

MINUTES OF THE FIFTIETH MEETING OF THE
WASTE AND FACILITIES MANAGEMENT COMMITTEE
HELD ON SEPTEMBER 8, 2014

Pursuant to a notice and agenda dated August 26, 2014, the fiftieth (50th) meeting of the Waste and Facilities Management Committee of the NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY (“Authority”) was convened at 10:30 a.m. on Monday, September 8, 2014, in the Authority’s Albany Office at 17 Columbia Circle, Albany, New York, and in the Authority’s New York City Office at 1359 Broadway, 19th Floor, New York, New York.

Elizabeth W. Thorndike, Ph.D., Chair of the Committee, and Charles Bell, member of the Committee, were present in New York City. Richard Kauffman, Chair of the Authority and member of the Committee, was present in Albany.

Also present in New York City were John B. Rhodes, President and CEO; David Margalit, Chief Operating Officer; Janet Joseph, Vice President for Technology and Strategic Planning; Paul Bembia, West Valley Program Director; and Benjamin Levitan, Secretary to the Committee. Also present in Albany were Jeff Pitkin, Treasurer; Noah Shaw, Senior Advisor to the President; and Hal Brodie, Senior Advisor to the President.

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 August 26, 2014. A copy of the notice is attached hereto as Exhibit A.

Approval of the Minutes from the Forty-Ninth Committee Meeting

The first item on the agenda concerned approval of the minutes of the forty-ninth (49th) meeting, held on April 7, 2014. A copy of the minutes was included in the August 26, 2014, mailing. Upon motion duly made and seconded, and by unanimous voice vote, the minutes of the forty-ninth meeting were approved.

Resolution Regarding Revisions to the Authority’s 2014–15 Budget

Dr. Thorndike then asked Mr. Pitkin to report on revisions to the Authority’s Fiscal Year 2014–15 Budget for the West Valley Site Management Program and radioactive waste policy and nuclear coordination activities, which was originally approved at the January 2014 Board meeting. Mr. Pitkin stated that for the West Valley Program, State appropriation revenue was decreased by approximately \$900,000 in recognition of State appropriation funds received but unexpended at the end of the prior Fiscal Year 2013–14. However, the revised Budget did not change total program expenditures, which remain at approximately \$14 million. For the Low-Level Radioactive Waste Management Program, Mr. Pitkin reported no changes in the aggregate, with the Budget remaining \$150,000, which is funded through an assessment collected on operating nuclear power plant licensees. For both programs, Mr. Pitkin noted there are minor changes among expenditure categories, principally due to changes in indirect costs.

Based on Mr. Pitkin's report, upon motion duly made and seconded, and by unanimous voice vote, the Committee recommended that the Board adopt the resolution approving the revisions to the 2014–15 Budget for the West Valley Site Management Program and radioactive waste policy and nuclear coordination activities as presented. A copy of this Resolution is attached hereto as Exhibit B.

Resolution Regarding the Authority's 2015–16 Appropriation Request

Dr. Thorndike then asked Mr. Pitkin to provide a second report, regarding the Authority's Fiscal Year 2015–16 State Appropriation Request for the West Valley Site Management Program and radioactive waste policy and nuclear coordination activities. Mr. Pitkin stated that the State Appropriation Request for Fiscal Year 2015–16 includes a slight increase in funding requested for the West Valley Program, from \$12.1 million to \$12.5 million, based on the Authority's required share of costs under the Demonstration Project and the consent decree, offset in part by a decrease in costs to maintain regulatory compliance and provide public health and safety protection pursuant to the State's obligations at the State-Licensed Disposal Area ("SDA"). No change is recommended in the request of \$150,000 for the Low-Level Radioactive Waste Management Program.

In response to a question from Mr. Kauffman regarding the variability of budget forecasting, Mr. Pitkin stated that the federal and New York State fiscal years operate on different timeframes. The Authority's budget incorporates forecasts of federal appropriations. To the extent that anticipated federal funding does not materialize, the six-month overlap of State and federal budget cycles allows the Authority to accommodate actual federal appropriations by adjusting its budget in a subsequent year. In that regard, there is not significant variability in the West Valley Program budget.

