



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

FACILITY ALTERNATIVES FACT SHEET

May 2006

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

Public Comment Period
May 15 through June 5, 2006

Public Meeting
Thursday, May 25, 2006, 6 – 9 p.m.

SPRU Update

The U.S. Department of Energy (DOE) has developed alternatives for the disposition of the contaminated buildings associated with the former Separations Process Research Unit (SPRU) operations. SPRU is a group of inactive facilities and structures, safely maintained in protective storage, at the Knolls Atomic Power Laboratory (KAPL) in Niskayuna, New York.

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 ended its weapons-related work and 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, the DOE began characterizing the SPRU areas where radioactive materials were handled and stored. After preparing a historical site assessment for the buildings, alternatives for disposition of the buildings were developed. The alternatives summarized in this fact sheet are for the disposition of the buildings. (When characterization is complete for land areas, alternatives will be developed and presented for public comment.)

These four alternatives for the buildings are described on the next two pages for public review and comment. More detailed information is provided in an Engineering Evaluation/Cost Analysis (EE/CA) document, available at the Niskayuna Branch of the Schenectady County Public Library. The public is requested to comment on the alternatives between May 15 and June 5, 2006.



*KAPL Site, Niskayuna, New York
Buildings G2 and H2 Circled*

PUBLIC MEETING

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

**Thursday, May 25, 2006
6:00 – 9:00 p.m.**

**Niskayuna Town Hall
One Niskayuna Circle
Niskayuna, NY 12309
(see map on page 4)**

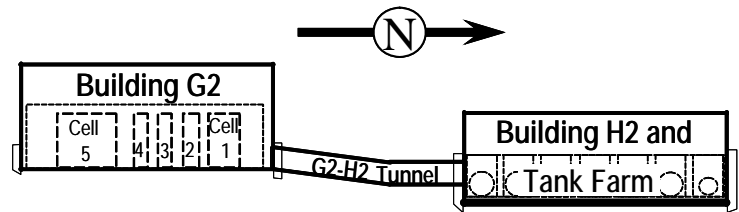
ALTERNATIVE 1: NO ACTION (CONTINUE SURVEILLANCE AND MAINTENANCE)

Under this alternative, surveillance and maintenance of existing SPRU facilities would continue. Maintenance of buildings would continue as needed. In addition, the existing pump and treat system to collect contaminated groundwater would remain in operation. Under this alternative, these activities would continue indefinitely. The cost of implementing this alternative is projected to be \$60 million over the next 30 years.


The KAPL environmental monitoring program, which has been in effect since 1987, would also continue. This program includes (1) monitoring of radiation levels in the buildings and off site; (2) sampling and analysis of air upwind and downwind to confirm that the SPRU facilities are not affecting normal background radiation levels; and (3) periodic collection and analysis of samples 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 chemical constituents and radioactivity levels. The KAPL program indicates no measurable impacts to the public or the environment. The *Knolls Atomic Power Laboratory Environmental Monitoring Report* is published annually and available at the Niskayuna Branch of the Schenectady County Public Library.

G2 and H2 Cross Section



Explanation

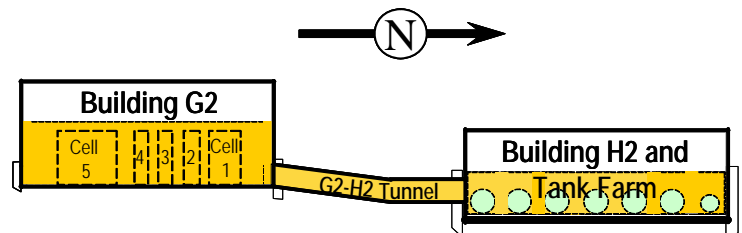
 Structures that will remain

ALTERNATIVE 2: CLEANOUT OF TANK VAULTS AND GROSS DECONTAMINATION OF FACILITIES




With this alternative, approximately 95% of the radioactive contamination in the SPRU facilities would be removed. The Tank Farm tanks would be removed, and the remaining tank vaults would be decontaminated. Contaminated soil above the Tank Farm and around Building H2 would be removed and disposed of off site.

The H2 processing facility, the G2-H2 Tunnel that connects these buildings, and the G2 Cell Area would be decontaminated to reduce radioactive contamination and make surveillance and maintenance easier to perform. Surveillance and maintenance activities, as well as environmental monitoring, would continue indefinitely. The pump and treat system for groundwater would operate as needed. The cost of decontamination and removal activities is estimated to be \$90 million. It is expected that project activities would begin in 2007 and work would be completed by 2012.

