Waste Specification Records (WSRds)

Overview

Waste Specification Records (WSRds) were developed to categorize waste by the treatment, storage and disposal methods used at the Hanford site. The WSRds are based on current Hanford waste storage and disposal capabilities, the land disposal restrictions treatment standards of 40 CFR 268, and anticipated future treatment and disposal methods (e.g., private treatment contracts and the Waste Isolation Pilot Plant).

Waste generators must know the appropriate WSRds for their waste streams for the following reasons:

- Waste streams must be segregated by WSRd so that Hanford can effectively treat and dispose of the waste (see HNF-EP-0063, Section 2.6.3).
- Some WSRds identify waste stream specific acceptance requirements. The generator must understand and comply with these requirements for the waste stream to be accepted at Hanford TSD units.

This document describes the rationale behind the WSRd segregation scheme, provides a flow chart (the WSRd Assignment Matrix) for selecting the correct WSRd for a given waste stream, and includes all current routine WSRds.

Basis of the WSRds

The Waste Specification Records were originally developed in 1995 and published in WHC-EP-0846, Waste Specification System. The WSRds were based on existing DOE and Hanford- specific waste groupings for treatment and disposal. Since 1995, the set of WSRds has been revised extensively as regulations and treatment requirements have changed. In 1998, many of the WSRds were consolidated and the first WSRd Assignment Matrix was created to provide a more disciplined approach to selection of WSRds.

The WSRds are derived from three sets of criteria, presented briefly below in order of importance.

1. Final disposal location. The anticipated final disposal location is the first-tier criterion for development of WSRds. Sheet 1 of the WSRd Assignment Matrix identifies the types of waste that can be disposed directly in the Hanford Low-Level Burial Grounds (LLBG). Sheet 2 identifies the transuranic waste groups, which are anticipated to be disposed at the Waste Isolation Pilot Plant. The remaining sheets identify waste groups that will be disposed at Hanford's LLBG, but must be treated prior to disposal.
2. Treatment methods. The second-tier criteria for WSRd development is the anticipated treatment requirements for the waste. Treatment methods are based on several sources: Federal Land Disposal Restrictions regulations (40 CFR Part 268); PCB disposal requirements (40 CFR 761); Washington State land disposal restrictions (WAC 173-303-140); and radiological stabilization requirements derived from the LLBG performance assessment.
3. Interim storage segregation. Among the more heavily-used classes of mixed waste WSRds (e.g., 400, 500 and 600 series), the WSRds also segregate waste into primary hazard class for storage. This segregation helps ensure compatibility during storage.

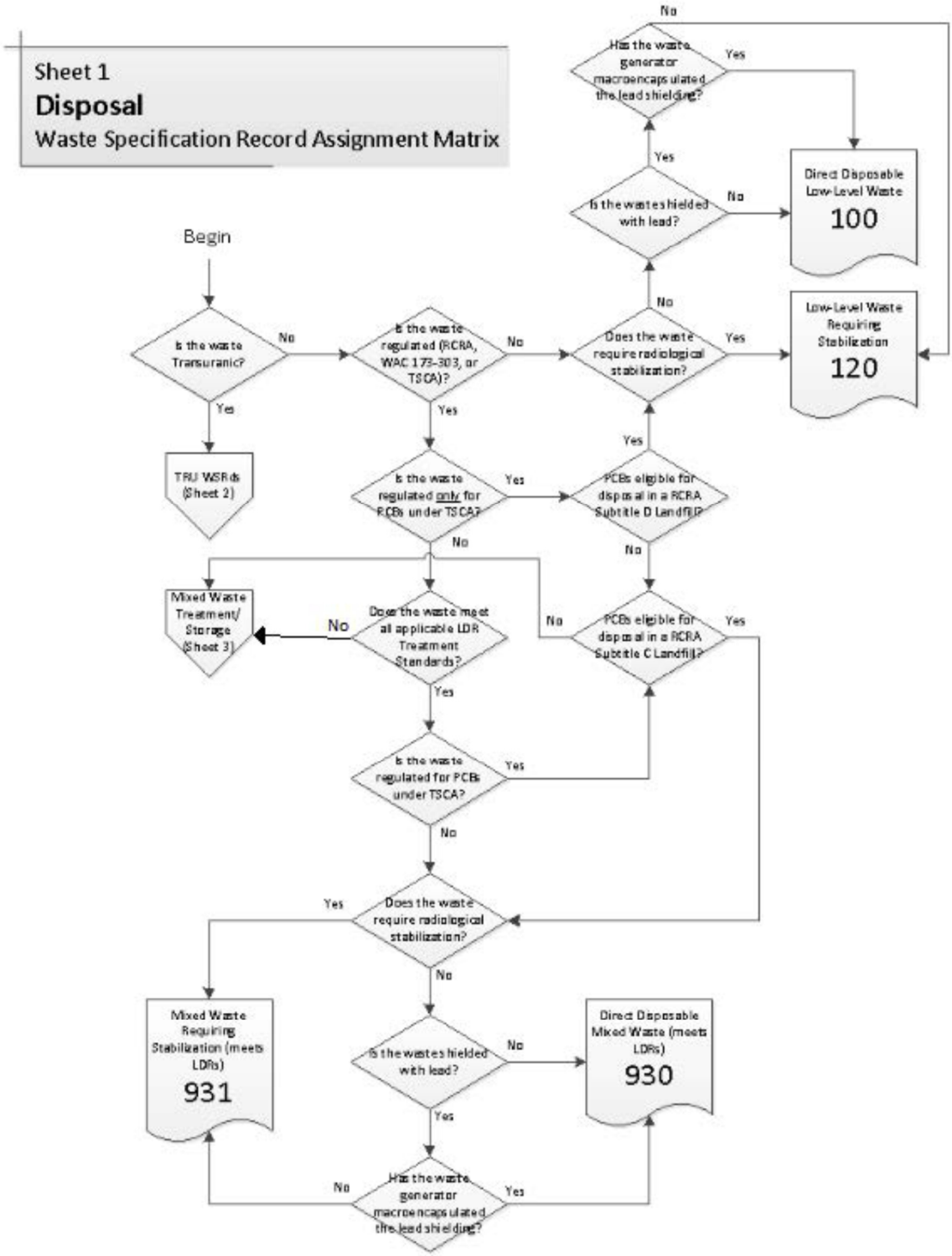
The WSRd Assignment Matrix

The WSRd Assignment Matrix is a flow diagram for determining the correct WSRd for a given type of waste. The exact meaning of each decision box is critical to determining the correct WSRd. The following definitions must be used to determine the meaning of the decision boxes in the WSRd Assignment Matrix. Where a regulation is cited, the regulation itself identifies the precise criteria used for making the decision.

1. *Acid:* an aqueous liquid that is designated with waste code D002 because it has a pH less than or equal to 2 (WAC-173-303-090(6)); and a non-aqueous liquid that has strong acid properties.
2. *Beryllium dust:* waste that is assigned waste code P015 as specified by WAC 173-303- 081.
3. *Cadmium battery:* waste that meets the definition of the "cadmium containing batteries subcategory" of 40 CFR 268.40.
4. *Caustic:* an aqueous liquid that is designated with waste code D002 because it has a pH greater than or equal to 12.5 (WAC-173-303-090(6)); and a non-aqueous liquid that has strong caustic (basic) properties.
5. *Elemental mercury:* waste that meets the definition of the "elemental mercury contaminated with radioactive materials subcategory" of 40 CFR 268.40.
6. *Extremely hazardous waste:* extremely hazardous waste as defined by WAC 173-303- 040.
7. *Hazardous debris:* waste that meets the definition of hazardous debris in 40 CFR 268.2(g).
8. *High mercury waste:* waste designated with waste codes P065, P092, U151 and D009 that have a treatment standard of IMERC or RMERC in 40 CFR 268.40. In general, this refers to waste with $\geq$ 260 mg/kg mercury, but certain LDR subcategories require IMERC or RMERC regardless of the mercury concentration.
9. *Ignitable solid:* non-liquid waste that is designated with waste code D001 in accordance with WAC 173-303-090(5)(a)(ii).
10. *Lead acid battery:* waste that meets the definition of the "lead acid batteries subcategory" of 40 CFR 268.40.
11. *Meets LDR treatment standards:* waste that meets all land disposal restrictions treatment standards of 40 CFR 268; and is not prohibited from disposal under WAC 173-303-140.
12. *Organic/carbonaceous:* waste that contains combined concentrations of greater than 10 weight percent organic/carbonaceous constituents as defined by WAC 173-303- 140(3)(c).
13. *Oxidizer:* waste that is designated with waste code D001 because it is an oxidizer as defined in WAC 173-303-090(5)(a)(iv).
14. *PCBs eligible for disposal in a RCRA Subtitle D landfill:* TSCA regulated PCB waste types that are authorized for disposal under 40 CFR 761 “in a facility permitted, licensed, or registered by a State as a municipal or non-municipal nonhazardous waste landfill”. (Note: this type of PCB/radioactive waste can be disposed of without regard to the PCB content as specified in 40 CFR 761.50(b)(7).)
15. *PCBs eligible for disposal in a RCRA Subtitle C landfill*: TSCA regulated PCB waste types that are authorized for disposal under 40 CFR 761 “in a hazardous waste landfill permitted by EPA under section 3004 of RCRA or by a State authorized under section 3006 of RCRA”.
16. *Radioactive lead solids:* waste that meets the definition of the "radioactive lead solids subcategory" of 40 CFR 268.40.
17. *Radiological stabilization:* waste that must be placed in a high integrity container or processed to a stable waste form to meet the Category 3 waste and mobile radionuclide requirements of HNF-EP-0063, Section 3.4.1.
18. *Reactive (cyanide and sulfide):* waste that is designated with waste code D003 because of cyanide or sulfide content (WAC 173-303-090(7)).
19. *Regulated for PCBs under TSCA:* waste that is subject to regulation for PCBs under 40 CFR 761, regardless of PCB concentration.

