

Community Advisory Council
March 13, 2014
Action Items/Notes

Final

These notes are in the following order:

1. Attendance
2. Correspondence and Handouts
3. Administrative Items
 - Membership Update
 - SPDES Update
4. BNL's Environmental Cleanup Program Progress
5. Community Comment
6. Agenda Setting
7. Understanding the Color of 19th Century Glass Using 21st Century Synchrotron Tools

1. Attendance

Members/Alternates Present: See Attached Sheets.

Others Present: J. Anderson, S. Bogart, J. Carter, F. Crescenzo, B. Dorsch, P. Genzer, R. Gordon, T. Green, R. Howe, M. Israel, S. Johnson, T. Kneitel, M. Lynch, R. McKay, J. Mollin, D. Paquette, V. Racaniello, A. Rapijko, J. Remien, D. Ryan, M. Schaefer, N. Sundin, A. Troutman

2. Correspondence and Handouts

Item number one was mailed to Members with a cover letter dated March 6, 2014. Items two and three were available as handouts at the meeting.

1. Draft agenda for March 13, 2014
2. Presentation – BNL's Environmental Cleanup Program Progress
3. Presentation – Understanding the Color of 19th Century Glass Using 21st Century Synchrotron Tools

3. Administrative Items

The meeting was called to order at 6:36 pm. Reed Hodgkin, facilitator, noted that a camera crew from NEWS12 would be in attendance and filming portions of the meeting. If anyone is uncomfortable with that they could be excused; their attendance would be counted. He then reviewed the ground rules and the agenda. Those in attendance introduced themselves.

Member Franz said that some BREA members told her that if the CAC wants to have input into the RFP for a new managing and operating contractor for the Lab, they only have a few weeks to do so.

Frank Crescenzo, DOE Brookhaven Site Officer Manager, said anyone can make a comment on the re-competition.

Sundin said that there will be a presentation next month on the status of the contract.

Hodgkin asked if there is a time period for comment.

Crescenzo said there is no comment period. The Request for Proposals will be out soon. You can check the website and the CAC can send their comments through the web. He said he will

double check his answer to make sure he is correct and get the message out to the CAC if he is not.

Member Franz said BREA members are concerned about their retiree benefits.

Member Martin said that he is an alternate for Greg Bush, who is in the Individual category. The Foundation for Economic Education, which has a local chapter, would like to be their sponsor. He requested that their category be changed from Individual to Education with FEE as their sponsor.

Hodgin said the information will be given to the CAC next month to convert the membership and they will vote on it.

Approval of Minutes

Hodgin asked for corrections, additions, or deletions to the January 9, 2013 draft notes. Member Ziems said the word "were" was missing from page 4. Member Shea said she would like to add to page 2, the question; what is the background level for Sr-90 in deer. The notes were approved as amended with none opposed and one abstention. (NOTE: In response to "What is the background level" -- Based on the data that we have from historic monitoring of deer we see very little variation between the deer taken onsite and offsite. The data points for Sr-90 in deer bone with associated error are: for greater than 1 mile 1.79+/- 4.26 pCi/g, dry weight; for deer taken onsite 2.11 +/- 5.56 pCi/g, dry weight; and for deer within 1 mile of the Lab 2.24 +/- 5.60 pCi/g, dry weight.)

Membership Update

Nora Sundin, liaison to the CAC, said that organizations that have not met the minimum attendance requirements for membership have been notified. If they are not in attendance this evening, next month the CAC will vote on replacing or removing them from membership. She said Marge Lynch will be leaving the Lab to pursue other interests on April 30th and said the CAC would like to thank and recognize her for 17 years of service.

Hodgin said the CAC will say their goodbyes at the April meeting.

SPDES Update

Jason Remien said that last week, the DEC approved the Lab's permit modifications for the STP, which was already presented to the CAC. The Lab will continue with the upgrades.

Member Esposito asked when the current permit expires.

Remien said March 2015.

Hodgin said as more information becomes available, please keep the CAC updated.

