

MINUTES OF THE FIFTY-SEVENTH MEETING OF THE
WASTE AND FACILITIES MANAGEMENT COMMITTEE
HELD ON JANUARY 24, 2017

Pursuant to a notice and agenda dated January 11, 2017, the fifty-seventh (57th) meeting of the Waste and Facilities Management Committee of the NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY (“Authority”) was convened at 10:00 a.m. on Tuesday, January 24, 2017, in the New York State Dormitory Authority’s (“DASNY”) office at One Penn Plaza, New York, New York, and the Authority’s Albany Office at 17 Columbia Circle, Albany, New York.

The following members of the Committee were present:

Elizabeth W. Thorndike, Committee Chair
Richard Kauffman, Chair of the Authority
Charles Bell

Member Sherburne B. Abbott was unable to attend.

Also present were John B. Rhodes, President and Chief Executive Officer; David Margalit, Chief Operating Officer; Janet Joseph, Vice President for Technology and Strategic Planning; Jeff Pitkin, Treasurer; Noah Shaw, General Counsel; Paul Bembia, West Valley Program Director; and Janice Dean, Secretary to the Committee.

Dr. Thorndike called the meeting to order, noted the presence of a quorum, and stated that a notice of the meeting was mailed to Committee members and the press on January 11, 2017. A copy of the notice is attached hereto as Exhibit A.

The first item on the agenda concerned approval of the Minutes of the fifty-sixth (56th) meeting, held on September 20, 2016. A copy of the Minutes was included with the January 11, 2017, mailing. Whereafter, upon motion duly made and seconded, and by unanimous voice vote, the minutes of the fifty-third meeting were approved.

The next item on the agenda concerns the 2017-18 Budget for West Valley Site Management Program and radioactive waste policy and nuclear coordination activities. Treasurer

Jeff Pitkin requested the Members adopt a resolution approving portions of the Authority's Budget for the fiscal year ending March 31, 2018 (FY 2017-18). Mr. Pitkin stated that the proposed budget for the West Valley program is approximately \$17.9 million, an increase of \$2.2 million from the current year budget. This includes an increase for the State's share of projected federal spending at the site under the Cooperative Agreement and Consent Decree, and costs for maintenance and monitoring activities at the State Licensed Disposal Area.

Mr. Pitkin noted that the Energy Analysis program budget includes funding to meet requirements under the State Low-Level Radioactive Waste (LLRW) Management Act of 1986 for collecting information and providing regular reports to the Governor and Legislature on LLRW generation in the State. These activities are funded with a State appropriation of \$150,000 sub-allocated from an appropriation provided to the NYS Department of Health, which is funded through an assessment collected on operating nuclear power plant licensees. Mr. Pitkin indicated this amount is unchanged from the amount included in the current year budget.

Mr. Kauffman inquired about any issues arising with the West Valley budget as a result of the new Congress. Mr. Shaw stated that there is some uncertainty regarding the Environmental Management Division's budget at the Department of Energy ("DOE"), which flows down to the Authority's budget at West Valley via the 90/10 cost share. Mr. Shaw noted the importance of maintaining the federal budget for this site, which is generally not a political issue, but noted that there is an element of uncertainty present.

Mr. Pitkin added that one-half of the Authority's budget contemplates receiving federal funding for the next Fiscal year, which shares that uncertainty. Mr. Kauffman sought clarification of the impact of any reduction in federal spending on the Authority's cost share; in response, Mr. Pitkin and Mr. Shaw confirmed that if there is a reduction in federal spending, the Authority would have an approved surplus. Mr. Bembia added that under the current continuing resolution, the West Valley Demonstration Project is being funded at about \$2 million less than the DOE is requesting in the President's 2017 budget.

