

**Community Advisory Council
June 9, 2016
Action Items/Notes**

Final

These notes are in the following order:

1. Attendance
2. Correspondence and Handouts
3. Administrative Items
4. Environmental Updates
5. Agenda Setting
6. Community Comment

1. Attendance

Members/Alternates Present: See Attached Sheets.

Others Present: J. Anderson, D. Gibbs, R. Gordon, R. Howe, T. Kneitel, D. Manning, M. Maraviglia, G. Mattson, R. McKay, V. Racaniello, J. Remien, L. Rundlett, N. Sundin,

2. Correspondence and Handouts

Items numbered one and two were mailed to Members with a cover letter dated June 2, 2016. Items numbered three and four were available as handouts at the meeting.

1. Draft agenda for June 9, 2016
2. Draft notes from the May 12 meeting
3. Copy of Presentation: Environmental Updates
4. Copy of Summer Sunday flyers

3. Administrative Items

The meeting was called to order at 6:34 PM. Reed Hodgins, facilitator, welcomed everyone to the meeting. He reviewed the ground rules and draft agenda and those present introduced themselves.

Nora Sundin, liaison to the CAC, said that there will be no meetings during the months of July and August. When the CAC re-convenes in September, the Lab will be sending out CAC correspondence through email rather than snail mail. She said if anyone would prefer to still receive the information through the mail, to let her know and we will continue to send the information to them through the postal service. She said this is part of the Labs sustainability effort.

She then said that Middle Island Civic Association has a new member, Ira Brickman, who will be attending the September meeting.

Sundin told the CAC that the Lab's Summer Sundays program will be starting on July 10th and continuing for four consecutive Sundays. Flyers are available for anyone who is interested.

Member Keenan reminded everyone that, according to the CAC Guidelines, a group's membership is valid for five years. Therefore, in the fall, membership will be expiring for a lot of groups. We should be thinking of ways to expedite the process of reapplying for membership.

Sundin said we will work on a way to streamline the process. We can create a list and notify all of the memberships requiring renewal.

Member Sprintzen asked if a decision was made on the public energy forum that the CAC discussed last month.

Sundin said no decision was made yet.

Member Sprintzen asked if it can be held off-site and who would be the liaison.

Sundin said that hadn't been mentioned before. We can discuss it more during agenda setting.

Hodgin said the Lab will get back to you with an answer as soon as possible. If anyone else is interested in participating in the sub-group, please let Nora know.

Member Guthy said having it at a library would be best because of security issues at the Lab.

Doon Gibbs, Laboratory Director, said if the decision is made to have it off-site, we don't need to consider it.

Member Esposito asked if it is held off-site, can it still be a forum sponsored by BNL.

Gibbs said he will speak to DOE and get back to the CAC.

ACTION ITEM: Let CAC Members know if they have permission from the Laboratory and DOE to have the Energy Forum on and/or off-site

Hodgin took a poll asking if the CAC would prefer on-site or off-site for the forum. The vote was three for on-site and three for off-site.

Member Blumer asked for an explanation of the issue raised by Member Keenan regarding membership renewal.

Hodgin said according to the CAC Guidelines, the term of membership is five years. After which time, each group interested in continuing on the CAC, must apply to renew their membership. There is no limit to the number of times an organization can apply for membership. These Guidelines were adopted in November 2011, so the five years will be expiring this November for any organization that has been a member since then.

Member Peskin asked if this refers to the organization or for the individual person.

Hodgin said it is for the organization. We will work on a procedure.

Approval of Minutes

Member Chattaway said there is a correction on page of four of the May notes. The word "the" should be removed.

Member Ziems said he would like to add the work "net" to his comment on page four.

Member Schuhmann said his name is misspelled on page two.

The May notes were approved as amended with none opposed and no abstentions.

