

Community Advisory Council
September 11, 2014
Action Items/Notes

Final

These notes are in the following order:

1. Attendance
2. Correspondence and Handouts
3. Administrative Items
4. DOE Laboratories
5. Community Comment
6. Site Environmental Report
7. October Agenda setting

1. Attendance

Members/Alternates Present: See Attached Sheets.

Others Present: J. Anderson, S. Bogart, J. Carter, R. Celestino, E. Edwards, P. Genzer, D. Gibbs, M. Israel, S. Johnson, T. Kneitel, R. McKay, P. Paul, A. Rapiejko, J. Remien, N. Sundin, R. Tribble

2. Correspondence and Handouts

Items numbered one through three were mailed to Members with a cover letter dated September 4, 2014. Items numbered four through six were available as handouts at the meeting.

1. Draft agenda for September 11, 2014
2. Draft notes from the June 12, 2014 meeting
3. Action Items 14-02 & 14-03 from June meeting
4. Presentation – The DOE National Laboratories
5. Presentation – 2013 Site Environmental Report
6. Informational flyer on PubSci

3. Administrative Items

The meeting was called to order at 6:34 PM. Reed Hodgkin, facilitator, reviewed the ground rules and the agenda. Those in attendance introduced themselves.

A moment of silence was observed in remembrance of those who lost their lives on 9-11.

Member Schwartz reported that he saw Member Garber over the summer and he appeared to be doing well. He suggested the CAC send him a card and said he would be happy to do that. The CAC agreed. (Note – card was sent to Member Garber on behalf of CAC.)

Nora Sundin, liaison to the CAC, said the Lab is hosting another PubSci event on September 17th at American Storyville in Huntington. She invited members to attend and asked for suggestions for locations of future events. She then said the Lab will be having an event on September 30th to commemorate the closing of the NSLS called the Last Light. She said members will be emailed an invitation.

Approval of Minutes

Hodgin asked for corrections, additions, or deletions to the June 12, 2014 draft notes. The notes were approved as written with none opposed and two abstentions.

4. Department of Energy National Laboratories – Frank Crescenzo, Manager, Brookhaven Site Office

Frank Crescenzo said National Laboratories are necessary because they execute long-term government scientific and technological missions, develop unique multidisciplinary scientific capabilities beyond the scope of academic and industrial institutions to benefit the Nation's researchers and national strategic priorities, and develop and sustain critical scientific and technical capabilities to which the government requires assured access. National Laboratories perform missions of national interest, "government only" missions, and design, build and operate specialized scientific facilities that industry and academia will not/cannot.

He said the management model for Labs in the DOE complex are that they are government-owned, contractor-operated (except for Fossil Energy's National Energy Technology Laboratory which is government-owned, government-operated) and receive their direction/oversight from DOE Headquarters and federal "site offices". Research at DOE Labs is funded by other organizations and most receive their funds from multiple sources. He said BNL has a \$500M budget.

The Energy Research and Development Administration became the Department of Energy in 1977. There are currently 10 Office of Science Labs, 3 NNSA Labs, 1 Energy Efficiency & Renewable Energy, 1 Environmental Management, 1 Nuclear Energy, and 1 Fossil Energy Lab.

Crescenzo said there are 32 world-leading facilities serving over 29,000 researchers annually. Time is allocated to users through a peer review of proposals and is free for non-proprietary work published in open literature and a full cost recovery for proprietary work. Reimbursement rates for full cost recovery are \$400 per hour of machine time at the NSLS-I and will be \$4000 per hour of machine time at the NSLS-II.

National Labs are authorized to conduct Work for Others for non-DOE customers; provided the work is consistent with the Lab's mission and capabilities, the Lab does not compete with industry or commercially available services, and there are restrictions on pricing and future liabilities. Work for Others is an important source of capabilities for the Nation and often a significant source of revenue for the Labs.

He then spoke briefly about each of the National Laboratories; their size and location, source of funding, core capabilities, user facilities, and programs.