20. *Regulated:*
    - waste that is designated as a dangerous or extremely hazardous waste (WAC 173-303-070 through 100;
    - waste that has been treated to remove waste codes D001 through D043 but requires additional treatment for underlying hazardous constituents;
    - and waste that contains PCBs regulated by 40 CFR 761.
21. *Solid acid:* a solid that is designated with waste code WSC2 due to a pH less than or equal to 2 when tested as specified in WAC 173-303-090(6).
22. *Solid caustic:* a solid that is designated with waste code WSC2 due to a pH greater than or equal to 12.5 when tested as specified in WAC 173-303-090(6).
23. *Thermal treatment required:* waste that must be treated by a thermal treatment process. Note that this definition is based on the Hanford site baseline waste treatment planning and includes some waste subcategories that might not be restricted to thermal treatment under the applicable regulations. The following criteria are used to determine whether thermal treatment is required:
    - RCRA listed waste designated with a P or U waste code when the listed constituent is organic;
    - RCRA listed waste with waste codes F001-F005, F020-F023, F026-F029, or F039;
    - waste that is designated with organic toxicity characteristic constituents, waste codes D012 through D043 (WAC 173-303-090);
    - waste that must be treated for organic underlying hazardous constituents (40 CFR 268.48);
    - PCB waste that is regulated under 40 CFR 761 or WAC-173-303, and that cannot be disposed without prior treatment (i.e., does not meet the definitions above for "PCBs eligible for disposal in a RCRA Subtitle D landfill" or for "PCBs eligible for disposal in a RCRA Subtitle C landfill" ;
    - waste that contains combined concentrations of greater than 10 weight percent organic/carbonaceous constituents as defined by WAC 173-303-140(3)(c).
24. *Toxicity characteristic (TC):* waste that is designated with waste codes D004 through D043 (WAC 173-303-090).
25. *Transuranic*: waste that exceeds 100 nCi/g TRU radionuclides (HNF-EP-0063 definitions).
26. *Water reactive:* waste that is designated with waste code D003 because it reacts violently with water (WAC 173-303-090(7)).

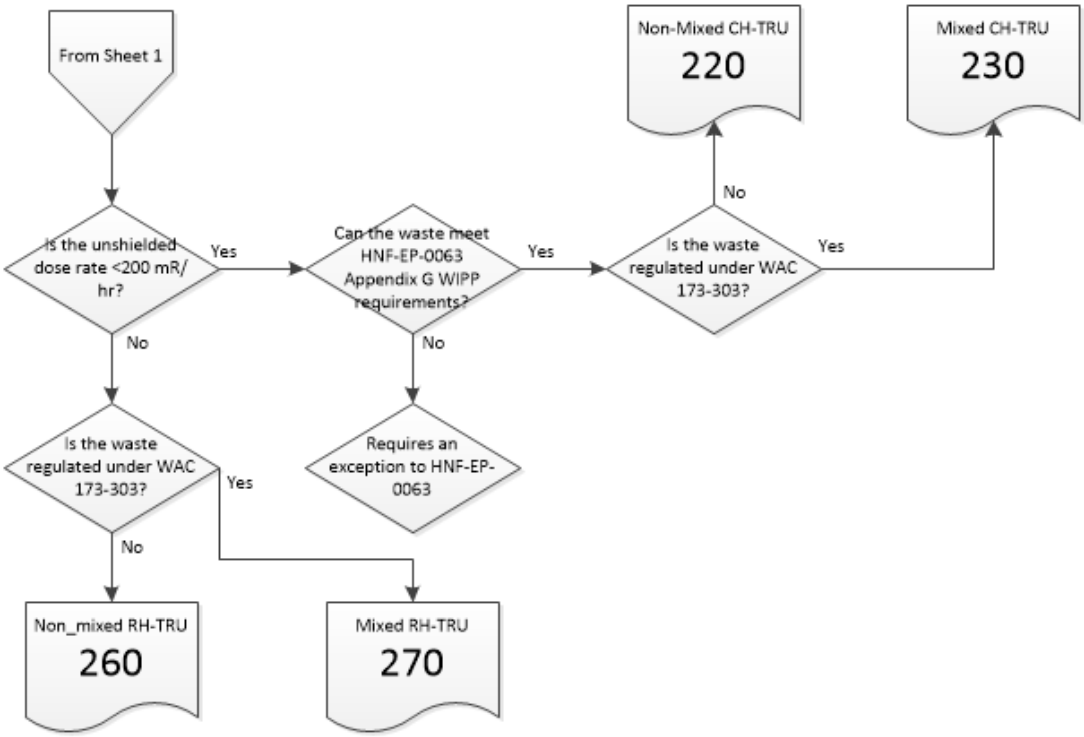
WSRd Assignment Matrix


Sheet 1
Disposal
Waste Specification Record Assignment Matrix
Begin
Is the waste Transuranic?
No
Yes
TRU WSRds (Sheet 2)
Is the waste regulated (RCRA, WAC 173-303, or TSCA)?
No
Yes
Does the waste require radiological stabilization?
Yes
No
Low-Level Waste Requiring Stabilization
120
Is the waste shielded with lead?
Yes
No
Direct Disposable Low-Level Waste
100
Has the waste generator macroencapsulated the lead shielding?
No
Yes
Is the waste regulated only for PCBs under TSCA?
Yes
No
PCBs eligible for disposal in a RCRA Subtitle D Landfill?
Yes
No
Mixed Waste Treatment/ Storage (Sheet 3)
No
Does the waste meet all applicable LDR Treatment Standards?
No
Yes
PCBs eligible for disposal in a RCRA Subtitle C Landfill?
Yes
Is the waste regulated for PCBs under TSCA?
Yes
No
Does the waste require radiological stabilization?
Yes
No
Mixed Waste Requiring Stabilization (meets LDRs)
931
Is the waste shielded with lead?
No
Yes
Direct Disposable Mixed Waste (meets LDRs)
930
Has the waste generator macroencapsulated the lead shielding?
No
Yes

Sheet 2

Transuranic Waste

Waste Specification Record Assignment Matrix



Sheet 3

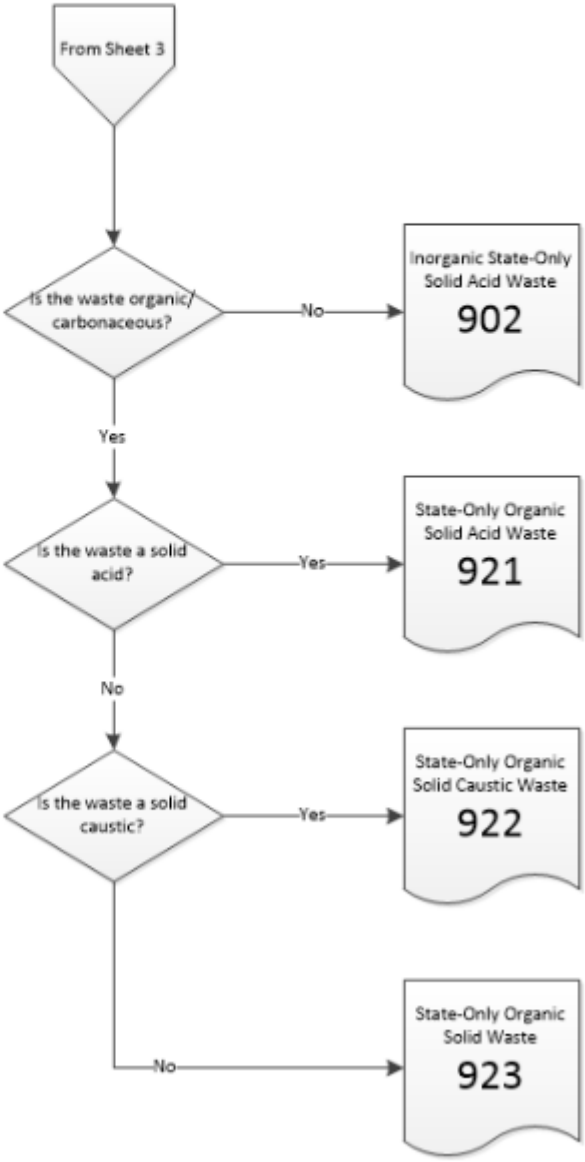
Treatment: Specific LDR Treatment Standards