4. Environmental Updates – Jason Remien, Manager – Environmental Protection Division and Bill Dorsch, Manager – Groundwater Protection Group

Jason Remien said Bldg. 811 was in operation from 1947 – 2008 as a waste processing facility. It was demolished, along with Bldg. 810, in August 2015. The foundation and soil removal was completed in April 2016. Radiological status survey/soil sampling was performed in May 2016 in accordance with approved field sampling plan. NYSDEC performed the site inspection and survey. Waste was shipped via rail for disposal in February and May 2016. The next steps will be to review the final status survey soil sample data, ORISE will verify the data and once the goals are met, the excavated area will be back-filled. The Lab will then prepare a closeout report. One area north of the excavation that was not in the original scope remains. That area will be marked and addressed in the future.

Member Giacomaro asked if the area was covered in plastic before the building was knocked down. How large is the area and are there trees in that area?

Remien said plastic sheeting was not used, we used monitors and nothing was detected in the air. We also did not do any work when it was windy and we wet the area to contain any dust particles. The size of the area is about one acre. There are no trees. In the end state the area will remain under institutional controls. We are considering making it a parking lot.

Member Esposito asked how deep the groundwater is in this area.

Remien said about 25 feet.

Esposito said why not just remove the rest of the possible contamination. Aren't you concerned it could get into the groundwater?

Remien said there are groundwater extraction wells currently treating Sr-90 hydraulically down gradient of the area. Endpoint samples collected to date have only identified Cs-137 in the soil; however, we do not see Cs-137 in groundwater as this radionuclide tends to bind to soil particles.

Member Doroski asked if there are other radionuclides, such as Carbon-14, which might be expected from such a reactor. Are you leaving any contamination behind?

Remien said we sample for radium 226, plutonium, Sr-90, Cs-137 and others. The goal is to get below 15mrem per/yr, which we believe we will meet.

Hodgin said Member Esposito is asking if there is a risk to groundwater with what is left behind.

Remien said we are already treating for Sr-90 and Cs-137 is not an issue with groundwater.

Dorsch said we have gone back to many areas and were unable to find a source of Sr-90.

Member Heil asked how much information the disposal facility requires before accepting the waste. Are the containers that are used recyclable?

Remien said we give them a lot of information before they agree to accept this low level rad waste. The intermodals are reusable, they are cleaned and returned.

Member Doroski asked if there are any underground pipes remaining.

Remien said no, they were removed in 2009 with ARRA funds.

Member Esposito asked if Cs-137 ever gets into groundwater. What about when it rains and recharges the aquifer.

Dorsch said only Sr-90, not Cs-137.

Member Blumer asked how many rail cars were used and if the LIRR spur comes into the lab

Remien said about 17 cars were used. There are gondolas and ABC rail cars that accept the intermodals. The spur from LIRR comes into the lab and we track it on the rail system.

Bill Dorsch updated the CAC on the Former Hazardous Waste Management Facility (FHWMF) Sr-90 plume. He said operations began in the late 1940s and ended in 1997. Soil remediation and D&D were completed in 2005. The soil was remediated to an average of 15 pCi/g Sr-90. Large areas of asphalt and concrete from the central yard were removed as part of the remediation. Based on Sr-90 monitoring well concentrations ranging, up to 35 pCi/L, since 1997 and the concern for a potential continuing source, it was recommended in the 2014 GW Status report to characterize Sr-90 at the down gradient perimeter of the FHWMF. Characterization began in April 2015. In the first row of temporary wells, there was a detection of 148 pCi/L. The Lab targeted the area immediately down gradient of the suspected source area and detected an area with 302 pCi/L Sr-90. Approximately 6 months following the initial characterization the Lab went back to the three locations (GP-30, GP-40, and GP-42) where the highest Sr-90 concentrations had been observed and obtained another round groundwater samples. The highest concentrations found in these three samples were 234 pCi/L, 217 pCi/L, and 117 pCi/L, respectively. Continuous sub surface soil samples were also taken at the GP-42 location and there was no detection of Sr-90. Dorsch then showed the CAC several model simulations and spoke about the OU I Record of Decision remedy for Sr-90 in groundwater. He said the ROD (Record of Decision) referred to the 1996 OU I Groundwater Removal action as the final remedy for the Sr-90 in groundwater from the FHWMF. The remedy is natural attenuation/decay, monitoring, and institutional controls of up to 150 years for the Sr-90 in groundwater to reach drinking water standards. Based on modeling at the time of the OU I ROD, the Sr-90 would decay to less than the drinking water standards (DWS) before reaching the site boundary. The maximum Sr-90 concentration detected in the plume as identified in the ROD was 150 pCi/L. The next steps will be to combine the current monitoring network with a combination of permanent and temporary wells. We will need several more years of monitoring to confirm the modeling predictions.

