APPENDIX A
OVERVIEW OF THE PUBLIC PARTICIPATION PROCESS

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A.1 Public Scoping Comments

The Notice of Intent for this *Environmental Impact Statement for the Proposed Consolidation of Nuclear Operations Related to Production of Radioisotope Power Systems (Consolidation EIS)* was issued on November 10, 2004, and announced seven scoping meetings and a comment period (November 10, 2004, through January 31, 2005). **Figure A–1** illustrates the National Environmental Policy Act (NEPA) process for the *Consolidation EIS* and how the Notice of Intent and public scoping period are part of the overall process.

The U.S. Department of Energy (DOE) conducted scoping meetings to support the *Consolidation EIS* at the locations shown in **Table A–1**; dates of the meetings and public attendance are also provided. These scoping meeting sites were chosen based on the proposed alternatives identified by DOE for consolidation of radioisotope power systems (RPS) nuclear production operations.

All public scoping comments were reviewed, and comments on similar or related topics were grouped under comment issue categories, as shown in **Table A–2**. Each comment issue category was evaluated, and a response has been prepared and included in the table.

Table A–1 Public Scoping Meeting Locations, Dates, and Attendance

Location	*Date*	*Attendance*
Idaho Falls, Idaho	December 6, 2004	42
Jackson, Wyoming	December 7, 2004	9
Fort Hall, Idaho	December 8, 2004	20
Twin Falls, Idaho	December 9, 2004	12
Los Alamos, New Mexico	December 13, 2004	12
Oak Ridge, Tennessee	December 15, 2004	12
Washington, DC	December 17, 2004	13
	Total	120

