Budget
Layoff presentation
Budget/NYPA presentation

The meeting adjourned at 9:33 p.m.

2005 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								
ABCO	Alternate	Thalia	Bouklas												
Brookhaven Retired Employees Association	Member	Graham	Campbell	P		P	P								
Brookhaven Retired Employees Association (L. Jacobson new alternate as of 4/99)(A. Peskin 5/04)	Alternate	Arnie	Peskin		P		P								
CHEC (Community Health & Environment Coalition (added 10/04)	Member	Sarah	Anker	P	P		P								
	Member	Adrienne	Esposito	P											
Citizens Campaign for the Environment (Ottney added 4/02-takenoff 1/05 Mahoney put on)	Alternate	Brendan	Mahoney		P		P								
E. Yaphank Civic Association	Member	Michael	Giacomaro	P	P		P								
E. Yaphank Civic Association (J. Minasi new alternate as of 3/99)	Alternate	Jerry	Minasi												
Educator	Member	Audrey	Capozzi			P									
Educator (B. Martin - 9/01)	Alternate	Bruce	Martin												
Educator (A. Martin new alternate 2/00) (Adam to college 8/01)(add. alternate 9/02)	Alternate	Adam	Martin				P								
Environmental Economic Roundtable (Berger resigned, Proios became member 1/01)	Member	George	Proios	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	James	McLoughlin	P	P	P									
Friends of Brookhaven (E.Kaplan changed to become member 7/1/01)	Member	Ed	Kaplan	P	P										
Friends of Brookhaven (E.Kaplan changed to become member 7/1/01)(schwartz added 11/18/02)	Alternate	Steve	Schwartz												
Health Care	Member	Jane	Corrarino												
Health Care (as of 10/02 per JD)	Alternate	Mina	Barrett												
Huntington Breast Cancer Coalition	Member	Mary Joan	Shea	P		P	P								
Huntington Breast Cancer Coalition	Alternate	Scott	Carlin												

2005 Affiliation		First Name	Last Name	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Intl. Brotherhood of Electrical Workers/Local 2230	Member	Mark	Walker	P	P	P	P								
IBEW/Local 2230	Alternate	Philip	Pizzo												
L.I. Pine Barrens Society	Member	Richard	Amper	P											
L.I. Pine Barrens Society	Alternates	Jane Kathleen	Geary Timmins			P	P								
L.I. Progressive Coalition	Member	David	Sprintzen	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								
Lake Panamoka Civic Association (Rita Biss new alternate as of 3/99)	Alternate	Joe	Gibbons												
Long Island Association	Member	Matthew	Groneman												
Long Island Association	Alternate	William	Evanzia				P								
Longwood Alliance	Member	Tom	Talbot	P			P								
Longwood Alliance	Alternate	Kevin	Crowley												
Longwood Central School Dist. (switched 11/02)	Member	Barbara	Henigin	P	P	P									
Longwood Central School Dist.	Alternate	Candee	Swenson												
NEAR	Member	Jean	Mannhaupt	P		P	P								
NEAR (prospect taken off ¾)(blumer added 10/04	Alternate	Karen	Blumer												
NSLS User	Member	Jean	Jordan-Sweet	P	P		P								
NSLS User	Alternate	Peter	Stephens												
Peconic River Sportsmen's Club (added 4/8/04)	Member	John	Hall	P	P		P								
Peconic River Sportsmen's Club	Alternate	Jeff	Schneider		P										
Science & Technology (added 1/13/05)	Member	Iqbal	Chaudhry	P	P	P	P								
	Member	Jeffrey	Kassner												
Town of Brookhaven	Alternate	Anthony	Graves	P	P		P								
Town of Brookhaven, Senior Citizens	Member	James	Heil		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								
Town of Riverhead (K. Skinner alternate as of 4/99)	Alternate	Kim	Skinner												
Wading River Civic Association	Member	Helga	Guthy	P	P		P								
Wading River Civic Association	Alternate	Sid	Bail												