Waste Specification Record Assignment Matrix

Sheet 4

Treatment: Washington State-Only Mixed Waste

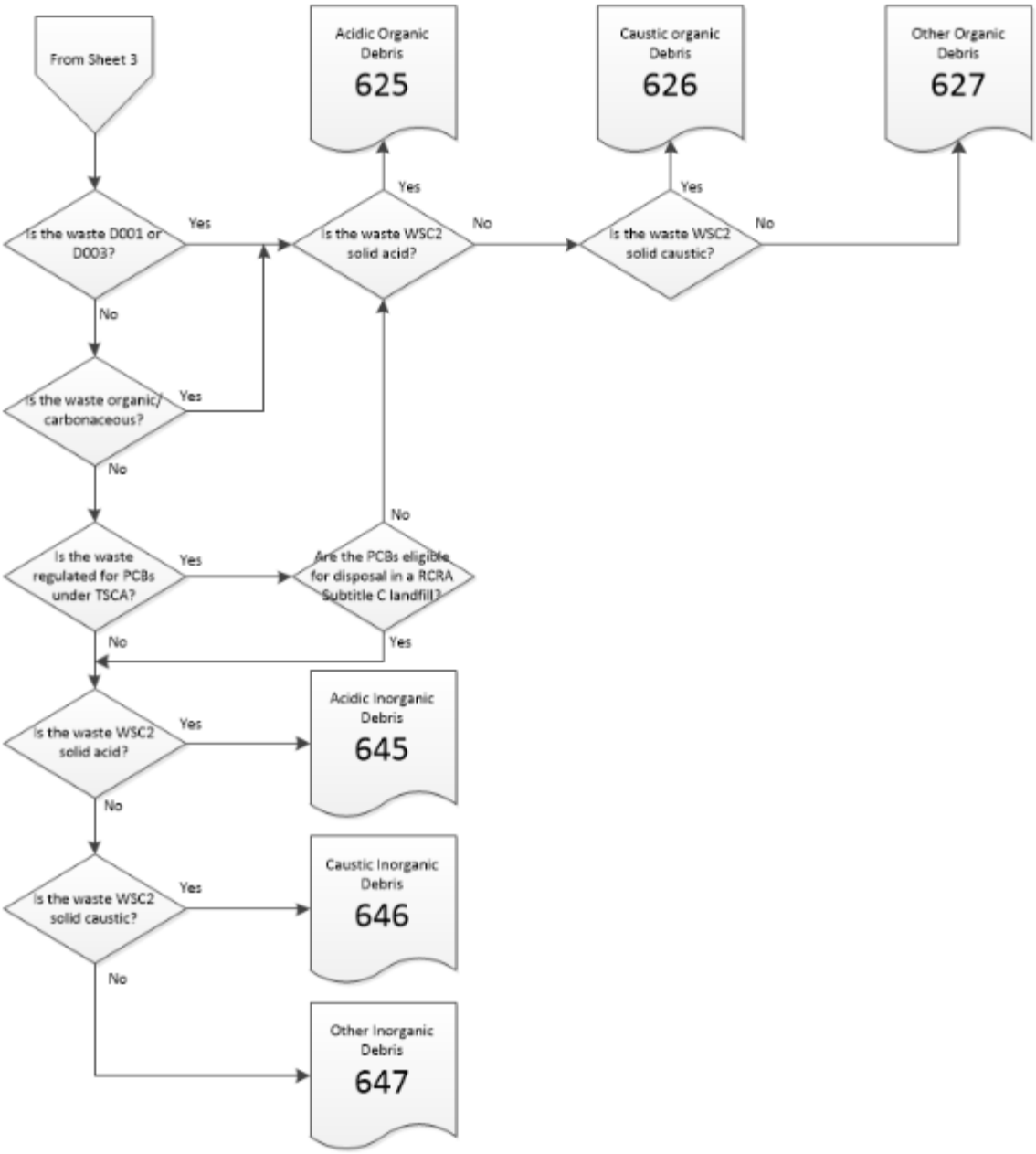
Waste Specification Record Assignment Matrix



Sheet 5

Treatment: Mixed Waste Debris

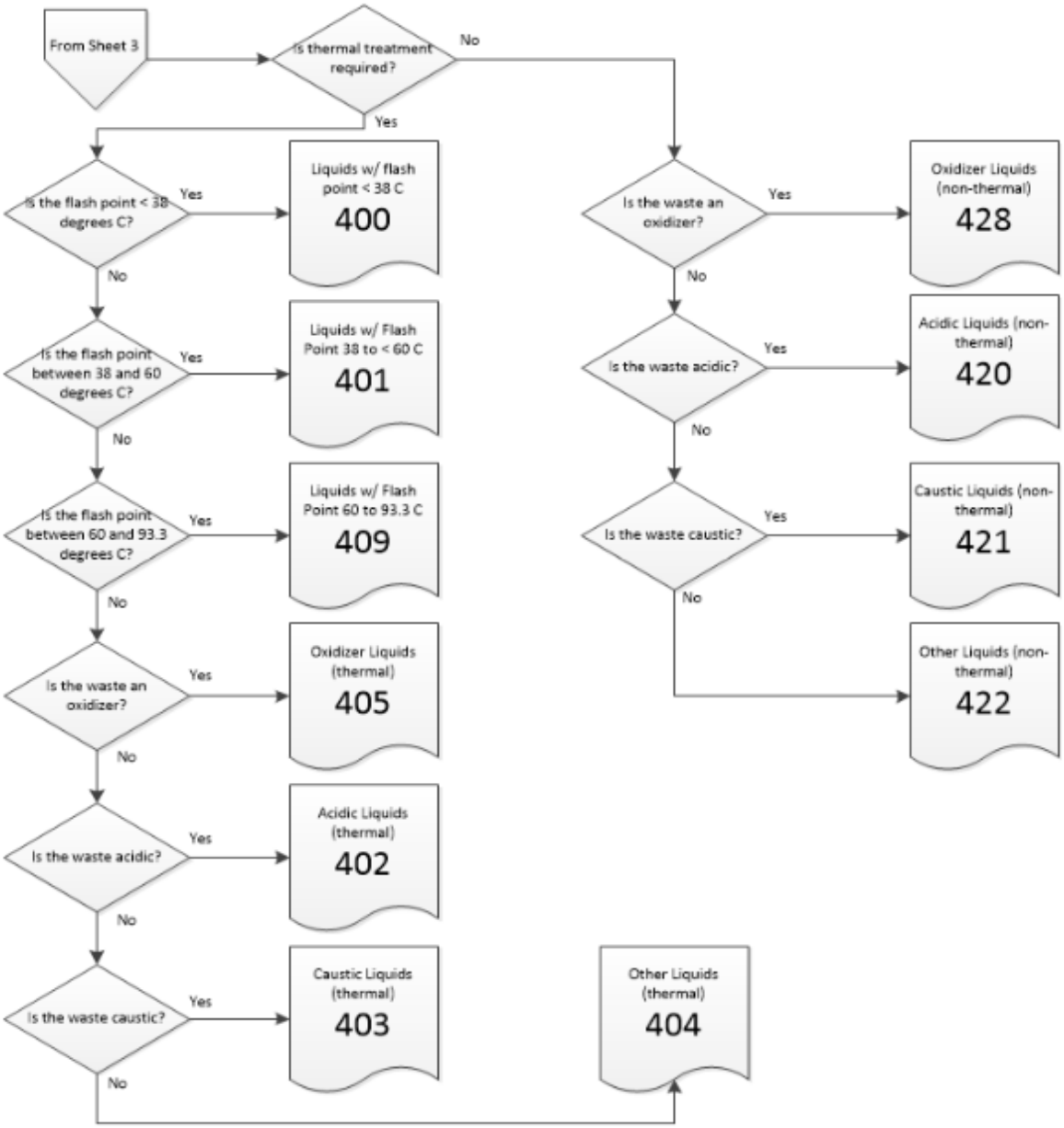
Waste Specification Record Assignment Matrix



Sheet 6

Treatment: Mixed Waste Liquids

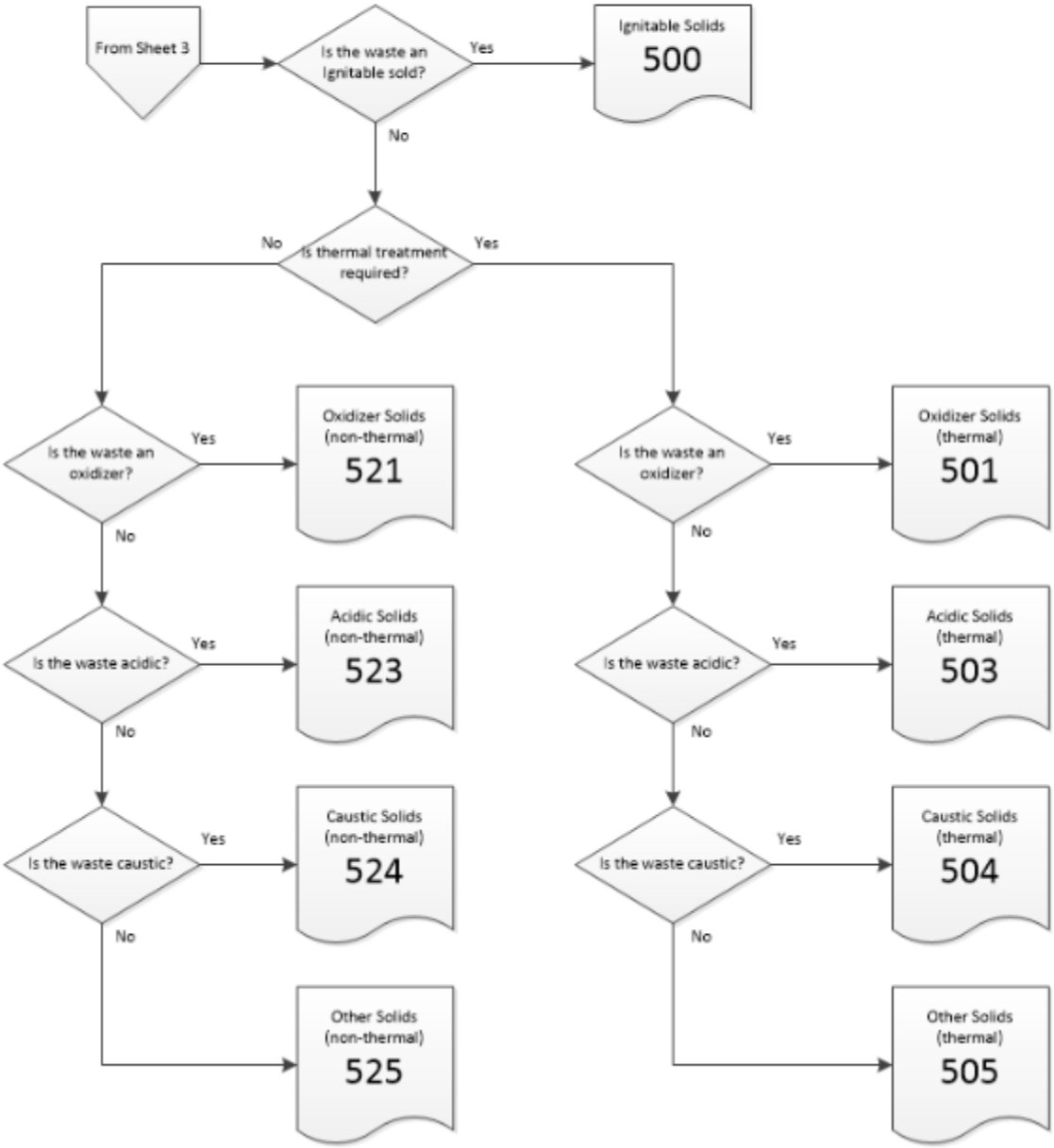
Waste Specification Record Assignment Matrix



Sheet 7

Treatment: Mixed Waste Solids

Waste Specification Record Assignment Matrix



Active Waste Specification Records

Waste Specification Record

100-4

A) General Description

Direct disposable low -level waste

B) Waste Matrix Description

Miscellaneous compactible and non-compactible solids: solid compactible and non-compactible waste materials such as paper, plastic, rubber, debris, cloth, leather, vinyl, equipment, metal, concrete, glass, ceramic or brick materials, roofing debris, rocks/gravel, soil, wood, plastic, rubber, sludges or absorbed liquids (<1% organic), stabilized organics (>1%), animal carcasses, and asbestos.

