



DOE – ENVIRONMENTAL MANAGEMENT SEPARATIONS PROCESS RESEARCH UNIT (SPRU) DISPOSITION PROJECT

LAND ALTERNATIVES FACT SHEET December 2006

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The DOE is hosting a public meeting to provide additional information on the SPRU Disposition Project Land Area alternatives summarized in this fact sheet and to allow attendees to comment on these alternatives.

Public Comment Period
December 22, 2006 through January 26, 2007

Public Meeting
Thursday, January 18, 2007

SPRU Update

The U.S. Department of Energy (DOE) has developed alternatives for the cleanup of soil and groundwater in the land areas associated with the former Separations Process Research Unit (SPRU) operations. SPRU facilities include a group of inactive buildings and land areas at the Knolls Atomic Power Laboratory (KAPL) in Niskayuna, New York. The alternatives identified for the disposition of the contaminated SPRU buildings were summarized in a May 2006 fact sheet and the Draft Facilities Engineering Evaluation/Cost Analysis (EE/CA) document, and were presented at a public meeting held May 25, 2006. This fact sheet summarizes alternatives for the disposition of the land areas.

SPRU was part of KAPL's early history, when KAPL was a general-purpose laboratory for the U.S. Atomic Energy Commission. The SPRU complex was a research and development facility that operated for less than three years in the early 1950s. SPRU was used to research the continuous chemical process for separating plutonium and uranium from irradiated fuel. Shortly after SPRU operations ceased, KAPL became dedicated to supporting the U.S. Navy's nuclear-powered ships.

As with all DOE environmental management projects, Federal and State regulations are strictly followed to ensure protection of workers, the public health, and the environment; provide for stakeholder involvement; and reduce risks.

In 2000, DOE began additional investigations to help develop alternatives to disposition the SPRU-related areas. A historical site assessment for the three land areas, (the Upper Level [UL], Lower Level [LL], and North Field [NF]) was prepared, and alternatives for cleanup of the land areas were developed. Additional RCRA and radiological characterization was performed from 2000 through

2005. Reports documenting these studies are available at the Niskayuna Branch of the Schenectady County Public Library.

Based on results of the RCRA and radiological characterization, several disposition alternatives were explored for each of the SPRU land areas. Alternatives retained for final evaluation and public input are summarized in this fact sheet. More detailed information, including specifics on alternatives considered, is provided in a draft Land EE/CA document, available at the Niskayuna Branch of the Schenectady County Public Library. The public is requested to comment on the alternatives between December 22, 2006 and January 26, 2007.



Aerial Photograph of the SPRU Site, Niskayuna, New York

PUBLIC MEETING

To learn more about the SPRU Disposition Project activities and comment on the alternatives, please come to a public meeting on

Thursday, January 18, 2007, 6 to 9 p.m.
Niskayuna Town Hall, One Niskayuna Cir.
Niskayuna, NY 12309
(see map on page 4)

ALTERNATIVE UL-1: NO ACTION (CONTINUED SURVEILLANCE AND MAINTENANCE)

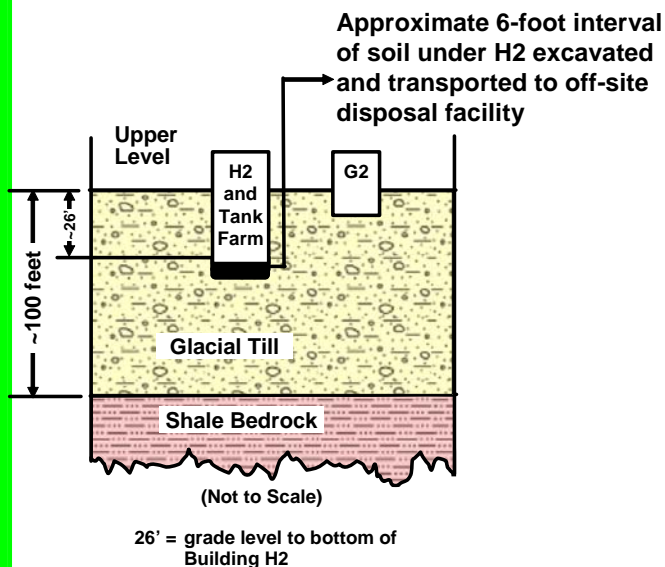
Under this alternative, surveillance and maintenance of the Upper Level would continue (including radiation control). In addition, the existing pump and treat system would remain in operation to continue collecting and treating contaminated groundwater (cost included in Facilities EE/CA). Alternative UL-1 activities could be implemented for no cost and would be active for the next 30 years.

The KAPL environmental monitoring program also would continue. This program includes (1) monitoring of radiation levels at the Upper Level and measuring background levels off site; (2) sampling

and analysis of air upwind and downwind to confirm that the SPRU land areas are not affecting normal background radiation levels; and (3) periodic sample collection and analysis of Mohawk River water, sediment, and fish, as well as groundwater and surface water (streams) on the site. The water and sediment samples are analyzed both for radioactivity levels and chemical constituents. The KAPL program indicates no measurable impacts to the public or the environment. The KAPL Environmental Monitoring Report is published annually and is available at the Niskayuna Branch of the Schenectady County Public Library.

ALTERNATIVE UL-2: UPPER LEVEL SOIL REMOVAL

With this alternative, impacted soil under Building H2 and the H2 Tank Farm exceeding cleanup goals would be removed. The soil excavation is estimated to remove 1,300 cubic yards of contaminated soil. Six feet of soil would be removed from sub-building depths of 28-34 feet. This alternative would generate waste soil and dust during the excavation and transportation activities; dust mitigation measures and groundwater/storm water controls would be implemented during all earthwork activities.