4. BNL's Environmental Cleanup Program Progress – George Goode, Assistant Laboratory Director for Environment, Safety & Health

George Goode said this presentation was challenging to put together because there is a lot of material and it has been a long journey. He said the Lab is committed to protecting the environment, conserving resources, preventing pollution and works to continually improve in those areas. In partnership with the US DOE and regulators, significant cleanup progress has been made over the past 20 years. He said the community and CAC involvement played a crucial role. He said there are 32 Areas of Concern (AOC) and showed a list detailing the information and timeline that reflects when the Closure Reports were completed showing the cleanup objectives were met. He pointed out that there is still some work to do in two of the AOCs – in AOC 1 there is some additional work (Phase 3) of the perimeter soil cleanup at the Former Hazardous Waste Management Facility. After Phase 3 is done this year, that Operable

Unit will be completed. At AOC 31, the HFBR stack needs to come down by 2020, and the reactor vessel and major components need to be removed after a 65-year safe storage decay period. Other than those items, we have made excellent progress in meeting our objectives and closing out those Areas of Concern.

He said the cleanup objective is always to protect human health and the environment. He proceeded to describe each of the major areas of cleanup – groundwater, soil, the Peconic River, and the BGRR and HFBR.

He said the objective with groundwater cleanup was to cut off plumes at the site boundary and control source areas. Seventeen treatment systems have been installed since 1996, fourteen for volatile organic compound (VOC) contamination on- and off-site, and three for radiological contamination on-site.

Goode said as a precautionary measure, 1,500 homes were hooked up to public water between 1996 and 1998.

Member Amper asked if contamination was found in private wells

Goode said testing was done in 800 wells and no contamination attributable to BNL was found. DOE continues to offer free annual testing to the remaining 7 private wells.

Goode showed a timeline of the 17 groundwater treatment systems He said there are 3 systems that have met their cleanup objectives and were decommissioned. There are 4 systems that are shut down and in standby mode and being monitored to ensure there is no rebound.

Member Amper asked if any radiological plumes had migrated off-site.

Goode said no.

Member Esposito asked that the time for remediation of the Strontium 90 plume be explained. She thought the cleanup was going to take 70 years to remediate but it looks like there is only monitoring after 2030.

Bill Dorsch, BNL Groundwater Protection Group, said that the cleanup alternatives for Sr-90 were arrived at according to the Records of Decision such that there's active treatment for a period of time, the systems are shut down, then we rely on natural attenuation to get to the drinking water standards. In some cases, like the Sr-90 that moves so slowly, there's a long monitoring period following the shutdown.

Member Esposito asked for more specific information than what was shown on the Groundwater Treatment System Timeline. She asked that dates be included.

Goode said we can do that; we can include dates when monitoring starts.

ACTION ITEM: Provide more detailed information on each groundwater treatment system.

Member Amper said the CAC has been involved since 1998 and has been part of the solutions. He asked if someone can go back and look at the projects and get some supplemental information. Were the efforts successful? Has funding met the needs? Have you had to cut back or alter programs due to insufficient funds or did you have more than enough money?

Goode said with the groundwater program, we do what you're asking for annually. We constantly look at the program to see if we are meeting the objectives and when we don't, we look for a better plan, we add a well or double the extraction rate. We closely watch the

groundwater program and adjust accordingly every year to ensure we reach the objectives that we set out to meet.

Member Amper said, you were able to show us if we do it this way we can do it in this many years for a certain amount of dollars. Can you go back now and look at that and see how each project worked out? They can't have all worked out exactly the same way, some were done sooner, some were done later, some cost more, some cost less, and some may not be complete yet.

Goode went back to the Groundwater Treatment System Timeline and said the yellow shading on the chart indicates that things didn't work out exactly as we expected and actions were taken. The objective, which was agreed to in the beginning however, does not move. With the other projects, all kinds of variables were looked at. It was usually a balancing act between the feasibility, affordability within scope, and meeting the objectives that all went into the decision making. Would we have done some things differently? Learning what we have learned, absolutely. For example, the bioshield for the BGRR was something we never anticipated. The difficulties we encountered sent us back to the drawing board. We had to change our method, which added significantly to the cost. But in the end we made the changes and achieved the objective.

Member Amper asked that each project that came before the CAC be looked at. What was contemplated, what was it going to cost, how long was it going to take, and how close to 100 percent remediation were we going to get? If we looked at them from 2014 looking back, how did each of those work out? Did the CAC make good recommendations? If we could look at what we intended and what was actually produced, that would be very educational. Nothing wrong with what you gave us tonight, we're just asking for more.

