To: West Valley Citizen Task Force
From: Bill Logue, Citizen Task Force Facilitator
Date: October 19, 2011
Subject: Summary of the September 28, 2011 Meeting

Next Meeting

The next Citizen Task Force Meeting will be:

Time & Date: 6:30 – 9:00 PM, October 26, 2011
Location: Ashford Office Complex
9030 Route 219
West Valley, NY

Note: Participants must be U.S. citizens and have photo identification. Please contact Bill Logue (860-521-9122, Bill@LogueGroup.com) with questions or comments concerning this summary or future meetings.

CTF Members and Alternates Attending

Chris Crawford, Rob Dallas, Chris Gerwitz, Mike Hutchinson, Steve Kowalski, Paul Kranz, Lee Lambert, Kathy McGoldrick, John Pfeffer, Warren Schmidt, Ray Vaughan.

Agency Participants and Observers

Department of Energy (DOE): Bryan Bower.
New York State Energy Research and Development Authority (NYSERDA): Paul Bembia, Andrea Mellon, Dave Munro, Elizabeth Thorndike.
CH2M Hill B&W West Valley, Inc. (CHBWV): Lynette Bennett, Nate Bridges, Ryan Dodd, Ray Geimer, John Rendall, Bill Schaab (American DND), BP Shagula.
New York State Department of Environmental Conservation: Pat Concannon.
Blue Ribbon commission on America's Nuclear Future: John Kotek (via telephone)
Observers: Judy Bridges, Gladys Gifford.

Introductions and Announcements

Bill Logue welcomed all present and reviewed the meeting protocols and meeting materials.[1] Paul Bembia introduced NYSERDA Board member Dr. Elizabeth Thorndike, noting her background and experience especially with environmental advocacy. Dr. Thorndike thanked the CTF and others and stated she is Chair of the Facilities Committee of the NYSERDA board and had first visited the site in 1979.

Paul Bembia, Ray Vaughan and Bill Logue reported that they each had been contacted by Cort Richardson of the Council of State Governments concerning the possible participation of some CTF members on a panel of the Boston stakeholder meeting of the Blue Ribbon Commission on America's Nuclear Future (BRC of Commission) on October 12, 2011. The sessions sponsored by regional councils of governments and are designed largely for input from state and local governments. Bill committed to forwarding to the CTF any additional information he receives. John Kotek of BRC indicated that the commission is interested in receiving comments from the CTF. Ray Vaughan has been invited to participate and the CTF agreed that if he could attend, and it was not a conflict with his employment, he could do so.

[1] The documents are listed at the end of this summary and may be found at www.westvalleyctf.org

Overview of Draft Report of the Blue Ribbon Commission on America' s Nuclear Future

John Kotek, staff director of the BRC, presented an overview of the work and draft report of the Commission. The Commission was formed in January 2010 to conduct a review of policies for managing the back end of the fuel cycle and recommend a new strategy. The BRC is to report to the Secretary of Energy in January 2012. Mr. Kotek quickly reviewed the members of the Commission and the front of the fuel cycle from mining to fuel fabrication and use in a reactor. The back end of the fuel cycle flows from extraction from the reactor to placement in interim storage then final disposition. Spent fuel (SNF) reprocessing is omitted from the cycle in the US and many other countries. One question in the recommendations is whether the US should conduct reprocessing and research and development on it.

Approximately 75% of SNF storage is currently in pools and 25% in dry casks. There are 10 closed reactors where SNF is currently stored. One option, for safety and other reasons, is to move this SNF to a consolidated interim storage site. Mr. Kotek noted the 2010 inventory of SNF and High-Level Nuclear Waste (HLW). The latter includes the 275 canisters currently at WVDP. With respect to the draft report Mr. Kotek asked the CTF to review references to West Valley and assess whether they are correct.

Mr. Kotek stated that the primary concern with nuclear wastes is potential for radiation damage to DNA through direct and indirect routes. Isolation of wastes to protect people and the environment from harm is seen as the best solution. He stated that the average American receives about 620 mrem of radiation exposure per year and indicated the sources of exposure. He also displayed a graph depicting a linear relationship between the dose and effect and therefore the desire to keep exposure as low as reasonable achievable (ALARA).