Approximate Areas of Excavation for Alternative UL-2

Confirmation sampling would be conducted in excavated areas. After verifying cleanup has been successfully accomplished, the excavations would be backfilled with clean backfill material and compacted.

A pump and treat system for groundwater would operate, if needed, to treat residual groundwater impacts (cost included in Facilities EE/CA). The cost of implementing Alternative UL-2 is estimated to be \$8 million over 2 years.

ALTERNATIVE LL-1: NO ACTION (CONTINUED SURVEILLANCE AND MAINTENANCE)

The Lower Level includes the Lower Level Parking Lot and the Railroad Staging Area (which includes the Former K5 Retention Basin, the Former K6 Storage Pad, and Former K7 Storage Pad). Alternative LL-1 includes continued surveillance and maintenance program activities including landscape

maintenance, mowing, and radiation controls. The KAPL environmental monitoring program (as described in Alternative UL-1) also would continue under this alternative. The cost of implementing this alternative is projected to be \$3.3 million over the next 30 years.

ALTERNATIVE LL-2: LOWER LEVEL SOIL REMOVAL

Under Alternative LL-2, approximately 6,500 cubic yards of Lower Level (Parking Lot and Railroad Staging Area) contaminated soil exceeding cleanup goals would be removed. Excavation to a depth of 4 feet is anticipated. Excavations would be backfilled with clean backfill material and compacted. Backfill material would consist of clean fill meeting site requirements for structural fill. The cost is projected to be \$31 million over three years.



*Approximate Areas of Excavation
for Alternative LL-2*

ALTERNATIVE LL-3: RAILROAD STAGING AREA SOIL REMOVAL AND PARKING LOT CAP

Under Alternative LL-3, an estimated 6,300 cubic yards of impacted soil exceeding cleanup goals would be excavated from the Railroad Staging Area and approximately 200 cubic yards of residual radioactive and metal contaminated soil in the Lower Level Parking Lot would be capped with two additional inches of asphalt. Excavations would be backfilled with clean backfill material and compacted. The same dust mitigation, stormwater controls, and confirmation sampling described for Alternative UL-2 would be conducted for this alternative. The cap over the Parking Lot would be inspected periodically and asphalt would be maintained to ensure that the cap remained in good

condition. The cost is projected to be \$27 million over two years.



*Approximate Areas of Excavation and Parking Lot Cap
for Alternative LL-3*

ALTERNATIVE NF-1: NO ACTION (CONTINUED SURVEILLANCE AND MAINTENANCE)

Under Alternative NF-1, the current surveillance and maintenance program activities (including landscape maintenance, mowing, and radiation control) would continue until radiological sources decay to the point that controls are no longer required. The KAPL

environmental monitoring program described in Alternative UL-1 would continue under this alternative. The cost of this alternative is estimated to be \$3.3 million over the next 30 years.

ALTERNATIVE NF-2: NORTH FIELD SOIL REMOVAL

Alternative NF-2 would include removal of approximately 5,000 cubic yards of soil in the North Field which exceed cleanup goals. Excavated soil would include contaminated soil to an assumed maximum depth of 4 feet in the Former Slurry Drum Storage Area. Existing trees, shrubs, and other surface vegetation in the North Field would be removed to facilitate soil removal.

The same dust mitigation, stormwater controls and confirmation sampling described for Alternative UL-2 would be conducted for this alternative.

The cost is projected to be \$18 million over two years.



*Approximate Areas of Excavation
for Alternative NF-2*

How Can I Comment?

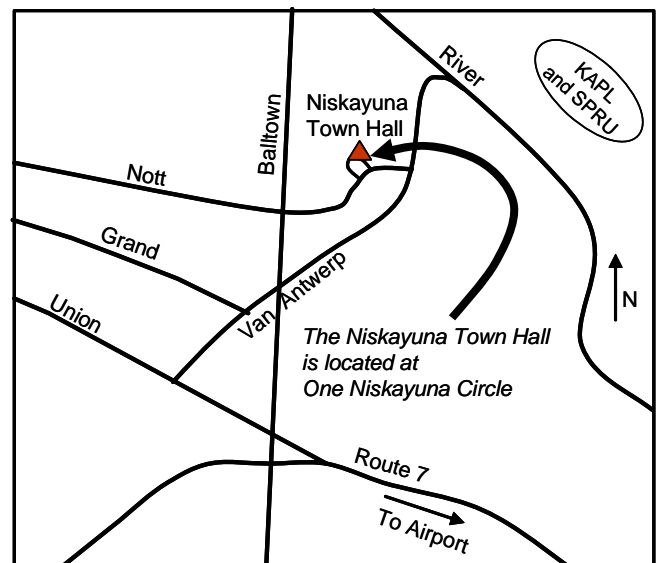
The public comment period will be held from December 22, 2006 through January 26, 2007.

Please comment in one of the following ways:

- 1) At the public meeting on Thursday, January 18, 2007, 6:00 – 9:00 p.m.
Niskayuna Town Hall, Niskayuna, NY
- 2) Mail comments to:
Steven Feinberg, Federal Project Director
DOE SPRU Project Office
2425 River Road
Niskayuna, NY 12309
- 3) E-mail comments to:
anne.wickham@emcbc.doe.gov.
You will receive an e-mail confirmation that your e-mail comment was received.

Please postmark mailed comments by January 26, 2007.

Map to public meeting



DOE SPRU Federal Project Director

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