In response to a question from Mr. Kauffman regarding how the funding obligations pursuant to the Authority's cost-sharing arrangement with the U.S. Department of Energy ("DOE") relate to actual expenditures, Mr. Pitkin stated some of the funding is determined by the matching requirement of a consent decree and State Low-Level Radioactive Waste Management Act of 1986. In addition, the Authority incurs some costs through State obligations related to the SDA, including maintaining regulatory compliance, protecting public health and safety, and environmental monitoring programs.

Mr. Brodie stated that, although the amount and effectiveness of the funds contributed by the Authority is partly outside of its control, the Authority has an opportunity to express any concerns about plans for the coming year to the DOE. Mr. Brodie and Mr. Bembia stated that they had no such concerns regarding next year's plans. Mr. Bembia also stated that the Authority's West Valley staff closely monitors and influences DOE's activities at West Valley. The relationship between DOE and the Authority is very positive. Mr. Bembia stated that, in recent years, the local congressional delegation has been effective at increasing federal appropriations for West Valley. Dr. Thorndike stated that, in recent years, DOE has tended to request less federal funding than the Authority believed was needed, and a bipartisan congressional delegation has successfully restored some of the needed funding. This process adds to the uncertainty in the Authority's budget forecasts for the West Valley Program.

Based on Mr. Pitkin's report, upon motion duly made and seconded, and by unanimous voice vote, the Committee recommended that the Board adopt the resolution approving the proposed State Appropriation Request for the Fiscal Year 2015–16 for the West Valley Site Management Program and radioactive waste policy and nuclear coordination activities as presented. A copy of this Resolution is attached hereto as Exhibit C.

Status Report on West Valley Site Management Program Activities

Dr. Thorndike then asked Mr. Bembia to provide a status report on West Valley Site Management Program activities. Mr. Bembia first thanked Mr. Bell for his recent visit to the West Valley Site.

Phase I Decommissioning

Mr. Bembia then stated that the current focus of the West Valley Demonstration Project is completing the first part of Phase I Decommissioning. That work involves demolishing all of the above-ground facilities on the Demonstration Project premises to ground level. These facilities include two very contaminated buildings: the Main Plant Process Building, where spent fuel was reprocessed, and the Vitrification Facility, where the sludge and liquid that resulted from reprocessing was made into glass. First, the high-level waste ("HLW") stored in the Main Plant Process Building must be relocated so that the building itself can be demolished. Since there is no national repository for HLW, those materials are being moved to a new storage pad at the site. The Main Plant Process Building is aging, highly contaminated, and becoming increasingly expensive to maintain safely, so it is time to demolish it.

Mr. Bembia stated that industry-standard storage casks for the HLW are being fabricated at the site. A total of fifty-five casks will be necessary to store the 275 HLW canisters. Eight such casks were fabricated last year, eight more were fabricated this year, and two more fabrication campaigns of twenty canisters each are planned. The storage casks will be brought into the Main Plant Process Building to be loaded with the canisters, after which they will be moved to the storage pad. In response to a question from Mr. Kauffman, Mr. Bembia stated that the transport of storage casks would begin in March of 2015.

Mr. Bembia stated that, in parallel to activities addressing the HLW canisters, the buildings themselves are being prepared for demolition. At the Main Plant Process Building, this involves removing contaminated systems, piping, and tanks, as well as asbestos-containing materials. At the Vitrification Facility, this involves the removal of floor debris, floor vacuuming, and high-pressure water washes—work that is nearly complete.

In response to a question from Mr. Kauffman about the ultimate disposal of the material being removed, Mr. Bembia stated that some of the waste is being shipped off-site. The waste that does not currently have a disposal path is being stored on-site.