C) Radiological Description

Low-level waste that does not require radiological stabilization or has been radiologically stabilized in accordance with HNF-EP-0063 Chapter 3.

D) Regulatory Classification

Waste that is not regulated in accordance with WAC 173-303, 40 CFR 261, and not prohibited from disposal under 40 CFR 761 in a RCRA Subtitle D landfill.

Radioactive lead shielding must be macroencapsulated to meet EPA best management practice

E) pH Ranges	*F) Flashpoint Ranges*
N/A	N/A

G) Packaging

Recommended Packaging: 208 liter (55 gallon) drum, 122x122x244 cm (4x4x8 ft) metal box, or smaller box. Required Packaging: Must be void filled to meet HNF-EP-0063 Chapter 3 requirements.

H) Treatment Path	*I) Segregation*
N/A	Direct Disposal

J) Restrictions

None

Waste Specification Record

120-4

A) General Description
Low-level waste requiring stabilization

B) Waste Matrix Description
Miscellaneous compactible and non-compactible solids: solid compactible and non-compactible waste materials such as paper, plastic, rubber, debris, cloth, leather, vinyl, equipment, metal, concrete, glass, ceramic or brick materials, roofing debris, rocks/gravel, soil, wood, plastic, rubber, sludges or absorbed liquids (<1% organic), stabilized organics (>1%) , animal carcasses, and asbestos.

C) Radiological Description
Low level waste that requires radiological stabilization in accordance with HNF-EP-0063 Chapter 3

D) Regulatory Classification
Waste that is not regulated in accordance with WAC 173-303, 40 CFR 261, and not prohibited from disposal under 40 CFR 761 in a RCRA Subtitle D landfill. Note that lead shielding that is being used for its intended purpose (radioactive shielding) is not a solid waste and is not subject to dangerous waste designations.

E) pH Ranges	F) Flashpoint Ranges
N/A	N/A

G) Packaging
Recommended Packaging: 208 liter (55 gallon) drum, 122x122x244 cm (4x4x8 ft) metal box, or smaller box.

H) Treatment Path	I) Segregation
N/A	Stabilization Required

J) Restrictions
None

Waste Specification Record

220-03

A) General Description

Non-mixed contact handled (CH) Transuranic (TRU) waste that complies with HNF-EP-0063 Appendix G.

B) Waste Matrix Description

Miscellaneous solid waste.

C) Radiological Description

CH TRU - Waste in which the unshielded dose rate does not exceed 200 millirem per hour. Waste cannot be shielded except for ALARA concerns.

D) Regulatory Classification

Waste that is not regulated in accordance with WAC-173-303 and 40 CFR 261. PCB's in any concentration are allowed, but there can be no free flowing liquids in the PCB waste. Waste treated to remove a characteristic code (D001, D002, D003) may be acceptable under this WSRD depending on treatment.

E) pH Ranges	*F) Flashpoint Ranges*
2 < pH < 12.5	>= 60 degrees C

G) Packaging

Required container: 55 gallon drum, Waste Isolation Pilot Plant (WIPP) Standard Waste Box (SWB), or an SLB2. Required Venting: Vented with filters that meet the WIPP Hazardous Waste Facility Permit and the TRUPACT-II SARP. Maximum layers of confinement: Four.

H) Treatment Path	*I) Segregation*
WIPP	TRU Storage

J) Restrictions

Sorbents must be listed in Table E-2 in HNF-EP-0063.
Containers must conform to all applicable limits specified in HNF-EP-0063 (e.g., weight, FGE, DE-Ci, etc.).

PROHIBITED WASTE:
Non-Defense Waste
Explosive, Shock-Sensitive, Pyrophoric, and Class IV oxidizer waste
Infectious waste

Waste Specification Record

230-03

A) General Description

Contact Handled (CH) Transuranic (TRU) Mixed waste that complies with HNF-EP-0063 appendix G.

B) Waste Matrix Description

Miscellaneous solid waste.

C) Radiological Description

CH TRU Mixed - Waste in which the unshielded dose rate does not exceed 200 millirem per hour. Waste cannot be shielded except for ALARA concerns.

D) Regulatory Classification

Limited to waste codes allowed for TRU waste in Appendix G of HNF-EP-0063 Hanford Site Solid Waste Acceptance Criteria. Wastes exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA hazardous waste numbers of D001, D002, or D003) must be treated to remove the characteristic prior to being shipped. Corrosives must be neutralized prior to adsorption/absorption. PCB's in any concentration are allowed, but there can be no free flowing liquids in the PCB waste.

E) pH Ranges	*F) Flashpoint Ranges*
0-14 prior to treatment	Any – prior to treatment

G) Packaging

Required container: 55 gallon drum, Waste Isolation Pilot Plant (WIPP) Standard Waste Box (SWB), or an SLB2. Required Venting: Vented with filters that meet the WIPP Hazardous Waste Facility Permit and the TRUPACT-II SARP. Maximum layers of confinement: Four.

H) Treatment Path	*I) Segregation*
WIPP	Segregate according to hazards.

J) Restrictions

Sorbents must be listed in Table E-2 in HNF-EP-0063.
Containers must conform to all applicable limits specified in HNF-EP-0063 (e.g., weight, FGE, DE-Ci, etc.).

PROHIBITED WASTE:
Non-Defense Waste
Explosive, Shock-Sensitive, Pyrophoric, and Class IV oxidizer waste
Infectious waste

Waste Specification Record

260-01

A) General Description

Non-mixed Remote Handled TRU (RH-TRU) waste that complies with HNF-EP-0063 appendix I.

B) Waste Matrix Description

Miscellaneous solid waste.

C) Radiological Description

Remote Handled TRU: shielded waste or waste in which the unshielded dose rate exceeds 200 millirem/hour. Note: RH-TRU must be shielded to CH TRU levels in order to be stored in CWC.

D) Regulatory Classification

Waste that is not regulated in accordance with WAC-173-303 and 40 CFR 261. PCB's in any concentration are allowed, but there can be no free flowing liquids in the PCB waste. Waste treated to remove a characteristic code (D001, D002, D003) may be acceptable under this WSRD depending on treatment.

E) pH Ranges	*F) Flashpoint Ranges*
2<pH<12.5	>= 60 degrees C

G) Packaging

Package in accordance with appendix I of HNF-EP-0063. Maximum layers of confinement: Four.

H) Treatment Path	*I) Segregation*
WIPP	TRU storage

J) Restrictions

Sorbents must be listed in Table E-2 in HNF-EP-0063.
Containers must conform to all applicable limits specified in HNF-EP-0063 (e.g., weight, FGE, DE-Ci, etc.).

PROHIBITED WASTE:
Non-Defense Waste
Explosive, Shock-Sensitive, Pyrophoric, and Class IV oxidizer waste
Infectious waste

Waste Specification Record

270-01

A) General Description

Mixed Remote Handled TRU (RH-TRU) waste that complies with HNF-EP-0063 appendix I.

B) Waste Matrix Description

Miscellaneous solid waste.

C) Radiological Description

Remote Handled TRU: shielded waste or waste in which the unshielded dose rate exceeds 200 millirem/hour. Note: RH-TRU must be shielded to CH TRU levels in order to be stored in CWC.

D) Regulatory Classification

Limited to waste codes allowed for TRU waste in Appendix I of HNF-EP-0063 Hanford Site Solid Waste Acceptance Criteria. Wastes exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA hazardous waste numbers of D001, D002, or D003) must be treated to remove the characteristic prior to being shipped. Corrosives must be neutralized prior to adsorption/absorption. PCB's in any concentration are allowed, but there can be no free flowing liquids in the PCB waste.

E) pH Ranges	*F) Flashpoint Ranges*
0-14 – prior to treatment	Any – prior to treatment

G) Packaging

Package in accordance with appendix I of HNF-EP-0063. Maximum layers of confinement: Four.

H) Treatment Path	*I) Segregation*
WIPP	Segregate according to hazards

J) Restrictions

Sorbents must be listed in Table E-2 in HNF-EP-0063.
Containers must conform to all applicable limits specified in HNF-EP-0063 (e.g., weight, FGE, DE-Ci, etc.).

PROHIBITED WASTE:
Non-Defense Waste
Explosive, Shock-Sensitive, Pyrophoric, and Class IV oxidizer waste
Infectious waste

Waste Specification Record

400-06

A) General Description
Liquids with flashpoint less than 100 degrees F (38 degrees C)

B) Waste Matrix Description
Liquids/Slurries - Includes organic liquid/slurry waste or aqueous liquids/slurries requiring thermal treatment.

C) Radiological Description
Low level waste(LLW), contact handled, category 1 or 3

D) Regulatory Classification
WPCB, listed P or U, and/or F001-F012, F019-F028, F039 and/or D001 (ignitable liquid), D002, D003 (sulfides and cyanide only), D004-D008, D009 (low-mercury subcategory only), D010-D043, and/or TSCA PCBs, and all other applicable state waste codes

E) pH Ranges	*F) Flashpoint Ranges*
0-14	<38 degrees C

G) Packaging
Recommended Packaging: 208 liter (55 gallon) drum

H) Treatment Path	*I) Segregation*
Thermal Treatment	Low-Flashpoint Storage

J) Restrictions
1. NFPA class 1 flammable liquid is the primary hazard. All subsidiary hazards require segregation for compatibility.

