

July 23, 2013

Mr. Chad Glenn, Sr. Program Manager
FSME/DWMEP/DURLD
MS T-8-F5, TWFN
U.S. Nuclear Regulatory Commission
11545 Rockville Pike
Rockville, MD 20852

Mr. David J. O'Hehir
Environmental Radiation Specialist I
Radiological Sites Section, 11th Floor
NYSDEC
Div. of Environmental Remediation, Bureau A
625 Broadway
Albany, NY 12233-7255

Mr. Patrick W. Concannon, P.G.
Engineering Geologist
Division of Solid & Hazardous Materials
NYS Department of Environmental Conservation
Region 9-DSHM
270 Michigan Avenue
Buffalo NY 14203-2999

SUBJECT: Transmittal of NYSERDA's *WVSMP Waste Generation and Disposition Policy*, OPS513

Dear Messrs. Glenn, O'Hehir and Concannon:

The New York State Energy Research and Development Authority (NYSERDA) has developed and issued the *WVSMP Waste Generation and Disposition Policy*, OPS513, for the State-Licensed Disposal Area and non-West Valley Demonstration Project portions of the Western New York Nuclear Service Center (WNYNSC). This policy sets forth NYSERDA's existing process for determining whether material may be safely released from the WNYNSC for disposal at a landfill in New York State. In addition, the policy identifies disposition pathways for those materials that do not meet the requirements for disposal at a New York State landfill.

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New York State Energy Research and Development Authority

Albany

17 Columbia Circle, Albany, NY 12203-6399
(P) 1 (866) NYSERDA | (F) (518) 862-1091

nyserda.ny.gov | info@nyserda.ny.gov

Francis J. Murray, Jr., President and CEO

Buffalo

726 Exchange Street
Suite 821
Buffalo, NY
14210-1484

(P) (716) 842-1522

(F) (716) 842-0156

New York City

485 Seventh Avenue
Suite 1006
New York, NY
10018-6815

(P) (212) 971-5342

(F) (518) 862-1091

West Valley Site

Management Program
9030-B Route 219
West Valley, NY
14171-9500

(P) (716) 942-9960

(F) (716) 942-9961

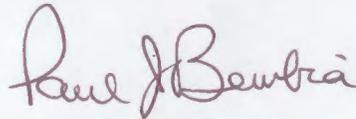
Messrs. Glenn, O'Hehir and Concannon
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Should this policy be revised, we will provide you with a revised electronic copy for your records.

If you have any questions or comments, please contact me at (716) 942-9960 at extension 4900.

Sincerely,

WEST VALLEY SITE MANAGEMENT PROGRAM



Paul J. Bembia, Director

ALM/amd

Enclosure:

1. Copy of *WVSMP Waste Generation and Disposition Policy*, OPS513

cc: B. C. Bower, DOE-WVDP (w/enc.)
T. H. Attridge, NYSERDA-WV (w/o enc.)
E. A. Lowes, NYSERDA-WV (w/o enc.)
A. L. Mellon, NYSERDA-WV (w/o enc.)
A. Zipp, NYSERDA-Albany (w/o enc.)
K. G. Martin, NYSDEC-Region 9 (email w/enc.)
File#: 10512-04, 10501-0404 (w/enc.)

TITLE: WVSMP Waste Generation and Disposition Policy

OPS513.00

1.0 PURPOSE

The Waste Generation and Disposition Policy establishes the strategy and process for characterization of wastes generated by the New York State Energy Research and Development Authority's (NYSERDA) West Valley Site Management Program (WVSMP). This policy applies to all waste generated by the WVSMP, regardless of whether the waste is generated at the State-Licensed Disposal Area or on the Retained Premises of the Western New York Nuclear Service Center (WNYNSC).

The policy will be used to determine whether the waste is eligible for disposal at an industrial facility located in New York State, at an intermediate facility or at a low-level radioactive waste (LLRW) facility. The strategy and process outlined in this document are used for the determination of the extent of radioactivity present in wastes, and not for the determination of hazardous constituents in a specific waste stream; therefore, the requirements identified under the Resource Conservation and Recovery Act are not discussed further in this policy.