Mr. Bell inquired if there is anything the Authority should be doing in briefing the new DOE leadership about the site and its budget. In response to Mr. Bell's inquiry, Mr. Shaw stated that Mr. Bembia and the DOE site director communicate regularly about a range of issues including

the budget, and that the site director has been advocating for additional funding for his program. Mr. Shaw noted that the Governor's office is also coordinating with the new administration on a range of issues, and that West Valley is likely one of them.

Mr. Kauffman called for a vote on the resolution. The resolution was unanimously approved.

Dr. Thorndike then asked Paul Bembia to provide a status report on the West Valley Site Management Program activities. Mr. Bembia stated that the status report would cover the results of the soil sampling and dose assessment work conducted on the Cattaraugus Territory of the Seneca Nation of Indians, updates on the West Valley Demonstration Project, and NYSERDA's work at the State-Licensed Disposal Area. Mr. Bembia reminded the Committee that in 2015, soil sampling was conducted at five offsite areas to identify any elevated radionuclide concentrations, and if levels were above background levels, to conduct a radiation dose assessment to determine if the results presented any health and safety concerns. At the September 2016 Board meeting, Mr. Bembia presented the results for three areas near the Western New York Nuclear Service Center. Those results showed that all three locations meet the Nuclear Regulatory Commission's standard for unrestricted use of the property.

Mr. Bembia explained that the two other locations were located on the Cattaraugus Territory of the Seneca Nation of Indians, and that the Seneca Nation requested that the dose assessment calculations address the land use practices of the Seneca Nation culture. The Seneca Nation Environmental Health Department and the Environmental Protection Department provided the land use information. Mr. Bembia explained the dose assessment's methodology, and reported that the soil sample results and corresponding dose assessments for these two locations also meet the NRC's standards for unrestricted use.

Using hand-held instruments to measure radiation doses for the Cattaraugus Territory properties, the radiation doses ranged from less than one millirem per year to 11.9 millirems per year. Mr. Bembia explained that the average radiation dose to a resident in the U.S. is about 360 millirem per year. For comparison, when medical procedures and radon are included, the annual dose is estimated to be approximately 720 millirem per year. In addition, when the U.S. Nuclear Regulatory Commission (NRC) evaluates properties they regulate and the radiation level is 25

millirem per year or below, the property can be used for any purpose, with no restrictions. Mr. Bembia stated that the Seneca Nation properties are below NRC's standard for unrestricted use.

Mr. Bembia stated that the information was presented to the Seneca Nation property owners, the Quarterly Public Meeting and at a public meeting on the Cattaraugus Territory of the Seneca Nation. Mr. Bembia also stated that the NRC is conducting an independent evaluation, after which the NRC will provide two Safety Evaluation Reports which represents their calculations and dose assessments using the data collected by NYSERDA.

Dr. Thorndike inquired what response the Seneca Nation and other members of the public or Citizen Task Force had on the results. Mr. Bembia stated that the Seneca Nation residents expressed ongoing concerns about the potential radiation and dose downstream along Cattaraugus Creek. The Seneca Nation expressed that any level of contamination of their property is unacceptable and plan to look at the NRC's evaluation and request from the NRC a radiation safety report. In general, the people were relieved that the concentrations were low. During this process, NYSERDA and the Seneca Nation developed a strong working relationship.

Dr. Thorndike asked how the radiation levels identified compare with normal background levels, if the West Valley site never existed. Mr. Bembia indicated that if West Valley never existed, the background radiation levels would be approximately 360 millirem per year, depending on the natural geology in the areas. He also added that the average radiation levels across the U.S. is 360 millirems per year.

Mr. Shaw asked Mr. Bembia if he could outline how the 25 millirem and 360 millirem standards relate to each other, expressing his understanding that 360 millirem is what one expects would be the dose walking around 24 hours a days, 365 days a year, and that 25 millirem is related to being on a site, while being only a component of the full year's dose. In response to Mr. Shaw's inquiry, Mr. Bembia confirmed that the 25 millirem would be in addition to the natural background radiation. Mr. Bembia stated that the 25 millirem is a small fraction of the natural background.

