

These notes are in the following order:

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4. Update on the Peconic River Cleanup, Tom Daniels
5. Urban Dispersion Program, Paul Kalb
6. Presentation on Substance Abuse, Dr. Stephen Dewey
7. ESD Process, Michael Holland
8. Community Comment
9. New Laboratory Buildings –
Research Support Building, Greg Flett
Center for Functional Nanomaterials, Martin Fallier
10. Agenda Setting

1. Attendance

Members/Alternates Present:
See Attached Sheets.

Others Present:

D. Bauer, M. Bebon, T. Burke, F. Cameron, A. Carsten, J. Carter, P. Chaudhari, J. Clodius, H. Corrano, T. Daniels, J. D'Ascoli, B. Desmarais, M. Fallier, G. Flett, K. Geiger, G. Goode, L. Hill, S. Hoey, M. Holland, S. Johnson, P. Kalb, J. Koropsak, M. Lynch, A. McNerney, J. Tarpinian

2. Correspondence and Handouts

Items one through three were mailed with a cover letter dated February 4, 2005. Items four through eight were placed in the member's folders, and item nine was available at the meeting as a handout.

1. Draft agenda for February 10, 2005
2. Draft notes January 13 meeting
3. Final notes December 9 meeting
4. Copy the Peconic River Update presentation
5. Copy of Dr. Dewey's presentation
6. Copy of Research Support Building presentation
7. Copy of Center for Functional Nanomaterials presentation
8. Copy of April 1 Biodiesel Workshop flyer
9. Copies of Addiction Fact Sheet

3. Administrative

The meeting began at approximately 6:34 p.m. Reed welcomed everyone and went over the ground rules and the draft agenda. Those present introduced themselves.

The minutes from the January 13 meeting were approved pending changes to Ed Kaplan's comments and a correction to Iqbal Chaudhary's comments. There were three abstentions.

Jeanne D'Ascoli announced that the Laboratory was partnering with the Town of Brookhaven to hold a BioDiesel Workshop on April 1 and asked for anyone interested in further information to please let her know.

Don Garber asked for a briefing from the Director on Laboratory funding. Dr. Chaudhari asked Michael Holland to speak on the issue. Holland said the President's budget was released Monday. The DOE and Lab are still reviewing it. There is a lot of work to do on it before it is finalized, however, the Office of Science is fairly satisfied with it. There is a slight decrease and some pluses and minuses, but it is felt that overall it is a reasonable budget.

Dr. Chaudhari said relative to the other agencies, the Office of Science fared quite well. Within the Office of Science all the Laboratories have been hit to some extent, specifically to the operating time for RHIC, which decreased significantly, and Medical Imaging. Regarding Medical Imaging, there is considerable concern in Washington that DOE is working in an area that is traditionally the National Institute of Health's (NIH) domain. The Imaging Program was not zeroed out but there has been a reduction of about 25%. Dr. Chaudhari thinks the Lab can discuss what to do with Congress and DOE and said it's a policy issue. The CAC accepted his offer to update them next month.

Iqbal Chaudhary asked if the nuclear cities program in Russia was still going on? Dr. Chaudhari said yes it was, there is still a great deal of concern about containing nuclear materials in the former Soviet countries.

George Goode briefed the CAC on flooding that occurred in the Strontium-90 pilot study pump building. The building itself is designed as a containment area, the water was sampled and pumped into a tanker. It was discovered from the computer control system that a pump was left in the manual override mode and that when left in this position the automatic shutoff is overridden. Corrective actions will include installing a red light that will be on when the pump is in manual mode and to put a redundant high-level alarm, independent of the control system, in the tank that will shut off the pumps. The Lab is planning to install these measures in the other treatment facilities. Goode said the water has been processed through the system but the pumps will not be restarted until the additional control measures are installed.

Tom Daniels reported on a weather-related incident that occurred at the former Hazardous Waste Management facility. He said that a silt fence was breached and storm-water escaped from the cleanup area. The water was pumped back into the yard and the silt fence was repaired. The area was checked and about two inches of soil was scraped up and put in the yard for remediation. He said that in the future the Lab would be more vigilant in the management of storm-water.

