



Idaho National Engineering and Environmental Laboratory Citizens Advisory Board

Overall Approach to Cleanup and Closure of the Idaho Nuclear Technology and Engineering Center

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7 The Idaho National Engineering and Environmental Laboratory (INEEL) Citizens Advisory
8 Board (CAB) is extremely interested in the cleanup and closure of the Idaho Nuclear Technology
9 and Engineering Center (INTEC). That was the theme of our March 2005 meeting. We received
10 extensive presentations at our meeting, which provided information on:

- 11 • Department of Energy (DOE)'s management of the high-level waste and spent nuclear fuel
12 programs;
- 13 • Ongoing cleanup of the sodium bearing waste, calcine, and the high level waste tanks;
- 14 • Status of the Foster-Wheeler facility;
- 15 • Status of the Idaho Comprehensive Environmental Response, Compensation and Liability
16 Act Disposal Facility; and
- 17 • Programmatic Spent Nuclear Fuel Management and the Idaho National Engineering
18 Laboratory Environmental Restoration and Waste Management Programs Environmental
19 Impact Statement supplement analysis.

20 In addition, the INEEL CAB received a presentation on the Naval Reactors Facility (NRF)
21 program to manage spent nuclear fuel. (NRF lies within the boundaries of the Idaho National
22 Laboratory [INL].)

23 The presentations were all delivered by federal staff and were very well presented. It appears
24 that DOE is making solid progress at INTEC, and spent nuclear fuel is now in safer storage.

25 The INEEL CAB has some recommendations for consideration by DOE regarding the ongoing
26 cleanup and closure of INTEC.

27 **Recommendations Related to DOE's Decision-Making Process**

28 The National Academy of Sciences (NAS) recently completed two independent reviews of DOE,
29 including one addressing the radioactive waste management program and the other addressing
30 DOE's decision-making processes. One NAS conclusion is that DOE lacks a well-structured
31 credible decision-making process and, consequently, lacks long term plans for waste presently
32 managed at INTEC. Symptoms of this problem include a lack of final determinations regarding
33 disposition of the tank waste and duplicative and possibly unnecessary repackaging of waste
34 destined for the geologic repository. The NAS study went on to describe a set of decision-
35 making steps that would result in stable, long-term plans for the future of INTEC waste.

36 **The INEEL CAB recommends that DOE seriously consider adoption of the decision-**
37 **making process recommended by NAS and immediately take steps to develop sustainable**
38 **plans for managing all waste streams.**

39 **Foster-Wheeler Independent Spent Fuel Storage Facility**

40 The presentation addressing the status of the Foster-Wheeler facility revealed that the design for
41 the facility is solid and appropriate. **The INEEL CAB recommends that DOE make every**
42 **effort to support Foster-Wheeler's efforts to construct and begin operating that facility in a**
43 **timely manner.** We understand that financial and contract problems may preclude timely
44 construction. **In the event that Foster-Wheeler is unable to construct the facility as**
45 **scheduled, the INEEL CAB recommends that DOE take whatever steps are necessary to**
46 **assure timely completion of construction and initiation of operations of the facility.**

47 **Long-Term Disposition of Spent Nuclear Fuel**

48 It now appears that the geologic repository proposed for Yucca Mountain in Nevada will not
49 open as scheduled in 2010. Considerable public opposition to Yucca Mountain continues. DOE
50 has been unable to submit a license application to the Nuclear Regulatory Commission to date.
51 DOE is now planning for an opening in 2012 and there is possibility that it may never open. We
52 understand that many generators of spent nuclear fuel (including private sector utility companies
53 that own and operate nuclear power plants) are making contingency plans for long-term storage
54 of spent nuclear fuel that was scheduled for disposal at Yucca Mountain.

55 **The INEEL CAB recommends that DOE make contingency plans for waste under its**
56 **purview that has been slated for disposal at Yucca Mountain.** In accordance with our
57 recommendation addressing DOE's decision making process, contingency planning should be an
58 integral part of the overall decision making effort so that any resulting contingency plans are
59 equally credible. Regardless of final disposition, it appears that DOE may need to plan, site, and
60 construct additional interim storage capacity for spent nuclear fuel and high-level waste,
61 including calcine, at the INEEL.

62 Even if Yucca Mountain does open, the capacity of the facility will be filled with current
63 inventories of spent nuclear fuel and high-level waste. **The INEEL CAB recommends that**
64 **DOE begin planning now for additional repository capacity.**

65 It is possible that the Foster-Wheeler facility, after it is built, could be used as an interim storage
66 facility for quite some time, particularly because we understand that the facility will be modular
67 in design and could be expanded on an as-needed basis. **While operation of the Foster-**
68 **Wheeler facility may be appropriate for interim storage, the INEEL CAB strongly opposes**
69 **utilization of the facility for permanent storage of spent nuclear fuel.**

70 The INEEL CAB understands that the Idaho Settlement Agreement allows for continued
71 acceptance of specified spent nuclear fuels for storage at the Idaho National Laboratory until
72 such time as a disposal facility is available. **The INEEL CAB recommends that those fuels**
73 **continue to be accepted for storage as allowed by the Idaho Settlement Agreement.**

74 **Toxic Substances Control Act Incinerator**

75 The INEEL CAB has learned that DOE will not cease operation of the Toxic Substances Control
76 Act incinerator at Oak Ridge. That facility is licensed and operational and the CAB understands
77 that use of the incinerator for treatment of certain INEEL waste has been considered in the past.
78 **The INEEL CAB recommends that DOE continue to evaluate use of the TSCA facility for**
79 **treatment of any waste, which meets acceptance criteria.**

80 **Newly Generated Waste**

81 DOE is expected to propose new missions for the INL, including the advanced fuel cycle
82 initiative, that could use technologies and processes similar to the historical reprocessing that
83 occurred at INTEC. The INEEL CAB is concerned that such new missions could result in waste
84 that are very similar to the waste currently being managed at the Tank Farm. The INEEL CAB
85 is unsure of DOE's plans for management of these potential waste streams. **The INEEL CAB**
86 **recommends that disposal of such waste streams be planned so as not to delay or**
87 **compromise the closure of the INTEC reprocessing facility. Furthermore, the INEEL CAB**
88 **recommends that the Foster-Wheeler facility be dedicated for interim fuel storage only.**
89 **The INEEL CAB is opposed to use of the Foster-Wheeler facility for storage of newly**
90 **generated spent nuclear fuel.**

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