Member Ravel asked for a copy of the presentation in color.

Sundin said it will be available on the CAC webpage next week.

Member Shea asked for more information on electron and ion research and if the CAC could have a presentation on that topic?

Crescenzo said a presentation on eRHIC is a good idea.

Sundin said we can get it on an upcoming agenda.

5. Community Comment

There was no community comment.

6. Site Environmental Report – Jason Remien, Interim Manager, Environmental Protection Division

Jason Remien spoke about the purpose of the Annual Site Environmental Report. He said it is a DOE requirement, an official record of BNL's environmental impact for calendar year 2013, and serves as the principal environmental communications vehicle. The report is available as a downloadable file on the BNL web page, in hardcopy (available 10/1), and as a summary booklet that includes a CD version of the full report, including SER Volume II, Groundwater Status Report (available November).

Remien said that topics of interest to the CAC are frequently presented well before the SER is published. Topics that were covered at CAC meetings during 2013 include; Environmental Assessment (EA) for the management of the white-tailed deer population at BNL, updates on SPDES Permit Modification/STP upgrades, natural resource management update, Peconic River monitoring, and groundwater treatment system modifications. Remien also noted that next week the STP will be making the switch to groundwater discharge.

He spoke about Chapter 2 – Environmental Management System (EMS) ISO 14001 and said that the Lab's EMS was recommended for continued certification by NSF in June 2013. There was one nonconformance which stated that handouts and verbally presented content provided in the 5/13/13 Contractor Vendor Orientation did not include the ESSH policy statement. (This has been corrected.)

He then spoke about Waste Generation and said that as a result of research and cleanup activities, BNL generates regulated waste requiring careful handling and disposal. In 2013, BNL generated both routine and non-routine operational waste.

Remien said seven proposals were submitted to the Lab's Pollution Prevention Program during 2013 with three being funded at an annual cost savings of ~ \$17,500 from those new projects.

He also spoke about the Lab's Site Sustainability Plan and said that DOE Order 436.1 establishes aggressive sustainability goals and requires preparation of a SSP to target actions to meet those goals. He said a summary of goals and the status of BNL's SSP is provided in Chapter 2. By 2015, the Lab is expected to have reduced their energy consumption by 30% from the original baseline in 2003.

Member Jordan-Sweet said as the NSLS-II comes online, energy usage may increase. She also said that with the newer buildings, offices are small, so energy used per square foot might be more.

Remien said the big machines are not included in this.

Member Chaudhry said this is an unrealistic goal and asked who established this goal of 30% reduction by 2015.

Lab Director Gibbs said it was implemented by Secretary Chu.

Member Chaudhry asked if it was attainable.

Remien said it is a DOE complex-wide goal. Individually, we may not meet every goal, but as a DOE complex we will meet it.

In the Compliance Status Overview section of Chapter 3, the National Environmental Policy Act (NEPA) reviewed 100 additional projects. Ninety-four were considered minor actions, six were environmental evaluation notification forms, and one project – the Management of the White-Tailed Deer population at BNL was completed with a Finding of No Significant Impact (FONSI).

Potable water complied with all drinking water requirements. There were 42 spills, nine of which were reportable to NYSDEC. Most spills were small volume releases that did not exceed the reportable limit.

External inspections done by the EPA identified no issues. The NYSDEC found five minor findings, which were all addressed. There were no issues identified during a September 2013 air inspection, no issues identified during the annual surveillance SPDES inspection, and no issues identified by RCRA. There were some potable water deficiencies, which are being addressed by the Lab's F&O Department.

During the internal assessments, BHSO verified that BNL has successfully implemented numerous corrective actions to prevent recurrence of the overflow of the HFBR stack drain tank and lack of timely alarm response.

Water Quality Monitoring found six SPDES permit excursions. Metals detected in surface water samples were consistent with SPDES limits, no VOCs were detected above the contract laboratory's MDLs. Tritium was detected in a single water sample collected upstream of the STP discharge. No Cs-137, Sr-90, or other gamma-emitting nuclides attributable to Lab operations were detected.