Member Pratka asked if there is a plan to re-forest the area.

Dorsch said the plan is to let it re-vegetate naturally.

Member Giacomaro asked if there is a continuing source from the waste facility.

Dorsch said yes, there were a lot of spills in this area years ago.

Member Esposito said she is disappointed that all the scenarios have Sr-90 in drinking water leaving the site boundary. This is not to be taken lightly.

Remien said we continue to monitor and we want to put in more wells.

Blumer asked if there is any remediation.

Dorsch said it is possible.

Giacomaro asked what the source is.

Dorsch said we don't know.

Dorsch then spoke about the western south boundary area VOC characterization. He said 2 temporary vertical profile wells were installed, as per the 2014 GW Status Report recommendation, to characterize Freon-12. The temporary wells showed only trace amounts of Freon-12, but total VOCs up to 180 ug/L which was not expected. We will need to define the width and extent of the higher total VOCs and model the plume following the collection of additional characterization data.

Dorsch said Ethylene Dibromide (EDB) was detected in a North St East monitoring well above drinking water standards in the last two quarters of 2015. This was confirmed as per the BNL GW contingency plan with additional samples being sent to two labs. There were several detections of EDB on-site from OU I from 1997-2005, but EDB was not previously detected off-site in the NSE plume. The next steps will be to obtain one round of samples from nearby wells and analyze them. We plan to continue to sample, increase frequency from semi-annually to quarterly and analyze for EDB using method 504. Extraction well NSE-1 could be restarted to capture EDB if necessary.

Dorsch spoke about the Five Year Review. He said input from the CAC was obtained in October 2015, interviews were performed and site inspections conducted. The draft report was prepared, including the recommendations, which underwent DOE review. The regulators will review the draft report in mid-July 2016. They will be briefed on highlights and recommendations. There will be an update for the CAC and BER in the fall of 2016 and then public availability.

5. Agenda Setting

Nora Sundin said upcoming presentations include the Site Environmental Report, Annual Groundwater Report, nano safety, and a presentation on Fukushima by a guest from Stony Brook. We also would like to talk about membership. Perhaps each member requesting continuation on the CAC could send us a letter.

6. Community Comment

Hodgin asked for comments from the community. There were none.

The meeting adjourned at 8:29 PM.

