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1. Attendance

Present:

Members: M. Barrett, R. Biss, G. Campbell, A. Capozzi, R. Clipperton, R. Conklin, D. Garber, J. Jordon-Sweet, E. Kaplan, M. Shea, D. Sprintzen, T. Talbot, M. Walker.

Alternates: S. Bail, S. Carlin, A. Graves, B. Henigin, B. Martin, J. McLoughlin, J. Ottney

Absent:

Members: R. Amper, J. Corrarino, M. Cohn, S. Cullen, N. Essel, D. Fischler, M. Giacomaro, H. Guthy, J. Heil, A. Jones, J. Kassner, J. Mannhaupt, P. Martino, G. Proios, C. Swenson

Alternates: K. Crowley, W. Evanzia, J. Gibbons, T. Guglielmo, L. Jacobson, R. Johannesen, J. Minnasi, J. Pannullo, P. Pizzo, W. Prospect, K. Skinner, P. Stephens, K. Timmins

Others Present:

A. Carsten, J. Carter, J. Clodius, J. D'Ascoli, B. Desmarais, M. Frederick, K. Geiger, P. Genzer, J. Granzen, K. Grigoletto, B. Gordon, L. Hill, R. Hodgin, R. James, P. Kalb, S. Kumar, S. Layendecker, M. Losquadro, M. Lynch, S. Medieros, M. Parsons, A. Rapiejko, T. Sheridan, T. Sullivan, K. White, C. Wirick.

2. Correspondence and Handouts

Items 1 - 7 were mailed with a cover letter dated October 4, 2002. Items 8 - 10 were included in the folders and items 11 and 12 were available at the meeting as handouts.

1. Draft agenda for October.
2. Draft notes for September.
3. Final notes from August.
4. Action Items 99-53 & 99-54.
5. The IG Report (TRISTAN), dated March 15, 1996
6. The Root Cause Analysis (TRISTAN), dated March 18, 1996

7. Department of Energy definitions for nuclear facilities.
8. Correction to draft September notes from Bruce Martin
9. Copy of Environmental Update presentation by Bob Lee, ESD.
10. Copy of Mercury Impacts on Human Health and the Environment by Terry Sullivan.
11. Copy of Investigation of the TRISTAN Fire by John Carter, DOE.
12. Copy of the Site Environmental Report Summary Report.

3. Quorum

The meeting began at 6:36 p.m. A quorum is established when 55% of the 28 member organizations (15) are in attendance.

4. Administrative

Member Capozzi stated she is concerned that on the agendas she is marked absent when, in fact, her alternate is present. She asked if instead of listing the representatives and alternates names as present or absent, the organization could be listed instead. The CAC recommended this be done.

Jeanne D'Ascoli mentioned that Member Helga Guthy's son had been in a car accident and said that anyone who wanted to send a note should contact her for her address.

Reed went over the agenda and stated there was an additional item. He introduced Tom Sheridan who announced that Dr. Ray Davis, a former Lab employee, had won the Nobel Prize in Physics for his work with neutrinos in the 1960s. Sheridan asked Dr. Richard Hahn who currently works with neutrinos to speak about Dr. Davis and his research. Hahn explained that a neutrino is a sub-atomic particle produced in a form of radioactive decay called beta decay. He described the theories of neutrinos and some of the research. He said that Davis had looked for neutrinos in the sun to prove that the theory on nuclear processes in the sun was correct. He found them, but the numbers were fewer than expected. Other researchers have worked to find the missing neutrinos and today several hundred researchers around the world are working with neutrinos.

The draft notes were unanimously approved with the following corrections: make the changes submitted by Bruce Martin to item 10, page 5 and Member Kaplan asked that 14 to 19 pico curies per gram in the first paragraph on page 4 be changed to 14,000 to 19,000 pico curies per liter.

5. Comments on OU V, Les Hill, Environmental Management

Les Hill gave an update on OU V, the Peconic River. He reported that the regulatory agencies had completed their review of the Risk Assessment. Comments have been received from the County, the DEC, EPA, and the State DOH. The Lab is considering their input and will be meeting with them to resolve their concerns and incorporate their comments. Hill expects to be able to discuss the Risk Assessment with the CAC in November.

The PRAP and the Feasibility Study were approved by DOE for submission to the regulators in mid-September. Comments are expected over the next several weeks. That should also be ready for discussion in November.