Mr. Kotek reviewed the activities of the BRC including almost two dozen full Commission and work group meetings, site visits within the US and abroad. He then provided an overview of the seven key recommendations of the Commission. They are:

1. New approach to siting and development that is adaptive, staged, consent based, transparent and standards and science-based. He gave an example from Sweden where two towns competed to host waste storage and, by agreement, the losing bidder received the majority of compensation under the assumption that other benefits from employment and manufacturing would flow to the host community.
2. New single purpose organization focused on US nuclear waste transportation, storage and disposal with Congressional oversight through an appointed Board nominated by the president and approved by the Senate. This organization would move program implementation out of DOE and would not have reprocessing responsibility.
3. Assured access to funding through near-term changes to the handing of the annual nuclear waste fee payments (about $750 annually) and longer-term access to the balance of the Nuclear Waste Fund (approximately $24-25 billion). This would resolve the current situation where collection from rate payers is mandatory and payout is discretionary resulting in competition for funding.

4. Develop permanent deep geological site(s) for SNF and HLW expeditiously and safely. This recommendation is based on the premise that there are not new technologies now, or on the horizon, which would fundamentally change or eliminate the need for waste disposal.
5. Develop one or more consolidated interim storage facilities as part of managing the back end of the nuclear clear fuel cycle. "Stranded" fuel at the 10 shut down reactors should be first in line for interim storage. The commission sees logistical, safety and economic reasons for waste consolidation.
6. Create stable, long-term support for research, development and demonstration of advanced reactor and fuel cycle technologies and the related workforce needs and skills development.
7. To address global non-proliferation concerns and improve the safety and security of nuclear facilities and materials worldwide, the US should be an international leader on waste issues.

The Commission has a number of other ancillary recommendations. These include the current NRC and EPA division of regulatory responsibility is appropriate, but new site-independent safety standards should be developed; roles, responsibilities, and authorities of local, state, and tribal governments must be negotiated with meaningful participation in decision-making and delegated authority over some aspects of regulation to states and tribal governments, all of whom share with the federal government the responsibility of working productively to advance the issues; the new organization which develops consolidated interim storage and permanent disposal facilities should apply decision-making principles to all aspects of waste management programs, and siting processes should include flexible and substantial incentives; for interim storage of SNF at existing reactor sites there is no unmanageable safety or security risk with, however, active research should continue; the National Academy of Sciences (NAS) should assess lessons learned from Fukishima earthquake and should report on how those lessons may influence recommendations made in previous NAS studies; and the current system of standards and regulations for transport of SNF and other nuclear materials is functioning well. Lastly, efforts should be made to resolve ongoing fuel litigation between the DOE and utility companies. In conclusion, Mr. Kotek stated that the commission was co-hosting meetings to solicit feedback and comments are due by October 31, other meetings and visits will be held as necessary and a final report issued in January 2012

In response to questions Mr. Kotek stated that only a few countries reprocess nuclear fuel; these include Russia, France, United Kingdom, Japan and, to a limited extent, China and India. One concern is that reprocessing could be used to separate plutonium that could be used for weapons. A CTF member suggested that the presentation materials showing average annual exposure and the linear relationship be revised. In 1978 the average annual exposure was 100 mrem/year and now it is 620 mrem. This adjustment over time may not be apparent to the general public and could create misimpressions. He also noted that the “assumed relationship" in the linear relationship graphic is in fact based an expert opinion in the most recent Biological Effects of Ionizing Radiation (BEIR) Report and that the graphics should reflect this. Another CTF member noted that the group was uniquely qualified to comment on these issues given the fact that West Valley is the only commercial reprocessing site to of operated in the country.

NRC Proposed Rulemaking Process for Reprocessing

Ray Vaughan presented information and thoughts of the ad hoc work group on the NRC Reprocessing Rule Making. Other work group members include Lee Lambert and Gladys Gifford. Dr. Vaughan stated that NRC, in response to requests from two companies in 2008, is in the early to middle stages of issuing regulations under which new reprocessing plants could operate in the US. The companies informed NRC of their intent to seek reprocessing facility licenses. NRC directed staff to perform a "gap analysis" to identify what changes in regulatory requirements would be necessary to license a reprocessing facility. At its current stage, NRC is assessing the basis of a potential rulemaking for SNF reprocessing facilities. As part of this, two public workshops were held in the fall of 2010 and a public meeting early in the summer of 2011. This rulemaking process can take some time and is open to public comment at various stages. The work group believes that the recent work of NRC does not acknowledge the history of reprocessing at the West Valley site from 1966 through 1972 as the only commercial reprocessing facility in the country. As part of the discussion, NRC has been asked to use the term "recycling" instead of "reprocessing."

A draft document has not yet been released but is likely to be publicly available this fall. Should the rulemaking move forward is likely take several more years, a number of steps remain including an environmental impact statement and draft rule. Actual rulemaking will be shifted to a different office within NRC.