Mr. Kauffman asked, given this low number, how we can we be sure that the levels identified aren't naturally occurring. Mr. Bembia stated that there is naturally occurring radiation in this area, as well as radiation from weapons testing decades ago which was detected by the aerial radiation survey and is believed to be Cesium-137. He stated that of the two areas on the Seneca

Nation Property showing higher-than-background levels during aerial radiation testing, the first area is likely to be from non-West Valley sources such as weapons testing, as this area is covered by old forest growth, where the soil has not been disturbed for many years, and there is not a viable transport pathway from the West Valley Site; it is well out of the way of the floodplain. The second area is around the Cattaraugus Creek and is in the transport pathway from the West Valley site. However, the radiation levels at this location are quite low. The soil sampling in both areas are low enough to be consistent with fallout from weapons testing.

Mr. Kauffman inquired if an inference could be drawn about the presence of radiation originating from weapons fallout; Mr. Bembia responded that there are three possibilities for the source of these elevated levels: they could be from the reprocessing activities on the site, from the ongoing West Valley Demonstration Project activities on the site, or from nuclear fallout. He stated that the curies during the reprocessing activities by Nuclear Fuel Services represent the vast majority of the discharge from the site. Comparing the discharge during the nuclear fuel reprocessing and the 30 years at the West Valley Demonstration project, 99.7% is from nuclear fuel reprocessing.

Mr. Bell inquired if there is any evidence of bioaccumulation of radionuclides in the fish that swim in the creek. Mr. Bembia confirmed that fish are tested, and explained where the tests take place, and how the fish are analyzed to determine if bioaccumulation of radionuclides is present. He reported that the dose from the fish was less than a 10th of a millirem per year.

Mr. Bembia then updated the Committee on the West Valley Demonstration Project (WVDP), which completed two significant milestones since the Committee's last meeting: the WVDP completed the transfer of the High-Level Radioactive Waste canisters from the Main Plant Process Building to the new Interim HLW Storage Pad that was constructed at the site, meaning that the 56th and final HLW Storage Cask was moved to the Interim Storage Pad on November 17th, a year ahead of schedule. Also, another major milestone was completed in November when three large pieces of equipment that were used in the solidification of the HLW were shipped from West Valley to Texas for disposal. These were shipped to the Waste Control Specialists facility in Andrews, Texas, and as of December 1st, all three components had been placed in the disposal cell.

Mr. Bembia noted that DOE's contractor, CHBWV, plans to begin demolishing the Vitrification facility this year, but that the schedule for beginning that work is dependent on the FFY 2017 federal funding level. Demolition of the Main Plant Process Building is scheduled to begin in 2018. Regarding the planning for Phase 2 decommissioning, Mr. Bembia noted that the Probabilistic Performance Assessment work is continuing, and the contract for the Supplemental Environmental Impact Statement is expected to be issued early this year.

Mr. Bembia said the trench leachate evaluation work is continuing, and that a recommendations report will be developed this year with proposed remedial options. He reported that water elevations in Trench 14 have been stable over the last six months, and Trench 14 increased less than one inch during all of 2016.

Mr. Bembia reminded the Committee that the impermeable cover over the SDA trenches will be replaced this year as the cover is nearing the end of its operational life. Mr. Bembia reported that his team is now completing the design for the cover replacement, and is preparing to go out for bid for the project. He stated that all other monitoring and maintenance activities at the SDA are proceeding normally and on schedule, and that his team continues to manage the SDA safely and in compliance with all regulations.