Hill reported that there are a number of ongoing independent assessments being conducted. He said that DOE is committed to cleaning up the complex. DOE is also focused on making sure that the utilization of their financial resources is really inline with risk reduction. They are

considering doing an independent assessment of the Peconic River. The group the DOE is using, CRESP (Consortium for Risk Evaluation with Stakeholder Participation) will be commencing work shortly. SCDHS is doing a risk assessment as well. Hill said that any information that comes from the assessments will be evaluated as it comes in. There are a lot of concurrent activities taking place, and it is somewhat difficult to predict exactly when the comments will be resolved and the risk assessment will be available for the CAC to review. He said that information will be shared as soon as it becomes available.

CAC members asked about the start dates for the independent assessments and if it would affect the Working Group's schedule? Les said that he didn't expect them to delay the schedule and that he was confident that something would be gotten out this fall.

Member Kaplan expressed disappointment at not seeing even a draft of the Risk Assessment to date and is concerned that there will not be enough time to give it thoughtful examination. Les said that they would take whatever time is necessary when it is done to work with the community on the review.

6. Background Information on TRISTAN, John Carter, DOE

Prior to John Carter's presentation Reed stated to CAC members that the request from Joe Carson was not to identify and investigate an issue but to consider writing a letter asking DOE to go to closure on a lawsuit between DOE and Mr. Carson.

John Carter gave an overview of the TRISTAN experiment and fire, the DOE investigation, Joe Carson's concerns, and the response from DOE. He described the experiment and its components, the evacuation of employees, the contamination levels found, and when restrictions would have been triggered. He spoke about the Type B investigation conducted by DOE and told of Mr. Carson's role in that process. He said that the investigation was done by the Chicago Operations Office (CH) and that the team members came from CH, Brookhaven, and other DOE facilities around the country. Carter said that the investigation lasted about three weeks and required the team members to come back several times.

He said that Mr. Carson was a member of the team, worked for the Office of Environment, Safety, and Health at HQ, and was assigned to the Oak Ridge Operations Office in Tennessee as a Site Representative. Carter said that at about a third of the way through the investigation Carson requested to leave for personal reasons. During his time on the team he expressed concerns about the management of the investigation and the direction of the investigation.

In May of 1994 the investigation report was completed and released. It found that there was no comprehensive safety review, formal procedure for maintenance and change control, or focus on safety other than on reactor operations safety and radiological safety. There was not the same emphasis on more conventional types of hazards such as materials used or electrical safety. Carter said the bottom line was there should have been an inspection of the experiment. He said that because of the investigation the standard of operations at the Reactor and throughout the Laboratory changed.

In June of 1994, the CH Ops Office asked the Inspector General to look into Mr. Carson's concerns which were that TRISTAN experiment should have been classified as a nuclear facility and that DOE and BNL management conspired in a cover up. The Inspector General's report said that the investigation scope was generally appropriate, however, the investigation did not adequately address specific management systems and organizations as a possible root cause of the fire. The investigation team should have gone further and identified those management organization systems that could have been in place and prevented the type of fire that occurred at TRISTAN. The third finding was that there was no evidence that DOE nor BNL management improperly limited the scope of the investigation; there was no evidence of a cover up.

Carter further explained that the TRISTAN experiment began operation in 1978; in 1992 DOE issued an Order that required experiments to have safety reviews, however, there was a clause in the Order that grandfathered in the TRISTAN experiment and no safety review was performed. DOE believes that Mr. Carson's technical concerns related to TRISTAN were formally resolved.

Member Carlin asked about the location of the TRISTAN experiment, about its designation, and questioned why it wasn't investigated as part of the reactor complex. Steve Layendecker responded that when they do nuclear classification they use segmentation. If something is physically separated from another environment or source, it is allowed to be treated independently. He said that TRISTAN was connected with a beamline, but not connected with a flowthrough; that is was not a continuous system, and that there were shutters and ports that allowed it to be separated from the reactor itself.

Ken White described how TRISTAN was physically related to the reactor. From a reactor perspective experiments were rigorously reviewed to see how they would affect reactor operations.

CAC members questioned whether the investigation would have been different if the experiment had been designated a nuclear facility, the potential for the TRISTAN fire to compromise the operation of the HFBR, and the reasons for Carson leaving the team

7. Discussion by the CAC re Joe Carson

CAC discussed its options regarding the request by Joe Carson for help in bringing closure to the process with regard to his lawsuit against the Department of Energy. They questioned if it was appropriate for the CAC to entertain the issue. There was some discussion over whether he was asking for closure or asking for a Differing Professional Opinion. Carter said that the Office of Special Counsel, an independent federal agency reporting to the President and the Congress, believes that Mr. Carson's issues have been resolved. The findings of the investigation, the IG Report, and the Addendum addressed the technical issues and represented the DOE's position on it.