Seventeen gaps were identified, a number of which Dr. Vaughan thought of import to the CTF. These include: independent storage of HLW; the definition for reprocessing related terms (recycling); one step licensing and inspection, testing and acceptance criteria requirements; financial protection requirements and indemnity agreements; waste confidence relating to long-term store waste storage; diversion path analysis requirements concerning protection against diversion of plutonium and other materials; approaches toward material accounting management to ensure that the facility can keep track of plutonium and other materials; and effluent controls and monitoring.

The first question discussed was whether reprocessing should be renamed recycling. Using several graphics, Dr. Vaughan showed the nuclear components of fresh fuel and the components, with their radioactive half-life, in SNF as a result of nuclear fission. He then showed a similar graphic showing the components of SNF and the components of the end result of reprocessing. In doing so he made the point that some material is recycled but most remains waste with little or no market. The efficiency of reprocessing can be looked at by volume, biomass, and by curies. During the discussion the point was made that the reprocessing does result in a reduction of total weight of nuclear material but not in the number of curies. Dr. Vaughan made the point that the amount of plutonium resulting from reprocessing exceeds current needs and would have to be stored under heavy guard. A CTF member raised the question of whether reprocessing would reduce the need for new material on the front and of the fuel cycle. The CTF members agree that “recycling” was a misnomer.

Dr. Vaughan made the point that reprocessing was done poorly at West Valley. Presumably it could be done better now. However, it the experience demonstrates the difficulty of ensuring that wastes will be removed from the reprocessing location, the problem of assuring accurate inventories, and that operating costs are often externalized. A CTF member stated that they felt any study needed to look at the full fuel cycle from mining to disposal. The CTF briefly discussed the suspension of reprocessing by Executive

Order under President Carter, reinstatement by President Reagan, and, several members believed, the issuance of another suspension under President Clinton.

CTF members agreed that the NRC was not sufficiently acknowledging the West Valley reprocessing history and how it might inform the rulemaking decision. In conclusion, the CTF agreed to monitor the rulemaking process and take advantage of future comment opportunities as they arise. The group also agreed to review the BRC draft report and consider comments and circulate them by e-mail prior to the October 26 meeting.

Scope and Work Plan for CHBWV

Ryan Dodd, CHBWV General Manager, and his team presented an overview of the contract scope and initial work plan for decommissioning. Mr. Dodd noted that the contract was a cost-plus-award-fee, completion contract for seven years which began on August 29, 2011. The services include: project management and support services, site operations maintenance and utilities, HLW canister relocation, facility disposition, waste tank farm management, NRC- licensed Disposal Area management, waste management and nuclear materials disposition, and safeguards and security.

Milestones include: process, ship and dispose of all legacy waste off-site by November 2014, complete HLW canister relocation by July 2015, demolition and removal of the Main Plant Process Building (MPPB) and Vitrification Facility by August 2017, and other work described in the contract.

Mr. Dodd then described a management approach for the first 90 days of work. Within contract changeover employees may feel uncertainty and anxiety which may result in a higher risk of injury or incident. Therefore a "The Focus is Safety" program has been instituted with training, worker feedback, elimination of hazards, housekeeping to remove combustibles and the potential for personal injury, and informing the workforce about goals and expectations. This is designed to develop a partnership in a safer work environment. He also noted that during these early phases his staff was working with DOE on material differences concerning the terms of the contract and the condition of the site between the time when the request for proposals was issued and when CHBWV took over responsibility for the work. Mr. Bower noted that this may result in adjustments to scope or budget and is being done in a collaborative fashion that is different from previous contract turnovers.

Mr. Dodd introduced several members of the CHBWV management team including: B. P. Shagula, Vice President Environment, Safety, Health and Quality; Dan Coyne, Deputy General Manager Facility Disposition Manager; Ray Geimer, Waste Operations Manager; John Rendall, Regulatory Strategy Manager.

Mr. Shagula presented briefly on environmental safety, health and quality, with an overview of the staffing and organization. He noted that employees were central to safety and health and are encouraged to raise issues with management. He gave an example of the meeting that morning at 4:30 with two workers to discuss health and safety issues at their request. He emphasized the importance of quality to ensure work is done correctly and compliantly, the need for modification of current documentation due to the change and contractual requirements and scope of work. The focus of safety and health is to ensure safe, compliant work, a focus on hazard prevention, oversight, inspections and advocacy for safety and health. John Rendall stated that the environmental focus is as stewards for future generations, ensuring environmental compliance and certification and the integrity of the environmental database. There is also a

focus, at the site and nationally, on tracking trends to ensure excellence. With respect to safeguards and security these address personnel, the facility, information and a campaign to ensure security awareness. The emphasis on safety and security is 24/7 and maintains awareness that what affects employees at home can have an impact in the workplace. The radiological controls team supports projects and works to reduce the likelihood of events, and ensures that emergency response plans are in place in the event of an incident. Emergency management assists with preparedness, assesses needs, conducts realistic exercises, and ensures that new technology is in place to address emergencies. Performance assurance staff monitors leading and lagging indicators in order to put appropriate prevention measures in place and examines local and national tracking and trends. It is also room spots pull for the Safety Action Center (?).

