

Community Advisory Council
May 14, 2015
Action Items/Notes

Final

These notes are in the following order:

1. Attendance
2. Correspondence and Handouts
3. Administrative Items
4. Deer Sample Update
5. NSLS Hazard Removal Project
6. June Agenda Setting
7. Community Comment
8. Tailoring Plant Cell Wall Composition and Structure for More Efficient Biofuel Production
9. Review changes to Guidelines

1. Attendance

Members/Alternates Present: See Attached Sheets.

Others Present: J. Anderson, L. Garber, D. Gibbs, R. Gordon, T. Green, L. Hill, S. Johnson, C. Liu, M. Maraviglia, G. Mattson, R. McKay, A. Rapiejko, J. Remien, J. Stype, N. Sundin, R. Tribble, R. Trotta, R. Turk

2. Correspondence and Handouts

Items numbered one through three were mailed to Members with a cover letter dated May 7, 2015. Items numbered four and five were available as handouts at the meeting.

1. Draft agenda for May 14, 2015
2. Draft notes from the April 9, 2015 meeting
3. Copy of CAC Guidelines with changes in red
4. Presentation – NSLS Hazard Removal Project
5. Presentation – Biomass to Biofuels: Tailoring Plant Cell Wall Composition and Structure for More Efficient Biofuel Production

3. Administrative Items

The meeting was called to order at 6:32 PM. Reed Hodgkin, facilitator, welcomed everyone and reviewed the ground rules and the agenda. Those in attendance introduced themselves.

Hodgkin said that Suffolk County Legislator Al Krupski has expressed his interest in joining the CAC and this is the second meeting where he has had representation. Since he has met the attendance requirement, we will discuss his membership request next month. Ron Trotta, of the Brookhaven Coalition of Chambers of Commerce has also expressed interest in membership. This is the first meeting he has attended. He will speak about the Coalition during the Community Comment portion of the meeting.

BHSO/BSA Partnership Agreement

Bob Gordon, Deputy Manager, DOE Brookhaven Site Office, gave some background on the Partnership Agreement. He explained that it is about the day to day relationship between Brookhaven Lab, Brookhaven Science Associates, and the Department of Energy. It has

become a model across the Office of Science Labs and is about mutual respect, communication, and shared responsibilities for the mission of the Laboratory.

Member Giacomaro asked if this document is on display anywhere and if a copy is available.

Gordon said it is displayed on various hallways and we can get you a copy if interested.

ACTION ITEM – Send a copy of signed Partnership Agreement to CAC members.

Jack Anderson, Deputy Director for Operations, said on November 12, 2014 Brookhaven Science Associates was chosen to manage the Lab. With the new contract in place, this was a perfect time to refresh our values and sign a new declaration.

Member Schwartz said this is a great example of how the relationship has transformed from compliance to mutual cooperation. Thank you for this presentation.

Approval of Minutes

Hodgin asked for corrections, additions, or deletions to the April 9 draft notes. Member Peskin said that Member Franz's attendance at the meeting was not noted. Member Blumer said she would like more information included in the notes in the section titled, Peconic River Post Cleanup, including the name of the consultant used. The notes were approved as amended with none opposed and seven abstentions.

4. Deer Sample Update – Tim Green, Environmental Protection Division

Tim Green said the Laboratory has received the results of the 49 deer samples and only one was greater than 1 pCi/l. That sample was from a deer taken near the Sewage Treatment Plant. All the other samples were below 1 pCi/l.

Member Shea asked if they tested for Cesium-134 and if the requirements for children are different than adults.

Green said there was no detection of Cs-134 and New York State has not set a standard for children.

5. NSLS Hazard Removal Project – Les Hill, Project Manager

Les Hill said the mission of the project is to safely and efficiently remove hazards and hazardous conditions from the NSLS to prepare it for the next phase of the facility life cycle - either facility demolition or re-purposing.

He said the NSLS was a large user facility dedicated to the production and utilization of synchrotron light which began operation in 1982 and consisted of four interconnected accelerators and more than 60 beamlines used for conducting research.

The NSLS was permanently removed from service on September 30, 2014. Its electrical systems have been de-powered and cooling systems have been vented and drained. Chemicals have been removed from the facility and other equipment has been removed for re-use at the NSLS-II and elsewhere.

Electrical systems must be permanently isolated. Over 600,000 pounds of lead shielding must be removed and lead dust must be cleaned up before the facility can be re-used. Depleted uranium "safety shutters" must be removed. There are a small number of pieces of equipment in accelerator enclosures that are activated due to NSLS operations. Radiation doses measure in the background range.