4. Update on Peconic River Cleanup

Tom Daniels updated the CAC on the river corridor cleanup. He said that the on-site areas had been completed in September. The excavation, regrading and restoration is complete to Area D and the excavation and regrading of Area E has been completed, but the restoration can't be done there now until late March early April. Set up is 90% of the effort. Once the mat roads are down and the water is pumped out, the excavation only takes days.

The contractor is also working in the Wading River-Manorville Road area. The dam is in, a pipeline is in and the water is being drawn out. The excavation has started in the first area and should be done in about two weeks. The roads are being built in the other sections. All the restoration is expected to be complete by the first or second week of April.

Daniels said that the cleanup goal in the ROD was set at .75 ppm average offsite. About 900 samples have been taken of both the areas cleaned and the areas that didn't have to be cleaned and the result is less than .1 ppm. He said the Peconic is below the normal background levels. The project is going as planned.

CAC members asked questions about storing the plants over the winter, what was used to seed the bank for stabilization, and Member Conklin asked about the open water area in Area B and the smartweed, and expressed concern about restoring the Banned Sunfish habitat.

5. Urban Dispersion Project, Paul Kalb

Paul Kalb of the Department of Environmental Sciences described the Urban Dispersion Program, which the Lab is working on with other National Laboratories and universities. The program is funded by the Department of Homeland Security, Department of Defense, Environmental Protection Agency, and DOE. He said that the program will help determine how an airborne hazard might move through the environment if there is a terrorist attack. A field study, where a small amount of a perfluorocarbon tracer will be released into the air in New York City near Madison Square Garden, will be done in the coming weeks. Kalb explained that perfluorocarbon tracers are odorless and colorless gases that can be detected at very low levels and have been used in meteorological tests since the late 1960's. He said the information gathered from monitoring the air is expected to show how air moves through the city, what the concentrations are, and will then allow modelers to make predictions about how the gas moves. The data gathered will be compared with the models and it will help to get a better handle on predictions on where contaminants will go so that officials can respond appropriately. Kalb offered to return to the CAC and provide a full presentation on the project.

CAC members asked about wind, the perfluorocarbon tracer, and who would be doing the modeling.

6. Substance Abuse Presentation, Dr. Stephen Dewey

Dr. Dewey, Senior Scientist from the Medical Imaging group, said that in 1994 he started an outreach program on substance abuse for school kids. Last year he spoke to 135,000 kids, he explains what he is doing and shows them pictures of what happens to their brains when they try drugs for the first time and when they've used drugs for a long period of time. He said it is remarkable to go into a room and talk for ten minutes and then spend three hours answering questions. Dr. Dewey explained that the Positron Emission Tomograph camera was developed at Brookhaven and that the first PET scanner was made at the Lab. A PET scan allows changes in function to be seen before changes in anatomy occur. Dewey said they've studied virtually every addictive drug from the most common, caffeine, to methamphetamine. He described his research and showed images.

Any addictive drug increases dopamine in the brain. Dopamine plays many roles, it plays a role in the ability to move. Parkinson's Disease is a loss of brain dopamine, if you lose dopamine you lose the ability to move. It plays a role in novelty seeking. Thrill-seekers have altered brain dopamine, a sense of thrill-seeking changes brain dopamine. A sense of well-being is clearly dopamine related. Every drug of abuse elevates brain dopamine levels, the more you elevate dopamine, the more addictive a drug becomes. Dewey compared a student getting a 96 on a math test whose dopamine levels might go up 10% - 15%, but a single hit of methamphetamine will raise dopamine levels 100,000%. That's the extreme.

Member Biss asked how the PET scanner worked. Dewey explained that a PET scan is much like a cardiac stress test. A radioactive molecule, that's short-lived, it has a 20-minute half-life, is used, and the individual goes into a camera, which looks similar to a CAT scanner.

Dewey said that any organic molecule in the body that is labeled can be tracked. They can look at any drug that might be taken - aspirin, L-Dopa, antibiotics. They can see where it goes in the brain, how long it takes to get there, and how long it stays.

Dewey discussed the effects of cigarettes and said that the changes will reverse when a person stops smoking. He said cocaine, unlike nicotine, permanently destroys dopamine receptors in every person who uses it. He said you can see the brain function changes.

Member Sprintzen asked what the definition was for an abuser. Dewey said the Lab goes by the National Institute on Drug Abuse guidelines.

