

Attachment A
Analytical Protocols/Acceptance Criteria

Brown County South Landfill
Analytical Protocol/Acceptance Criteria
Protocol A

(Foundry process waste; municipal, hospital and boiler ash; ink wastes; paint wastes and paint sludges; metal treatment/preparation sludges; waste glues and adhesives; ceramic production/manufacturing waste; contaminated soils; construction and demolition wastes; coal combustion residuals; abrasive blasting materials)

Analytical Parameter	Acceptance Criteria
pH	2.0 > pH < 12.5
Total solids	> 40%
Free liquids	0%
Flash point (closed cup)	> 140°F
TCLP metals ⁽¹⁾	
arsenic	TCLP < 5.0 mg/L
barium	TCLP < 100.0 mg/L
cadmium	TCLP < 1.0 mg/L
chromium	TCLP < 5.0 mg/L
lead	TCLP < 5.0 mg/L
mercury	TCLP < 0.2 mg/L
selenium	TCLP < 1.0 mg/L
silver	TCLP < 5.0 mg/L
copper	TBD ⁽²⁾
nickel	TBD ⁽²⁾
zinc	TBD ⁽²⁾
Total available sulfide	< 500 mg/kg
Total available cyanide	< 250 mg/kg
TCLP organics ⁽¹⁾	
benzene	TCLP < 0.5 mg/L
carbon tetrachloride	TCLP < 0.5 mg/L
chlorobenzene	TCLP < 100.0 mg/L
chloroform	TCLP < 6.0 mg/L
o - cresol ⁽³⁾	TCLP < 200.0 mg/L
m - cresol ⁽³⁾	TCLP < 200.0 mg/L
p - cresol ⁽³⁾	TCLP < 200.0 mg/L
1,4 - dichlorobenzene	TCLP < 7.5 mg/L
1,2 - dichloroethane	TCLP < 0.5 mg/L
1,1 - dichloroethane	TCLP < 0.7 mg/L
2,4 - dinitrotoluene	TCLP < 0.13 mg/L
hexachlorobenzene	TCLP < 0.13 mg/L

Protocol A (*continued*)

Analytical Parameter	Acceptance Criteria
hexachlorobutadiene	TCLP <0.5 mg/L
hexachloroethane	TCLP <3.0 mg/L
methyl ethyl ketone	TCLP <200.0 mg/L
nitrobenzene	TCLP <2.0 mg/L
pentachlorophenol	TCLP <100.0 mg/L
pyridine	TCLP <5.0 mg/L
tetrachloroethene	TCLP <0.7 mg/L
trichloroethene	TCLP <0.5 mg/L
2,4,5 - trichlorophenol	TCLP <400.0 mg/L
2,4,6 - trichlorophenol	TCLP <2.0 mg/L
vinyl chloride	TCLP <0.2 mg/L
Ammonia	TBD ⁽²⁾
TKN	TBD ⁽²⁾

- ⁽¹⁾ For all constituents which are identified as TCLP extraction, it is permissible to utilize a totals analysis if <20 times the regulatory level. If the totals analysis is >20 times regulatory limit, the TCLP extraction is required.
- ⁽²⁾ The acceptance criteria will be determined on a case by case basis depending on the constituent levels and proposed amounts to be disposed.
- ⁽³⁾ If o-, m-, and p-cresol concentrations cannot be differentiated, the total cresol concentration is used. The regulatory level for total cresol is 200 mg/L.

Note: Physical testing of materials to be considered for use as ADC or other beneficial uses will be required. Testing shall include grain size (ASTM D6913), hydrometer (ASTM D7928) and moisture content (ASTM D2216).

Meeting the minimum testing requirements does not relieve the generator of the responsibility to determine whether their waste is hazardous. Brown County reserves the right to request additional information in order to evaluate the waste stream for disposal.

mg/L = milligram per liter

Brown County South Landfill
Analytical Protocol/Acceptance Criteria
Protocol B

(Grinding sludges/swarfs; pollution control wastes; wastes from remedial projects, investigations and spill clean ups; unknown chemical substances; auto shredder fluff)

Analytical Parameter	Acceptance Criteria
pH	2.0 > pH < 12.5
Total solids	> 40%
Free liquids	0%
Flash point (closed cup)	> 140°F
TCLP metals ⁽¹⁾	
arsenic	TCLP < 5.0 mg/L
barium	TCLP < 100.0 mg/L
cadmium	TCLP < 1.0 mg/L
chromium	TCLP < 5.0 mg/L
lead	TCLP < 5.0 mg/L
mercury	TCLP < 0.2 mg/L
selenium	TCLP < 1.0 mg/L
silver	TCLP < 5.0 mg/L
copper	TBD ⁽²⁾
nickel	TBD ⁽²⁾
zinc	TBD ⁽²⁾
Total available sulfide	< 500 mg/kg
Total available cyanide	< 250 mg/kg
TCLP organics ⁽¹⁾	
benzene	TCLP < 0.5 mg/L
carbon tetrachloride	TCLP < 0.5 mg/L
chlorobenzene	TCLP < 100.0 mg/L
chloroform	TCLP < 6.0 mg/L
o – cresol ⁽³⁾	TCLP < 200.0 mg/L
m – cresol ⁽³⁾	TCLP < 200.0 mg/L
p – cresol ⁽³⁾	TCLP < 200.0 mg/L
1,4 - dichlorobenzene	TCLP < 7.5 mg/L
1,2 - dichloroethane	TCLP < 0.5 mg/L
1,1 - dichloroethane	TCLP < 0.7 mg/L
2,4 - dinitrotoluene	TCLP < 0.13 mg/L

