

These notes are in the following order:

1. Attendance
2. Correspondence and handouts
3. Administrative Items
4. Input into draft Risk-Based End State Variance Report
5. Strontium-90 Informational Update & Questions
6. Community Comment
7. BGRR - Informational Update & Questions
8. Agenda Setting

1. Attendance

Members/Alternates Present:

See Attached Sheets.

Others Present:

D. Atchison, M. Bebon, D. Bennett, P. Bond, T. Burke, H. Carrano, A. Carsten, J. Carter, J. Clodius, T. Daniels, J. D'Ascoli, B. Desmarais, M. Duke, K. Geiger, P. Genzer, L. Hill, M. Holland, B. Howe, S. Johnson, B. Keeler, T. Kneitel, S. Kumar, M. Lynch, A. McNerney, S. Medeiros, M. Parsons, F. Petschauer, P. Proios, A. Rapiejko, K. White

2. Correspondence and Handouts

Items one through five were mailed with a cover letter dated January 2, 2004. Items six and seven were available at the meeting as handouts.

1. Draft agenda for January
2. Draft December 11 notes
3. Final November 13 notes
4. Notes from the December 22 meeting
5. BGRR Maps
6. Action Item #04-01
7. Presentation on Strontium-90 by Tom Burke

3. Administrative

The meeting began at 6:35 p.m. Reed welcomed everyone to the first meeting of 2004 and went over the ground rules and the draft agenda. Those present introduced themselves. Dr. Chaudhari welcomed everyone and wished all a Happy New Year. He also commented on how well he thought the special meeting with Congressmen Bishop and Israel went. Jeanne D'Ascoli mentioned that the notes from the special meeting had been sent out in the packets. They don't have to be approved, but if anyone has a correction they should see her at the break and the change would be made before they were sent to the congressmen. A quorum (14) was present, therefore, the notes from the December meeting were approved. There were three abstentions.

4. Input into the draft Risk-Based End State Variance report.

Reed said that the focus of this portion of the meeting would be for the CAC to come up with a set of comments that will be appended to the draft RBES document. He reminded the CAC that they had presentations on the offsite Peconic River, the Strontium-90 cleanup, and the BGRR at the last meeting. Comments that reflect a diversity of opinion on those topics were to be developed at this meeting and will then be forwarded to Jessie Roberson. He said that this would not replace further community involvement and CAC processes under CERCLA.

The first topic was input on the Peconic River. Member Proios asked if the relationship between the RBES and the CERCLA process could be clarified. He wanted to make sure that he was correct in understanding that all the elements of CERCLA will still have to be complied with. He was concerned that the End State process would circumvent CERCLA.

Michael Holland, DOE-BAO, said that the RBES was outside of the CERCLA process. He reiterated that the RBES in no way circumvented CERCLA. Member Esposito asked what purpose the RBES served? If it doesn't negate the Superfund process, what does it do? Holland said it will help the Department get a better understanding of where they might be able to go with the CERCLA process, what the community feels, and what regulators feel about some of the end states the Department is considering. In that way, DOE can better project which end state vision to continue to pursue or not.

Member Heil asked why the document was called a Risk-Based document when there was no assessment of risks. Holland said pathways were looked at – for instance, were there pathways from the graphite reactor to groundwater contamination. It's not the type of risk assessment that is used in the CERCLA process when the regulators believe alternatives require a more in-depth risk assessment. For this document, the traditional type of risk assessment was not used.

Member Kaplan asked Holland what was meant by the document, what Headquarters was looking for. He expressed some confusion over the expected outcome and stated that he had reviewed some comments from other organizations. He gave INEL, the Idaho National Environmental Lab, as an example and said everyone seems to be confused about this.

Holland said he can see why there's confusion. Groups like the CAC are very well educated in the CERCLA process. They know what sort of documents to expect. This comes somewhat as a surprise. He asked the CAC to focus on the fact that the spirit of this document is to gather early input on the suite of end states that the Department is considering. That input will help shape the CERCLA process for these projects.