Mr. Bembia reported that on October 28, a letter signed by 14 members of the New York State delegation and to the Secretary of Energy that letter supported comments the Authority had submitted to DOE in its Consent-Based Siting process and encouraged DOE to classify the West Valley Waste as defense waste, opening up disposal pathways and resolving the issue of disposal cost. On the last week of the administration, DOE transmitted their response to the delegation and Secretary Moniz discussed the matter with Senator Schumer. The response letter from DOE indicated that the Authority's comments and the delegation's letter identified important questions about the disposition of the West Valley high-level waste, and that DOE recognizes that there may be considerable merit in the idea of sending the West Valley waste to a potential defense-waste repository, and that the Department would welcome a dialogue with the State of New York.

Mr. Kauffman inquired what the impact of the change of administration might be on the position taken in DOE's letter. Mr. Shaw stated his opinion that since this is a legal and policy

issue and not necessarily a political one, he does not believe the new administration would decide to go back to an outdated position.

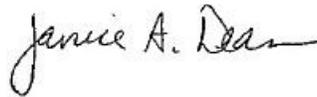
Mr. Rhodes inquired if local representatives signed onto the New York delegation's letter. In response to Mr. Rhodes' inquiry, Mr. Shaw stated that Mr. Higgins and Mr. Reed were particularly active in the conversation and instrumental with informing the delegation and in signing the letter. Mr. Shaw stated that he and Mr. Bembia met with staffers from Senator Schumer, Senator Gillibrand and with staff members from members of the House. Mr. Shaw credited the attentiveness of Mr. Jacoby in the Governor's office as well.

Dr. Thorndike commented that this is a remarkable and excellent step forward and complimented Mr. Bembia and Mr. Brodie who have been pushing on this issue for so many years, stating her belief that this will make a big difference to the state of New York.

Mr. Shaw added that if not for the hard work and dedication of the staff at West Valley this would not be possible. He stated that staff went through boxes of documents from the 1960s and 70s to figure out where the material came from and where it went, and that this effort formed the foundation for the reassessment that will hopefully happen over the course of this year.

Ms. Thorndike inquired if there were any other questions, comments, or other business, and hearing none, adjourned the meeting.

Respectfully submitted,

A handwritten signature in cursive script that reads "Janice A. Dean". The signature is written in black ink and is positioned above the typed name.

Janice A. Dean
Secretary to the Committee



NYSERDA

ANDREW M. CUOMO
Governor

RICHARD L. KAUFFMAN
Chair

JOHN B. RHODES
President and CEO

NOTICE OF MEETING AND AGENDA

January 12, 2017

TO THE MEMBERS OF THE WASTE AND FACILITIES MANAGEMENT COMMITTEE:

PLEASE TAKE NOTICE that the fifty-seventh (57th) meeting of the WASTE AND FACILITIES MANAGEMENT COMMITTEE of the NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY (the “Authority”) will be held at the office of the New York State Dormitory Authority (“DASNY”), One Penn Plaza, 52nd floor, New York, New York, and in the Authority’s Albany Office at 17 Columbia Circle, Albany, New York, on Tuesday, January 24, 2017, commencing at 10:00 a.m., for the following purposes:

1. To consider the Minutes of the fifty-sixth (56th) meeting of the Committee held on September 20, 2016.
2. To receive a report from the Treasurer regarding the Authority’s Fiscal Year 2017-18 Budget and to consider and act upon a resolution recommending approval of that Budget.
3. To receive a status report on West Valley Site Management Program activities.
4. To transact such other business as may properly come before the Committee.

Members of the public may attend the meeting at either of the above locations. In order to expedite the entry procedures established by the building management, any members of the public planning to attend the meeting at DASNY’s office should notify DASNY’s receptionist at 212-273-5000, 24 hours in advance of the meeting, and must be prepared to show valid photo identification upon arrival at One Penn Plaza.

Video conferencing will be used at both locations and the Authority will be posting a video of the meeting to the web within a reasonable time after the meeting. The video will be posted at <http://www.nyserda.ny.gov/About/Board-Governance/Board-and-Committee-Meetings>.

Janice A. Dean
Secretary to the Waste and Facilities
Management Committee

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