Member Giacomaro asked if the accelerator is a vacuum and where the lead was located. He also asked if any of the equipment will be recycled.

Hill said there is an array of vacuum pumps. Lead was installed to keep the radiation inside the enclosures. The equipment will be recycled after being radiologically surveyed.

Member O'Neal asked where the radioactive material goes.

Hill said it goes to a licensed facility, either the Nevada Test Site (NTS) or Energy Solutions.

Member Peskin asked what is done with equipment that belongs to the researchers.

Hill said it was removed before the facility was turned over to his group.

Member Jordan-Sweet said there were about 11,000 items that were catalogued. Anything that was wrapped in lead was cleaned and tested.

Member Garber asked if mercury was used at all.

Doon Gibbs, Laboratory Director, said no.

6. June Agenda Setting

Nora Sundin, liaison to the CAC, said next month there will be a tour of NSERC for anyone interested, followed by a light dinner and then a presentation on energy. She said there will also be a vote on the new members and possibly a presentation by Lanny Bates on campus development. She then reminded the CAC that there will be no meetings in July and August.

7. Community Comment

As part of the new member process, Hodgin invited potential members to address the CAC.

John Stype, of Legislator Al Krupski's office, said the Legislator is involved in a lot of environmental issues and is very interested in membership. He will be at the June meeting to address the CAC.

Ron Trotta, of the Brookhaven Chambers of Commerce Coalition, said they were established in 1992 and is a group of Chambers of Commerce interested in membership on the CAC. He said this is a good opportunity for BNL to bring information to the Chambers.

Member Esposito asked how the Coalition communicates information to their members and how many members attend their meetings.

Trotta said they have monthly meetings at the Town of Brookhaven, with 12 – 14 members attending. There are representatives from the various Chambers who attend and take the information back to their individual Chambers.

Member Murdocco asked if they have any overlap with ABCO.

Trotta said he is not familiar with ABCO.

Hodgin said the process is that after attending two meetings an organization may make a formal request to be considered for membership. At the June meeting, there will be a vote on the request from Legislator Krupski. Hodgin noted that June will also be the second meeting for Brookhaven Chambers of Commerce Coalition, so the CAC could consider their request then also. The CAC agreed to vote on the Coalition's request in June.

Member Nowak said this is the last meeting he will be attending as he is moving back to Buffalo. Next month there will be another representative for the Middle Island Civic Association.

8. Tailoring Plant Cell Wall Composition and Structure for More Efficient Biofuel Production – Dr. Chang-Jun Liu, Plant Biochemist, Biological, Environmental, and Climate Sciences Department

Dr. Liu spoke about the benefits of cellulosic biofuels, the challenges of converting cellulosic biomass to biofuels, and the related research activity at BNL. He spoke about carbon based fossil fuels and explained that lignocellulose can be made into biofuels. He explained the advantages of Cellulosic ethanol over corn ethanol and said biofuel use is being mandated by the government. The 2007 Energy Bill requires 36 billion gallons of biofuels by 2022.

Liu explained his research project which involves the study of enzymes to break down lignocellulose in Poplar trees to make biofuel. In the greenhouse, modified Poplar trees yield 62% more simple sugars and the ethanol yield is increased. The greenhouse results of the research must be confirmed by field studies. A group of 150 poplar trees will be grown on a fenced in area in the existing "Biology Fields" in the center of the BNL site. The plot would be monitored for broken branches and as a precaution trees will be monitored every three days during flowering season so any catkins can be destroyed. Fence integrity will be monitored and repaired if needed. The trial will be terminated by harvesting at the end of the first year. Any residual plant materials will be removed and destroyed and the site will be monitored for any regrowth.

Member Jordan-Sweet asked if modifying the trees made them more susceptible to insects.

Liu said no changes can be observed.

Member Shea asked if he was concerned about animals and birds spreading seeds and what the worse-case scenario was.

Liu said he was more concerned about branches getting outside the fence; there will be a lot of care taken so there won't be any problems.

Tim Green, Environmental Protection Division, said the tree doesn't propagate from small pieces and the site will be monitored for a year.

Member Doroski said the presentation was very interesting and timely. He asked about reducing the operation costs, said he was not in favor of fossil fuel, but asked about needing train cars full of biomass to get the same production.

Liu said there is no single way to solve the energy problem; we have to find alternatives.

Member Giacomaro asked about moving to production.

Liu said that was a complicated issue.

Member Garber asked if someone tried to grow the seed would the new properties be in the seedlings.

