# MEMORANDUM OF AGREEMENT CONCERNING RECEIPT, STORAGE, AND HANDLING OF RESEARCH QUANTITIES OF COMMERCIAL SPENT NUCLEAR FUEL AT THE IDAHO NATIONAL LABORATORY

This Memorandum of Agreement (Agreement) is entered this day of January 2011 between the United States Department of Energy (DOE) by and through the Manager and Designated Head of Contracting Activity for the DOE Idaho Operations Office and the State of Idaho by and through the Governor of the State of Idaho and the Idaho Attorney General (Idaho).

### **PURPOSE:**

Consistent with the principles set forth in that certain Settlement Agreement and Order dated October 13, 1995 in the matter of <u>Public Service Co. of Colorado v. Batt, No. CV 91-0035-S-EJL (D. Id.)</u> and <u>United States v. Batt, No. CV-91-0054-S-EJL (D. Id.)</u> ("1995 Agreement"), the purpose of this Agreement is to provide for efficient and safe development of research capacities at the Idaho National Laboratory (INL) related to the next generation of nuclear reactor fuels while continuing to ensure Idaho does not become a defacto repository for the Nation's spent nuclear fuel from commercial nuclear power plants. For this reason the DOE and Idaho (collectively "the Parties") agree as follows:

#### **RECITALS**

WHEREAS, the United States is pursuing energy independence and research on energy processes which will reduce the amount of carbon dioxide generated in the energy cycle and it is anticipated that, to some degree, these goals will involve increased reliance on nuclear power; and

WHEREAS, the United States' ability to increase its reliance upon nuclear energy will, in turn, be dependent upon development of the next generation of nuclear fuels which will provide greater energy efficiency, reduced lifecycle costs and the generation of less waste; and

WHEREAS, the 1995 Agreement provides in section F that the INL is designated as the DOE Spent Fuel Lead Laboratory for the "research development and testing of treatment, shipment and disposal technologies for all DOE spent fuel" and provides for the receipt of DOE spent nuclear fuel for research purposes; and

WHEREAS, in furtherance of this mission, the INL has developed and possesses unique technologies and capabilities which will further the research development and testing of new fuel types and technologies; and

WHEREAS, in 2002 the DOE designated the INL as the Nation's lead laboratory for nuclear energy research; and

WHEREAS, section D.2.e of the 1995 Agreement restricts the INL from accepting any shipments of "spent fuel from commercial nuclear power plants" (Commercial Power SNF) impeding INL from utilizing its unique capabilities and technologies to assist in the important work of research and development of the next generation of commercial fuel technology, slowing that development and making it more costly to the American public; and

WHEREAS, the Parties concur that legitimate research conducted at the INL in furtherance of safe and efficient nuclear power production, including research on commercial spent nuclear fuel, is consistent with the spirit and intent of the 1995 Agreement; and

**WHEREAS**, section J.1 of the 1995 Agreement provides that Idaho, in its sole discretion, may waive portions of the 1995 Agreement; and

WHEREAS, Idaho will continue to insist upon the safe management of spent nuclear fuel and nuclear waste and the ultimate disposition of such materials outside of the State of Idaho;

## NOW THEREFORE IT IS HEREBY AGREED:

- 1. This Agreement is terminable at will in the sole and exclusive discretion of the State of Idaho upon written notice to the DOE and no implied covenant of good faith and fair dealing shall be applicable to Idaho's decision to exercise this right.
- 2. Pursuant to the terms and conditions of this Agreement and solely for the purpose of research conducted at the INL; Idaho in its sole and exclusive discretion, grants a conditional waiver of the section D.2.e prohibition on the shipment of spent nuclear fuel from commercial nuclear power plants to the INL.

# Specific Conditions

- 3. Limits and Material Management:
- (a) INL may receive for the purpose of research and examinations conducted at the INL research quantities of Commercial Power SNF. For purposes of this Agreement "research quantities" shall mean only those quantities of Commercial Power SNF necessary for the specific research project for which the shipment to INL is made. This will be documented pursuant to paragraph 6 below.
- (b) As further limitation, not more than 400 kilograms total heavy metal content of Commercial Power SNF may be received in any calendar year. This will be documented pursuant to paragraph 6 below.