Hodgin said that's a complex question, he suggested that Goode examine the question and come back with what you can and cannot do in regard to that question.

ACTION ITEM: Review questions to see if additional information can be provided.

Member Corrarino said that information is in the CAC minutes. She recalled different options being presented for the Peconic River on cost and how long it would take and what would be accomplished. It may be easy to obtain the information from the minutes.

Member Guthy asked if anything was not done because of the lack of funds.

Goode said that we had a scope of work that DOE accepted and we have worked through that scope. The only thing left is the stack. The stack still needs to come down; however, we don't have a cost estimate on that yet.

Member Sicignano said the Lab used to come to his Civic meetings monthly and say tritium from the HFBR never entered the neighboring wells. Then Newsday said it did. He asked how much was spent on the public water hookups.

Goode said the HFBR tritium plume never left the site and showed its position on the BNL site map.

Bob Howe, Groundwater Protection Group, said the cost of the public water hookups was approximately \$8 million and, that was included in the overall cost of the cleanup.

Member Talbot said, during the Peconic River cleanup, the sediment trap was removed. Was it ever replaced?

Goode said the trap was installed as part of the cleanup and was removed. It was not intended to be replaced. Monitoring is still ongoing.

Member Talbot said a lot of good information has been learned.

Member Esposito clarified that of the groundwater systems, 9 are already in monitoring status only, and of those, 6 had operating upgrades. So half are done, and the remainder are still plodding along?

Goode said yes.

Member Amper asked if there are projects that have not been brought to the Lab based on the environmental and groundwater impacts that they might have.

Goode said site is a huge consideration. Any planner will look at the facility, it plays a big role.

Frank Crescenzo, DOE Site Manager, said he does not know of any project that was turned away from this Laboratory because of concerns with groundwater.

Member Sprintzen said he is impressed by the Lab's trustworthiness and he expressed his appreciation for the way the Lab has treated the community.

Member Rehbein asked if the Freon that was released into the atmosphere during the cleanup of that spill can be recovered.

Goode said there is no economical way to recover it. The concentration is very small. There are ways to strip it from the air, but it would not be usable.

Member Sprintzen asked if there are any future plans for the BGRR building.

Goode said no, it has residual contamination in some of the structures and the building is part of the cap. It is being kept in a cold and dark state.

Goode said it is much easier and less expensive to prevent pollution than to clean it up. The Lab is working proactively to reach out to environmental regulators and informing and engaging the community on Lab operations and decision making.

Crescenzo said this was a very challenging project. It has taken a long time and a lot of money. The Lab has interacted with elected officials and the community. Every decision was made after consulting the State, the EPA, the County, and the public. He said the CAC has helped with input and had enormous influence on the decisions that were made. He thanked the CAC and said this was a successful effort. DOE has fulfilled its commitments and will continue to do so.

5. Community Comment

There was no community comment

6. Agenda Setting

Nora Sundin said that next month there will be an update on the Perimeter Area soils and the NSLS-II. Lou Sadler will present on the operating contract re-competition. She asked if 4:30 or 5:00 pm would be a good time to have a tour of the NSERC in June. It will be on the same day as the CAC meeting for that month.

7. Understanding the Color of 19th Century Glass Using 21st Century Synchrotron Tools – Bruce Ravel, local contact for NSLS beamline X23A2, National Synchrotron Light Source

Bruce Ravel said he is a physicist and works for NIST (National Institute of Standards and Technologies). He said he currently runs a beamline at the NSLS and spoke about his research on a piece of glass mosaic from the Grand Palace in Bangkok, Thailand. He explained how light from a beamline was used to take measurements to identify elements in the sample. He also explained how gold particles were identified in the samples, how they made the glass red, and how 19th century Thai glass craftsmen were nanoengineers.

Member Guthy thanked Ravel for a great explanation.

The meeting adjourned at 9:26 p.m.