Dan Coyne presented an overview of facility disposition noting that the major milestones include demolition of the MPPB, Vitrification Facility and more than 60 other site facilities. He showed a number of pictures of the demolition of large structures at the Idaho National Lab using conventional equipment. Steps in the demolition process include characterization of the facility and establishing the end-state with regulators, generating work planning documentation, disposing of hazards, isolating and removing electrical and mechanical systems, structural decontamination or removal as appropriate, followed by demolition of the facility to 2 feet below the 100 foot elevation. At the conclusion of demolition sampling and backfilling will occur to achieve the end-state. The source area of the North Plateau Groundwater Plume will be remediated in a subsequent contract. The initial activities will be developing a framework for interfaces and integration of the various work units, working on early plant cleanup items and debris and characterization.

Ray Geimer provided a brief overview of waste operations. He noted the anticipated waste volumes for shipment by waste type, these include: 1,600,000 ft^3 of low-level waste, 7,500 ft^3 of mixed low-level waste, 6000 ft^3 of hazardous waste, 980,000 ft^3 of industrial waste and 30,000 ft^3 of sanitary waste. He noted the significant challenges of moving and packaging 1.6 million $ft.^3$ of waste. Both truck and rail will be used based on volumes, safety, costs and shipping destinations. A CTF member encouraged cooperation with municipal leaders in planning transportation and shipment Significant milestones include: preparing and shipping all legacy waste off-site by November 2014, complete reprocessing of TRU waste, upgrading the RTS drum cell for long-term TRU waste storage and relocating the TRU waste to this facility. The canister move will require a RCRA permit. Remote Handled Waste operations will resume and shipping of LLW legacy waste will resume in late October. An independent team is being brought in to review the transportation program, procedures and permits.

Initial tasks will be to develop work frameworks and coordination, early plant cleanup, review Waste Incidental to Reprocessing (WIR) documents and outstanding actions and initialing activities towards shipping the Melter. The WIR approval is anticipated in November.

Mr. Dodd provided a brief overview of Nuclear Operations and Storage. Innovations and changes through 2013 include a new Plant Safety Operations (PSO) Hub (?)/enhanced monitoring, new computerized maintenance management system, new laundry/personal protective equipment approach (moving laundry to an offsite contractor), day shift PSO complement and numerous facilities taken cold, dark and dry. Several CTF members raised questions about the shift of laundry facilities offsite. Mr. Dodd and Mr. Bower explained that this was a practice in many nuclear power facilities, that licensed laundry contractors are available and that it will reduce waste water thereby assisting in preparing for removal of the lagoons. A

request was made to keep the union representing workers informed of these decisions. Locker rooms are being moved from the MPPB to temporary office modules. As part of the discussion Mr. Bower noted that removal of the RHWF was appropriate because it is undersized for potential Phase 2 work should exhumation be selected.

HLW canister storage options are being explored with vertical and horizontal cement overpacks. These storage containers will be similar to those used for commercial SNF so that they can be accepted by a disposal facility when one becomes available. Concrete pads will be constructed for interim storage. Project planning for the move is beginning, as is the process/planning for taking various facilities cold, dark and dry in preparation for demolition, and the planning process for characterizing remaining wastes in Tank 8-D4, planning for enhanced wireless monitoring/PSO control room, implement new CMMS (?) process, rearranging the warehouse, shutting down the laundry, aligning programs and procedures for the contract compliance..

Phase 1 Studies Update

Paul Bembia reported that the Phase 1 Studies contract will be in place by then end of the week..

Observer Comments

There were no observer comments.

Action Items

Action	Who; Date
Review and suggest comments via email on draft report of BRC	CTF; 10/22/2011

Documents Distributed

Document Description	Generated by; Date
Meeting Agenda	Logue; 9/28/2011
Overview of BRC	BRC; 9/28/2011
Ad Hoc Work Group on NRC Rule Making	Vaughan; 9/28/2011
CHBWV Presentation – Scope and Work Plan	CHBWV; 9/28/2011
Newspaper clippings distributed at the meeting	NYSERDA; 9/28/2011