- (c) A shipment of Commercial Power SNF to INL will count as a shipment of DOE SNF for purposes of the annual shipment limits contained in section D.2.f of the 1995 Agreement for each calendar year in which such shipment occurs.
- (d) The amount of Commercial Power SNF, measured in fractions of metric tons heavy metal (MTHM), including the equivalent amount contained in any wastes generated during research, remaining on site at the end of each calendar year will count toward the total metric tonnage limits for DOE SNF contained in section D.2.c of the 1995 Agreement. However, equivalent amounts of MTHM contained in any wastes generated during research that are shipped off-site in subsequent years may be deducted from the total metric tonnage limits for DOE SNF contained in section D.2.c of the 1995 Agreement.
- (e) The Commercial Power SNF will be stored in appropriate SNF storage and will be managed as SNF until shipped off-site in compliance with the 2035 shipment deadline of the 1995 Agreement.
- (f) Nothing in this Agreement shall be construed to allow DOE to exceed the 55 MTHM limit for SNF allowed by the 1995 Agreement.
- 4. <u>Management of wastes generated during examination</u>: Wastes generated during the research activity will be managed dependent upon the nature of research conducted in the form of destructive or non-destructive examination. Material that is classified as transuranic or low level waste may be consolidated with other laboratory wastes and managed appropriately.
- 5. <u>Library Storage for Future Research</u>: DOE shall further be permitted to keep a library of spent fuel types at the INL consisting of materials brought to INL under Paragraph 3. At no time shall the library contain an amount more than ten (10) kilograms total heavy metal which shall be documented pursuant to paragraph 6 of this Agreement.
- (a) Said library of materials shall be solely for the purpose of retaining existing samples for future research at the INL.
- (b) All materials kept in library storage shall count towards the over-all limit established by Section D.2.c of the 1995 Settlement Agreement and nothing in this Agreement shall be construed to allow DOE to exceed that limit.
- (c) Library storage of the research quantities of SNF at the INL shall be permitted only for the duration of this Agreement and only so long as INL continues to be designated as the DOE lead laboratory for nuclear energy research.

## 6. Notification and Reporting:

- (a) Prior to January 1 of each calendar year the DOE will notify Idaho of potential receipts of Commercial Power SNF to be shipped to the INL during the following calendar year pursuant to this Agreement. Such notification will specify:
  - (i) the source of Commercial Power SNF.
  - (ii) the amount of MTHM contained in each shipment,
  - (iii) the research purpose for each shipment including documentation showing that a research project has been authorized, contracted or funded,
  - (iv) the schedule for completion of the research project,
  - (v) the anticipated volume of waste to be generated by the research, and
  - (vi) The potential disposition path for remaining SNF material.
- (b) By not later than January 31 of each calendar year Idaho will be notified of the amounts of Commercial Power SNF actually received in the previous calendar year. The DOE will further provide a report updating the information concerning previous shipments and research projects including the information contained in paragraph 6.a.(i-vi) above related to each shipment.
- (c) By not later than January 31 of each calendar year the DOE will provide a report on the status of the library of Commercial Power SNF kept at INL pursuant to paragraph 5 above, including the following:
  - (i) The total amount of material in library storage:
  - (ii) The source of each material in library storage;
  - (iii) The amount of each material in library storage specific to each source or fuel type:
  - (iv) The anticipated future research related to each type and amount of material in library storage; and
  - (v) The anticipated date upon which research related to each type and amount of material in library storage will occur.
- (d) A separate copy of all reports and or notifications required by this Agreement shall be submitted to Idaho at the following addresses:

Idaho Department of Environmental Quality Attn: Director 1410 N. Hilton Boise Idaho 83706

Idaho Department of Environmental Quality Attn: INL Oversight Program 1410 N. Hilton Boise Idaho 83706

Office of the Idaho Attorney General, Natural Resources Section 700 W. State Street P.O. Box 83720 Boise Idaho 83720-0010

- 7. This Agreement reflects a conditional waiver of section D.2.e of the 1995 Agreement related to the shipment of research quantities of Commercial Power SNF to Idaho. This Agreement shall not be construed to alter or amend any provisions of the 1995 Agreement.
- 8. All Commercial Power SNF shipped to Idaho pursuant to this Agreement and stored at the INL for any reason shall be removed from Idaho in accordance with the deadline set forth in section C.1 of the 1995 Agreement.
- 9. If for any reason this Agreement is terminated by either party or if the mission of the INL is changed and it loses its lead laboratory for nuclear energy status, shipments of research quantities of Commercial Power SNF shall cease immediately and all SNF stored or otherwise located at the INL shall be removed from Idaho in accordance with the deadline set forth in section C.1 of the 1995 Agreement.

Richard B. Provencher

Manager, Idaho Operations Office United States Department of Energy

DATED this \_\_\_\_\_ day of January, 2011.

DATED thisday of January, 2011.
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C. L. "Butch" Otter
Governor of Idaho
DATED thisdtay of January, 2011.
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Lawrence Wasden Idaho Attorney General