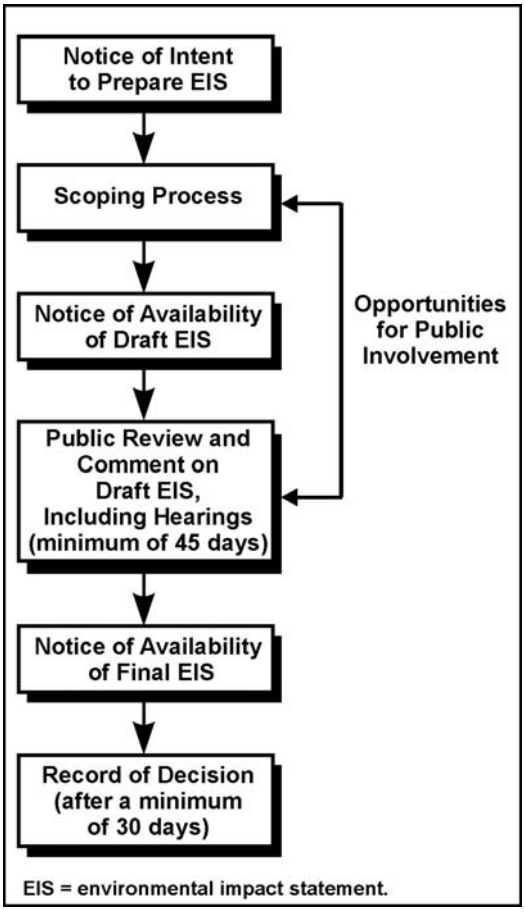

Figure A–1 National Environmental Policy Act Process for the *Consolidation EIS*

Table A–2 Public Scoping Issues and Responses

Public Scoping Issue	*DOE Response*
Impacts	
Increased usage of the Advanced Test Reactor (ATR) by DOE's Office of Nuclear Energy, Science and Technology could potentially displace existing tertiary operations such as medical isotope production (cobalt-60).	Evaluation of ATR's capabilities confirms that the plutonium-238 production mission would not displace existing tertiary operations such as medical isotope production (cobalt-60).
Would there be an increase in jobs at the Idaho National Laboratory (INL) (formerly Idaho National Engineering and Environmental Laboratory) with this new mission?	This new mission, under the Consolidation Alternative, would create temporary jobs for construction and less than 100 jobs for operation of the new facilities at the Materials and Fuels Complex (MFC) (formerly Argonne National Laboratory-West).
American Indians should benefit from the new mission.	This subject is not part of the scope of this environmental impact statement (EIS).
DOE is proposing to consolidate all activities related to RPS to INL because the population density there is less than at other sites, so if there were a radiological release, then fewer people would be exposed (i.e., fewer fatalities).	INL offers appropriate security for the storage and handling of neptunium-237 and plutonium-238; an existing operating nuclear reactor (ATR) for target irradiation capable of producing DOE's goal of 5 kilograms per year of plutonium-238; and the already completed and operational Space and Security Power Systems Facility at MFC.
Waste Management	
The EIS should provide a detailed accounting of the wastes that would be generated under each alternative evaluated in the EIS over the entire life cycle; the processes for managing these wastes; and the location of their ultimate disposition.	This information is included in Chapter 4 of this EIS.
All alternatives should analyze the impacts of additional waste generation from Office of Nuclear Energy, Science and Technology consolidation activities on INL's overall cleanup program.	These impacts are analyzed in Chapter 4 of this EIS.
All newly generated waste from Office of Nuclear Energy, Science and Technology activities should be treated and transported off site, thereby, preventing it from becoming "legacy waste."	As discussed in Chapter 4 of this EIS, all generated radioactive waste would be treated and transported to an appropriate offsite waste disposal location.
All alternatives evaluated in the EIS should be in full compliance with the State of Idaho Settlement Agreement and Consent Order.	All alternatives in this EIS are in full compliance with the State of Idaho Settlement Agreement and Consent Order.
The transuranic waste produced from this consolidation project is non-defense related; therefore, it does not meet the Waste Isolation Pilot Plant (WIPP) acceptance criteria. Formal documentation of the transuranic waste acceptability at WIPP should be finalized before consolidation occurs.	WIPP has issued formal documentation identifying this transuranic waste at LANL as acceptable for disposal at WIPP. Formal documentation identifying the transuranic waste as acceptable for disposal at WIPP will be finalized before consolidation occurs.
Emergency Response	
Each alternative evaluated in the EIS should identify who would respond to a transportation accident involving a radiological release (plutonium-238 and neptunium-237) and what emergency response measures would be implemented if there is a radiological release.	Transportation accident emergency response measures are discussed in Chapter 4 of this EIS.
Emergency response teams should be trained to address potential transportation accidents involving a radiological release such as plutonium-238. If the Shoshone-Bannock Tribes are the first responders to an accident on the reservation, then radiological training would be required.	Emergency response teams are or would be trained to address potential transportation accidents involving a radiological release of plutonium-238.

Public Scoping Issue	*DOE Response*
Transportation/Shipping Containers	
How many shipments of plutonium-238 and neptunium-237 are being planned for on- and offsite shipping? What route would be utilized for these shipments?	The number and route of shipments are discussed in Appendix D and analyzed in Chapter 4 of this EIS.
The tribal emergency response team should be notified in advance of the plutonium-238 shipments, especially when traveling through the reservation.	It is DOE policy not to notify any emergency response organization of the date of a safe secure transport such as that of plutonium-238.
A transportation agreement between DOE and the Shoshone-Bannock Tribes should be in place before continuing any more shipments across the reservation.	This subject is outside the scope of this EIS.
How would the plutonium-238 be transported, and what security measures would be in place to prevent accidents, a terrorist attack, and/or radiological releases?	All intersite transportation of plutonium-238 would use licensed shipping containers in DOE safe secure transports with appropriate DOE security, as discussed in Appendix D of this EIS.
What shipping container would be used to ship the plutonium-238? How are these containers tested and evaluated so as to ensure their efficacy?	The certified Type B 5320 package (approved in Title 10 of the *Code of Federal Regulations*, Part 71 [10 CFR 71]), would be used to ship plutonium-238. The container is tested to meet all the accident conditions specified in 10 CFR 71, which include drops, puncture, fire, and flooding or water immersion. This is discussed further in Appendix D of this EIS.
What road would be used to transport the plutonium-238 between ATR and the RPS facility? Would this road be secure?	A new 24-kilometer (15-mile)-long road, described in greater detail in Chapter 2 of this EIS, would be constructed that connects ATR and the RPS facility at MFC. This road would exist solely inside the INL boundaries and be isolated and controlled by INL. The road would be secure during all plutonium-238 shipments.
Security	
What security measures are in place at INL that makes the site appealing for the proposed consolidation site?	MFC at INL has a Perimeter Intrusion Detection and Assessment System (PIDAS) in place that surrounds all structures involved with the production of RPS and plutonium-238.
Does DOE intend to increase security measures with the new consolidation mission?	Current DOE security measures provide the highest level of protection for the Consolidation Alternative at the INL MFC.
Defense/Terrorist Concerns	
INL would become a prime terrorist target with this new consolidation mission and with the increased stockpile of radiological materials.	The increase in the inventory of radiological materials at INL due to the Consolidation Alternative or Consolidation with Bridge Alternative would be extremely small as compared to the existing radiological material inventory at INL, and the radiological material at MFC would be in a secure PIDAS area.
Could plutonium-238 be used in a “dirty bomb”?	Plutonium-238 could be used in a “dirty bomb,” but its high decay heat would render it much less attractive, due to handling problems, than other radioisotopes. Its storage and management in the PIDAS secure area of MFC make it extremely difficult to access. Furthermore, its sintered oxide form inside the manufactured RPS, which would be transported from INL under all alternatives, is not suitable for dispersion in a dirty bomb.