Protocol B (continued)

Analytical Parameter	Acceptance Criteria
hexachlorobenzene	TCLP <0.13 mg/L
hexachlorobutadiene	TCLP <0.5 mg/L
hexachloroethane	TCLP <3.0 mg/L
methyl ethyl ketone	TCLP <200.0 mg/L
nitrobenzene	TCLP <2.0 mg/L
pentachlorophenol	TCLP <100.0 mg/L
pyridine	TCLP <5.0 mg/L
tetrachloroethene	TCLP <0.7 mg/L
trichloroethene	TCLP <0.5 mg/L
2,4,5 - trichlorophenol	TCLP <400.0 mg/L
2,4,6 - trichlorophenol	TCLP <2.0 mg/L
vinyl chloride	TCLP <0.2 mg/L
PCB (Arochlor 1216, 1221, 1232, 1242, 1249, 1254, 1260)	<50 ppm
Ammonia	TBD ⁽²⁾
TKN	TBD ⁽²⁾

- ⁽¹⁾ For all constituents which are identified as TCLP extraction, it is permissible to utilize a totals analysis if <20 times the regulatory level. If the totals analysis is >20 times regulatory limit, the TCLP extraction is required.
- ⁽²⁾ The acceptance criteria will be determined on a case by case basis depending on the constituent levels and proposed amounts to be disposed.
- ⁽³⁾ If o-, m-, and p-cresol concentrations cannot be differentiated, the total cresol concentration is used. The regulatory level for total cresol is 200 mg/L.

Note: Physical testing of materials to be considered for use as ADC or other beneficial uses will be required. Testing shall include grain size (ASTM D6913), hydrometer (ASTM D7928) and moisture content (ASTM D2216).

Meeting the minimum testing requirements does not relieve the generator of the responsibility to determine whether their waste is hazardous. Brown County reserves the right to request additional information in order to evaluate the waste stream for disposal.

Brown County South Landfill
Analytical Protocol/Acceptance Criteria
Protocol C

(Paper mill sludge wastes; other sludge wastes)

Analytical Parameter	Acceptance Criteria
pH	2.0 > pH < 12.5
Total solids	> 20%
Free liquids	0%
Flash point (closed cup)	> 140°F
TCLP metals ⁽¹⁾	
arsenic	TCLP < 5.0 mg/L
barium	TCLP < 100.0 mg/L
cadmium	TCLP < 1.0 mg/L
chromium	TCLP < 5.0 mg/L
lead	TCLP < 5.0 mg/L
mercury	TCLP < 0.2 mg/L
selenium	TCLP < 1.0 mg/L
silver	TCLP < 5.0 mg/L
copper	TBD ⁽²⁾
nickel	TBD ⁽²⁾
zinc	TBD ⁽²⁾
Total available sulfide	< 500 mg/kg
Total available cyanide	< 250 mg/kg
TCLP organics ⁽¹⁾	
benzene	TCLP < 0.5 mg/L
carbon tetrachloride	TCLP < 0.5 mg/L
chlorobenzene	TCLP < 100.0 mg/L
chloroform	TCLP < 6.0 mg/L
o – cresol ⁽³⁾	TCLP < 200.0 mg/L
m – cresol ⁽³⁾	TCLP < 200.0 mg/L
p – cresol ⁽³⁾	TCLP < 200.0 mg/L
1,4 - dichlorobenzene	TCLP < 7.5 mg/L
1,2 - dichloroethane	TCLP < 0.5 mg/L
1,1 - dichloroethane	TCLP < 0.7 mg/L
2,4 - dinitrotoluene	TCLP < 0.13 mg/L

Protocol C (*continued*)

Analytical Parameter	Acceptance Criteria
hexachlorobenzene	TCLP <0.13 mg/L
hexachlorobutadiene	TCLP <0.5 mg/L
hexachloroethane	TCLP <3.0 mg/L
methyl ethyl ketone	TCLP <200.0 mg/L
nitrobenzene	TCLP <2.0 mg/L
pentachlorophenol	TCLP <100.0 mg/L
pyridine	TCLP <5.0 mg/L
tetrachloroethene	TCLP <0.7 mg/L
trichloroethene	TCLP <0.5 mg/L
2,4,5 - trichlorophenol	TCLP <400.0 mg/L
2,4,6 - trichlorophenol	TCLP <2.0 mg/L
vinyl chloride	TCLP <0.2 mg/L
PCB (Arochlor 1216, 1221, 1232, 1242, 1249, 1254, 1260)	<50 ppm
Ammonia	TBD ⁽²⁾
TKN	TBD ⁽²⁾

- ⁽¹⁾ For all constituents which are identified as TCLP extraction, it is permissible to utilize a totals analysis if <20 times the regulatory level. If the totals analysis is >20 times regulatory limit, the TCLP extraction is required.
- ⁽²⁾ The acceptance criteria will be determined on a case-by-case basis depending on the constituent levels and proposed amounts to be disposed.
- ⁽³⁾ If o-, m-, and p-cresol concentrations cannot be differentiated, the total cresol concentration is used. The regulatory level for total cresol is 200 mg/L.