Member Mannhaupt said that NEAR, under the technical assistance grant, is focused on Superfund projects and the CERCLA process. She said that she would like to believe that the theory and intent of DOE nationwide is to get early input into decisions for the upcoming CERCLA process, but she doesn't subscribe to the spirit and intent of the RBES report because she feels that the decisions made by the interpretation of the CAC's comments by Headquarters will ultimately usurp the CERCLA process itself. She said that she has a real problem with the document and so does the membership of her organization.

Member Garber and Member Esposito commented about the rationale behind the document. Member Esposito said even though it's been presented as early public input, it feels more like the CAC is being rushed to get to a point that DOE wants them to reach. The options are natural attenuation or do nothing and wait 87,000 years. It feels like a rush to get the easy options on the table and see if they go through quickly.

Reed read back what he had written on the flip chart - "The RBES must not become a decision document. CERCLA/IAG must remain the decision-making process for cleanup at BNL" and said that may be the CAC's consensus statement.

Member Proios said part of the problem might be terminology. End state sounds like that's the goal. He mentioned the five-year plan that gave a short-term look and said that those goals would be reviewed and readjusted as necessary. The End State document seems to define what the end point is and there doesn't appear to be flexibility to make adjustments.

Member Mannhaupt said the CAC was told at the beginning that DOE is trying to get out of environmental management. DOE wants to end environmental management after which the responsibility will go to the Office of Science. She said, "We're in an end state countdown, but we're in a Superfund process that's being accelerated. We have other things we have to do until 2006. Now, we've got another document to review that is not part of the process."

Reed said the document is part of the internal process within DOE as opposed to the external process with the regulators because the regulators are also bringing their comments to bear.

Member Jordan-Sweet said she thinks this is an end run by DOE and suggested that the CAC should say that they don't recognize the document. Several CAC members expressed agreement with the suggestion. Member Kaplan asked if the regulatory comments on the document could be reviewed by the CAC. Holland said that he wasn't sure what comments had been received and was not sure what the policy was on sharing comments at this time.

There was a great deal of discussion and input on wording and debate over whether or not the document should be thrown out or rejected and if it interfered with or circumvented CERCLA. Member Giacomaro said that regardless of what the document says the DOE will still have to go through the CERCLA process. "The reality is that it has the potential to undermine the CERCLA process," said Member Esposito, "and that's the concern around the table."

The CAC agreed to the following statement.

Consensus statement #1

"The CAC does not recognize the legitimacy of the RBES document as a basis for decisions. The CAC is concerned that the RBES document can potentially have a negative effect on the CERCLA/IAG process. The CERCLA/IAG process must remain the decision-making mechanism for clean-up at BNL."

Member Kaplan said that was a very powerful statement and questioned making any other comments. He said if the document is so seriously flawed that adding any other comments would add legitimacy to it. There was some discussion on the process, if it was appropriate to still comment on the projects, and how to proceed. Member Kaplan said he would like to send this as the message. Reed said if that was done, the CAC could still work on the three topics and give their input to the Area Office but ask that it not be attached to the RBES.

After a lengthy discussion on whether to provide the DOE with specific comments about the offsite Peconic, Strontium 90, and the BGRR, the CAC agreed with the suggestion from Member Kaplan that the consensus statement be the only response from them on the RBES document. They further agreed to take up the topics as issues about the cleanup projects themselves as opposed to being about RBES review.

The CAC decided that they would continue with the issues before them and treat them as if they were working within the CERCLA process. Member Garber asked if the CAC wanted to move

toward consensus on how they planned to proceed. The CAC began formulating their second consensus statement.

After listening to comments Reed suggested the following language, “the CAC supports the IAG and its members in their efforts to develop effective cleanup decisions for BNL and wishes to continue participating in that process.”

Member Esposito said she didn’t think that was much different than the first statement. Reed said the first statement said what the CAC didn’t support, and now the CAC is making sure that DOE knows that they are not walking away from working with them, but that the CAC wants to work through the CERCLA process.

Member Kaplan said that we recognize the effort that the Lab and the DOE office here have put forth and we don’t want to see that compromised. The idea of consensus on that point might be good. There was additional discussion over language, wording, and intent. Member Giacomaro stated that if the CAC is trying to get a message across to DOE HQs and guess what their reaction is going to be why not invite them to come to the next meeting to discuss the end statement?

