

These notes are in the following order:

1. Attendance
2. Correspondence and handouts
3. Administrative Items
4. Responses to CAC Questions, Les Hill
5. Discussion of the Master's Program, Ed Kaplan, CAC
6. EM Closeout Report on Groundwater and the Five-Year Report, Bob Howe
7. Community Comment
8. Characterization of the HFBR, Dennis Quinn
9. Agenda Setting

1. Attendance

Members/Alternates Present:

See Attached Sheets.

Others Present:

C. Adey, T. Burke, H. Carrano, A. Carsten, J. Carter, J. D'Ascoli, K. Geiger, T. Green, P. Henagan, L. Hill, M. Holland, S. Johnson, T. Kneitel, S. Kumar, L. Nelson, M. Parsons, F. Petschauer, D. Quinn, R. Rimando, A. Rapiejko, J. Tarpinian, M. Taveras

2. Correspondence and Handouts

Items one through three were mailed with a cover letter dated July 8, 2005. Items four and five were placed in the member's folders and item six was available at the meeting as a handout. Item seven will be in the workshop notice mailing.

1. Draft agenda for July 14, 2005
2. Draft notes for June 9, 2005
3. Final notes May 12 meeting
4. Copy of the Bulletin (Article on Fleet Manager's Pollution Prevention Workshop)
5. Copies of letters the CAC sent out regarding funding.
6. Copy of presentation on Groundwater and Five-Year Report
7. Copy of presentation on HFBR characterization

3. Administrative

The meeting began at 6:39 p.m. Reed Hodgkin went over the ground rules and the draft agenda, and said that as soon as a quorum was established the draft notes would be reviewed. Those present introduced themselves.

Jeanne D'Ascoli discussed the Administrative Record repositories, which are the Research Library onsite, the Longwood Library, and the Mastics, Moriches, Shirley Community Library. She explained that Longwood had become short of space and requested that they no longer hold the documents. D'Ascoli asked the CAC for their feedback on having only the Brookhaven Research Library serve as the repository. Member Kaplan suggested that a sign be placed in the Longwood Library telling the public that they can come to BNL for the documents. D'Ascoli said notices would be put in both libraries. Member Garber asked if there would be a problem

getting through the gate. Jeanne indicated that as long as there is a point of contact, there shouldn't be a problem.

Next, D'Ascoli said that the Agency for Toxic Substances and Disease Registry (ATSDR) will be issuing their final report on September 1. There will be a 45-day comment period from September 1 through October 15. Folks from the ATSDR would like to give a presentation to the CAC that would also be open to the general public. John Carter, DOE, explained that the ATSDR is required under Superfund law to conduct a health assessment of each CERCLA site. They have been working on the BNL assessment for some time and they expect to release the report for public comment in September.

D'Ascoli reminded the CAC that it was also their anniversary. The celebration will start at 6 p.m. and the meeting itself will start at 7 p.m. with the ATSDR presentation. After the presentation that portion will then be closed and the CAC will move on to the rest of its agenda.

Member Conklin asked about the rail shipments. Reed said Les Hill would give an update.

4. Response to CAC Questions, Les Hill

Les Hill explained, in response to a question raised at the June meeting, what was happening to the employees from the Environmental Restoration Division now that the projects were winding down. Hill said that about a year and a half ago there were 73 full-time employees. As the work has been completed 34 employees have been reassigned at the Laboratory. A total of 22 left the Lab for job opportunities elsewhere including approximately five or six employees that were laid off. Hill said they worked with Human Resources to place everyone they could. The remaining employees became part of the Long-Term Response Actions Group.

Hill said there was a question about waste and the landfill from the June meeting that they weren't sure they understood. The tapes will be checked before he respond at the next meeting.

New York Atlantic Railway is the freight operator that hauls freight on the Long Island Railroad. They had routinely picked up and delivered rail cars to BNL for the past several years. June 22 was the last time a pick up and delivery occurred. After they didn't show up for several scheduled stops the Lab learned that the LIRR had suspended the pick-ups of full railroad cars at BNL and they also suspended drop offs of empty cars. The reason given was that the transportation of radioactive waste on the LIRR system was contrary to a tri-party agreement between the LIRR, N.Y. Atlantic Railway, and the borough of Queens. The agreement was put in place over a decade ago. Hill said that the Lab has been working with all parties to get the situation resolved. A meeting took place in the Queen's borough President's office and questions she had concerning the shipments were answered. Hill was confident that the talks were a good start toward resolution.

5. Discussion of the Master's Program, Ed Kaplan, CAC

Ed Kaplan indicated that Marilyn Pandorf was unable to attend the meeting tonight and took the opportunity to introduce Marypat Taveras, who is from SUNY Stony Brook. Kaplan explained the BNL Tuition Assistance Program and described the Master's Degree programs that have been offered onsite. The current program, the SUNY/SB Graduate Program in Environment and Waste Management, began with the Spring 05 semester. Fourteen BNL employees are enrolled. Kaplan described the purpose of the program, the approach, and the degree requirements and courses. He noted that they are trying to meet the student's needs to expedite their getting their degrees. As part of the program, Kaplan teaches Principles of Environmental Systems Engineering. He said that often the students are able to use the real environmental problems at the Lab and on Long Island in their course work and gave many examples.

