

2002 Annual Compliance Report Burrell, Pennsylvania, Disposal Site

Compliance Summary

The site, inspected on September 12, 2002, was in good condition. A sheared-off boundary monument and perimeter signs rendered illegible by gunfire were replaced, and vegetation was cleared from the security fence. The access gate at Strangford Road was derelict and nonfunctional. Two redundant ground water monitor wells were decommissioned in 2002. Inspectors identified no requirement for a follow-up or contingency inspection.

Compliance Requirements

Requirements for the long-term surveillance and maintenance of the Burrell, Pennsylvania, Uranium Mill Tailings Radiation Control Act (UMTRCA) Title I disposal site are specified in the *Long-Term Surveillance Plan for the U.S. Department of Energy [DOE] Burrell Vicinity Property, Blairsville, Pennsylvania* (GJO-2002-331-TAR, U.S. Department of Energy, Grand Junction Office, April 2000) and in procedures established by the DOE Grand Junction Office to comply with requirements of Title 10 *Code of Federal Regulations* Part 40.27 (10 CFR 40.27).

2A The Long-Term Surveillance Plan was revised in April 2000 and received concurrence by the U.S. Nuclear Regulatory Commission in February 2002. Revisions entail the following:

- Discontinuing vegetation control on the cell cover;
- Eliminating ground water monitoring at monitor wells 0421 and 0521;
- Discontinue analyses for ammonia, cyanide, gross alpha, radium-226, radium-228, and vanadium in ground water;
- Decreasing ground water sampling frequency to once every 5 years;
- Eliminating surface water sampling on the Conemough River; and,
- Removing a reference to a site marker that was never installed.

Compliance requirements are listed in Table 2-1.

Table 2-1. License Requirements for the Burrell, Pennsylvania, Disposal Site

Requirement	Long Term Surveillance Plan	This Report
Annual Inspection and Report	Section 3.3	Section 1.0
Follow-up or Contingency Inspections	Section 3.5	Section 2.0
Routine Maintenance and Repairs	Section 3.6	Section 3.0
Ground Water Monitoring	Section 3.7	Section 4.0
Corrective Action	Section 3.6.3	Section 5.0

Compliance Review

1.0 Annual Inspection and Report

The site, southeast of Blairsville, Pennsylvania, was inspected on September 12, 2002. Results of the inspection are described below. Features and photograph locations (PLs) mentioned in this report are shown on Figure 2-1. Numbers in the left margin of this report refer to items summarized in the Executive Summary table.

1.1 Specific Site Surveillance Features

Site Access, Fence, Gates, and Signs—An access road leads from an access gate at Strangford Road to the entrance gate in the security fence at the site boundary. The hard-packed graveled road runs southwest across DOE's perpetual right-of-way (Tract 201-E) and DOE's leased crossing over Norfolk Southern Railroad right-of-way to the site. There were shallow potholes in the road. At the time of the 2002 site inspection, the road to the site was easily passable in a passenger car.

The area around the gate at Strangford Road has been a concern because the DOE access route apparently also provides easy access to the railroad right-of-way and adjacent property. Local residents historically used the area for dumping and driving off-road vehicles. Railroad and gas company maintenance personnel use the gate as a convenience and the railroad has its own no-trespassing sign on the gate. Previously, the railroad had its own padlock on the chain at the gate. Two gas wells on the Burrows' property are also serviced from the DOE access road.

DOE has tried to prevent use of its access road by keeping the gate locked and installing a guardrail along Strangford Road. However, on every site visit since 2000 the gate has been found open. Inspectors found the gate damaged and derelict in 2002 (PL-1 and PL-2).

2B The access gate will likely be an ongoing maintenance problem and access control has been ignored by local residents. Also, limiting access to the site at Strangford Road does not enhance site protectiveness or security. Therefore, DOE will seek U.S. Nuclear Regulatory Commission concurrence in removing the gate at Strangford Road.

The security fence is chain link with three strands of barbed wire on top. The fence, installed after DOE acquired the site in 1986, is rusty at many places but remains secure. Service life expectancy of the fence in the damp climate along the Conemaugh River is expected to be 25 to 30 years. There are two gates in the fence—a vehicle gate at the east end of the site and a personnel gate at the west end. Locks have to be replaced every 2 or 3 years because of corrosion.

2C The entrance sign and 17 perimeter signs are attached to the security fence. Over the past several years, inspectors noted that perimeter signs along the northern perimeter fence between perimeter sign locations P1 and P8 were progressively more damaged by gunfire to the point where, in 2001, the signs were essentially illegible. DOE replaced the damaged signs in December 2001. Inspectors found the new signs in reasonably good condition, although perimeter sign P6 already had two bullet holes in it. Because access to the other side of the site is more difficult, the remaining perimeter signs were in good condition.