2.0 FACILITY DESCRIPTION

2.1 DESCRIPTION OF THE WNYNSC

The 3,340-acre WNYNSC (Figure 1, Appendix A) is located ~30 miles south of Buffalo, New York, in the towns of Ashford and Concord, and was established and operated from 1966-1972 in response to a federal call to commercialize the reprocessing of spent nuclear fuel from power reactors. NYSERDA holds title and maintains the WNYNSC on behalf of the people of the state of New York.

The WNYNSC is divided into three separate operational areas – the ~200-acre West Valley Demonstration Project (WVDP), the State-Licensed Disposal Area and the relatively undeveloped areas of the Retained Premises. Separate radiation protection programs are in effect for each area under its own set of applicable radiation protection regulations, licenses and permits as described below.

2.1.1 West Valley Demonstration Project (WVDP) – After the passage of the WVDP Act (Public Law 96-368) in 1980, the United States Department of Energy (DOE) assumed exclusive use and possession of ~200 acres of the WNYNSC (see Figure 1) to manage and perform the WVDP. Waste management is provided by DOE's contractors under the scope of DOE's rules and regulations. This waste policy is not currently applicable to the WVDP portion of the WNYNSC because NYSERDA is not responsible for the day-to-day activities at the WVDP.

2.1.2 State-Licensed Disposal Area (SDA) – Adjacent to the WVDP, the SDA occupies ~15 acres and was constructed and operated as a commercial radioactive waste disposal facility from 1963 to 1975 (see Figure 2, Appendix A). NYSERDA holds a radioactive materials license for the SDA, which is administered by the New York State Department of Health (NYSDOH) under the scope of the ionizing radiation protection regulations in New York Codes, Rules and Regulations (NYCRR). Environmental monitoring activities are regulated under a radiation control permit, which is administered by the New York State Department of Environmental Conservation (NYSDEC) under the scope of the environmental pollution by radioactive materials regulations in NYCRR Title 6 Part 380.

NYSERDA provides radiation protection, environmental safety and health, security, and waste management of the SDA in accordance with NYSDOH and NYSDEC rules and regulations.

2.1.3 Retained Premises (RP) - The WNYNSC was licensed by the Atomic Energy Commission (predecessor to the Nuclear Regulatory Commission) through a provisional operating license (U.S. Nuclear Regulatory Commission [NRC] License CSF-1, issued under 10 CFR 50 *Domestic Licensing of Production and Utilization Facilities*). NYSERDA is the sole licensee, with the technical specifications of this license placed in abeyance after Congress enacted the WVDP Act. NYSERDA manages the Retained Premises, and as such, developed a Radiation Protection Program in accordance with NRC 10 CFR Part 20: *Standards for Protection Against Radiation* for this area of the WNYNSC.

3.0 DEFINITIONS

3.1 Background Radiation Level – Radioactivity related only to the combination of naturally occurring radioactive materials, nuclear fallout and inherent radioactivity.

3.2 Direct Check – Surface scans performed using a hand-held frisker to identify areas of elevated direct radiation levels that may be indicative of surface contamination.

3.3 Hand-held Frisker – A portable hand-held count-rate meter, typically used in conjunction with a Geiger-Mueller beta-gamma probe or alpha-scintillation probe, to detect alpha, beta and gamma radioactivity.

3.4 Pending Analysis – Waste generated with no process knowledge or where the historical data or process knowledge indicates that levels may be above background is staged in the “Pending Analysis” area until analytical results and/or radiological surveys are completed. Once the results and/or surveys are completed, a waste determination is made and the waste is classified as nonradiological waste, Bulk Survey for Release Eligible Waste or Low-Level Radioactive Waste (LLRW).

3.5 Nonradiological Waste – Waste generated in areas that are not potentially impacted by nuclear operations, or waste that is indistinguishable from background radiation levels (i.e., less than or equal to background concentrations levels plus two standard deviations [$+2\sigma$]), can be disposed of as nonradioactive waste at a New York State industrial landfill.

3.6 Bulk Survey for Release Eligible Waste - Generated waste that is distinguishable from background (i.e., above the background concentration level $+2\sigma$) but is below the Waste Acceptance Criteria (WAC) for a licensed Low-Level Waste Disposal Facility may be disposed of at the Bulk Survey for Release Facility.