Liu said they would.

Member Henagan asked about the gene and whether it was dominant or recessive and about the origin of the gene.

Liu said it is dominant. The origin of the gene is a Tibetan wild flower.

9. Review of changes to Guidelines

Hodgin said he believed that the changes in the Guidelines reflected the CAC actions taken last month. He asked if any CAC members saw any place in the amended Guidelines where their conclusions are not accurately represented. The CAC agreed that the changes were correct and approved the Guidelines as modified.

The meeting adjourned at 8:55 PM.

CAC Agenda Setting – May 8, 2014

PRESENTATIONS

~~Pros & Cons of Bringing Back Commercial Nuclear Power~~ – 12 (10/9/14 Bill Horak)

Holographic Principles of Quantum Mechanics – 8

~~Biological Research at BNL~~ – 7 (5/14/15 C.J. Liu)

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 (1/8/15 Peter Pohlot)

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)

				Jan	Feb cancel	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
P = Present	2015	Affiliation	First Name	Last Name											
		ABCO (Garber - 04/02)(Bevington – 6/14) (Keenan-10/14)	Member	Ray	Keenan	P		P	P	P					
		(Madigan -10/10)	Alternate	Michael	Madigan				P						
		American Physical Society	Member	Margaret	Malloy	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						
		(Shapiro-1/13)	Alternate	Steve	Shapiro										
		Citizens Campaign for the Environment	Member	Adrienne	Esposito	P		P	P						
			Alternate												
		Colonial Woods Whispering Pines (Birben - 06/09) (O'Neal 01/15)	Member	Cathy	O'Neal	P		P	P						
		(Rehbein -11/10)	Alternate	Eric	Rehbein				P						
		Coram Civic Association (Ziems - 06/12)	Member	Paul	Ziems	P		P	P	P					
		(Meade – 06/12, Jim M 10/12)	Alternate	Jim	Meade										
		East Yaphank Civic Association	Member	Michael	Giacomaro	P		P	P	P					
		(Feinman - 02/09)	Alternate	Bob	Feinman	P		P							
		Emeritus (added 12/14)	Member	Don	Garber	P		P	P	P					
		Emeritus (changed 3/8/12)	Member	Jean	Mannhaupt										
		Foundation for Economic Education (5/14) (Martin – 10/14)	Member	Bruce	Martin			P	P	P					
		(Edwards – 10/14)	Alternate	Estelle	Edwards										
		(Pratka – 10/14)	Alternate	Craig	Pratka	P			P						
		Friends of Brookhaven (Kaplan - 07/01)	Member	Ed	Kaplan			P							
		(Schwartz - 11/02)	Alternate	Steve	Schwartz	P		P	P						
		Huntington Breast Cancer Coalition	Member	Mary Joan	Shea	P		P	P						
			Alternate	Scott	Carlin										
		IBEW/Local 2230 (Krsnak 01/07) (Removed 3/15)	Member	Scott	Krsnak										
			Alternate												
		Individual (changed 3/12)	Member	Karen	Blumer			P	P	P					
		(added 6/12)	Alternate	Michael	Madigan	P		P							
		Individual – (changed 3/12)	Member	Jane	Corrarino			P	P						
			Alternate												
		Individual – (changed 3/12)	Member	Iqbal	Chaudhry	P		P							

P = Present	2015	Affiliation			Jan	Feb cancel	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
			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)(Muether added – 5/15)	Alternate	Katie	Muether			P	P	P						
		L.I. Progressive Coalition	Member	David	Sprintzen	P		P	P							
			Alternate													
		Lake Panamoka Civic Association (Biss - 04/02)	Member	Rita	Biss	P			P							
		(Grandal - 10/10)	Alternate	Bonita	Grandal	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										
		(Nowak 01/15)	Alternate	John	Nowak	P		P	P	P						
		Photon Sciences User Committee	Member	Jean	Jordan-Sweet				P	P						
		(Ravel -02/11)	Alternate	Bruce	Ravel	P										
		Ridge Civic Association	Member	Pat	Henagan	P		P	P	P						
		Teachers Federal Credit Union (Murdocco 3/15)	Member	Richard	Murdocco			P		P						
			Alternate													
		Town of Brookhaven (Graves - 06/06) (removed 1/2015)	Member	Anthony	Graves											
			Alternate													
		Town of Brookhaven, Senior Citizens Office	Member	James	Heil	P		P	P	P						
			Alternate													
		Town of Riverhead (Doroski - 04/11)	Member	Isidore	Doroski	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											