G2 and H2 Cross Section



Explanation

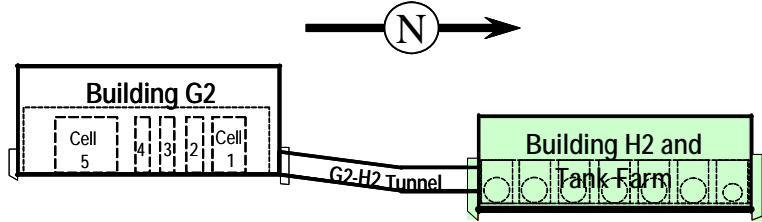
-  Areas that will be decontaminated (but will remain) after removal action
-  Structures that will remain after removal action
-  Structures and equipment that will be decontaminated and removed during removal action

ALTERNATIVE 3: REMOVAL OF H2 AND TANK VAULTS

Like Alternative 2, Alternative 3 removal action activities would focus on the most highly contaminated SPRU areas. Approximately 98% of the radioactive contamination would be removed. Building H2 and the Tank Farm would be dismantled, demolished, and removed. Contaminated soil around H2 would be excavated and removed.

Building G2 and the Pipe Tunnels would remain as is. Surveillance and maintenance activities, as well as environmental monitoring, would continue indefinitely. The pump and treat system for groundwater would operate as needed. The cost of this alternative is estimated at \$130 million. It is expected that project activities would begin in 2007, and work would be completed by 2014.

G2 and H2 Cross Section



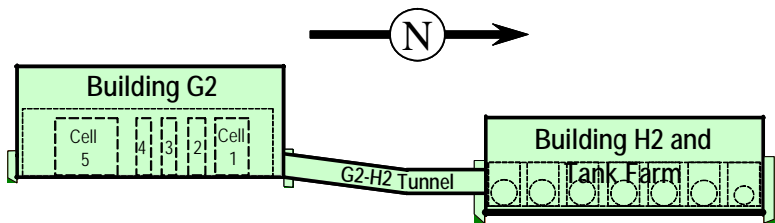
Explanation

- Structures remaining after removal action
- Structures and equipment requiring decontamination and removal during removal action

ALTERNATIVE 4: REMOVAL OF SPRU FACILITIES

This alternative is the most extensive of the four alternatives. It would involve decontamination, demolition, and complete removal of Buildings G2 and H2, Tank Farm tanks and vaults, and the G2-H2 Tunnel. Contaminated soil around Buildings G2 and H2 would be excavated and disposed of off-site. Excavations would be backfilled with clean soil. Groundwater would continue to be monitored and the pump and treat system operated if needed. The cost of this alternative is estimated at \$160 million. It is expected that project activities would begin in 2007, and work would be completed by 2014.

G2 and H2 Cross Section



Explanation

- Structures and equipment that will be decontaminated and removed during removal action

How Can I Comment?

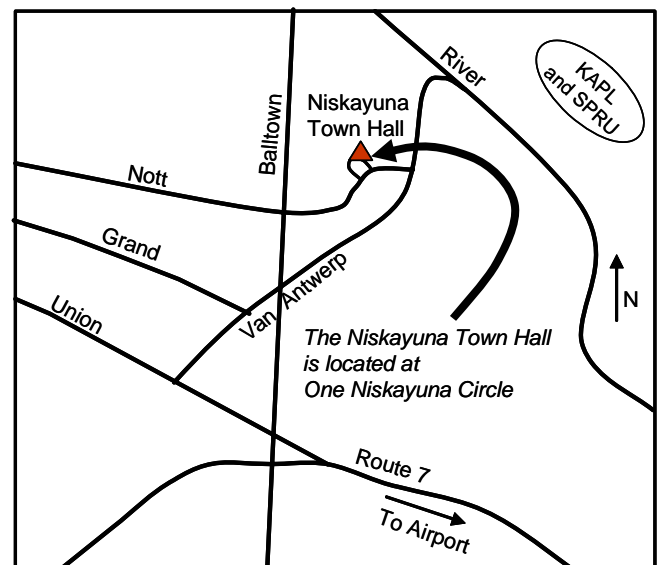
The public comment period will be held from May 15 through June 5, 2006.

Please comment in one of the following ways:

- 1) At the public meeting on Thursday, May 25, 2006, 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) You may 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 comments by June 5, 2006.

Map to public meeting



DOE SPRU Federal Project Director

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