The CAC agreed to the following consensus statement:

Consensus statement #2

The CAC recognizes the efforts of DOE and its regulatory partners working with BNL through the CERCLA process to achieve effective and protective cleanup at BNL and wishes to continue working with the site in this process. The CAC invites DOE-EM to discuss this issue at a future CAC meeting.

5. Community Comment

There were no comments from the community.

The CAC agreed to discuss Sr-90 and BGRR, and wait for additional data on the Peconic.

6. Strontium-90 Informational Update & Questions, Tom Burke, Groundwater Project Manager

Tom Burke was on-hand to give an update and answer questions on Strontium-90 contamination. Burke explained the sampling results downgradient of the BGRR. The additional sampling done showed a maximum concentration of 280 pCi/L of Sr-90. He said the contamination is from about 36 feet to 57 feet below the surface and referred to a graphic (copy in presentation) showing the geoprobe locations. He said that the peak concentration of 3150 pCi/L of Sr-90 was used in modeling and the result was that 90 to 100 years were needed to reach drinking water standards. Burke said that the plume would travel about 1400 feet downgradient in 100 years. The plume would still be in the core of the site and it would be about 200 feet south of Brookhaven Avenue. Burke also showed graphics depicting the groundwater modeling simulation using the peak concentration of 3150 pCi/L at 80, 90, and 100-year intervals. At 100 years no concentrations remained above drinking water standards. The decay time of Sr-90 is 29.1 years. It decays into Yttrium-90 which has a half-life of 64.1 hours and that decays into Zirconium, which is stable.

Following are questions and answers raised by the CAC:

Giacomaro: When was the plume formed?

Burke: Estimating the travel time, it appears that the plume in the ground could be close to 40 years of travel time downgradient.

Giacomaro: Is there a plume behind it?

Burke: The higher concentrations are some years downgradient from the BGRR which leads one to believe that there are no significant releases coming from there now, although that is not an absolute. Burke said he didn't have any information that indicated there was still an active source at the BGRR. He also couldn't say that it had been completely cut off, but the data shows lesser numbers by the structure and higher numbers further away.

Giacomaro: Does that mean it was staying permanently up there?

Burke: No, it indicates that the bulk of the contamination was released some years ago and is moving downgradient.

Reed: Is the pattern being seen and the concentrations on how it changes with time consistent with having had a release that stopped some time ago and that material is floating downgradient now?

Burke: Yes.

Giacomaro: Why are the concentrations still 500 times greater than the drinking water standard?

Burke: The most recent sample close by that showed significant detection was taken in 2001 and the Lab is waiting for additional samples in that vicinity to come back.

Reed: Are those historical numbers; are any numbers showing what's going on right next to the BGRR now that leads one to think that the material has moved away?

Burke: The geoprobe numbers were slight, and there were other geoprobe numbers not on the map that show no contamination.

Conklin: Is the Sr-90 from somewhere close to the pile or does it come from the ductwork?

Burke: It can't be precisely determined where it originated from looking at the data. It moves so slowly and over the years the groundwater moves to the left or to the right. The likely source might have been the water that filled the below ground ducts for many years. The below ground ductwork was contaminated with Sr-90 and that leaked out. It would fill up with rainwater and leak.

Proios: What about other radionuclides in the ducts? Is the Lab just looking for sources related to Sr-90, or picking up everything? Are there other isotopes that are water soluble that might be moving more quickly than Sr-90?

Burke: During the early characterization the Lab tested for everything. Based on that, the only radionuclide they've seen that is mobile is Sr-90 so the Lab primarily focuses on Sr-90 but also samples for other radionuclides, just not as frequently. He said the Cesium-137 is simple, but also has a very high retardation in the soil. An analysis was done on the contaminated water that was in the below ground duct. It had many things in it. Some years ago a large area was geoprobed and analyzed for all the radionuclides. Not much was found other than Sr-90. Sr-90 is the real concern.