Member Shea asked if there were there any detections that were not attributed to the Lab.

Remien said there was one Sr-90 detection that was not attributed to the Lab.

Radiological air quality monitoring at four on-site locations placed around the perimeter of the site found gross alpha and beta concentrations consistent with natural background levels and the average tritium concentration was less than MDAs.

Continuous emissions monitoring is required for the Central Steam Facility Boilers Nos. 6 & 7. There was one 6-min period opacity exceedance at Boiler 6 on August 5 due to a power shutdown and not an actual exceedance, but because of the inability to monitor the emission during this 6-minute period, it had to be reported as an exceedance.

He then spoke about Chapter 8 – Radiological Dose Assessment and said that it was determined from TLD monitoring that there is no external dose contribution from BNL operations. The total effective dose to the maximally exposed off-site individual (MEOSI) in 2013 from inhalation and ingestion pathways was 2.55 mrem, which is well below regulatory limits. The EPA has established a regulatory limit of 10mrem from air pathways, the NYSDOH has set the limit at 10mrem from ingestion pathways and the DOE has set 100 mrem as the regulatory limit for all pathways. The average dose to an individual is 620 mrem per year.

Member Shea asked if the 620 mrem per year refers to a male or female and what the age is. She also asked how that number has changed over the last 10 – 20 years.

Remien said he did not know the answer, he assumes it is an average. He said he can find out. The number used to be 360, it has changed mainly due to medical procedures being done more often. **(Source: NCRP Report No. 160, "Non-Occupational Ionizing Radiation Exposure of the Population of the United States" - 2009).**

Member Peskin asked about soil contamination He asked if BNL used contaminated top soil.

Remien said that was addressed as part of the cleanup effort. There was a project that cleaned up landscape soils in several locations around the Lab. Tim Green will discuss it with you when he gives his presentation.

Member Chaudhry asked why there was a difference between routine and nonroutine waste generation.

Remien said non-routine waste is from the cleanup and special projects. Hazardous waste is up because we cleaned up the Trap and Skeet Range and had 390 tons of waste.

Remien said there will be a future presentation on Chapter 6 – Natural and Cultural Resources (October), and Chapter 7 – Groundwater Protection (November). He also offered to give a tour of the STP to the CAC at a future date.

7. October Agenda Setting

Sundin told the CAC that that next month there will be a presentation on the pros and cons of nuclear power given by Bill Horak and a presentation by Tim Green on Natural Resource Management. In November, Bill Dorsch will give his annual Groundwater Report and Berndt Mueller will present on the concept of eRHIC

The meeting adjourned at 8:55 PM.

CAC Agenda Setting – May 8, 2014

PRESENTATIONS

Pros & Cons of Bringing Back Commercial Nuclear Power – 12
Holographic Principles of Quantum Mechanics – 8
Biological Research at BNL – 7
The Gamma Forest (where was it onsite; the kind of research done there) - 7
~~Survey of all DOE Labs~~ – 6 (9/11/14- Frank Crescenzo)
Climate Science & W.H. Report (Steve Schwartz) – 5
NASA Research – 5
Waste Minimization at BNL - 5
Update on Battery Storage – 5
More History – 4
Economic Impact of the Lab - 4
Nanotech Research, Safety, Environment, Ethics – 4
Fukushima – 4
Update on LI Solar Farm (production, environment) – 4
Research / Trends on Wildlife on LI – 3
Non Proliferation – 3
Patents & Commercialization – Pros & Cons of Science vs. Commercialization – 3
Update of Tick-borne Diseases – 3
Electric Grid (by J. Misewich) – 3
Update on G-2 – 3
Invite HS Students to Speak on Their Topics – 3
Update on State Program for Carbon Footprint Reduction (80x50?) – 2
Research towards Sustainability – 2
STEM Research Update (InSynC) – 2
Computer Facility for LHC/ATLAS / RHIC – 2
Research by Students at NSLS – Reach Out Program – 1