Mr. Bembia then stated that open-air demolition is planned for the facilities. This is done by removing mobile sources of contamination and immobilizing remaining contamination with fixatives. The demolition will be executed with heavy equipment, and water sprays will be used

for dust suppression. Radiation will be monitored extensively, including at the edge of the work site, at the perimeter of the site boundary, and in the workers' breathing zone inside the excavator. DOE and its contractor, CH2M HILL B & W West Valley, LLC ("CHBWV"), are working closely with the U.S. Environmental Protection Agency ("EPA") on the Demolition Plan, and EPA is looking very carefully at the air-emission modeling that is being done to support the open-air demolition strategy. The demolition is scheduled to begin in 2018.

Returning to Mr. Kauffman's question about the ultimate disposition of the waste, Mr. Bembia stated that CHBWV has shipped significant quantities of waste for off-site disposal since the beginning of its contract, including both newly generated waste and waste that was already in storage. Specifically, CHBWV has disposed of approximately 186,000 cubic feet of low-level radioactive waste, 151,000 cubic feet of industrial waste, 6,000 cubic feet of mixed low-level waste—which is both radioactive and hazardous—and 700 cubic feet of hazardous waste.

DOE had planned to ship three large components from the dismantled HLW vitrification system to Texas for disposal late this year, including the vitrification melter itself. During the permitting and approval process, the U.S. Department of Transportation ("DOT") requested a higher level of certification for the shipping package that DOE planned to use for the melter. Specifically, DOT requested that the shipping package achieve the most robust level of certification for radioactive waste. To address the issue, DOE will modify the package and apply to the U.S. Nuclear Regulatory Commission ("NRC") for a certification that the modified melter package meets all applicable transportation requirements. This will push the shipment into 2015 or 2016.

In response to questions from Mr. Kauffman, Mr. Bembia explained that CHBWV prepares the waste for transport, at which point shipping firms are hired to perform the actual shipment. DOE has a very thorough oversight program to track, and in some cases escort, the waste throughout the transport process. Mr. Bembia stated that the Authority keeps track of waste shipping progress, but because of the extensive DOE oversight, generally does not conduct the same level of monitoring for the shipping program as it does for the other site activities. Dr. Thorndike expressed support for Mr. Kauffman's line of questioning and asked whether the West Valley Coalition of citizens' groups was still following every aspect of the process. Mr. Bembia stated that the West Valley Coalition follows on-site activities but is not as involved in shipping. The Seneca Nation is more involved in shipping because the main shipping routes traverse their reservations. DOE funds the Seneca Nation to oversee some related DOE activities. Mr. Bembia stated he would identify actions that could be taken to increase NYSERDA monitoring of the shipping of materials off-site.

In response to a question from Mr. Bell, Mr. Bembia stated that DOE will have limits on acceptable radiation levels during demolition. If measurements reveal that those limits are being exceeded, DOE will suspend demolition activities and assess the situation. DOE's concern about the release of contamination is part of the reason that EPA is actively involved in planning the demolition.

Mr. Bembia stated that, in addition to those main activities, CHBWV is conducting other preparations for demolition, including removing unneeded support facilities. CHBWV is also

maintaining site infrastructure, including repairing the spillway for the site's water reservoir system. This requires a balance between ultimately decommissioning the site and, in the meantime, maintaining infrastructure necessary for safety.

Mr. Bembia then provided a historical overview of federal appropriations for West Valley, noting that, recently, the figure has been relatively stable at approximately \$60 million annually. The President's Fiscal Year 2015 budget request included an appropriation of \$60.5 million, as did the House Energy and Water Development Appropriations Subcommittee's initial mark-up of the President's budget. However, Representatives Brian Higgins and Tom Reed subsequently amended that bill, adding \$3.5 million for West Valley, for a total of \$64 million. This is the same amount that was appropriated for the current fiscal year. The Senate Energy and Water Development Appropriations Subcommittee recommended \$60.5 million for West Valley. It seems likely that the actual appropriation will be between \$60.5 million and \$64 million.

