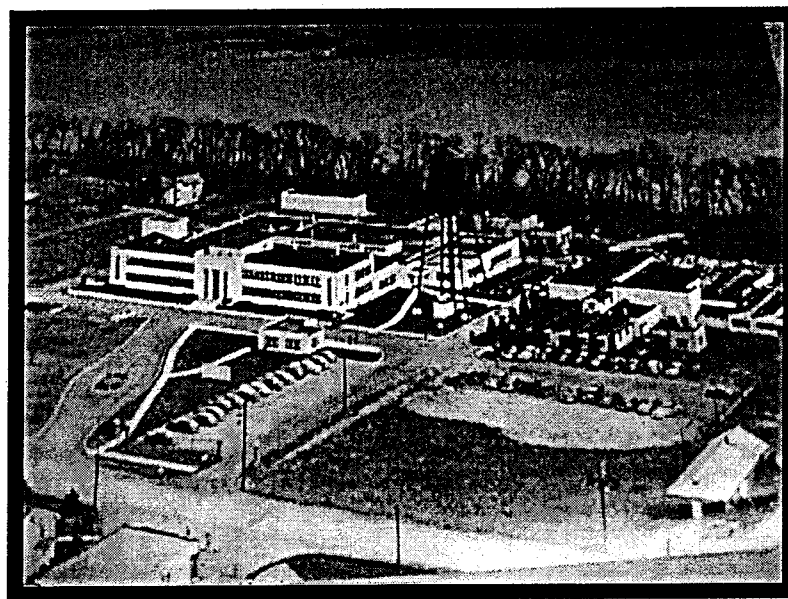


Decommissioning Plan and Cost Estimate
for Safety Light Corporation
Bloomsburg, Pennsylvania
NRC Material License No. 37-00030-02



Presentation to Nuclear Regulatory Commission
November 6, 2000

Decommissioning Objective

Remediate facilities and soil areas that fall under Radioactive Material License 37-000030-02 to a condition which corresponds to a calculated dose to the public of less than 25 mrem/year from applicable pathways.

Primary Reference Documents

- NRC Regulatory Guide 3.65, *Standard Format and Content of Decommissioning Plans for Licensees Under 10 CFR Parts 30, 40, and 70*
- Regulatory Guide DG-4006, *Demonstrating Compliance with the Radiological Criteria for License Termination*
- NUREG-1575, *Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM)*

Basis for Proposed DCGLs

- Surface Contamination:
 - 1998 Federal Register Notice, *Supplemental Information on the Implementation of the Final Rule on Radiological Criteria for License Termination*
 - RESRAD-BUILD calculations for radium-226 and americium-241.
- Surface Soil: RESRAD calculations
- Subsurface Soil: RESRAD calculations

DCGLs for Surfaces and Soil

Radionuclide	Surface Contamination DCGL (dpm/100cm ²)	Surface Soil Concentration (to 15 cm) DCGL (pCi/g)	Subsurface Soil Concentration 15cm to 2 m deep DCGL (pCi/g)
H-3	1.2 E+08	11,590	965
Sr-90	8.7 E+03	30.1	6.1
Cs-137	2.8 E+04	14.1	43
Ra-226 + C	3.5 E+03	4	1.8
Am-241	1.8 E+02	10.3	1.1

+C indicates the value for radium-226 with its decay progeny in equilibrium. This value is the concentration of the parent radionuclide, but accounts for contributions from the complete chain of progeny in equilibrium with the parent radionuclide.