Garber: What about the fallout from atmospheric weapons testing that took place about 40 years ago? Are the numbers being compared in any fashion?

Burke: We do not have any historic numbers on naturally occurring Sr-90.

Garber: It isn't natural.

Burke: The sampling in other areas showed non-detect or extremely low.

Esposito: Asked for clarification on the movement of the Sr-90. She said last month the CAC was told it moved about 20 feet per year, now the estimate shows it moving 14 feet per year. Why the discrepancy?

Burke: The difference is the 20 feet per year was the estimated range of movement. The SR-90 is actually moving slower, the 1400 foot distance takes into account only the Sr-90 above drinking water standard.

Esposito: Is there tritium in the below ground ducts and is the Lab testing for it.

Burke: The tritium levels were very low, however, if there was any it would move much more quickly.

Les Hill said he could provide the tritium data.

Action Item: Get data on tritium in the below ground ducts.

Adrienne: She recalled the CAC was told that 58,000 gallons water did not leak out. An unidentified speaker says there were water marks twice as high as the level of 58,000 gallons.

Garber: The contamination in there is from the ruptured fuel canisters. You wouldn't expect too much tritium.

Esposito: Considering the source is not known, tritium was a logical thing to test for.

Shea: What about the modeling? Are events such as 100-year storms covered? What types of events change the numbers.

Burke: Good question and called on Drew Bennett to help answer it.

Bennett: With the modeling simulations, it is assumed that the long-term average precipitation is 45 inches of rainfall per year. There will be variations but there is a pretty good basis for the average with 50 years of existing data from the Lab. He said the recharge events are buffered by the aquifer system.

Giacomaro: Is the modeling based on no new contamination being added to the plume?

Burke: The modeling assumes that no additional contamination is being released to the environment. They take a snapshot of the contamination that they know exists in the ground now from the data.

Giacomaro: What if the contamination is at a lower level?

Burke: If it was a continuing source of Sr-90, the modeling pictures would change. If there is a continuing source, it doesn't go away in the time frame that the pictures show us. Unless you know different when the models are done, it is assumed there is no continuing source.

Reed: Is there a potential for a continuing source?

Burke: The major suspected source is the water that was in the below ground duct. That was pumped out in 1997. If there are additional soil pockets of contamination that will not be removed or will not be shielded from rainwater, there is the potential for continuing the release. There is a list of control measures that have been taken in the handout.

Jordan-Sweet: Where are the below ground ducts located? Does that imply that the last high concentration plume is 10 years out, what happened 10 years ago?

Burke: The high concentration is approximately 5+ travel years from the closest below ground duct. (Burke pointed out the structure on the map.) The deep drain sump water had been pumped out in 1997/98.

Jordan-Sweet: The other high concentration area seems to be directly below the waste concentration facility, does that imply that that's still leaking?

Burke: Recent geoprobe data from the waste concentration facility shows that there is contaminated groundwater right inside the facility. It's close to where it came from. There are tanks there that are scheduled to be excavated.

Giacomaro: Are the ducts porous and what was the level of contamination in the water that was pumped out?

Burke: They were air-handling ducts. They were not designed to handle water. Burke didn't recall the level of contamination, but it was extremely high.

Petschauer: It was 10 to the -2 micro curies. It was heavily contaminated with Cesium.

Giacomaro: Since the ducts were porous and the contamination would have gone through the ducts into the ground, I'm still confused since there still seems to be a source there.

Reed: What might help is a map that shows what the concentrations are today under the ducts. These maps show concentrations that are several years old. What you don't have are the concentrations at the duct today, they're not on your maps.

Giacomaro: What would those levels be?

Burke: The most recent geoprobes were taken back in 2001. They're on a handout given to the CAC. The purple geoprobe dots were taken in August 2001 and they show the levels by, around, and under the below ground ducts. The one that's significant is slightly downgradient and is at 540 pCi/l.

Giacomaro: If a probe at the 502 location was taken today, or the latest one that you have, what would that number be today at that spot?

Burke: Burke pointed to the closest geoprobe to that spot and said the level is 1.

Giacomaro: It's one? Then it pretty much has stopped.