Turning to the SDA, Mr. Bembia stated that the West Valley staff is continuing to manage the SDA safely and in full compliance with all regulations. There have been no accidents, injuries, or illnesses at the SDA. The SDA is regularly inspected by both the State Department of Environmental Conservation and the State Department of Health and has never been found in violation of any regulation or any license or permit condition. There is a very strong safety and compliance culture at the SDA.

Trench 14 Leachate Level

Mr. Bembia then presented data on the leachate elevation level in Trench 14. Leachate levels increased throughout the late 1980s and early 1990s. In 1992–93, the Authority installed the first set of infiltration controls on three of the trenches, including Trench 14. Leachate levels immediately stabilized. Following that success, the Authority installed infiltration controls on the remaining trenches in 1995–96, after which Trench 14 elevation levels began a slow decrease. The decrease continued until 2009, when it flattened out. Over that period, the decrease averaged about 1.4 inches per year. Since 2012, the leachate level has increased at a rate of about 1.2 inches per year. The level is currently 14 feet below the ground surface. At the current rate, it would take about 140 years for the leachate to reach the surface, meaning that there is no immediate threat of a leachate release. Nonetheless, staff members want to understand and mitigate the increase.

Mr. Bembia stated that a recent hydrogeology evaluation concluded that the increase is most likely related to a change in the groundwater conditions in the area between the SDA and the NRC-Licensed Disposal Area ("NDA"). The evaluation also concluded that the change in groundwater conditions is related to the installation of infiltration controls on the NDA in 2008. The Authority continues to collect elevation data monthly and has asked DOE to increase the frequency of data collection at the NDA, which is currently done quarterly. The Authority will conduct a video inspection of underground piping at the SDA and has asked DOE to do the same at the NDA. The Authority is in the process of contracting with an engineering firm to take an independent look at the data collected and provide options for remediation.

Dr. Thorndike emphasized the importance of addressing the leachate elevation, since real-world conditions could change the rate of increase. Mr. Bembia stated that he agreed and that staff members are moving ahead with efforts aimed at remediation.

In response to a question from Mr. Kauffman, Mr. Bembia stated that he expected to start receiving information from the engineering contractor by the spring. Authority staff might prepare a remediation plan as early as next year, but the contractor might recommend additional data collection, which could postpone formulating the plan. Mr. Kauffman stated that staff should be asking all professionals who examine the leachate level about the risk of a discontinuous event changing the rate of increase. Mr. Bembia stated that he agreed and noted that the soil composition of the area made modeling the situation more challenging.

Dr. Thorndike stated that remediation efforts will require the full cooperation of DOE. Mr. Bembia stated that DOE is very engaged and shares the Authority's desire to understand the cause of the increase.

Aerial Radiation Survey

Mr. Bembia then informed the Committee that, later in the month, the Authority and DOE would conduct an aerial radiation survey of the Western New York Nuclear Service Center and Cattaraugus Creek. Several such surveys have been conducted over the years, most recently in 1984. The intervening thirty years equal one half-life of cesium-137, so it is expected that radiation levels will be significantly reduced from the last survey. The survey will evaluate Cattaraugus Creek all the way to Lake Erie. The survey will be conducted by National Security Technologies using a low-flying helicopter fitted with sensitive radiation-detection instruments.

Authority staff and DOE met with the Citizen Task Force, which was very supportive of this initiative. Staff and DOE have also informed local and county governments, the Seneca Nation, and the appropriate law enforcement agencies about the survey flights, and information on this work was provided at the West Valley Demonstration Project Quarterly Public Meeting on August 27. The survey results will be presented to the public when they become available.

Mr. Kauffman asked why no aerial radiation survey had been conducted in the past thirty years. Mr. Bembia stated that there was no protocol for how often to conduct such a survey, but staff members recognized the value of updating the survey and had been working to do so for the past four or five years. Earlier surveys had been conducted under DOE initiatives and programs, but because there was no plan or requirement for DOE to conduct a new survey, Authority staff initiated the work. Mr. Bembia agreed to notify the Board if there are monitoring or procedural matters that were not being addressed at the site.