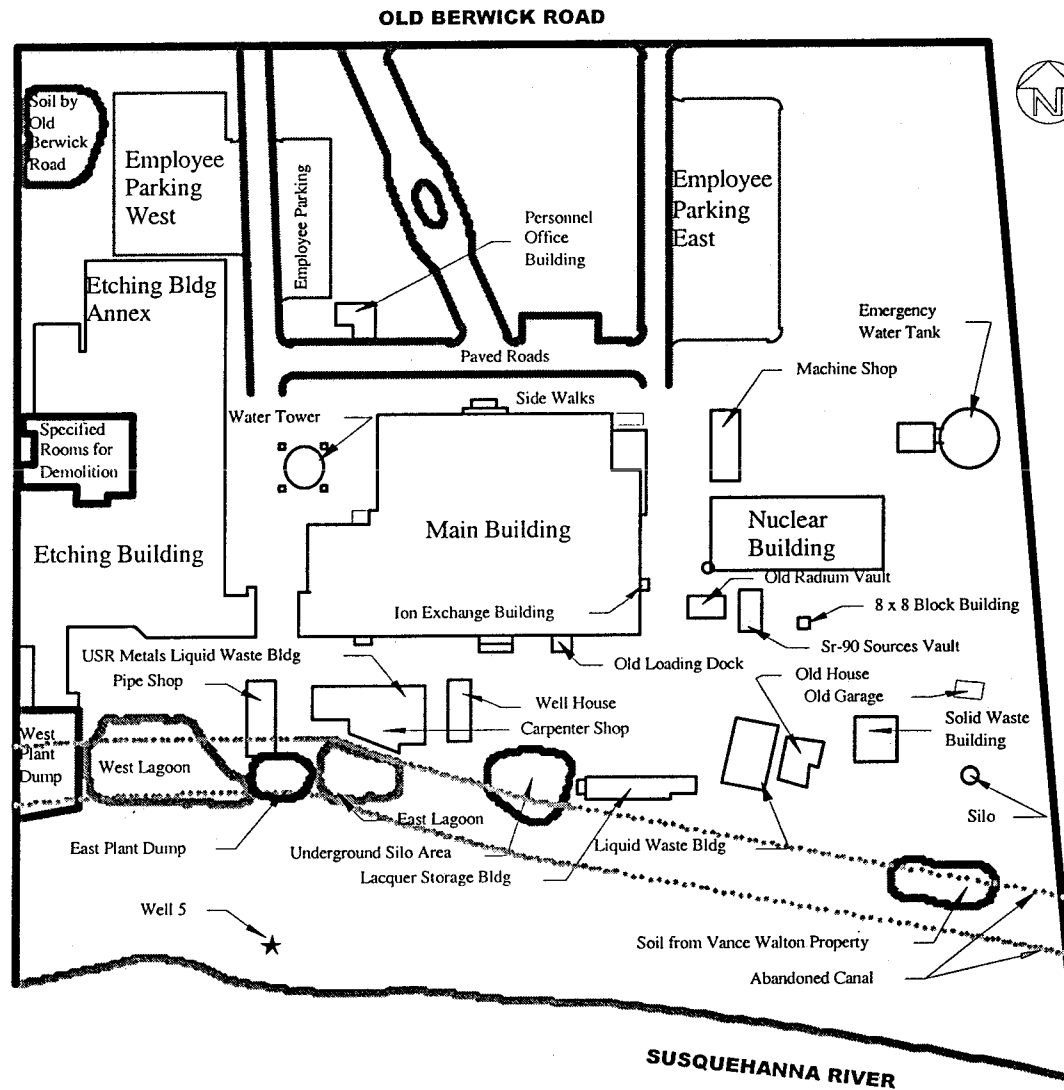
Discrete decommissioning tasks and estimated costs:

•Remove Specified Rooms from the Etching Building	\$1,715,254
•Remove Soil North of Well 5	628,854
•Remove Ion Exchange Building and Surrounding Soil	30,230
•Remediate Old Garage Foundation and Surrounding Soil	96,002
•Remove Soil Under Old Loading Dock	16,075
•Remove 8 x 8 Block Building and Surrounding Soil	47,808
•Remove Old Radium Vault and Surrounding Soil	170,481
•Remove Soil Around Machine Shop	492,629
•Remove Above-Ground Silo and Surrounding Soil	155,399
•Decontaminate Remaining Site Buildings and Structures	5,202,842
•Decontaminate Remaining Site Soils	8,335,391

Buildings that will remain after decommissioning:

- Main Building
- Etching Building
- USR Metals Liquid Waste Building
- Buildings currently used for Radioactive Material License No. 37-00030-08 (Nuclear Building, Machine Shop, Solid Waste Building, Liquid Waste Building)

Plan of Safety Light Facility



Waste Volume and Cost Estimate

- An estimated 172,205 cubic feet of soil and radioactive waste from site buildings and their contents will be generated during decommissioning of the Safety Light site.
- The total estimated cost for the decommissioning activities described in this plan is \$23,508,275 in 2000 dollars, including 25% contingency.