TOURS

~~ISB~~ – 3 (6/12/2014)

P = Present	2014	Affiliation		Jan	Feb No mtg	Mar	Apr	May	June	July No mtg	Aug No mtg	Sep	Oct	Nov	Dec
			First Name	Last Name											
		ABCO (Garber - 04/02)(Bevington – 6/14)	Member	Charles	Bevington				P			P			
		(Madigan -10/10)	Alternate	Michael	Madigan			P	P						
		American Physical Society	Member	Margaret	Malloy	P		P	P	P		P			
		(Schuhmann 1/14)	Alternate	Reinhart	Schuhmann										
		Brookhaven Retired Employees Association (Peskin - 09/09)	Member	Arnie	Peskin				P	P		P			
		(Franz - 12/09)	Alternate	Eena-Mai	Franz	P		P	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		P	P				
		Coram Civic Association (Ziems - 06/12)	Member	Paul	Ziems	P		P		P	P		P		
		(Meade – 06/12, Jim M 10/12)	Alternate	Jim	Meade				P						
		East Yaphank Civic Association	Member	Michael	Giacomaro	P		P	P	P	P				
		(Feinman - 02/09)	Alternate	Bob	Feinman			P		P	P		P		
		Emeritus (changed 3/8/12)	Member	Jean	Mannhaupt										
		Foundation for Economic Education (5/14)	Member	Greg	Bush										
			Alternate	Bruce	Martin			P	P	P	P		P		
		Friends of Brookhaven (Kaplan - 07/01)	Member	Ed	Kaplan										
		(Schwartz - 11/02)	Alternate	Steve	Schwartz				P	P	P		P		
		Huntington Breast Cancer Coalition	Member	Mary Joan	Shea	P		P	P	P	P		P		
			Alternate	Scott	Carlin										
		IBEW/Local 2230 (Krsnak 01/07)	Member	Scott	Krsnak										
			Alternate												
		Individual (changed 3/12)	Member	Karen	Blumer	P				P					
		(added 6/12)	Alternate	Michael	Madigan	P			P				P		
		Individual – (changed 3/12)	Member	Jane	Corrarino				P		P		P		
			Alternate												
		Individual – (changed 3/12)	Member	Iqbal	Chaudhry	P			P	P	P		P		

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			First Name	Last Name											
			Alternate												
		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			P			P			
		L.I. Progressive Coalition	Member	David	Sprintzen	P		P	P	P			P		
			Alternate												
		Lake Panamoka Civic Association (Biss - 04/02)	Member	Rita	Biss	P		P					P		
		(Grandal - 10/10)	Alternate	Bonita	Grandal	P		P		P			P		
		Longwood Central School Dist. (Castro -06/09)	Member	Maria	Castro				P				P		
		(Gerstenlauer removed & Sterne added 5/14)	Alternate	Phyllis	Sterne										
		Mastic Park Civic Association (Sicignano – 6/12)	Member	John	Sicignano	P		P		P					
			Alternate	Clara	McManus										
			Alternate	Joe	May										
		Middle Island Civic Association	Member	Tom	Talbot	P		P	P	P			P		
			Alternate	Kevin	Crowley										
		Photon Sciences User Committee	Member	Jean	Jordan-Sweet	P			P				P		
		(Ravel -02/11)	Alternate	Bruce	Ravel	P		P					P		
		Ridge Civic Association	Member	Pat	Henagan	P		P	P	P			P		
			Alternate												
		Town of Brookhaven (Graves - 06/06)	Member	Anthony	Graves										
			Alternate												
		Town of Brookhaven, Senior Citizens Office	Member	James	Heil	P		P	P	P			P		
			Alternate												
		Town of Riverhead (Doroski - 04/11)	Member	Isidore	Doroski	P		P		P	P		P		
		(Hulme - 04/11)(Hulme removed 4/14)	Alternate												
		Wading River Civic Association	Member	Helga	Guthy	P		P	P		P				
			Alternate	Sid	Bail										