6. EM Closeout Report on Groundwater and the Five-Year Report, Bob Howe

Bob Howe presented on the overall accomplishments for groundwater cleanup activities. He reminded the CAC that groundwater characterization began in the early 1990s. He spoke about the wells and the 16 remediation systems that have been installed. Ten systems were onsite and six are offsite. Twelve systems are currently operating and four have met their cleanup goals and are on standby or have been dismantled. Howe showed graphs and maps that compared the original VOC and HFBR Tritium plumes to the plumes, as they currently exist.

The primary community concerns were the location of treatment system buildings, street paving, and not knowing what to expect with the carbon filter changeouts. The treatment system buildings were located away from area homes, special care was taken in repaving the streets, and the changeouts have gone smoothly.

The remaining decisions to be made for groundwater cleanup include drafting a Focused Feasibility Study for options on the G-2 tritium plume. The latest data and upcoming Feasibility Study will be presented this Fall. The schedule is for it to be submitted to the regulators in March of 06 and the ROD is scheduled for submission in October of 06. The ROD will include documentation for the final remedy for the BLIP tritium plume.

The next steps are to continue operation, maintenance, and monitoring of the treatment systems under the Long-Term Response Actions Group.

Howe said the CERCLA Five-Year Review looked at all seven of the remedies for compliance with the ROD's and for protection of human health and the environment. For some of the projects the Review was premature as not all work is complete. Howe explained the review process, said that there were inspections of the areas and that regulators were interviewed. Potential issues and concerns that were identified include invasive species returning to the Peconic and to focus on worker and employee health and safety during the BGRR pile/bioshield removal.

Howe outlined the conclusions and recommendations and said that report production has been completed and it should be going to regulators for review on Monday. The CAC will be briefed if there are any changes and the document is expected to be available by the Fall of 2005. The next site-wide Five-Year Review is due by July 2010.

7. Community Comment

Pat Henagan of the Ridge Civic Association asked that his organization be reinstated as a member of the CAC. A question was raised as to whether or not Ridge was ever formally removed. The discussion was deferred to the end of the meeting.

8. Characterization of the HFBR, Dennis Quinn

Dennis Quinn informed the CAC that if they wanted additional information about the HFBR there would be a workshop and tour on August 11. He encouraged interested CAC members to sign up. Jeanne D'Ascoli said it was the night of the regular CAC meeting. She would get back to them with a location and send out a notice to the CAC members not present.

Quinn discussed the characterization history of the HFBR. He reviewed the terminology and explained the methods and results for characterizing five areas including activated components, HFBR systems, reactor building structures, ancillary/support structures, and soil characterization.

Quinn reminded the CAC that the HFBR was shutdown in 1996 for routine maintenance, there was extensive groundwater characterization from 1997 – 1999 that continues. The decision to permanently shut down the reactor was made in late 1999.

In 2001, characterization of the reactor and its systems, structures, support buildings, and the soils began in preparation for stabilization and future decommissioning. In 2004 and 05, additional areas were looked at to fill in any gaps left previously and to estimate the amount of radioactivity present.

Quinn said the type of hazardous materials present are typical of the type found in construction that was going on in the 1960's - asbestos containing materials, lead in paint, PCBs, and heavy metals in wire samples.

Quinn also explained the radioactive materials that were produced, where they are found, and what form they are in, i.e. solid, liquid or dust. He discussed how the materials are measured and their half-lives.

Quinn explained that things become radioactive by activation or by contamination. He said when neutrons interact with other materials they become radioactive and that anything in close proximity to the vessel would become very radioactive. He explained that the vessel itself was made of aluminum and that has a very short half-life. So it maybe radioactive but within a few days, or weeks or months, it pretty much is gone. There's still some activity in this reactor vessel but most of it has already decayed away. There are also a number of other components such as the control rod blades and other parts called internals. Some of the internals are made of steel and they might become radioactive and they'll decay away at a slower rate than the aluminum does.

The next part is the thermo shield and that helps to protect the concrete. It does some radiation shielding but for the most part it does temperature shielding of the concrete so the concrete doesn't get damaged. The concrete is about 8 feet thick. The piece made of steel and lead is going to be radioactive also, these are all activation products.

Member Esposito asked if the weight of the thermo shield was known.

Quinn didn't have the figures, but said he could provide it.

ACTION ITEM: Provide weight of thermo shield.

Quinn pointed out other areas that might be activated.

Member Sprintzen asked if he could be more specific about the rates of decay for the aluminum, steel and...

Quinn said that any of the aluminum isotopes and the variations of aluminum have already decayed away, however, the vessel isn't 100 percent aluminum, there is a small amount of steel. The radionuclides that are important any time there is steel are Cobalt-60, which has a five-year half-life, Nickel-63, with a half-life of 100 years, and Iron-55, that has a half-life of 2.5 years.