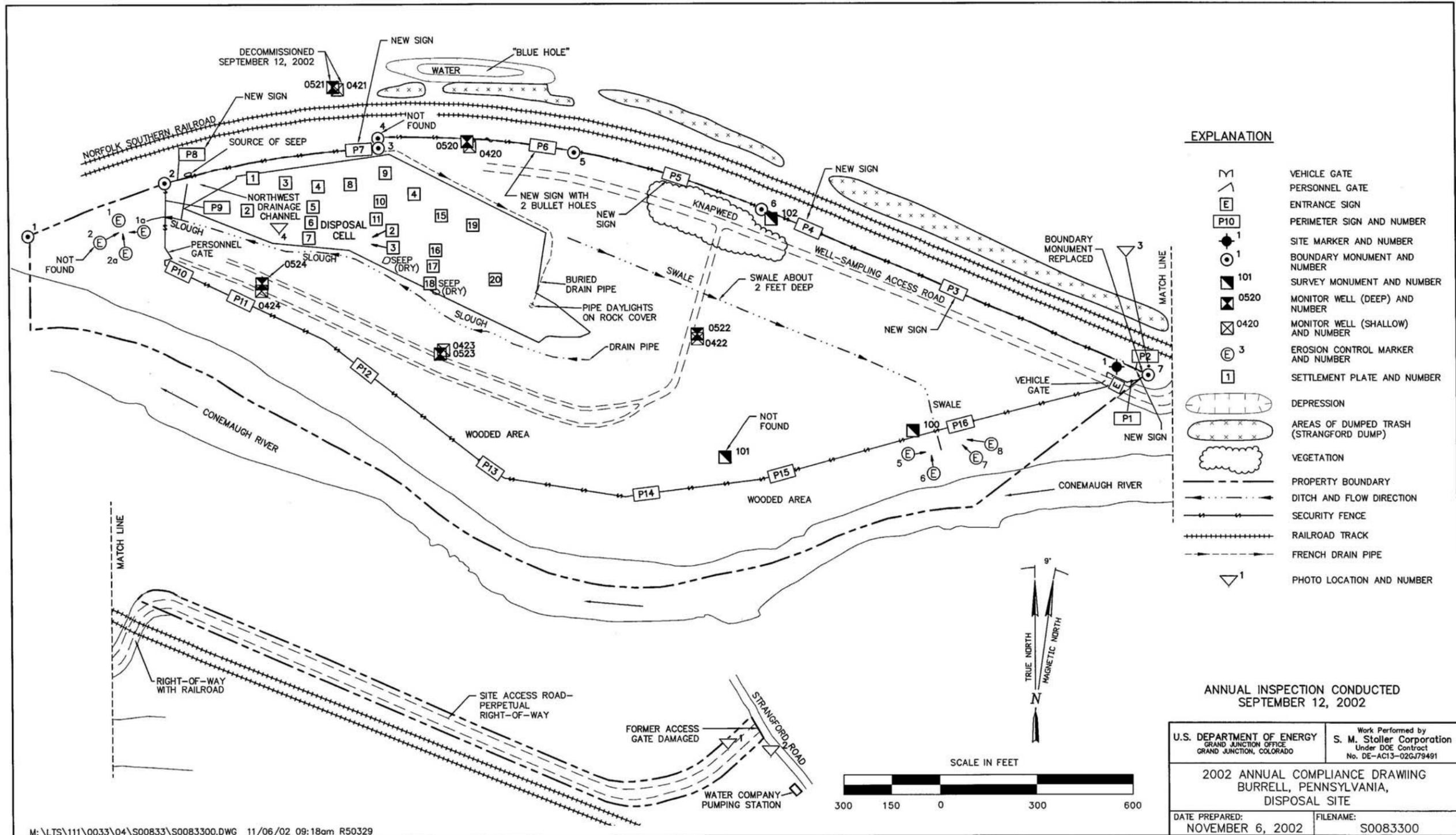


Figure 2-1. 2002 Annual Compliance Drawing for the Burrell, Pennsylvania, Disposal Site

Site Markers and Monuments—The site has one site marker, which is at the east end of the site near the entrance gate. Vegetation around the site marker is cleared annually. Other Title I disposal sites have two site markers. The revised Long-Term Surveillance Plan recognizes the missing site marker as an acceptable variance from DOE's project design.

2D The site has three survey monuments (SM-100, SM-101, and SM-102) and seven boundary monuments (BM-1 through BM-7). Because of dense vegetation, inspectors could not locate survey monument SM-1 or boundary monument BM-4. Remaining markers and monuments were undisturbed and in excellent condition. The cap on boundary monument BM-7, found sheared off in 2001, was replaced in December 2001 (PL-3).

Four pairs of erosion control markers (ECM-1 and 1a, ECM-2 and 2a, ECM-5 and 6, and ECM-7 and 8) are located in dense stands of Japanese knotweed, where they are difficult to find. Although inspectors could not locate two monuments in 2002, no stream bank erosion was evident.