There was discussion among CAC members as to how to proceed. It was suggested that if individual organizations felt compelled to take actions they could send letters on behalf of their organizations. Member Garber stated that he thought this issue should be set aside with no decision. Three options for moving forward were outlined. The issue could be tabled, member organizations could act individually, or more time could be spent on the issue. A straw poll was taken to determine if there was interest in the CAC continuing to evaluate the DPO issue and to determine if support should be provided. Since there wasn't an indication that a consensus could be reached, the CAC decided to table the issue.

8. Community Comment

There were no comments from the audience.

9. Presentation on Mercury, Terry Sullivan, ERT

Terry Sullivan of the Environmental Research & Technology Division discussed mercury impacts on human health and the environment. He explained the mercury cycle, how it exists in the environment, and how it gets into the food chain. Sullivan said that mercury is a naturally occurring element. There are natural releases where it's emitted from the soil and rocks,

volcanoes, anthropogenic releases; some fuels burn mercury; fertilizers used to have mercury; incinerators, and re-emission from water, soil, plants, and forest fires are also sources. It is estimated that 200,000 tons of anthropogenic mercury have been emitted since 1890: 95% in terrestrial soils, 3% in ocean and surface water, and 2% in the atmosphere. He explained that substantial concentrations of mercury are emitted from the industrialized nations and showed where mercury gets deposited in the US on a USGS map. He said that there was more deposition along the east coast primarily due to rain. He discussed the aquatic cycle and methyl-mercury, which is the form that accumulates in fish. He talked about the health impacts and exposure pathways and said that high levels can cause neurological impacts. Consumption of fish is the primary pathway and that the primary means of protection is voluntary restriction of fish consumption. Risks to children include very subtle neurological changes in manual dexterity, and memory and verbal skills. Sullivan also talked about fish advisories and how they are determined and that exposure can be correlated with concentrations in human hair.

CAC members asked questions about the toxicity of other types of mercury, the bio-availability, and the lowest range for adverse impacts in children. Sullivan explained that EPA has a benchmark dose of 11ppm mercury in hair; at that level, there is a 5% chance of having one of the neurological affects. It was also asked if mining resulted in emissions, and it was noted that locations that had coal-fired power plants showed high emissions on the USGS map. CAC members also asked if there have been any testing of farm fish, the form of mercury that was found in paint, and where the mercury in the fish goes. Sullivan said that he was not familiar with the formulas in paint and said that fish excrete the mercury.

10. Environmental Services Division Quarterly Update, Bob Lee

Bob Lee, Deputy Manager of the Environmental Services Division, gave an update about the performance, trends, and highlights that have occurred since the last report. In 2001 the Lab was certified under ISO 14001 and has recently be recertified following another audit. Lee also discussed the air emissions program. With the reactors shut down, the Lab is more focused on BLIP and the Target Processing Laboratory.

At the Central Steam Facility Outfall the Lab may continue to have exceedances until lead soil contamination is cleaned up. Lee also discussed potable water, compliance with all requirements, sampling tap water, reducing the consumption of water, and the annual report. Lee discussed the agreement with Suffolk County to ensure that the management of the on-site storage tanks met Article 12 requirements. In 2001 there were 51 spills most of which were less than one gallon.

The Facility Review Project initiated in 1997 was a bottom to top review of all activities and operations at the Laboratory. Almost 2,000 issues were identified. The project is almost complete with the exception of a few outstanding legacy issues.

Program highlights included the Lab's pollution prevention program, the completed MOA between EPA and DOE, the completion of the 2001 Site Environmental Report and the fact that BNL will be featured in the November issue of Environmental Protection Magazine

CAC members asked questions about releases to the air that exceeded the permit and about the decrease in releases to the Peconic River. Member Talbot commented about the ISO 14001 registration and suggested a presentation about what the registration entails would be appropriate.

Action Item: Member Graves suggested that the CAC send a congratulatory letter to the Laboratory for the Nobel Prize. Unanimously approved. Anthony will work with Jeanne to write the letter.

11. Agenda Setting

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Budget update

Nanoscience

OU V Risk Assessment

OU V PRAP

Steering Committee

Meeting adjourned at 9:50 p.m.