Waste Specification Record

401-05

A) General Description
Liquids with flashpoint between 100 to less than 140 degrees F (38 to <60 degrees C)

B) Waste Matrix Description
Liquids/Slurries - Includes organic liquid/slurry waste or aqueous liquids/slurries requiring thermal treatment

C) Radiological Description
Low level waste (LLW), contact handled, category 1 or 3

D) Regulatory Classification
WPCB, Listed P or U, and/or F001-F012, F019-F028, F039 and/or D001 (ignitable liquid), D002, D003 (sulfides and cyanide only), D004-D008, D009 (low-mercury subcategory only), D010-D043, and/or TSCA PCBs, and all other applicable state waste codes.

E) pH Ranges	*F) Flashpoint Ranges*
0-14	38 to <60 degrees C

G) Packaging
Recommended Packaging: 208 liter (55 gallon) drum

H) Treatment Path	*I) Segregation*
Thermal Treatment	Combustible Storage

J) Restrictions
1. NFPA class 2 combustible liquid is the primary hazard. All subsidiary hazards require segregation for compatibility.

Waste Specification Record

402-03

A) General Description
Acidic liquids (thermal treatment)

B) Waste Matrix Description
Liquids/Slurries - Includes organic liquid/slurry waste or aqueous liquids/slurries requiring thermal treatment.

C) Radiological Description
Low level waste(LLW), contact handled, category 1 or 3

D) Regulatory Classification
WPCB, listed P or U, and F001-F012, F019-F028, F039 and D002, D003 (sulfides and cyanide only), D004-D008, D009 (low-mercury subcategory only), D010-D043, and/or TSCA PCBs, and all other applicable state waste codes

E) pH Ranges	*F) Flashpoint Ranges*
<=2	N/A

G) Packaging
Recommended Packaging: 208 liter (55 gallon) drum

H) Treatment Path	*I) Segregation*
Thermal Treatment	Acid Storage

J) Restrictions
1. Acidic liquid is the primary hazard. All subsidiary hazards require segregation for compatibility.

Waste Specification Record

403-03

A) General Description
Caustic liquids (thermal treatment)

B) Waste Matrix Description
Liquids/Slurries - Includes organic liquid/slurry waste or aqueous liquids/slurries requiring thermal treatment.

C) Radiological Description
Low level waste(LLW), contact handled, category 1 or 3

D) Regulatory Classification
WPCB, Listed P or U, and F001-F012, F019-F028, F039 and D002, D003 (sulfides and cyanide only), D004-D008, D009 (low-mercury subcategory only), D010-D043, and/or TSCA PCBs, and all other applicable state waste codes

E) pH Ranges	*F) Flashpoint Ranges*
>= 12.5	N/A

G) Packaging
Recommended Packaging: 208 liter (55 gallon) drum

H) Treatment Path	*I) Segregation*
Thermal Treatment	Caustic Storage

J) Restrictions
1. Caustic liquid is the primary hazard. All subsidiary hazards require segregation for compatibility.

Waste Specification Record

404-03

A) General Description
Other liquids (thermal treatment)

B) Waste Matrix Description
Liquids/Slurries - Includes organic liquid/slurry waste or aqueous liquids/slurries requiring thermal treatment.

C) Radiological Description
Low level waste(LLW), contact handled, category 1 or 3

D) Regulatory Classification
WPCB, listed P or U, and F001-F012, F019-F028, F039 and, D003 (sulfides and cyanide only), D004-D008, D009 (low-mercury subcategory only), D010-D043, and/or TSCA PCBs, and all other applicable state waste codes

E) pH Ranges	*F) Flashpoint Ranges*
N/A	N/A

G) Packaging
Recommended Packaging: 208 liter (55 gallon) drum

H) Treatment Path	*I) Segregation*
Thermal Treatment	Other MW Storage

J) Restrictions
None

Waste Specification Record

405-03

A) General Description
Oxidizer liquid (thermal treatment)

B) Waste Matrix Description
Liquids/Slurries - Includes organic liquid/slurry waste or aqueous liquids/slurries requiring thermal treatment.

C) Radiological Description
Low level waste(LLW), contact handled, category 1 or 3

D) Regulatory Classification
WPCB, listed P or U, and/or F001-F012, F019-F028, F039 and/or D001 (ignitable oxidizer), D002, D003 (sulfides and cyanide only), D004-D008, D009 (low-mercury subcategory only), D010-D043, and/or TSCA PCBs, and all other applicable state waste codes

E) pH Ranges	*F) Flashpoint Ranges*
0-14	N/A

G) Packaging
Recommended Packaging: 208 liter (55 gallon) drum

H) Treatment Path	*I) Segregation*
Thermal Treatment	Oxidizer Storage

J) Restrictions
1. Oxidizer liquid is the primary hazard. All subsidiary hazards require segregation for compatibility.

Waste Specification Record

409-03

A) General Description
Liquids with flashpoint between 140-200 degrees F (60-93.3 degrees C)

B) Waste Matrix Description
Liquids/Slurries - Includes organic liquid/slurry waste or aqueous liquids/slurries requiring thermal treatment

C) Radiological Description
Low level waste (LLW), contact handled, category 1 or 3

D) Regulatory Classification
WPCB, Listed P or U, and/or F001-F012, F019-F028, F039 and/or D002, D003 (sulfides and cyanide only), D004-D008, D009 (low-mercury subcategory only), D010-D043, and/or TSCA PCBs, and all other applicable state waste codes.

E) pH Ranges	*F) Flashpoint Ranges*
0-14	60 - 93.3 C

G) Packaging
Recommended Packaging: 208 liter (55 gallon) drum

H) Treatment Path	*I) Segregation*
Thermal Treatment	Requires storage in 2404-W facilities

J) Restrictions
1. NFPA class 3A combustible liquid is the primary hazard. All subsidiary hazards require segregation for compatibility.

Waste Specification Record

420-02

A) General Description
Acidic liquids (Non-thermal treatment)
B) Waste Matrix Description
Liquid/Slurries
C) Radiological Description
Low level waste(LLW), contact handled, category 1 or 3
D) Regulatory Classification
All applicable state waste codes, listed inorganic P or U, and, D002, D003 (sulfides and cyanide only), D004-D008, D009 (low-mercury subcategory only), D010-D011

E) pH Ranges	*F) Flashpoint Ranges*
<=2	N/A

G) Packaging
Recommended Packaging: 208 liter (55 gallon) drum

H) Treatment Path	*I) Segregation*
Stabilization	Acid Storage

J) Restrictions
1. Acidic Liquid is the primary hazard. All subsidiary hazards require segregation for compatibility.

Waste Specification Record

421-02

A) General Description
Caustic liquids (Non-thermal treatment)

B) Waste Matrix Description
Liquid/Slurries

C) Radiological Description
Low level waste(LLW), contact handled, category 1 or 3

D) Regulatory Classification
All applicable state waste codes, listed inorganic P or U, and, D002, D003 (sulfides and cyanide only), D004-D008, D009 (low-mercury subcategory only), D010-D011

E) pH Ranges	*F) Flashpoint Ranges*
>= 12.5	N/A

G) Packaging
Recommended Packaging: 208 liter (55 gallon) drum

H) Treatment Path	*I) Segregation*
Stabilization	Caustic Storage

J) Restrictions
1. Caustic Liquid is the primary hazard. All subsidiary hazards require segregation for compatibility.

Waste Specification Record

422-02

A) General Description
Other liquids (Non-thermal treatment)
B) Waste Matrix Description
Liquid/Slurries
C) Radiological Description
Low level waste(LLW), contact handled, category 1 or 3
D) Regulatory Classification
All applicable state waste codes, listed inorganic P or U, and D003 (sulfides and cyanide only), D004-D008, D009 (low-mercury subcategory only), D010-D011

E) pH Ranges	*F) Flashpoint Ranges*
N/A	N/A

G) Packaging
Recommended Packaging: 208 liter (55 gallon) drum

H) Treatment Path	*I) Segregation*
Stabilization	Other MW Storage

J) Restrictions
None

Waste Specification Record

428-02

A) General Description
Oxidizer liquids (Non-thermal treatment)

B) Waste Matrix Description
Liquid/Slurries

C) Radiological Description
Low level waste(LLW), contact handled, category 1 or 3

D) Regulatory Classification
All applicable state waste codes, listed inorganic P or U, and, D001(ignitable oxidizer), D002, D003 (sulfides and cyanide only), D004-D008, D009 (low-mercury subcategory only), D010-D011

E) pH Ranges	F) Flashpoint Ranges
0-14	N/A

G) Packaging
Recommended Packaging: 208 liter (55 gallon) drum

H) Treatment Path	I) Segregation
Stabilization	Oxidizer Storage

J) Restrictions
1. Ignitable oxidizer is the primary hazard. All subsidiary hazards require segregation for compatibility.

Waste Specification Record

450-01

A) General Description
Remote Handled liquids shielded to contact handled levels

B) Waste Matrix Description
liquid waste

C) Radiological Description
Low level waste (LLW), Category 1 or 3; remote handled waste shielded to contact handled levels on outer container

D) Regulatory Classification
WPCB, listed P or U, F001-F012, F019-F028, F039 and/or D004-D043, and/or TSCA PCBs, and all other applicable state waste codes

E) pH Ranges	*F) Flashpoint Ranges*
0-14	N/A

G) Packaging
Recommended Packaging: 208 liter (55 gallon) drum or 122X122X244 cm (4X4X8 ft) box

H) Treatment Path	*I) Segregation*
M-91	Segregate according to hazard class

J) Restrictions
none

Waste Specification Record

500-03

A) General Description

Ignitable solids (not water reactive)

B) Waste Matrix Description

Organic and/or Inorganic Ignitable Solids - Organic and/or Inorganic solids that meet the definition of WAC 173-303-090 5(a)(ii).

C) Radiological Description

Low level waste(LLW), contact handled, category 1 or 3

D) Regulatory Classification

WSC2, WPCB, Listed P or U, and/or F001-F012, F019-F028, F039 and/or D001 (ignitable non-liquid), D002, D003 (sulfides and cyanide only), D004-D008, D009 (low-mercury subcategory only), D010-D043, and/or TSCA PCBs, and all other applicable state waste codes

E) pH Ranges	*F) Flashpoint Ranges*
0-14	N/A

G) Packaging

Recommended Packaging: 208 liter (55 gallon) drum

H) Treatment Path	*I) Segregation*
Thermal Treatment	Low Flashpoint Storage

J) Restrictions

1. Ignitable solids generally do not have flashpoint; however the waste is still managed as marked in section I for storage at CWC. 2. Ignitable solid is the primary hazard. All subsidiary hazards require segregation for compatibility.