3.7 Low-Level Radioactive Waste - Generated waste that is distinguishable from background (i.e., above the background concentration level $+2\sigma$), and is above the WAC for the Bulk Survey for Release Facility.

3.8 Radiological Survey – Measurement of the level of radiation associated with a particular area, facility or item. These surveys include direct check and smear samples.

3.9 Smear Sample or Survey – A sampling technique performed to provide a semi-quantitative assessment of removable contamination that typically covers an area of 100 square centimeters (100 cm²). Large area smears may be performed to qualitatively assess the level of removable contamination on building surfaces and equipment.

4.0 PROCEDURE

4.1 For any project on the RP or the SDA that may potentially generate waste, task specific information will be developed during the planning process by the Cognizant Project Manager in consultation with the WVSMP Radiation Safety Officer and the WVSMP Waste Management Manager. The Cognizant Project Manager, in consultation with the WVSMP Radiation Safety Officer and WVSMP Waste Management Manager, will use the WVSMP Waste Disposal Path Decision Flowchart (Figure 3, Appendix A) to determine the appropriate waste disposition path for wastes to be generated from the project. The Program Manager for the State-Licensed Disposal Area and Retained Premises must approve the final determination of the waste disposition path.

4.2 Radiological Survey Requirements

4.2.1 Direct check radiological survey instrumentation (e.g., hand-held friskers) used for the purpose of implementing this policy will be capable of detecting contamination levels less than or equal to 5,000 disintegrations per minute (dpm)/cm² total beta-gamma, or 500 dpm/cm² total alpha.

4.2.2 If tritium contamination is possible, the radiological survey will include an evaluation of whether tritium is present at levels greater than background. Tritium contamination will be evaluated using tritium smear samples, and will be evaluated relative to background (unused) smears. Data from the 95% confidence interval (i.e., two standard deviations [2σ]) will be used to calculate the background range for the unused smear samples. The instrument used to analyze the tritium smear samples for the purpose of implementing this policy will have a minimum detectable activity level of 5,000 dpm/cm².

4.2.3 These surveys will be conducted by a qualified radiation safety practitioner using calibrated radiological field instrumentation (i.e., hand-held frisker), and documenting the results in accordance with WVSMP RP and SDA Radiation Protection Program procedures. Completed surveys will be filed in the WVSMP Central Files system.

4.3 Nonradiological Waste

4.3.1 Waste generated from areas that are not potentially impacted by nuclear operations, or routinely generated waste with historical analytical data or radiological survey results that are indistinguishable from background concentration levels (i.e., less than or equal to background concentration levels plus two standard deviations [$+2\sigma$]), are eligible for disposal at a New York State industrial landfill.

4.4 “Pending Analysis” Area

4.4.1 Waste that is generated from an area with no historical data or survey results will be placed in the “Pending Analysis” area, and sampled and/or surveyed to determine the radiological contamination levels.

4.4.2 Waste that does not have radiation levels greater than the average background level plus two standard deviations ($+2\sigma$) is nonradiological waste and will be eligible for disposal in a New York State industrial landfill.

4.4.3 Waste with radiation levels that are greater than the average background level plus two standard deviations ($+2\sigma$) will remain in the "Pending Analysis" area, and will be evaluated against the requirements and WAC for the Bulk Survey for Release Facility.

4.4.4 If the analytical data and/or survey results meet the WAC for the Bulk Survey for Release Facility, the waste will be shipped to this facility for final disposition.

4.4.5 If the analytical data and/or survey results exceed the WAC for the Bulk Survey for Release Facility, the waste will be placed in the LLRW storage area.

4.5 LLRW Storage Area

4.5.1 Waste that is identified as LLRW is labeled in accordance with WVSMP Waste Management procedures.

4.5.2 If the analytical data and/or survey results show that waste is not eligible to be classified as nonradiological or Bulk Survey for Release Waste, and it meets the WAC for the LLRW Facility, the waste will be shipped to the LLRW Facility for final disposition.