Public Scoping Issue	***DOE Response***
Could plutonium-238 be used in nuclear weapons, and, if so, does DOE have any intentions of supporting a defense mission while at INL?	In theory, plutonium-238 could be used in a nuclear weapon; however, its very high decay heat causes it to be too unstable for use in such a weapon. All current and planned U.S. nuclear weapons use either plutonium-239 or highly enriched uranium-235. The DOE nuclear weapons complex does not include INL, and DOE has no intentions of supporting nuclear weapons work at INL. See Appendix E of this EIS for further details on this subject.
American Indian Cultural Resources	
All alternatives evaluated in the EIS should include an analysis of the impacts on the American Indian culture (i.e., hunting, fishing, etc.), with special emphasize on the Shoshone-Bannock Tribes' treaty rights.	Impacts on the American Indian culture are evaluated in the cultural resource and environmental justice sections in Chapter 4 of the EIS.
Would the security at INL be upgraded to the point where the Shoshone-Bannock Tribes would not have access to aboriginal lands that INL presently occupies?	INL security would not affect current Shoshone-Bannock Tribes' access to aboriginal lands. DOE is committed to meet the American Indian Religious Freedom Act of 1978 (42 United States Code [U.S.C.] 1996) and Executive Order 13007 (May 24, 1996).
National Environmental Policy Act	
What is the connection between the *Programmatic Environmental Impact Statement for Accomplishing Expanded Civilian Nuclear Energy Research and Development and Isotope Production Missions in the United States, Including the Role of the Fast Flux Test Facility (NI PEIS)* and the *Environmental Impact Statement for the Proposed Consolidation of Nuclear Operations Related to Production of Radioisotope Power Systems (Consolidation EIS)*? Isn't this segmentation?	The *NI PEIS* established the environmental impacts of a wide spectrum of alternatives for domestic production of radioisotopes, including plutonium-238. Its Record of Decision (ROD) selected domestic production with existing facilities, and its amended ROD, reflecting security concerns from the terrorist attacks of September 11, 2001, redirected storage of neptunium-237 to INL instead of the Oak Ridge National Laboratory (ORNL). This *Consolidation EIS*, partly in response to September 11, 2001, which occurred after the *NI PEIS* was issued, focuses on increased security by using protected areas at INL, minimizing transport of neptunium-237 and plutonium-238, and achieving increased efficiencies associated with the mission being accomplished at one location. These two EISs do not constitute segmentation, but rather a logical extension of one to the other and an accounting for changing security concerns.
INL should prepare a sitewide EIS to incorporate the change in mission to include the proposed consolidation and Office of Nuclear Energy, Science and Technology activities.	This *Consolidation EIS* presents INL sitewide impacts of this mission. Cumulative impacts at INL are discussed in Chapter 4.
Why is DOE converting the neptunium-237, currently stored at the Savannah River Site, into neptunium-237 oxide for shipment to INL, when the NEPA process is not finished?	This action is covered by the amended ROD to the *NI PEIS*. (*Federal Register* Volume 69, No. 156, August 13, 2004).
The *NI PEIS* ROD made a determination to use the High Flux Isotope Reactor (HFIR) for plutonium-238 production; why has DOE changed its mind?	The *NI PEIS* ROD made a determination to use both ATR and HFIR for plutonium-238 production. However, HFIR has always been limited to a maximum annual plutonium-238 production rate of 2 kilograms per year due to other competing missions, whereas ATR was found to be capable of meeting DOE's goal of 5 kilograms per year of plutonium-238. For the purpose of consolidation at one DOE site, the higher capacity of ATR at INL makes this site the logical choice, along with its higher security capability for consolidation. A new Consolidation with Bridge Alternative has been added to the EIS that exclusively uses HFIR, also considered available to supplement ATR under the No Action Alternative in this EIS.

