

# Draft for Discussion

## March 11, 2009

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This revised discussion draft is an attempt to capture in writing the general sentiment of the CTF with the clear understanding that it is not yet a consensus document. Rather it is a compilation of the comments of members. The hope is that this will serve to highlight the issues and act as a focusing mechanism for discussion about a consensus statement in broad terms with the nuance to be worked out through final comments in the coming months.

### **Articulation of CTF overarching goals and core response to the DEIS. Key Points:**

- I. The CTF appreciates the progress to date and the work of the Core Team agencies in arriving at a Preferred Alternative, something that was missing from the 1996 DEIS. The Core Team agencies are to be commended for overcoming significant differences and for working together to arrive at a Preferred Alternative. **(No change from 2-25-09)**
- II. The CTF appreciates that DOE and NYSERDA are planning to accomplish cleanup work at the site that the CTF deems essential including such as the removal of the source area of the North Plateau Groundwater Plume and a significant number of the contaminated facilities. **(Edited to clarify plume)**
- III. The proposed Preferred Alternative Phase 1 work meets the Policies and Priorities articulated in the CTF 1998 Final Report. The CTF strongly encourages that this work be completed without further delay and in a manner that enhances future decisions regarding cleanup of the site. The CTF desires that performance measurements for this work be clearly articulated and adhered to. **(No change from 2-25-09)**
- IV. The CTF stands by the Policies and Priorities articulated in its 1998 Final Report. Including, among others: **(No change excepted as noted in b)**
  - a. The protection of the long-term human health and safety and of the environment is paramount.
  - b. Given the CTF's knowledge of the geologic, hydrologic and climate conditions, the site does not appear to be suitable for

long term, permanent storage or disposal of long-lived radionuclides. The level of risk from exposure is such that reliance on institutional controls over a prolonged period, hundreds or thousands of years, is not feasible. **(Edit to parallel language of CTF 1998 Final Report)**

- c. Decisions and studies should be performed during Phase 1 that assess and support the eventual goal of a full cleanup of the site.
- V. The CTF understands that not all critical information, characterizations, studies and technologies may exist at this time to make a conclusive decision on the procedures and methodologies for removal of wastes. The CTF also understands that no long-term storage or disposal solution exists for orphan and TRU wastes at this time. The CTF further understands that technological advances may increase the safety of waste retrieval processes with potentially lower costs. As its name implies, the West Valley Demonstration Project is a suitable time because of its size and special circumstances to develop and pilot new and emerging technologies. **(Edit to clarify 'conclusive decision' and evolution of technology)**
- VI. The Phased Decision-Making approach contained in the Preferred Alternative postpones the ultimate decision as to the level of cleanup and disposition of the wastes at the site. The CTF believes: **(No changes except as noted in c)**
- a. Such as decision should be made as soon as practicable but no later than \_\_\_\_\_.
  - b. The opportunity for public review and comment contained in this DEIS is sufficient for the Phase 1 decisions. Any future decisions that will result in the full cleanup and closure of the WVDP and the cessation of DOE involvement or in the possible long-term storage or disposal of wastes at the site should be subject to additional NEPA/SEQRA public review and comment or a similarly robust public process.
  - c. If an ongoing assessment period occurs, there will be many interim decisions and site work which will have far reaching impacts on human health and the environment, these decisions and the planning for the work should be subject to regular ongoing consultation with the public. **(Edited order of phrases)**
- VII. Regulatory reviews, permitting and licensing should contain commitments by the appropriate agencies to seek and incorporate

the views of the community in making decisions regarding the future of the site. **(No changes from 2-25-2009)**

- VIII. **(Added 3-11-2009) Precautionary Principle or Adaptive Management Options to Highlight Distinctions.** At the February 25 CTF meeting the group discussed whether comments should be framed in terms of the precautionary principle or adaptive management. The CTF's choice of approach will impact the tone and phrasing of the comments.

The 1992 Rio Conference "Earth Summit" defined the **uncertainty principle** as: "In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation." (Source: Wikipedia; later conferences and declarations have largely echoed this definition using slightly different language).

Wikipedia defines adaptive management as follows:

**"Adaptive management (AM)**, also known as adaptive resource management (ARM), is a structured, iterative process of optimal decision making in the face of uncertainty, with an aim to reducing uncertainty over time via system monitoring. In this way, decision making simultaneously maximizes one or more resource objectives and, either passively or actively, accrues information needed to improve future management. [Adaptive management] is often characterized as 'learning by doing.'....

Adaptive management can be considered either passive or active. Passive adaptive management begins by using predictive modeling based on present knowledge to inform management decisions. As new knowledge is gained, the models are updated and management decisions adapted accordingly.

Active adaptive management, on the other hand, involves changing management strategies altogether in order to test completely new hypotheses. So while the goal of passive adaptive management is to improve existing management approaches, the goal of active

adaptive management is to learn by experimentation in order to determine the best management strategy."