5.0 APPENDIX A

Figure 1, The Western New York Nuclear Service Center (one page)

Figure 1, Photograph of the State-Licensed Disposal Area (one page)

Figure 3, WVSMP Waste Disposal Path Decision Flowchart (one page)

APPENDIX A

Figures and Flowchart

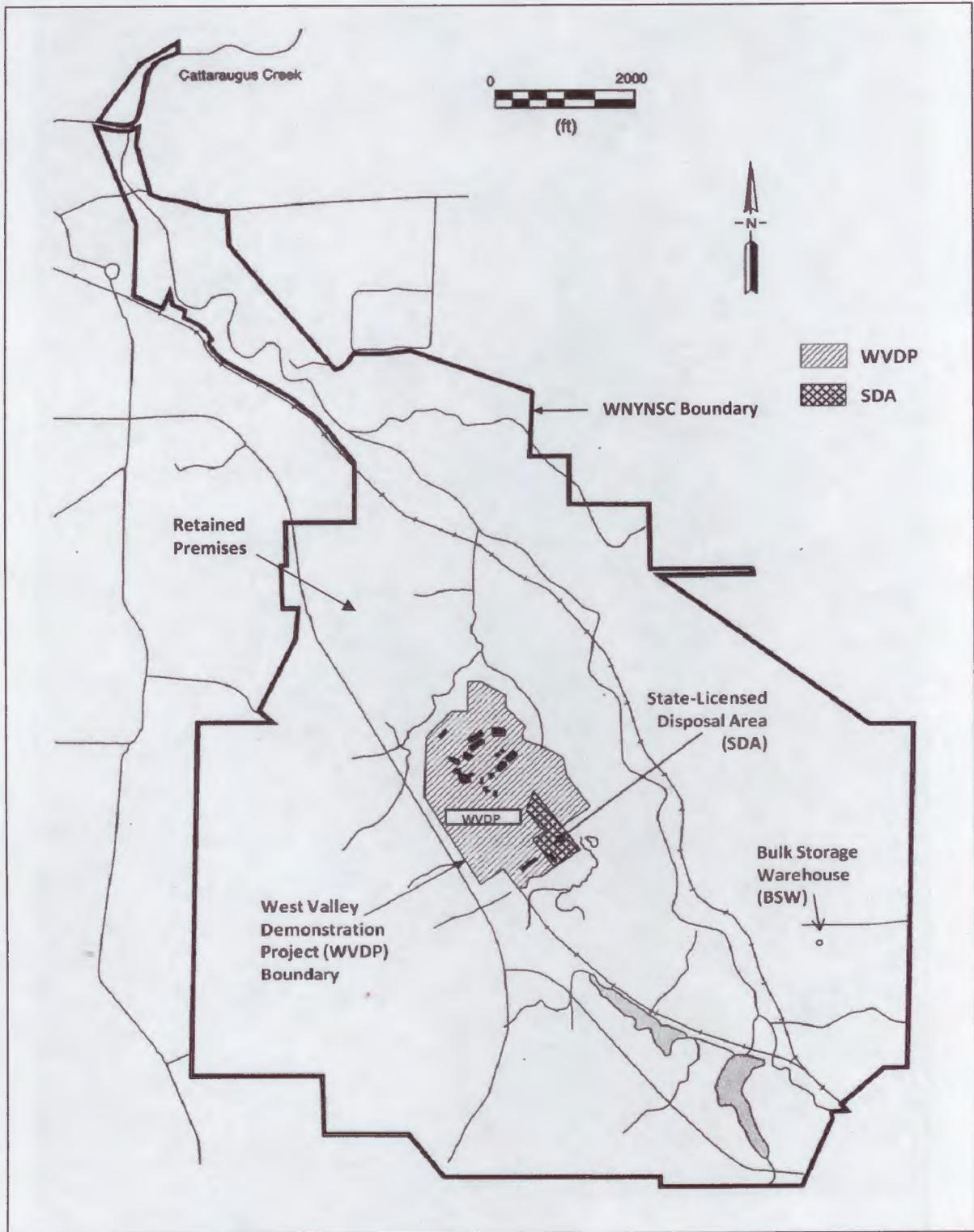