Public Scoping Issue	*DOE Response*
Production/Costs	
How much plutonium-238 would be produced per year? How much over the entire life cycle of the program?	The goal for this program is to produce 5 kilograms per year of plutonium-238 for a 35-year time period, which is a total of 175 kilograms of plutonium-238.
How much plutonium-238 is used in one radioisotope thermoelectric generator (RTG)? How much plutonium-238 do the national security users require for their applications?	Current-design RTGs like that used on the National Aeronautics and Space Administration (NASA) Cassini mission use approximately 9.6 kilograms of plutonium-238 each. Cassini required three such RTGs, or a total of about 28.8 kilograms of plutonium-238. The classified nature of national security requirements for plutonium-238 precludes identification of any specific plutonium-238 mass needs. However, national security end users have identified that they will have a continuous and probably increasing need for future plutonium-238 in RTGs and radioisotope heater units (RHUs).
How many RTGs have been built? How much does each RTG cost?	DOE has provided 44 RTGs and more than 240 RHUs for NASA space missions since 1961. DOE has produced more than 500 RTGs and RHUs for all applications since 1961. The cost of an RTG is outside the scope of this EIS.
Russia	
How much plutonium-238 does the United States purchase from Russia?	To date, the United States has purchased 16.5 kilograms of plutonium-238 and has an existing contract to allow the purchase of an additional 5 kilograms of plutonium-238.
Will the United States continue to purchase plutonium-238 from Russia after we establish our own domestic capability?	Currently, the United States is planning to continue purchasing plutonium-238 from Russia.
Why does DOE need to reestablish a domestic capability to produce plutonium-238 when the Russians are willing to sell plutonium-238 to the United States?	The agreement with Russia does not allow the United States to use this plutonium-238 for national security needs. Therefore, the Russian plutonium-238 can be used only for NASA missions. There is no guarantee that Russia can provide a long-term stable supply of plutonium-238 to meet U.S. non-national-security needs.
RPS Facility	
What "purification" or chemical process does DOE intend to use at INL? Does DOE plan to use an incinerator?	The chemical process that would be used at INL is identical to that currently used at Los Alamos National Laboratory (LANL) and intended for the Radiochemical Engineering Development Center at ORNL under the No Action Alternative and as described in the *NI PEIS* and in Chapter 2 of this EIS. No incinerator would be used.
Where would the new facility be located, and how large would it be?	The new facility would be located at MFC at INL within the PIDAS. Its dimensions are discussed in detail in Chapter 2 of this EIS.
How much would this new modern facility cost?	The cost for this facility is presented in Chapter 2 of this EIS.
What safeguards would be installed for safeguarding workers, the public, and the environment? How would this be different from LANL, which is currently performing the assembly and encapsulating portion of the RPS and has a history of accidents and worker exposure?	The new facility at the MFC INL would be a state-of-the-art facility with modern equipment and a high seismic-design capacity and would incorporate all the design and operational lessons learned from previous DOE facilities, including those at LANL. It would also be located inside a PIDAS secure area at INL.
How many stages of high-efficiency particulate air (HEPA) filters would be installed in the new facility?	The new facility is planned to have four physically separated safety-grade HEPA filter stages.