Mannhaupt: Has monitoring well data been incorporated into the geoprobe to show the modeling pictures?

Burke: One of the modeling pictures shows the initial concentrations used in the model simulation. Those initial concentrations are based on the monitoring wells and are supplemented by the geoprobe data.

Mannhaupt: Could work done on the BGRR as removal actions be a possible source of Sr-90 that we have to watch now? Was it there before, or did the removal work cause the releases?

Burke: Work was done to remove sources of contaminated material up on the hill of the BGRR. The one that is of most significance was probably the pumping out of the deep drain sump water which is the below ground duct water. There is a list in the handouts that shows the things that were done outside the building, and inside the building in different areas.

Reed: Did any of the remediation work that was done on the facility cause release of Sr-90 that is being seen in the groundwater?

Les Hill: Most of that work on the large source removals was accomplished indoors outside of the elements. For example, pumping out the below grade ducts was an entirely indoor activity. All of the work on the lower canal, removing the canal structure, that was all inside. Right now there's no evidence to suggest that any of the remediation activity would have caused leakage from the below grade ducts and canal structure.

Mannhaupt: How was this information added to an existing handout, and could someone misconstrue that the data belongs together?

Burke: The handout was put together to answer questions from the last meeting about what had been cleaned up in the area.

Esposito: Is there a potential that there was a slug or slugs of Sr-90 that have yet to be released under the graphite reactor because the structure was still over them?

Burke: There were geoprobes done through the floor of the building; he didn't recall any significant Sr-90 contamination in the soil or any real significant Sr-90 in the groundwater below the building.

Petschauer: The characterization on that building did not indicate anything.

Esposito: The CAC should keep in mind that there is a ROD signed and that the CAC came to consensus on it. The OU III ROD called for active remediation over the next 30 years that would reach the groundwater standard of 8 pCi/L. The CAC already went through this and came to an agreement, consensus was reached, and now the CAC is being asked to change that. She asked if the approval of all the other IAG members was needed to change the ROD.

Burke: This is part of the RBES and the vision is monitored natural attenuation. That has to go to the regulators, and it has to go through the CERCLA process for a decision. The proposal was made to the regulators but the process on this is just starting.

Heil: Suggested summing up the input from Esposito about the existing ROD.

Reed: "There's a Record of Decision covering the SR-90 cleanup and any change to that decision needs to follow the CERCLA process."

Sprintzen: Seconded Adrienne's recommendation.

The CAC indicated that they all supported the following statement:

Consensus statement #3

The CAC supports the existing OU III ROD for Sr-90 cleanup and sees no reason to change its position.

7. Risk-Based End State Vision, BGRR – Informational Update and Questions, Fred Petschauer, Project Manager

Fred Petschauer referred to graphics to give the CAC a perspective of the complex and show the location of the contamination found during characterization. He described the facility and explained where things such as the below ground ducts and canal house were located. He said the canal remains. He discussed the pile and bioshield and the amount of contamination there. The bioshield has 4800 curies and the pile has 3300 curies. Everything else adds up to 3 curies of contamination. He talked about the D-pit that used to receive the spent fuel elements once they were removed from the pile. They stayed in the pit to cool down and were eventually cut apart and transferred through the canal into the canal house to a shipping cask. The canal and the D-pit had a history of leaking.

Proios: What was the source of water for the leak when the reactor was operating?

Petschauer: The D-pit and the canal were filled with water to shield the fuel cells and both had a history of leaking according to documents that detailed repairs.

Garber: What about the contamination in the D-pit? There was discussion about cutting the fuel rods and the water treatment house.

Petschauer described some contamination that was the result of rainwater getting into the ducts after the reactor was shut down in 1968 and gave additional information on the contamination amounts.

Proios: Is there a picture of a cross-section of the bioshield with the actual numbers of steel and concrete and is the steel sheeting continuous around the cement? Also, is there any place where the cement itself is actually exposed to the air?

Petschauer: The bioshield has a five-foot thick wall on the inner wall; there's six inches of hardened steel, then there's about four and one half feet of concrete. There's also steel added to the concrete to improve its shielding capabilities. On the outer side of the bioshield there's a three-inch plate of carbon steel.