Dewey went on to talk about Alzheimer's, alcohol abuse, and other drugs being studied at Brookhaven including solvents. Dewey said methamphetamine is the most rapidly growing addictive drug in the United States today in kids from the age of 7th grade to adults. It is made from over the counter meds like Nyquil, Robitussin, and Triaminic. Methamphetamine abusers lose dopamine immediately and it's irreversible. There are profound behavioral changes.

CAC members asked questions about caffeine, Dewey said that caffeine doesn't seem to produce any permanent change. They also asked about speaking to schools, if a letter supporting the research would be helpful for funding, about huffing, and what constitutes abuse.

7. ESD Process, Michael Holland

Michael Holland, DOE Manager said that the public comment period closed about two weeks ago. The Lab is compiling a Responsiveness document, which should be complete by the end of the week and will be given to the regulators to review.

8. Community Comment

There were no comments from the audience.

9. Research Support Building Overview

Greg Flett briefed the CAC on the Research Support Building, which is the first new facility at the Lab in over fifteen years. He talked about the design and scope and explained how the new building would fit into the Site Master Plan. Flett identified the building's occupants, which will include the Federal Credit Union and Community, Education, Government, and Public Affairs. He explained that the Lab expects to obtain LEED certification. LEED is the U.S. Green Building Council's Leadership in Energy & Environmental Design rating system. The building will have many green features and should earn at least the minimum certification credits. Flett said that a groundbreaking ceremony would be held next month.

10. Center for Functional Nanomaterials

Marty Fallier reported on the progress of the design and construction of the Center for Functional Nanomaterials (CFN). He discussed the project objectives, technical challenges, LEED certification, and the schedule, and explained that the CFN was one of five DOE Nanoscience Research Centers. He described the layout of the building and said that there

were many technical challenges associated with working at the nano-scale level such as precise control of temperature and humidity and isolation from sources of vibration. The Lab is hoping to achieve a Silver LEED rating for the building. The Lab has not gone out to bid yet on the facility, but that is imminent, groundbreaking is expected to be in June or early July.

11. Agenda Setting

March Agenda

BGRR Update

NSRL/NASA

ESD Update

Budget Information

Monitoring Results from Strontium-90 spill

Impact on the availability of research materials due to HFBR closure

The meeting adjourned at 9:30 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											
ABCO	Alternate	Thalia	Bouklas													
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	P	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)	Alternate	Brendan	Mahoney		P											
E. Yaphank Civic Association	Member	Michael	Giacomaro	P	P											
E. Yaphank Civic Association (J. Minasi new alternate as of 3/99)	Alternate	Jerry	Minasi													
Educator	Member	Audrey	Capozzi													
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													
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											
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												
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										
	IBEW/Local 2230	Alternate	Philip	Pizzo												
	L.I. Pine Barrens Society	Member	Richard	Amper	P											
	L.I. Pine Barrens Society	Alternate	Jane	Geary												
	L.I. Progressive Coalition	Member	David	Sprintzen	P	P										
	L.I. Progressive Coalition	Alternate	None	None												
	Lake Panamoka Civic Association (Biss as of 4/02)	Member	Rita	Biss	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												
	Longwood Alliance	Member	Tom	Talbot	P											
	Longwood Alliance	Alternate	Kevin	Crowley												
	Longwood Central School Dist. (switched 11/02)	Member	Barbara	Henigin	P	P										
	Longwood Central School Dist.	Alternate	Candee	Swenson												
	NEAR	Member	Jean	Mannhaupt	P											
	NEAR (prospect taken off 3/4)(blumer added 10/04	Alternate	Karen	Blumer												
	NSLS User	Member	Jean	Jordan-Sweet	P	P										
	NSLS User	Alternate	Peter	Stephens												
	Peconic River Sportsmen's Club (added 4/8/04)	Member	John	Hall	P	P										
	Peconic River Sportsmen's Club	Alternate	Jeff	Schneider		P										
	Science & Technology (added 1/13/05)	Member	Iqbal	Chaudhry	P	P										
	Town of Brookhaven	Member	Jeffrey	Kassner												
	Town of Brookhaven	Alternate	Anthony	Graves	P	P										
	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	P	P										
	Town of Riverhead (K. Skinner alternate as of 4/99)	Alternate	Kim	Skinner												
	Wading River Civic Association	Member	Helga	Guthy	P	P										
	Wading River Civic Association	Alternate	Sid	Bail												