Monitor Wells—The site has four pairs of monitor wells; all were in good condition. Corridors to the wells are mowed annually to improve access and provide working space around the wells.

2E The revised Long-Term Surveillance Plan deleted two wells from the ground water monitoring network because they provided redundant background chemistry data and were located off DOE property. DOE decommissioned the two monitor wells, 0421 and 0521, during 2002.

1.2 Transects

To ensure a thorough and efficient inspection, the site was divided into four areas referred to as transects: (1) the disposal cell; (2) the area between the disposal cell and site boundary; (3) the site perimeter; and (4) the outlying area.

Disposal Cell—The top and side slopes of the disposal cell are covered with riprap and were in excellent condition. There was no evidence of settling, slumping, or other instability on the side slopes.

Trees and shrubs continue to establish in the riprap (PL-4). In the past, this vegetation was aggressively controlled with massive applications of herbicide. A study that evaluated risks posed by encroachment of plants on the disposal cell demonstrated that the plants will not degrade the long-term performance of the cell and may improve performance by reducing moisture in the cover through evapotranspiration.

The revised Long-Term Surveillance Plan allows the vegetation to grow on the disposal cell without further intervention; such growth will not increase risk to public health, safety, or the environment. In their concurrence in the revised Long-Term Surveillance Plan, the U.S. Nuclear Regulatory Commission suggested that DOE reevaluate the effects of vegetation on cover performance in 10 or 20 years to confirm performance parameters and predictions.

Seeps previously found along the base of the south side slope were found to be dry. In 1998, DOE installed a gravel-filled drain along the northern edge of the disposal cell to improve drainage. It was suspected that water flowing in the seeps originated in a low-lying area north of

the disposal cell. The reduced and usually absent flow at the seeps since the drain was installed suggests that the drain is diverting water that otherwise would flow beneath the disposal cell to the seeps. The slough at the foot of the disposal cell, fed by ground water, was flowing normally.

Area Between the Disposal Cell and Site Boundary—The area between the disposal cell and the site boundary is heavily vegetated with grass and forest. The area appeared to be undisturbed and no compliance issues were evident.

Site Perimeter—A 5-foot-wide swath was mowed on both sides of the fence in July 2002. DOE also clears woody vegetation from the fence as necessary. DOE has been conducting this maintenance annually to improve access to the fence and prolong its service life. Mowing and clearing will be repeated every 2 to 3 years, or as necessary, to keep the fence clear of vegetation.

Seeps along the security fence, about 60 feet east of perimeter sign P8 (just west of the disposal cell), were flowing. Inspectors will continue to monitor the area for the possibility that the railroad embankment may become unstable.

Outlying Area—The area beyond the site boundary for a distance of 0.25 mile was visually inspected for signs of erosion, development, and other changes that might affect the site.

North of the site and the railroad tracks, a dirt road provided access to the decommissioned monitor wells. This road also provides access to a long, narrow wooded area along the tracks that has been used for unpermitted dumping. Inspectors found evidence of recent dumping, consisting of construction debris and landscaping waste. Township authorities are aware of the problem, but none of the trash has been removed. The dumping is not a direct threat to the disposal site but the amount of dumping is an indication of the overall level of activity near the disposal site and may be a predictor of vandalism. For this reason, inspectors continue to note conditions at the dump.

2.0 Follow-Up or Contingency Inspections

No follow-up or contingency inspections were required in 2002.

3.0 Routine Maintenance and Repairs

DOE replaced damaged perimeter signs, repaired a boundary monument, and cleared vegetation from fence lines and monitor well access routes.

4.0 Ground Water Monitoring

DOE monitors ground water at this site, as a best management practice, to evaluate the effectiveness of the remedial action. The revised Long-Term Surveillance Plan stipulates monitoring every 5 years. No monitoring was required in 2002; DOE will sample ground water again in 2006.

5.0 Corrective Action

Corrective action is action taken to correct out-of-compliance or hazardous conditions that create a potential health and safety problem or that may affect the integrity of the disposal cell or compliance with 40 CFR 192.

No corrective action was required in 2002.

6.0 Photographs

Table 2-2. Photographs Taken at the Burrell, Pennsylvania, Disposal Site

Photograph Location Number	Azimuth	Description
PL-1	90	Damaged east gatepost at Strangford Road.
PL-2	180	Damaged west gatepost at Strangford Road.
PL-3	210	New cap on boundary monument BM-7.
PL-4	225	Vegetation growth on south toe of disposal cell.



PL-1. Damaged east gatepost at Strangford Road.



PL-2. Damaged west gatepost at Strangford Road.



PL-3. New cap on boundary monument BM-7.



PL-4. Vegetation growth on south toe of disposal cell.

End of current section