Action Item: Provide a picture of a cross-section of the bioshield with the numbers for the steel and the concrete.

Geary: What about the lines on the graphics – are they separate sections?

Petschauer: The blue lines are bores where they geoprobed to groundwater. The yellow lines are expansion joints.

Mannhaupt: What about the numbers for the pile and the bioshield and what portion were gamma emitters?

Petschauer: The Lab could provide a breakdown. An isotopic of all the samples was done. Essentially, the main gamma emitter is the isotope Cobalt-60 and there's some Cesium –137. The bioshield and the pile became radioactive through the fission process of the fuel assemblies and the materials absorb a neutron. If a piece of the construction material like carbon steel has the element of Carbon-59, it absorbs a neutron and becomes Cobalt-60.

Action Item: Provide a breakdown on the gamma emitters.

Garber: What is the amount of contamination in the graphite pile itself?

Petschauer: There are 3300 curies in the pile itself and that's a combination of the graphite that was activated and the steel members that keep the cube together. 95% of the radioactivity in the pile is tritium/carbon, the remaining 5% is structural steel in iron cobalt combinations.

Walker: How is the pile constructed? Is there a cap over the parking lot?

Petschauer: Each block was machined. They were all prefabricated and weight 40–50 lbs each. There are 70 rows. He was not sure exactly how many blocks there are but said there are 16 angled control rods and 1400 openings for fuel assemblies. The entire parking lot has not been paved, but the plan is to cap it at the end of the project.

Graves: Did they design the reactor to be decommissioned or was decommissioning ever addressed in any of the documents?

Petschauer: No. When it was built the last thing they were thinking about was decommissioning.

Mannhaupt: Could we have background information on the graphite dust in the bioshield and the core?

Petschauer: There is no graphite dust within the bioshield. The bioshield is a sandwich of concrete between carbon steel plates and cement. In terms of dust of graphite within the pile itself, he said he was not here for that characterization and believed that there might be a slight amount there. Smears were taken within the channels, but it's his understanding that there was not a lot of graphite dust.

Mannhaupt: Was there a work plan to seal portions of openings in the bioshield? Would it be assumed for worker safety that there was graphite dust within the bioshield? Jean said that she had read a document that said the volume of graphite dust inside the bioshield is established at 558 mm cube less the volume of the pile not including any portion of the ...this represents a dispersal graphite inventory of 30,690 to 78,120 grams. If there is no dust in the bioshield, was that used for worker safety?

Petschauer: The statement might have been written incorrectly, it might mean the dust within the pile.

Jordan-Sweet: What about locations for the geoprobe testing?

Petschauer: Places where contamination was suspected were the places that were tested. A gas tracer was sent through the system and detection stations outside picked up the gas as it escaped.

Kaplan: When will the parking lot be sealed?

Petschauer: It will be capped at the end of 2005 when the project is over.

8. Agenda Setting

Reed thanked the presenters. He said that additional business was to look at the recommendation on Sr-90 and to decide what to do next month. Member Kaplan asked where he could see a copy of the OU III ROD. There was some indication that it might be on the BNL ER website. (The link is: <http://www.bnl.gov/erd/Groundwater/ou3/ou3rod.html>)

Member Sprintzen asked for a report on the EBS incubator. He mentioned meetings of the U.S. Green Building Conference, Long Island Chapter that is administered by the Environmental Business Association.

Jeanne D'Ascoli informed the CAC that the P2 conference date had been moved to April 30.

February Agenda

Peconic River offsite monitoring

Environmental Update

P2 Conference

Lab & EBS relationship (report)

The meeting adjourned at 9:23 p.m.