Extending this to CTF comments in their most elemental form might lead to the following three statements phrased in intentionally contrasting terms:

1. Precautionary Statement: "The CTF believes that there is a lack of scientific certainty concerning the long-term site conditions (such as erosion impacts on the SDA and NDA) and the potential harm to human health and safety and the environment are potentially catastrophic from a leak of radionuclides into the environment. Therefore, the decision to perform a full cleanup of the site for unrestricted release should be affirmatively made at this time."
2. Adaptive Statement 1: "The CTF believes that there is a lack of scientific certainty concerning the long-term site conditions (such as erosion impacts on the SDA and NDA) and the potential harm to human health and safety and the environment are potentially catastrophic from a leak of radionuclides into the environment. Therefore, DOE and NYSERDA should conduct assessments, studies and pilot projects to determine the best methods, technologies, procedures and timing for the safe removal of wastes at the site."
3. Adaptive Statement 2: "The CTF believes that there is a lack of scientific certainty concerning the long-term site conditions (such as erosion impacts on the SDA and NDA) and the potential harm to human health and safety and the environment are potentially catastrophic from a leak of radionuclides into the environment. Therefore, DOE and NYSERDA should conduct assessments, studies and pilot projects to determine the best management strategy. While such a strategy is being developed the wastes should be monitored and maintained in place until such time as information indicates conclusively that their continued presence is unsafe at which time they should be removed."

- IX. **(Added 3-11-09, substantial portions from CTF final report)**  
**Temporary on-site storage.** The CTF recognizes a number of the decisions for the Site are impacted by national considerations and political decisions concerning the long-term disposition of high-level radioactive wastes. Consequently, some wastes could remain at the Site for a period of several decades after exhumation awaiting relocation to a high-level radioactive waste repository. The CTF expects that all decisions regarding such wastes will be guided by the belief that the only appropriate, final action with regard to these wastes is for them to be removed from the Site.

During such time as this larger question of a national high-level waste repository or the ability of other facilities within the DOE complex to store wastes awaiting a determination on a national repository, the CTF expects that wastes on the site will be exhumed and temporarily stored in a manner that allows for its monitoring to readily, safely and regularly determine if the materials are leaking or migrating. The CTF prefers that all wastes be excavated and placed in a structure where monitoring and retrieval for repackaging and recontainment, if necessary, will be relatively easy.

The CTF expects that any structures built in the ground or above the ground at the Site to contain wastes will be constructed to withstand severe natural events such as tornadoes, earthquakes, and the hazards of flooding and erosion. The CTF expects that such structures also have the ability to withstand intentionally destructive acts. The CTF expects that all wastes that remain at the Site will be stored in such a way that they can be retrieved if the containment system and/or packaging fails. The CTF expects that an alternative storage system will be developed so as to be readily available should the primary containment system fail

- X. **(Added 3-11-09) Site Suitability.** Underlying the CTF's desire that the cleanup result in unrestricted release of the Site is the belief that the Site is not suitable for the long-term storage of long-lived radionuclides. In the years since the site was selected and the facilities constructed, the government and the public has come to more clearly understand the dangers associated with radioactive wastes and the conditions and criteria that will maximize protection of human health and safety and the environment during the handling, management, reprocessing, storage and disposal of radioactive materials. The Western New York Nuclear Service Center Site does not meet existing NRC licensing criteria. Because the Site

does not meet current licensing criteria, a logical assumption is that it is not safe for the long-term storage or disposal of wastes. Therefore, the CTF believes that the site should be closed in an unrestricted release status and that it should have long-term waste storage.

- XI. **(added 3-11-2009) Specific Commitments to Assessments and Pilot Studies.** The CTF encourages DOE and NYSERDA to conduct assessments studies and pilot projects with the purpose of assessing technologies and processes for safely removing the high-level waste tanks, the NDA and the SDA. These activities should be initiated at the outset of Phase 1 so as to ensure timely planning and decision making. The public should be fully informed and consulted in these efforts.

As part of the ongoing permitting process for the Part 373/RCRA program, the New York State Department of Environmental Conservation may require mechanisms for assessments and continuation of work. Such permitting requirements might include activities such as pilot exhumation studies and projects. The CTF encourages DOE and NYSERDA to commit to such projects in the EIS and not simply through what may be required by NYSDEC. In addition, the CTF understands that the RCRA process has public participation components; nonetheless, the CTF strongly encourages NYSDEC, DOE and NYSERDA to make these processes robust and ensure public participation beyond the minimally required processes.

## **Over next several meetings develop language on the underlying rationale and detailed comments on:**

**(No changes)**

- I. Phase 1 performance measures
- II. Erosion/geologic conditions
- III. Concerns on long-term stewardship feasibility because of reliance on institutional controls
- IV. Potential impact on Great lakes water supply

Encourage the agencies to perform some assessments, pilot projects and other initiatives as soon as practical (catalogue of items suggested to date):

- Dry the burial ground trenches
- Pilot exhumations of burial ground
- Examine options for above ground retrievable storage while disposal technologies and locations are assessed
- Examine feasibility of potential uses for portions of the site that could provide economic benefit to the community, e.g., timber harvests

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