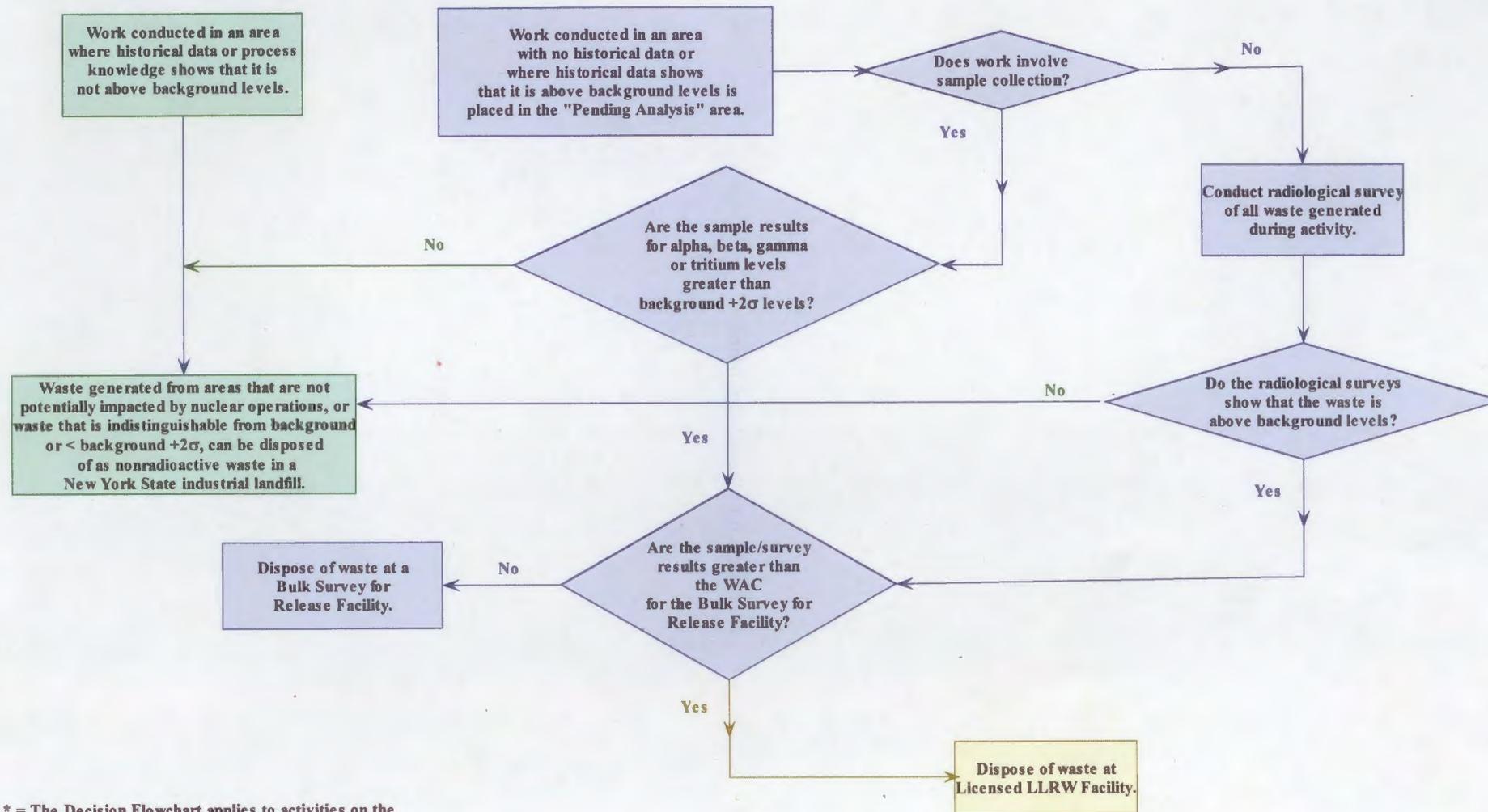


Figure 1 - Western New York Nuclear Service Center



Figure 2 – Photograph of the State-Licensed Disposal Area



* = The Decision Flowchart applies to activities on the Retained Premises and at the State-Licensed Disposal Area

Figure 3 – WWSMP Waste Disposal Path Decision Flowchart