At the conclusion of Mr. Bembia's report, Mr. Bell thanked Mr. Bembia and Mr. Brodie for inviting him to visit West Valley, noting that it was valuable to visit in person. The visit impressed upon Mr. Bell the Authority's responsibility as public servants and as citizens to protect the public and the environment. Mr. Bell appreciated the level of collaboration between DOE and the Authority and the amount of diligence and care that are going into the decommissioning process, as well as the high level of safety at West Valley.

In response to questions from Mr. Bell and Dr. Thorndike, Mr. Bembia stated that the NRC's Waste Confidence Rule would not directly affect West Valley because it addresses long-term storage of spent fuel rather than HLW.

Other Business

The last item on the agenda concerned other business. There being none, upon motion duly made and seconded and upon unanimous voice vote, the meeting was adjourned.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Benjamin M. Levitan", with a stylized flourish at the end.

Benjamin Levitan
Secretary to the Committee

NOTICE OF MEETING AND AGENDA

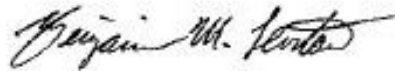
August 26, 2014

TO THE MEMBERS OF THE WASTE AND FACILITIES MANAGEMENT COMMITTEE:

PLEASE TAKE NOTICE that the fiftieth (50th) meeting of the WASTE AND FACILITIES MANAGEMENT COMMITTEE of the NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY will be held in the Authority's Albany Office at 17 Columbia Circle, Albany, New York, and in the Authority's New York City Office at 1359 Broadway, 19th Floor, New York, New York, on Monday, September 8, 2014, commencing at 10:30 a.m., for the following purposes:

1. To consider the Minutes of the forty-ninth (49th) meeting of the Committee held on April 7, 2014;
2. To receive a report from the Treasurer regarding revisions to the Authority's Fiscal Year 2014–15 budget and to consider and act upon a resolution recommending approval of those revisions;
3. To receive a report from the Treasurer regarding the Authority's Fiscal Year 2015–16 Preliminary Spending Plan and the Authority's State Appropriation Request for Fiscal Year 2015–16, and to consider and act upon a resolution recommending approval of that Appropriation Request;
4. To receive a status report on West Valley Site Management Program activities; and
5. 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. Video conferencing will be used at both locations and the Authority will be posting a video of the meeting to the web within two business days of the meeting. The video will be posted at <http://www.nyserda.ny.gov/About/Board-Governance/Board-and-Committee-Meetings.aspx>.



Benjamin M. Levitan
Secretary to the Waste and Facilities
Management Committee

New York State Energy Research and Development Authority

Albany

17 Columbia Circle, Albany, NY 12203-6399

(P) 1-866-NYSERDA | (F) 518-862-1091

nyserda.ny.gov | info@nyserda.ny.gov

Richard L. Kauffman, Chair

John B. Rhodes, President and CEO

Buffalo

726 Exchange Street

Suite 821

Buffalo, NY

14210-1484

(P) 716-842-1522

(F) 716-842-0156

New York City

1359 Broadway

19th Floor

New York, NY

10018-7842

(P) 212-971-5342

(F) 518-862-1091

West Valley Site

Management Program

9030-B Route 219

West Valley, NY

14171-9500

(P) 716-942-9960

(F) 716-942-9961

Exhibit B

Resolution No. _____

RESOLVED, that the Fiscal Year 2014-15 Budget and Financial Plan (Revised September 2014) submitted to the Members for consideration at this meeting, with such non-material, editorial changes and supplementary schedules as the President and CEO, in his discretion, may deem necessary or appropriate, be, and it hereby is, approved.

Exhibit C

Resolution No. _____

RESOLVED, that the proposed State Appropriation Request for Fiscal Year 2015-16 submitted to the Members for consideration at this meeting, with such non-material, editorial changes and supplementary schedules as the President and CEO, in his discretion, may deem necessary or appropriate, be, and it hereby is, approved for submission to, and at the request of, the New York State Division of the Budget.