Public Scoping Issue	***DOE Response***
How efficient are HEPA filters during an accident (e.g., fire)? Does DOE perform any type of quality assurance on the HEPA filters, and, if so, what type of tests do they perform? How often are the HEPA filters checked and replaced?	During an accident, HEPA filters remove greater than 99 percent of all respirable particulates. DOE certifies and tests all safety-grade HEPA filters in accordance with its *Nuclear Air Cleaning Handbook*, DOE-HDBK-1169-2003. These tests ensure minimum filter performance of 99.97 percent retention for 0.3-micron particles. HEPA filters are checked for differential pressures by daily surveillance and replaced every 10 years for dry conditions and 5 years for wet conditions. In the event of an accident, the HEPA filters are immediately replaced. Appendix C of this EIS shows that a fire accident will not affect filter efficiency. Periodic monitoring and testing of in-place, safety-significant or safety-class HEPA filters are required by the safety bases of a nuclear facility. In general, these requirements may vary depending on the individual requirements of the facility and the type of operations. For a typical plutonium facility, there is a technical safety requirement that the differential pressure across each HEPA filter stage in each exhaust system be regularly monitored and that the HEPA filter be replaced when the pressure exceeds a predetermined value. In addition, all sites perform a periodic, in-place test to ensure that the removal efficiency is maintained. For most sites, this is done annually and is generally also a surveillance requirement of the safety analysis. Table 8–2 of the *Nuclear Air Cleaning Handbook*, recommends in-place system-leak tests of HEPA filters "every 12 months for DOE sites as a basis or more/less frequency, as determined by a technical evaluation."
Additional Alternatives to Be Analyzed	
Restarting and operating the Fast Flux Test Facility (FFTF) located at Hanford should be considered a viable option for plutonium-238 and medical radioisotope production.	DOE decided in the *NI PEIS* ROD that "the FFTF would be permanently deactivated." DOE has also initiated an EIS for the decommissioning of FFTF (Notice of Intent for DOE/EIS-0364, dated August 13, 2004). On May 19, 2005, as part of deactivation activities, a hole was drilled in the FFTF reactor vessel core support structure to allow access for the removal of the liquid sodium coolant. This effectively rendered FFTF inoperable and foreclosed the option of restart.
The funds being used to finance this consolidation effort should be used to restart FFTF.	DOE decided in the *NI PEIS* ROD that "the FFTF would be permanently deactivated." DOE has also initiated an EIS for the decommissioning of FFTF (Notice of Intent for DOE/EIS-0364, dated August 13, 2004). On May 19, 2005, as part of deactivation activities, a hole was drilled in the FFTF reactor vessel core support structure to allow access for the removal of the liquid sodium coolant. This effectively rendered FFTF inoperable and foreclosed the option of restart.
Constructing a new reactor or restarting an existing DOE reactor should be evaluated, especially when considering the cost of this consolidation project.	In the *NI PEIS* ROD, DOE decided to use existing, operating reactors only for production of plutonium-238. DOE is not revisiting this decision at this time.
HFIR should be maintained as a primary and/or secondary alternative for producing plutonium-238. With the existence of HFIR, the consolidation effort is unwarranted.	In this EIS, HFIR is being considered as both a primary (Consolidation with Bridge Alternative) and secondary (No Action Alternative) producer of plutonium-238. However, HFIR does not, by itself, have the capacity to produce the DOE requirement of 5 kilograms per year of plutonium-238.
Plutonium-238 currently being used in defense applications should be recovered and reallocated to the national security applications and NASA missions that DOE supports.	DOE currently recovers and reallocates available plutonium-238 for national security and NASA missions and will continue this activity.

Public Scoping Issue	*DOE Response*
National Security Initiatives	
How are the RTGs being used for national security? Is it being used for nuclear weapons, space-based nuclear weapons (e.g., Star Wars), or military satellites?	The specific use of RTGs for national security is classified. However, national security use of RTGs does not include nuclear weapons, space-based nuclear weapons, or military satellites.
Who are the national security users – the U.S. Department of Defense?	National security users are classified.
How much plutonium-238 is being used in national security applications? How much for NASA missions?	As presented in Chapter 2, Table 2–1 of this EIS, plutonium-238 requirements through 2010 for national security and NASA are 25 and 8 kilograms, respectively.
Out of Scope	
DOE and NASA should consider nonradioactive technologies such as solar panels for space exploration.	The *NI PEIS* discussed the use of solar panels for space exploration and concluded that their use is impractical for deep space missions.
Plutonium-238 production is like reprocessing.	Plutonium-238 production is not like reprocessing, as it does not involve removal of fissionable material from spent nuclear fuel.
NASA and DOE should be good stewards of the environment and stop using radiological materials in their missions, including the RTG.	NASA and DOE operate under safety programs that ensure the highest level of safety and protection to the environment.
Money being used to finance this consolidation could be used for other, more worthwhile initiatives: the environment, education, health care, and social programs.	This subject is outside the scope of this EIS.

Note: To convert from kilograms to pounds, multiply by 2.2046; to convert from kilometers to miles, by 0.6214.