Waste Specification Record

501-03

A) General Description
Oxidizer solids (thermal treatment)

B) Waste Matrix Description
Inorganic solids and/or sorbed liquids - Includes inorganic solids and/or sorbed liquids requiring themal treatment.

C) Radiological Description
Low level waste(LLW), contact handled, category 1 or 3

D) Regulatory Classification
WSC2, WPCB, Listed P or U, and/or F001-F012, F019-F028, F039 and/or D001 (ignitable oxidizer), D002, D003 (Sulfides and cyanide only), D004-D008, D009 (low-mercury subcategory only), D010-D043, and/or TSCA PCBs, and all other applicable state waste codes

E) pH Ranges	*F) Flashpoint Ranges*
0-14	N/A

G) Packaging
Recommended Packaging: 208 liter (55 gallon) drum

H) Treatment Path	*I) Segregation*
Thermal Treatment	Oxidizer Storage

J) Restrictions
1. Non-liquid oxidizer is the primary hazard. All subsidiary hazards require segregation for compatibility.

Waste Specification Record

503-04

A) General Description
Acidic solids (thermal treatment)

B) Waste Matrix Description
Solids or sorbed liquids - Includes inorganic solids or sorbed liquids requiring themal treatment.

C) Radiological Description
Low level waste (LLW), contact handled, category 1 or 3

D) Regulatory Classification
WSC2, WPCB, listed P or U, and/or F001-F012, F019-F028, F039 and/or D003 (Sulfides and cyanide only), D004-D008, D009 (low-mercury subcategory only), D010-D043, and/or TSCA PCBs, and all other applicable state waste codes

E) pH Ranges	*F) Flashpoint Ranges*
<=2	N/A

G) Packaging
Recommended Packaging: 208 liter (55 gallon) drum

H) Treatment Path	*I) Segregation*
Thermal Treatment	Acid Storage

J) Restrictions
1. Non-liquid Acid is the primary hazard. All subsidiary hazards require segregation for compatibility.

Waste Specification Record

504-3

A) General Description
Caustic solids (thermal treatment)

B) Waste Matrix Description
Solid and/or sorbed liquid - Includes inorganic solids and/or sorbed liquids requiring themal treatment.

C) Radiological Description
Low level waste(LLW), contact handled, category 1 or 3

D) Regulatory Classification
WSC2, WPCB, listed P or U, and/or F001-F012, F019-F028, F039 and/or D003 (Sulfides and cyanide only), D004-D008, D009 (low-mercury subcategory only), D010-D043, and/or TSCA PCBs, and all other applicable state waste codes

E) pH Ranges	*F) Flashpoint Ranges*
>= 12.5	N/A

G) Packaging
Recommended Packaging: 208 liter (55 gallon) drum

H) Treatment Path	*I) Segregation*
Thermal Treatment	Caustic Storage

J) Restrictions
1. Non-liquid caustic is the primary hazard. All subsidiary hazards require segregation for compatibility.

Waste Specification Record

505-4

A) General Description
Other solids (thermal treatment)

B) Waste Matrix Description
Solids and/or sorbed liquids - Includes inorganic solids and/or sorbed liquid requiring thermal treatment.

C) Radiological Description
Low level waste(LLW), contact handled, category 1 or 3

D) Regulatory Classification
WPCB, listed P or U, and/or F001-F012, F019-F028, F039 and/or D003 (Sulfides and cyanide only), D004-D008, D009 (low-mercury subcategory only), D010-D043, and/or TSCA PCBs, and all other applicable state waste codes

E) pH Ranges	*F) Flashpoint Ranges*
N/A	N/A

G) Packaging
Recommended Packaging: 208 liter (55 gallon) drum

H) Treatment Path	*I) Segregation*
Thermal Treatment	Other MW Storage

J) Restrictions
None

Waste Specification Record

521-00

A) General Description
Oxidizer solids (non-thermal treatment)

B) Waste Matrix Description
Solids and/or sorbed liquid - Includes >90% inorganic solids and/or sorbed liquid requiring stabilization.

C) Radiological Description
Low level waste(LLW), contact handled, category 1 or 3

D) Regulatory Classification
WSC2, listed inorganic P or U, and/or D001 (ignitable oxidizer), D002, D003 (Sulfides and cyanide only), D004-D008, D009 (low-mercury subcategory only), D010-D011, and all other applicable state waste codes

E) pH Ranges	F) Flashpoint Ranges
0-14	N/A

G) Packaging
Recommended Packaging: 208 liter (55 gallon) drum

H) Treatment Path	I) Segregation
Stabilization	Oxidizer Storage

J) Restrictions
1. Non liquid oxidizer is the primary hazard. All subsidiary hazards require segregation for compatibility.

Waste Specification Record

523-03

A) General Description
Acidic solids (non-thermal treatment)

B) Waste Matrix Description
Inorganic solids and/or sorbed liquids - Includes >90% inorganic solids and/or sorbed liquid requiring stabilization.

C) Radiological Description
Low level waste(LLW), contact handled, category 1 or 3

D) Regulatory Classification
WSC2, listed inorganic P or U, and/or D003 (Sulfides and cyanide only), D004-D008, D009 (low-mercury subcategory only), D010-D011, and all other applicable state waste codes

E) pH Ranges	F) Flashpoint Ranges
<=2	N/A

G) Packaging
Recommended Packaging: 208 liter (55 gallon) drum

H) Treatment Path	I) Segregation
Stabilization	Acid Storage

J) Restrictions
1. Non liquid acid is the primary hazard. All subsidiary hazards require segregation for compatibility.

Waste Specification Record

524-02

A) General Description
Caustic solids (non-thermal treatment)

B) Waste Matrix Description
Inorganic solids and/or sorbed liquid - Includes >90% inorganic solids and/or sorbed liquid requiring stabilization.

C) Radiological Description
Low level waste(LLW), contact handled, category 1 or 3

D) Regulatory Classification
WSC2, listed inorganic P or U, and/or D003 (Sulfides and cyanide only), D004-D008, D009 (low-mercury subcategory only), D010-D011, and all other applicable state waste codes

E) pH Ranges	F) Flashpoint Ranges
>=12.5	N/A

G) Packaging
Recommended Packaging: 208 liter (55 gallon) drum

H) Treatment Path	I) Segregation
Stabilization	Caustic Storage

J) Restrictions
1. Non liquid caustic is the primary hazard. All subsidiary hazards require segregation for compatibility.

Waste Specification Record

525-01

A) General Description
Other solids (non-thermal treatment)

B) Waste Matrix Description
Inorganic solids and/or sorbed liquids - Includes >90% inorganic solids and/or sorbed liquid requiring stabilization.

C) Radiological Description
Low level waste(LLW), contact handled, category 1 or 3

D) Regulatory Classification
All applicable state waste codes, listed inorganic P or U, and/or D003 (sulfides and cyanide only), D004-D008, D009 (low-mercury subcategory only), D010-D011 which DO NOT MEET LDR. Also, any listed or characteristic organic codes on CWC Part A permit application for which the LDR treatment standard has been met.

E) pH Ranges	*F) Flashpoint Ranges*
N/A	N/A

G) Packaging
Recommended Packaging: 208 liter (55 gallon) drum

H) Treatment Path	*I) Segregation*
Stabilization	Other MW Storage

J) Restrictions
None

Waste Specification Record

550-00

A) General Description
Remote Handled homogeneous solids shielded to contact handled levels

B) Waste Matrix Description
homogeneous solids (non-debris)

C) Radiological Description
Low level waste (LLW), Category 1 or 3; remote handled waste shielded to contact handled levels on outer container

D) Regulatory Classification
WPCB, listed P or U, F001-F012, F019-F028, F039 and/or D004-D043, and/or TSCA PCBs, and all other applicable state waste codes

E) pH Ranges	F) Flashpoint Ranges
0-14	N/A

G) Packaging
Recommended Packaging: 208 liter (55 gallon) drum or 122X122X244 cm (4X4X8 ft) box

H) Treatment Path	I) Segregation
M-91 Macroencapsulation	Segregate according to hazard class

J) Restrictions
none

Waste Specification Record

625-04

A) General Description

Acidic organic debris

B) Waste Matrix Description

Organic Debris: Debris estimated to be > 10 % by weight organic debris (per 40 CFR 268.2 (g) definition). Examples of organic debris include plastic, rubber, wood, paper, cloth, plexiglass, protective clothing, and rags or wipes.

C) Radiological Description

Low level waste (LLW), contact handled, category 1 or 3

D) Regulatory Classification

WSC2, WPCB, listed P or U, and/or F001-F012, F019-F028, F039, and/or D001, D003, D004-D043, and/or TSCA PCBs, and all other applicable state waste codes

E) pH Ranges	*F) Flashpoint Ranges*
<=2	N/A

G) Packaging

Recommended Packaging: 208 liter (55 gallon) drum, 122X122X244 cm (4X4X8 ft) box

H) Treatment Path	*I) Segregation*
Thermal Treatment	Acid Storage

J) Restrictions

None

Waste Specification Record

626-04

A) General Description
Caustic organic debris

B) Waste Matrix Description
Organic debris: Debris estimated to be > 10 % by weight organic debris (per 40 CFR 268.2(g) definition). Examples of organic debris include plastic, rubber, wood, paper, cloth, plexiglass, protective clothing, and rags or wipes.