Agenda Topics Exercise
April 11, 2013

Biological Research at BNL - 8
~~Cyber Security & BNL~~ – 7 (May 9, 2013)
~~Ticks & Tick Research~~ – 8 (June 13, 2013)
Quantum Physics - 7
Battery Advances & Research - 6
Nanotechnology - 7
BNL & Higgs Boson - 4
Progress Report on Blueprint - 4
~~Update on Solar Farm~~ – 5 (June 13, 2013)
Sustainability - 4
Impacts of Politics on Science - 4
Computational Science - 3
Overview of Science Programs at ISB - 4
Update on Fukushima – Lab Work – 3
Nuclear Safety - 3
~~Physics Research at BNL~~ – 2 (November 14, 2013)
Intellectual Property - 2
~~Tree Bronzing~~ – 1 (June 13, 2013)
Fluctuations in Vacuum - 1
Impact of Fukushima Radiation - 1

P = Present	2014	Affiliation		Jan	Feb No mtg	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
			First Name Last Name												
		ABCO (Garber - 04/02)	Member Don Garber												
		(Madigan -10/10)	Alternate Michael Madigan												
		American Physical Society	Member Margaret Malloy	P		P									
		(Schuman 1/14)	Alternate Reinhart Schuman												
		Brookhaven Retired Employees Association (Peskin - 09/09)	Member Arnie Peskin												
		(Franz - 12/09)	Alternate Eena-Mai Franz	P		P									
		(Shapiro-1/13)	Alternate Steve Shapiro												
		Citizens Campaign for the Environment	Member Adrienne Esposito	P		P									
			Alternate												
		Colonial Woods Whispering Pines (Birben - 06/09)	Member Christine Birben												
		(Rehbein -11/10)	Alternate Eric Rehbein	P		P									
		Coram Civic Association (Ziems - 06/12)	Member Paul Ziems	P		P									
		(Meade – 06/12, Jim M 10/12)	Alternate Jim Meade												
		East Yaphank Civic Association	Member Michael Giacomaro	P		P									
		(Feinman - 02/09)	Alternate Bob Feinman			P									
		Emeritus (changed 3/8/12)	Member Jean Mannhaupt												
		Friends of Brookhaven (Kaplan - 07/01)	Member Ed Kaplan												
		(Schwartz - 11/02)	Alternate Steve Schwartz												
		Huntington Breast Cancer Coalition	Member Mary Joan Shea	P		P									
			Alternate Scott Carlin												
		IBEW/Local 2230 (Krsnak 01/07)	Member Scott Krsnak												
			Alternate												
		Individual (changed 3/12)	Member Karen Blumer	P											
		(added 6/12)	Alternate Michael Madigan	P		P									
		Individual – (changed 3/12)	Member Greg Bush												
			Alternate Adam Martin												
			Alternate Bruce Martin			P									
		Individual – (changed 3/12)	Member Jane Corrarino			P									
			Alternate												
		Individual – (changed 3/12)	Member Iqbal Chaudhry	P											
			Alternate												

P = Present	2014	Affiliation		Jan	Feb No mtg	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
			First Name Last Name												
		L.I. Pine Barrens Society	Member Richard Amper			P									
		(Murdocco - 04/11, deleted 6/12) (Muller added – 8/12)(Katie Rose Leonard added – 6/13)	Alternate Katie Rose Leonard	P											
		L.I. Progressive Coalition	Member David Sprintzen	P		P									
			Alternate												
		Lake Panamoka Civic Association (Biss - 04/02)	Member Rita Biss	P		P									
		(Grandal - 10/10)	Alternate Bonita Grandal	P		P									
		Longwood Central School Dist. (Castro -06/09)	Member Maria Castro												
			Alternate Allan Gerstenlauer												
		Mastic Park Civic Association (Sicignano – 6/12)	Member John Sicignano	P		P									
			Alternate Clara McManus												
			Alternate Joe May												
		Middle Island Civic Association	Member Tom Talbot	P		P									
			Alternate Kevin Crowley												
		NSLS Users Committee	Member Jean Jordan-Sweet	P											
		(Ravel -02/11)	Alternate Bruce Ravel	P		P									
		Ridge Civic Association	Member Pat Henagan	P		P									
			Alternate												
		Town of Brookhaven (Graves - 06/06)	Member Anthony Graves												
			Alternate												
		Town of Brookhaven, Senior Citizens Office	Member James Heil	P		P									
			Alternate												
		Town of Riverhead (Doroski - 04/11)	Member Isidore Doroski	P		P									
		(Hulme - 04/11)	Alternate Suzanne Hulme												
		Wading River Civic Association	Member Helga Guthy	P		P									
			Alternate Sid Bail												