Quinn said that the control rod blades are a large portion of the radioactivity. He explained what other components were activated, listed the curies that had been found in them, talked about the decay rate and radiation levels. He said that the components account for more than 99.9 percent of the total of radioactivity found in the complex.

The Building 750 systems consist of the primary coolant systems, the liquid waste system, and piping hot spots. They became contaminated because the heavy water went through the

reactor and a portion of it became tritium. He said that most of the heavy water has been drained from the systems. The hot spots are valves and heat exchangers where the contaminants may have built up. Approximately 80% of the activity in the systems is from tritium.

The Reactor Building structures include the floors, walls, and dome. Within the building there are three levels, the operations level, experimental level, and the equipment level. The building was broken up into 100 survey areas. They looked for removable contamination and radiation levels. Very low radiation fields were found in some pumps and heat exchangers on the equipment level, at the access to the reactor top on the Operations level, and in certain compartments of the Beam Plug Storage Facility and the Refueling Tool Boxes.

Characterization was also done on ancillary/support facilities. The facilities not contaminated include the Pump House and Switch Gear, the Cold Neutron Facility, the Water Treatment House, and Stack Monitoring Facility. Additional characterization will be done at the Cold Neutron Facility for verification. The Fan House, the Stack, and the Tritium Evaporation Facility do have contamination. There are .03 curies in the Stack and the radionuclides are primarily Strontium-90 and Cesium-137.

A walkover survey was done of the main area surrounding the HFBR and its support buildings. Twenty-one areas were identified. All but one area under asphalt by the Fan House have been cleaned up.

Locations beneath the HFBR were characterized. Six locations were designated, five feet of concrete was bored through to get soil samples. Tritium was found in soil in two of the six locations. Tritium was found in the groundwater and the potential exists for pockets of higher levels of tritium that haven't been found yet.

Quinn summarized by reiterating the results of the characterizations that have been done to this point.

As copies of the presentation were not available at the meeting, it was suggested that they be sent out to all CAC members with the notice about the workshop.

Les Hill said that the expectations for the workshop were to give a summary level recap of tonight's presentation, a tour, and questions and answers. This is the foundation for future discussions on decontamination and dismantlement strategies. It's important to understand all this.

9. Agenda Setting

There was additional discussion about whether or not a formal action had ever been taken to remove Ridge Civic Association from the membership roles after Ron Clipperton stopped attending meetings. Reed said that if no vote was taken then Ridge was still on and all they had to do was assign a representative. The records were to be checked and Patrick Henagan would be notified of the findings.

Sept. Agenda

HFBR

ATSDR workshop & discussion

Update on the Peconic River restoration

Regulator perspective on the Five-Year Report

The meeting adjourned at 9:55 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	P	P	P					
ABCO	Alternate	Doug	Dittko													
Brookhaven Retired Employees Association	Member	Graham	Campbell	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	P	P					
CHEC (Community Health & Environment Coalition (added 10/04)	Member	Sarah	Anker	P	P			P	P	P	P					
	Member	Adrienne	Esposito	P							P					
Citizens Campaign for the Environment (Ottney added 4/02-takenoff 1/05 Mahoney put on)	Alternate	Brendan	Mahoney			P		P	P	P	P					
E. Yaphank Civic Association	Member	Michael	Giacomaro	P	P			P	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			P	P						
Friends of Brookhaven (E.Kaplan changed to become member 7/1/01)	Member	Ed	Kaplan	P	P				P	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			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	P	P						
	IBEW/Local 2230	Alternate	Philip	Pizzo												
	L.I. Pine Barrens Society	Member	Richard	Amper	P											
	L.I. Pine Barrens Society (added P. Loris 6/05)	Alternates	Phoebe	Loris			P	P	P	P	P					
	L.I. Progressive Coalition	Member	David	Sprintzen	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	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		P						
	Longwood Alliance	Alternate	Kevin	Crowley												
	Longwood Central School Dist. (switched 11/02)	Member	Barbara	Henigin	P	P	P			P	P					
	Longwood Central School Dist.	Alternate	Candee	Swenson												
	NEAR	Member	Jean	Mannhaupt	P		P	P								
	NEAR (prospect taken off 3/4)(blumer added 10/04)	Alternate	Karen	Blumer												
	NSLS User	Member	Jean	Jordan-Sweet	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					
	Peconic River Sportsmen's Club	Alternate	Jeff	Schneider		P										
	Science & Technology (added 1/13/05)	Member	Iqbal	Chaudhry	P	P	P	P		P						
	Town of Brookhaven	Member	John	Turner												
	Town of Brookhaven	Alternate	Anthony	Graves	P	P		P	P	P	P					
	Town of Brookhaven, Senior Citizens	Member	James	Heil		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					
	Town of Riverhead (K. Skinner alternate as of 4/99)	Alternate	Kim	Skinner												
	Wading River Civic Association	Member	Helga	Guthy	P	P		P	P							
	Wading River Civic Association	Alternate	Sid	Bail												