C) Radiological Description
Low level waste (LLW), contact handled, category 1 or 3

D) Regulatory Classification
WSC2, WPCB, listed P or U, and/or F001-F012, F019-F028, F039, and/or D001, D003, D004-D043, and/or TSCA PCBs, and all other applicable state waste codes

E) pH Ranges	F) Flashpoint Ranges
>=12.5	N/A

G) Packaging
Recommended Packaging: 208 liter (55 gallon) drum, 122X122X244 cm (4X4X8 ft) box

H) Treatment Path	I) Segregation
Thermal Treatment	Caustic Storage

J) Restrictions
None

Waste Specification Record

627-05

A) General Description
Other organic debris

B) Waste Matrix Description
Organic debris: Debris estimated to be > 10 % by weight organic debris (per 40 CFR 268.2(g) definition). Examples of organic debris include plastic, rubber, wood, cloth, plexiglass, protective clothing, and rags or wipes.

C) Radiological Description
Low level waste (LLW), contact handled, category 1 or 3

D) Regulatory Classification
WPCB, listed P or U, and/or F001-F012, F019-F028, F039 and/or D001, D003, D004-D043, and/or TSCA PCBs, and all other applicable state waste codes.

E) pH Ranges	F) Flashpoint Ranges
N/A	N/A

G) Packaging
Recommended Packaging: 208 liter (55 gallon) drum, 122X122X244 cm (4X4X8 ft) box

H) Treatment Path	I) Segregation
Thermal Treatment	Other MW Storage

J) Restrictions
None

Waste Specification Record

645-04

A) General Description

Acidic inorganic debris

B) Waste Matrix Description

Inorganic debris: Waste estimated to be >= 90% by weight inorganic debris (per 40 CFR 268.2 definition). Examples of inorganic debris include scrap metal, concrete chunks and blocks from decontamination, glass, glass bottles, ceramic orbrick materials, rocks that meet the EPA debris classification, etc. Waste solidified with cement or other stabilization agents are not allowed.

C) Radiological Description

Low level waste (LLW), contact handled, Category 1 or 3

D) Regulatory Classification

WSC2, WPCB, listed P or U, F001-F012, F019-F028, F039, and/or D004-D043, and/or TSCA PCBs, and all other applicable state waste codes

E) pH Ranges	*F) Flashpoint Ranges*
<=2	N/A

G) Packaging

Recommended packaging: 208 liter (55 gallon) drum, 122x122x244 cm (4x4x8 ft) box

H) Treatment Path	*I) Segregation*
Debris Macroencapsulation	Acid Storage

J) Restrictions

None

Waste Specification Record

646-04

A) General Description

Caustic inorganic debris

B) Waste Matrix Description

Inorganic Debris: Waste estimated to be >= 90% by weight inorganic debris (per 40 CFR 268.2(g) definition). Examples of inorganic debris include scrap metal, concrete chunks, and blocks from decontamination, glass, glass bottles, ceramic or brick materials, rocks that meet the EPA debris classification, etc. Waste solidified with cement or other stabilization agents are not allowed.

C) Radiological Description

Low level waste(LLW), contact handled, category 1 or 3

D) Regulatory Classification

WSC2, WPCB, listed P or U, F001-F012, F019-F028, F039 and/or D004-D043, and/or TSCA PCBs, and all other applicable state waste codes

E) pH Ranges	*F) Flashpoint Ranges*
>=12.5	N/A

G) Packaging

Recommended Packaging: 208 liter (55 gallon) drum, 122x122x244 cm (4x4x8 ft) box

H) Treatment Path	*I) Segregation*
Debris Macroencapsulation	Caustic Storage

J) Restrictions

None

Waste Specification Record

647-04

A) General Description

Other inorganic debris

B) Waste Matrix Description

Inorganic Debris: Waste estimated to be >= 90% by weight inorganic debris (per 40 CFR 268.2(g) definition). Examples of inorganic debris include scrap metal, concrete chunks, and blocks from decontamination, glass, glass bottles, ceramic or brick materials, rocks that meet the EPA debris classification, etc. Waste solidified with cement or other stabilization agents are not allowed.

C) Radiological Description

Low level waste(LLW), contact handled, category 1 or 3

D) Regulatory Classification

WPCB, listed P or U, F001-F012, F019-F028, F039 and/or D004-D043, and/or TSCA PCBs, and all other applicable state waste codes

E) pH Ranges	*F) Flashpoint Ranges*
N/A	N/A

G) Packaging

Recommended Packaging: 208 liter (55 gallon) drum, 122x122x244 cm (4x4x8 ft) box

H) Treatment Path	*I) Segregation*
Debris Macroencapsulation	Other MW Storage

J) Restrictions

None

Waste Specification Record

650-01

A) General Description
Remote Handled debris shielded to contact handled levels

B) Waste Matrix Description
Organic/Inorganic debris

C) Radiological Description
Low level waste (LLW), Category 1 or 3; remote handled waste shielded to contact handled levels on outer container

D) Regulatory Classification
WPCB, listed P or U, F001-F012, F019-F028, F039 and/or D004-D043, and/or TSCA PCBs, and all other applicable state waste codes

E) pH Ranges	*F) Flashpoint Ranges*
0-14	N/A

G) Packaging
Recommended Packaging: 208 liter (55 gallon) drum or 122X122X244 cm (4X4X8 ft) box

H) Treatment Path	*I) Segregation*
M-91 Macroencapsulation	Segregate according to hazard class

J) Restrictions
none

Waste Specification Record

800-03

A) General Description

Radioactive lead solids LDR subcategory

B) Waste Matrix Description

Radioactive Lead Solids: Waste items such as lead bricks, sheets, and pipes. (Note: these lead solids include, but are not limited to, all forms of lead used as shielding and other elemental forms of lead. These lead solids do not include treatment residuals such as hydroxide sludges, other wastewater treatment residuals, or incinerator ashes that can undergo conventional pozzolanic stabilization, nor do they include organo-lead materials that can be incinerated and stabilized as ash. This subcategory consists of nonwastewaters only)

C) Radiological Description

Low level waste(LLW), contact handled, category 1 or 3

D) Regulatory Classification

WSC2, WPCB, listed P or U, F001-F012, F019-F028, F039, D004-D008, D008 (Radioactive Lead Solids Subcategory), D009 (low-mercury subcategory only), D010-D043, and TSCA PCBs, and all other applicable state waste codes

E) pH Ranges	*F) Flashpoint Ranges*
0-14	N/A

G) Packaging

Recommended Packaging: 208 liter (55 gallon) drum

H) Treatment Path	*I) Segregation*
Macroencapsulation	Other MW Storage

J) Restrictions

1. Radioactive lead solids subcategory is the primary hazard. All subsidiary hazards require segregation for compatibility. 2. Debris that contains co-generated lead which cannot be readily segregated, is less than 50 % lead in the total waste weight, and is still primarily RCRA debris is not considered Radioactive Lead Solids. This waste should be managed under the applicable 600-series WSRd.

Waste Specification Record

802-03

A) General Description
Lead acid batteries LDR subcategory

B) Waste Matrix Description
Lead Acid Batteries: Lead acid batteries which meet the Lead Acid Batteries treatment subcategory description in 40 CFR 268.40 and can not be decontaminated and released as nonradioactive waste.

C) Radiological Description
Low level waste(LLW), contact handled, category 1 or 3

D) Regulatory Classification
WSC2, WPCB, listed P or U, F001-F012, F019-F028, F039, D002, D004-D008, D008 (Lead Acid Battery Subcategory), D009 (low-mercury subcategory only), D010-D043, TSCA PCBs, and all other applicable state waste codes

E) pH Ranges	*F) Flashpoint Ranges*
0-14	N/A

G) Packaging
Recommended Packaging: 208 liter (55 gallon) drum, 122x122x244 cm (4x4x8 ft) box

H) Treatment Path	*I) Segregation*
Thermal Recovery of Lead	Acid Storage

J) Restrictions
1.Lead Acid Battery subcategory is the primary hazard. All subsidiary hazards require segregation for compatibility.

Waste Specification Record

810-2

A) General Description

Elemental mercury LDR subcategory

B) Waste Matrix Description

Elemental Mercury: Waste with >260 mg/kg of elemental mercury wastes , such as found in vacuum pumps, manometers, thermometers, etc.

C) Radiological Description

Low level waste(LLW), contact handled, category 1 or 3

D) Regulatory Classification

WSC2, WPCB, Listed P, U, U151(Elemental Mercury Contaminated with Radioactive Materials), F001-F012, F019-F028, F039, D002, D004-D008, D009 (Elemental Mercury Contaminated with Radioactive Materials), D010 - D043, and all other applicable state waste codes

E) pH Ranges	*F) Flashpoint Ranges*
0-14	N/A

G) Packaging

Recommended Packaging: 208 liter (55 gallon) drum

H) Treatment Path	*I) Segregation*
Amalgamation	Other MW Storage

J) Restrictions

1. Elemental mercury contaminated with radioactive materials subcategory is the primary hazard. All subsidiary hazards require segregation for compatibility.

Waste Specification Record

812-3

A) General Description

High Mercury (organic and inorganic) LDR subcategories

B) Waste Matrix Description

Inorganic / Organic Mercury Compounds: Waste that requires or permits retorting for recovery of mercury (RMERC) as a specified technology treatment per 40 CFR 268.40; this includes high mercury batteries

C) Radiological Description

Low level waste(LLW), contact handled, category 1 or 3

D) Regulatory Classification

WSC2, WPCB, Listed P, U, U151(High Mercury Organic or Inorganic Subcategory), F001-F012, F019-F028, F039, D002, D004-D008, D009 (High Mercury Organic or Inorganic Subcategory), D010 - D043, and all other applicable state waste codes

E) pH Ranges	*F) Flashpoint Ranges*
0-14	N/A

G) Packaging

Recommended Packaging: 208 liter (55 gallon) drum

H) Treatment Path	*I) Segregation*
RMERC	Other MW Storage

J) Restrictions

1. High Mercury Organic or Inorganic Subcategory is the primary hazard. All subsidiary hazards require segregation for compatibility.

Waste Specification Record

820-02

A) General Description

Water reactive metals and compounds

B) Waste Matrix Description

Reactive Metal Waste - Reactive metal (e.g. sodium, lithuim, calcium), metal hydrides, borohydrides and related compounds packaged in a form that is sufficently stable for extended storage.