Note: Physical testing of materials to be considered for use as ADC or other beneficial uses will be required. Testing shall include grain size (ASTM D6913), hydrometer (ASTM D7928) and moisture content (ASTM D2216).

Meeting the minimum testing requirements does not relieve the generator of the responsibility to determine whether their waste is hazardous. Brown County reserves the right to request additional information in order to evaluate the waste stream for disposal.

Brown County South Landfill
Analytical Protocol/Acceptance Criteria
Protocol D

(Contaminated soils from petroleum-related products for co-disposal.)

Analytical Parameter	Acceptance Criteria
All petroleum-contaminated soils	
Lead, leachable ⁽¹⁾	TCLP <5.0 mg/L
Gasoline; grades 80, 100, 100LC, and aviation fuel	
Gasoline range organics	<2000 ppm
Benzene, leachable ⁽²⁾	TCLP <0.5 mg/L
Diesel; jet fuel; Nos. 1, 2, and 4 fuel oil	
Diesel range organics	<2000 ppm
Benzene, leachable ⁽²⁾	TCLP <0.5 mg/L
Crude oil; lube oil; No. 6 fuel oil	
Diesel range organics	<2000 ppm
Unknown petroleum	
Gasoline range organics	<2000 ppm
Diesel range organics	<2000 ppm
Cadmium, leachable ⁽³⁾	TCLP <1.0 mg/L
Waste oil	
Gasoline range organics	<2000 ppm
Diesel range organics	<2000 ppm
Cadmium, leachable	TCLP <1.0 mg/L

⁽¹⁾ Total lead may be run first, and if the total is less than 100 mg/kg, TCLP for lead is not required.

⁽²⁾ Leachable benzene shall be done if total benzene exceeds 10 mg/kg (20 times the hazardous waste limit).

⁽³⁾ Total cadmium may be run first, and if the total is less than 20 mg/kg, TCLP for cadmium is not required.

Notes: Physical testing of materials to be considered for use as ADC or other beneficial uses will be require. Testing shall include grain size (ASTM D6913), hydrometer (ASTM D7928) and moisture content (ASTM D2216).

Meeting the minimum testing requirements does not relieve the generator of the responsibility to determine whether their waste is hazardous. Brown County reserves the right to request additional information in order to evaluate the waste stream for disposal.

Brown County South Landfill

Analytical Protocol/Acceptance Criteria Protocol E

Publicly Owned Treatment Works wastes:

Analytical Parameter	Acceptance Criteria
pH	2.0 > pH < 12.5
Total solids	> 20%
Free liquids	0%
TCLP metals ⁽¹⁾	
arsenic	TCLP < 5.0 mg/L
barium	TCLP < 100.0 mg/L
cadmium	TCLP < 1.0 mg/L
chromium	TCLP < 5.0 mg/L
lead	TCLP < 5.0 mg/L
mercury	TCLP < 0.2 mg/L
selenium	TCLP < 1.0 mg/L
silver	TCLP < 5.0 mg/L
copper	TBD ⁽²⁾
nickel	TBD ⁽²⁾
zinc	TBD ⁽²⁾
Total available sulfide	< 500 mg/kg
Ammonia	TBD ⁽²⁾
TKN	TBD ⁽²⁾

⁽¹⁾ For all constituents which are identified as TCLP extraction, it is permissible to do a totals analysis if <20 times the regulatory level. If the totals analysis is >20 times regulatory limit, the TCLP extraction is required.

⁽²⁾ The acceptance criteria will be determined on a case by case basis depending on the constituent levels and proposed amounts to be disposed.

Note: Physical testing of materials to be considered for use as ADC or other beneficial uses will be required. Testing shall include grain size (ASTM D6913), hydrometer (ASTM D7928) and moisture content (ASTM D2216).

Meeting the minimum testing requirements does not relieve the generator of the responsibility to determine whether their waste is hazardous. Brown County reserves the right to request additional information in order to evaluate the waste stream for disposal.

Brown County South Landfill

Protocol F

(Commercial products or chemicals which are off-specification; outdated; unused or are banned; empty containers which formerly contained commercial products or chemicals; equipment removed from service.)

Pertinent information regarding these waste streams must be provided (as an attachment to the application) by the waste generator. This information can be one or more of the following:

- ◆ SDSs
- ◆ Technical product information
- ◆ Process information
- ◆ Operator information/knowledge
- ◆ Laboratory analysis report

Note: Meeting the minimum testing requirements does not relieve the generator of the responsibility to determine whether their waste is hazardous. Brown County reserves the right to request additional information in order to evaluate the waste stream for disposal.