2004	Affiliation		First Name	Last Name	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Chart Key X = Present O = Absent																
ABCO	(Garber added on 4/10/02)	Member	Don	Garber	X											
ABCO		Alternate	Richard	Johannesen	O											
Brookhaven Retired Employees Association		Member	Graham	Campbell	O											
Brookhaven Retired Employees Association (L. Jacobson new alternate as of 4/99)		Alternate	Lou	Jacobson	O											
Citizens Campaign for the Environment		Member	Adrienne	Esposito	X											
Citizens Campaign for the Environment (Ottney added 4/02)		Alternate	Jessica	Ottney	O											
E. Yaphank Civic Association		Member	Michael	Giacomaro	X											
E. Yaphank Civic Association (J. Minasi new alternate as of 3/99)		Alternate	Jerry	Minasi	O											
Educator		Member	Audrey	Capozzi	O											
Educator (began as alternate in 3/99) (A. Martin new alternate 2/00) (Adam to college 8/01)(Bruce 9/01)		Alternate	Bruce	Martin	O											
Educator		Alternate	Adam	Martin	O											
Environmental Economic Roundtable (Berger resigned, Proios became member 1/01)		Member	George	Proios	X											
Environmental Economic Roundtable (3/99, L. Snead changed to be alternate for EDF)		Alternate	None	None												
Fire Rescue and Emergency Services		Member	David	Fischler	O											
Fire Rescue and Emergency Services		Alternate	James	McLoughlin	O											
Friends of Brookhaven (E. Kaplan changed to become member 7/1/01)		Member	Ed	Kaplan	X											
Friends of Brookhaven (E. Kaplan changed to become member 7/1/01)(schwartz added 11/18/02)		Alternate	Steve	Schwartz	O											
Health Care		Member	Jane	Corrarino	X											
Health Care (as of 10/02 per JD)		Alternate	Mina	Barrett	O											
Huntington Breast Cancer Coalition		Member	Mary Joan	Shea	X											
Huntington Breast Cancer Coalition		Alternate	Scott	Carlin	X											
Intl. Brotherhood of Electrical Workers/Local 2230		Member	Mark	Walker	X											
IBEW/Local 2230		Alternate	Philip	Pizzo	O											
L.I. Pine Barrens Society		Member	Richard	Amper	O											
L.I. Pine Barrens Society		Alternate	Katherine	Timmins	O											
L.I. Pine Barrens Society		Alternate	Jane	Geary	X											

2004	Affiliation		First Name	Last Name	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
L.I. Progressive Coalition	Member	David	Sprintzen	X												
L.I. Progressive Coalition	Alternate	None	None													
Lake Panamoka Civic Association (Biss as of 4/02)	Member	Rita	Biss	X												
Lake Panamoka Civic Association (Rita Biss new alternate as of 3/99)	Alternate	Joe	Gibbons	O												
Long Island Association	Member	Matthew	Groneman	O												
Long Island Association	Alternate	William	Evanzia	X												
Longwood Alliance	Member	Tom	Talbot	X												
Longwood Alliance	Alternate	Kevin	Crowley	O												
Longwood Central School Dist. (switched 11/02)	Member	Barbara	Henigin	X												
Longwood Central School Dist.	Alternate	Candee	Swenson	O												
NEAR	Member	Jean	Mannhaupt	X												
NEAR	Alternate	Wayne	Prospect	O												
NSLS User	Member	Jean	Jordan-Sweet	X												
NSLS User	Alternate	Peter	Stephens	O												
PACE Union	Member	Allen	Jones	O												
PACE Union	Alternate	Philip	Plunkett	O												
Ridge Civic Association	Member	Ron	Clipperton	O												
Ridge Civic Association	Alternate	None	None													
Town of Brookhaven	Member	Jeffrey	Kassner	O												
Town of Brookhaven	Alternate	Anthony	Graves	X												
Town of Brookhaven, Senior Citizens	Member	James	Heil	X												
Town of Brookhaven, Senior Citizens (open slot as of 4/99)	Alternate	None	None													
Town of Riverhead	Member	Robert	Conklin	X												
Town of Riverhead (K. Skinner alternate as of 4/99)	Alternate	Kim	Skinner	O												
Wading River Civic Association	Member	Helga	Guthy	X												
Wading River Civic Association	Alternate	Sid	Bail	O												
Yaphank Taxpayers & Civic Association	Member	Nanette	Essel	O												
Yaphank Taxpayers & Civic Association	Alternate	None	None													