C) Radiological Description

Low level waste(LLW), contact handled, category 1 or 3

D) Regulatory Classification

WSC2, WPCB, Listed P.U, F001-F012, F019-F028, F039, D001(ignitable non-liquid), D002, D003 (sulfide, cyanides and water reactive), D004-D008, D009 (Low Mercury Subcategory), D010-D043, and all other applicable state waste codes

E) pH Ranges	*F) Flashpoint Ranges*
7-14	N/A

G) Packaging

Recommended Packaging: 208 liter (55 gallon) drum

H) Treatment Path	*I) Segregation*
DEACT	Alkali Metal Storage

J) Restrictions

1. Water reactives is the primary hazard. All subsidiary hazards require segregation for compatibility.

Waste Specification Record

821-02

A) General Description
Beryllium dust

B) Waste Matrix Description
Beryllium dust waste: Waste that is regulated per WAC 173-303-081 for the waste code P015.

C) Radiological Description
Low level waste(LLW), contact handled, category 1 or 3

D) Regulatory Classification
PO15, WSC2, WPCB, Listed P.U, F001-F012, F019-F028, F039, D001, D002, D003 (sulfide and cyanides only), D003, D004-D008, D009 (Low Mercury Subcategory), D010-D043, and all other applicable state waste codes

E) pH Ranges	*F) Flashpoint Ranges*
0-14	N/A

G) Packaging
Recommended Packaging: 208 liter (55 gallon) drum

H) Treatment Path	*I) Segregation*
RMETL or RTHRM	Other MW Storage

J) Restrictions
1. Beryllium dust is the primary hazard. All subsidiary hazards require segregation for compatibility.

Waste Specification Record

822-01

A) General Description

Other water reactive compounds

B) Waste Matrix Description

Reactive Waste - Water reactive compounds (other than water reactive metals and related compounds) packaged in a form that is sufficently stable for extended storage.

C) Radiological Description

Low level waste(LLW), contact handled, category 1 or 3

D) Regulatory Classification

WSC2, WPCB, Listed P.U, F001-F012, F019-F028, F039, D001(ignitable non-liquid), D002, D003 (sulfide, cyanides and water reactive), D004-D008, D009 (Low Mercury Subcategory), D010-D043, and all other applicable state waste codes

E) pH Ranges	*F) Flashpoint Ranges*
0-14	N/A

G) Packaging

Recommended Packaging: 208 liter (55 gallon) drum

H) Treatment Path	*I) Segregation*
DEACT	To be determined

J) Restrictions

1. Water reactives is the primary hazard. All subsidiary hazards require segregation for compatibility.

Waste Specification Record

823-01

A) General Description
Osmium Tetroxide (P087 waste code)

B) Waste Matrix Description
Osmium tetroxide and any mixture of P087 waste with other waste matrices.

C) Radiological Description
Low level waste (LLW), contact handled, category 1 or 3

D) Regulatory Classification
P087, WPCB, listed P or U, and/or F001-F012, F019-F028, F039 and/or D004-D043, and/or TSCA PCBs, and all other applicable state waste codes.

E) pH Ranges	*F) Flashpoint Ranges*
0-14	N/A

G) Packaging
Recommended Packaging: 208 liter (55 gallon) drum, 122X122X244 cm (4X4X8 ft) box

H) Treatment Path	*I) Segregation*
RTHRM	Segregate according to hazards

J) Restrictions
None

Waste Specification Record

830-04

A) General Description
Cadmium containing batteries LDR subcategory

B) Waste Matrix Description
Cadmium Containing Batteries: Cadmium containing batteries which meet the Cadmium Containing Batteries treatment subcategory description in 40 CFR 268.40 and can not be decontaminated and released as nonradioactive waste.

C) Radiological Description
Low level waste(LLW), contact handled, category 1 or 3

D) Regulatory Classification
WSC2, WPCB, Listed P.U, F001-F012, F019-F028, F039, D002, D003 (sulfide and cyanides only), D004-D008, D009 (Low Mercury Subcategory), D010-D043, D006 (cadmium containing batteries subcategory), and all other applicable state waste codes

E) pH Ranges	F) Flashpoint Ranges
0-14	N/A

G) Packaging
Recommended Packaging: 208 liter (55 gallon) drum

H) Treatment Path	I) Segregation
Thermal Recovery	Other MW Storage

J) Restrictions
1. Cadmium containing batteries subcategory is the primary hazard. All subsidiary hazards require segregation for compatibility.

Waste Specification Record

902-03

A) General Description
State only inorganic solid acid waste

B) Waste Matrix Description
Inorganic Sorbed Liquids, Sludges, Other Solids: Waste that contains < 10% organic/carbonaceous constituents [as defined in WAC 173-303-140 (3) (c)].

C) Radiological Description
Low level waste(LLW), contact handled, category 1 or 3

D) Regulatory Classification
WPCB, WT02, WP02, WSC2, and all other applicable state waste codes

E) pH Ranges	F) Flashpoint Ranges
<=2	N/A

G) Packaging
Recommended Packaging: 208 liter (55 gallon) drum, 122x122x244 cm (4x4x8 ft) box

H) Treatment Path	I) Segregation
Deactivation by Non-thermal	Acid Storage

J) Restrictions
NONE

Waste Specification Record

921-02

A) General Description
State only organic solid acid waste

B) Waste Matrix Description
Organic Sorbed Liquids, Sludges, Other Solids: Waste that contains > 10% organic/carbonaceous constituents [as defined in WAC 173-303-140 (3) (c)].

C) Radiological Description
Low level waste(LLW), contact handled, category 1 or 3

D) Regulatory Classification
WPCB, WT01, WT02, WP01, WP02, WP03, WSC2, and all other applicable state waste codes

E) pH Ranges	*F) Flashpoint Ranges*
<=2	N/A

G) Packaging
Recommended Packaging: 208 liter (55 gallon) galvanized drum, 122x122x244 cm (4x4x8 ft) metal box

H) Treatment Path	*I) Segregation*
Thermal Treatment	Acid Storage

J) Restrictions
None

Waste Specification Record

922-02

A) General Description
State only organic solid caustic waste

B) Waste Matrix Description
Organic Sorbed Liquids, Sludges, Other Solids: Waste that contains >10% organic/carbonaceous constituents [as defined in WAC 173-303-140 (3) (c)].

C) Radiological Description
Low level waste(LLW), contact handled, category 1 or 3

D) Regulatory Classification
WPCB, WT01, WT02, WP01, WP02, WP03, WSC2, and all other applicable state waste codes

E) pH Ranges	F) Flashpoint Ranges
>=12.5	N/A

G) Packaging
Recommended Packaging: 208 liter (55 gallon) drum, 122x122x244 cm (4x4x8 ft) box

H) Treatment Path	I) Segregation
Thermal Treatment	Caustic Storage

J) Restrictions
None

Waste Specification Record

923-00

A) General Description
State only organic solid waste

B) Waste Matrix Description
Organic Sorbed Liquids, Sludges, Other Solids,: Waste that contains > 10% organic/carbonaceous constituents [as defined in WAC 173-303-140 (3) (c)].

C) Radiological Description
Low level waste(LLW), contact handled, category 1 or 3

D) Regulatory Classification
WPCB, WT01, WT02, WP01, WP02, WP03, and all other applicable state waste codes

E) pH Ranges	F) Flashpoint Ranges
N/A	N/A

G) Packaging
Recommended Packaging: 208 liter (55 gallon) drum, 122x122x244 cm (4x4x8 ft) box

H) Treatment Path	I) Segregation
Thermal Treatment	Other MW Storage

J) Restrictions
None

Waste Specification Record

930-08

A) General Description

Federal and State LDR compliant waste

B) Waste Matrix Description

Miscellaneous Solid Waste

C) Radiological Description

Low Level waste that does not require radiological stabilization or has been radiologically stabilized in accordance with HNF-EP-0063

D) Regulatory Classification

Waste that complies with all applicable treatment standards of 40 CFR Part 268 Subpart D and WAC 173-303-140. TSCA PCB waste eligible for disposal in a RCRA Subtitle C landfill. WPCB, WT01, WT02, WP01, WP02, WP03, WSC2, listed P and/or U, F001-F012, F019, F028, F039 and/or D001-D043, and all other applicable state waste codes. Note that lead shielding that is being used for its intended purpose (radioactive shielding) is not a solid waste and is not subject to dangerous waste designations.

Radioactive lead shielding must be macroencapsulated to meet EPA best management practice.

E) pH Ranges	*F) Flashpoint Ranges*
>2	N/A

G) Packaging

Required Packaging: Each container must be void filled to at least 90% full.

H) Treatment Path	*I) Segregation*
N/A	MW Disposal

J) Restrictions

1. All RCRA/EPA Regulated Waste must have a Land Disposal Restriction Notification/Certification form. State only waste requiring disposal in a RCRA permitted disposal facility must comply with WAC 173-303-140 prior to disposal.

Waste Specification Record

931-06

A) General Description
Federal and State LDR compliant waste

B) Waste Matrix Description
Miscellaneous Solid Waste

C) Radiological Description
Low Level waste that does require radiological stabilization in accordance with HNF-EP-0063

D) Regulatory Classification
Waste that complies with all applicable treatment standards of 40 CFR Part 268 Subpart D and WAC 173-303-140. TSCA PCB waste eligible for disposal in a RCRA Subtitle C landfill. WPCB, WT01, WT02, WP01, WP02, WP03, WSC2, listed P and/or U, F001-F012, F019, F028, F039 and/or D001-D043, and all other applicable state waste codes. Note that lead shielding that is being used for its intended purpose (radioactive shielding) is not a solid waste and is not subject to dangerous waste designations.

E) pH Ranges	F) Flashpoint Ranges
>2	N/A

G) Packaging
Required Packaging: Each container must be void filled to at least 90% full.

H) Treatment Path	I) Segregation
N/A	MW Disposal

J) Restrictions
1. All RCRA/EPA Regulated Waste must have a Land Disposal Restriction Notification/Certification form. State only waste requiring disposal in a RCRA permitted disposal facility must comply with WAC 173-303-140 prior to disposal.