Next meeting: September 8, 2016

CAC Agenda Setting – November 12, 2015

TOPICS

Advances in Renewable Energy Technologies – 10

Update on Fukushima – 9

NASA Research – 8

Holographic Principles of Quantum Mechanics – 7

Gamma Forest & Tour – 7

~~Medical Research at BNL – 7 (April 2016)~~

~~DOE Funding & Research Priorities & Impact on BNL – 7~~

Update & Advances on Battery Storage – 6

Discussion of Neutrino Projects at BNL – 6

Global Warming & Sea Level Rise – 6

Nanotechnology Research at BNL – 5

Capturing the COSMOS LSST – 4

Groundwater Monitoring Around New Facilities – 4

Advances in Solar Energy – residential & commercial – 4

Climate Science & White House Report (Steve Schwartz) – 4

Economic Impact of Lab – 3

Peak Oil (peak of World's ability to produce oil) - 3

Non-proliferation – 2

Progress on Strategic Plan Update (Discovery Park) – 1

Long-Term Vision for BNL – 1

More Lab History – 1

Status, Progress, Production Report on LI Solar Array – 1

NSLS-II Research – 1

				Jan	Feb Info session only	Mar	Apr	May	June	July No mtg	Aug No mtg	Sep	Oct	Nov	Dec
P = Present	2015	Affiliation		First Name	Last Name										
		ABCO – Civic (Garber - 04/02) (Bevington – 6/14) (Keenan-10/14)	Member	Ray	Keenan	P		P	P	P					
		(Madigan -10/10)	Alternate	Michael	Madigan	P				P					
		American Physical Society – Business & Labor	Member	Reinhart	Schuhmann	P		P		P	P				
		(Schuhmann 1/14, member 9/15)	Alternate	Donavan	Hall				P						
		Brookhaven Coalition of Chambers of Commerce – Bus & Labor (added 6/15)	Member	Ron	Trotta			P		P	P				
		Brookhaven Retired Employees Association- BNL (Peskin - 09/09)	Member	Arnie	Peskin	P		P		P	P				
		(Franz - 12/09)	Alternate	Eena-Mai	Franz	P			P		P				
		(Shapiro-1/13)	Alternate	Steve	Shapiro										
		Citizens Campaign for the Environment – Advocacy & Environment	Member	Adrienne	Esposito	P				P	P				
			Alternate												
		Colonial Woods Whispering Pines – Civic (Birben - 06/09) (O'Neal 01/15, removed 10/15)	Member												
		(Rehbein -11/10)	Alternate	Eric	Rehbein										
		Coram Civic Association (Ziems - 06/12)	Member	Paul	Ziems	P		P	P	P	P				
		(Meade – 06/12, Jim M 10/12, Turk 1/16)	Alternate	Rosa	Turk	P		P	P	P	P				
		East Yaphank Civic Association	Member	Michael	Giacomaro	P			P	P	P				
		(Feinman - 02/09 – 11/15)(Mack 11/15)	Alternate	Catherine	Mack			P	P	P					
		Emeritus (changed 3/8/12)	Member	Jean	Mannhaupt										
		Foundation for Economic Education – Ed, Sci, & Tech (5/14)(Martin – 10/14)	Member	Bruce	Martin			P	P	P					
		(Pratka – 10/14)	Alternate	Craig	Pratka			P	P	P	P				
		Friends of Brookhaven- BNL (Kaplan 07/01–11/15)(Bowerman 11/15)	Member	Biays	Bowerman	P		P	P	P	P				
		(Schwartz - 11/02) (Ocko added 11/15)	Alternate	Steve	Schwartz			P							
			Alternate2	Ben	Ocko										
		Huntington Breast Cancer Coalition – Health-Based Rep	Member	Mary Joan	Shea	P			P	P					
			Alternate	Scott	Carlin										
		Individual	Member	Jane	Corrarino	P									
		Individual	Member	Blumer	Karen					P					
		Individual	Alternate	Michael	Madigan	P		P	P	P					
		L.I. Pine Barrens Society – Advoc & Env	Member	Richard	Amper										
		(Murdocco - 04/11, deleted 6/12) (Muller added – 8/12)(Katie Rose Leonard added – 6/13)(Muether added – 5/15)	Alternate	Katie	Muether			P	P	P					
		L.I. Progressive Coalition – Advoc & Env	Member	David	Sprintzen	P		P		P	P				

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P = Present	2015	Affiliation	First Name	Last Name											
		Alternate													
		Member	Rita	Biss	P		P	P	P	P					
		Alternate	Bonita	Grandal	P		P	P	P						
		Member	Tracy	Adams											
		Alternate													
		Member	John	Sicignano			P		P						
		Alternate	Clara	McManus											
		Alternate	Joe	May											
		Member													
		Alternate	Margaret	Malloy			P			P					
		Member	Jean	Jordan-Sweet	P			P	P						
		Alternate	Jen	Bohon			P								
		Member	Wesley	Chattaway	P		P	P		P					
		Member	Al	Krupski			P		P						
		Alternate	John	Stype				P							
		Member	Richard	Murdocco											
		Alternate	Suzanne	Gillan					P						
		Member													
		Alternate													
		Member	James	Heil	P			P		P					
		Alternate													
		Member	Isidore	Doroski	P		P		P	P					
		Alternate	Janis	Rottkamp				P	P	P					
		Member	Helga	Guthy	P		P		P	P					
		Alternate	Sid	Bail											