



pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

BUREAU OF WASTE MANAGEMENT

DIVISION OF MUNICIPAL and RESIDUAL WASTE

GENERAL PERMIT WMGR074

**PROCESSING AND BENEFICIAL USE OF BIOSOLIDS, WATER
TREATMENT PLANT SLUDGE, PAPER PULP SLUDGE AND LIME
NEUTRALIZED INDUSTRIAL WATER SLUDGE TO PRODUCE A
SOIL-LIKE MATERIAL**

Issued: July 29, 2022

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PROCESSING AND BENEFICIAL USE OF BIOSOLIDS, WATER TREATMENT PLANT SLUDGE, PAPER PULP SLUDGE, AND INDUSTRIAL WATER SLUDGE

A. Description:

1. This general permit authorizes processing and beneficial use of biosolids, water treatment plant sludge, paper pulp sludge and lime neutralized industrial water sludge, hereinafter referred as “soil substitute,” to produce a soil-like material, hereinafter referred to as “soil amendments.”
2. The approved processing is limited to blending only of soil amendments with the thermally treated soil to produce the soil substitute.

B. Determination of Applicability Requirements:

A person or municipality that proposes to operate under the terms and conditions of this general permit after the date of permit issuance must obtain a “Determination of Applicability” (“DOA”) from the appropriate Department of Environmental Protection (DEP) Regional Office (see attached list) prior to commencing authorized activities under this general permit. A completed application on forms provided by DEP along with the application fee for a DOA must be submitted to the appropriate DEP Regional Office. Checks shall be made payable to the “Commonwealth of Pennsylvania”. No activities shall commence unless approved, in writing, by DEP.

C. Operating Conditions:

1. The soil amendments may be beneficially used if the following quality criteria requirements are met:
 - a. The concentration in each soil amendment type, for any constituent, does not exceed the concentration limit listed in Table 1 below; and
 - b. If biosolids are intended for beneficial use as the soil amendment, the biosolids must be authorized under either a general permit (i.e., PAG-07 or PAG-08) or an individual permit issued by the Department’s Bureau of Safe Drinking Water. A copy of the PAG-07, PAG-08 or individual permit must be provided in the annual report as required in Condition E.3. of this general permit.

Table 1
Allowable Limits for Incoming Wastes

Parameters	Total (mg/kg)	Leachable ⁵ (mg/l)
pH	6.0 – 12.0 std unit	-
Aluminum	-	5.0
Arsenic	75	-
Barium	10,000	-

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Table 1 (Continued)

Boron	7,000	-
Cadmium	39	-
Chromium (Total)	6,100	-
Chloride	-	250
Copper	1,500	-
Cyanide (Reactive)	250	-
Iron	-	7.5
Lead	840	-
Manganese	800	-
Mercury	57	-
Molybdenum	75	-
Nickel	420	-
Selenium	100	-
Silver	400	-
Sulfate	-	250
Sulfides (Reactive)	500	-
Zinc	2,800	-
PCBs ¹	4.0	-
Ignitability	Negative	-
Percent Solids ²	≥ 15%	-
TCLP – Metals	-	TCLP Limits
TCLP – Semi Volatiles	-	TCLP Limits
TCLP – Volatiles	-	TCLP Limits
TCLP – Herbs/Pests	-	TCLP Limits
2,3,7,8-TCDD ³	0.03 µg/kg	-
Fecal Coliform	2,000,000 ⁴	-

¹ Biosolids authorized under a PAG-07 must not exceed the PCBs limit of 4.0 mg/kg.
Biosolids authorized under a PAG-08 must not exceed the PCBs limit of 8.6 mg/kg.

² Visually inspect incoming wastes for free liquids.

³ Dioxin analysis is required for the paper pulp sludge waste streams only.

⁴ Fecal Coliform testing is required for biosolids authorized under a PAG-08 only and in Most Probable Number (MPN) per gram of total solids in the biosolids.

⁵ Leachability evaluations shall be conducted using the Toxicity Characteristic Leaching Procedure (EPA method 1311).

2. Beneficial uses of the soil substitute are limited to the following:
 - a. The soil substitute may be beneficially used in compost plant feed, landscaping application, landfill, final/construction cover if the concentration in soil substitute,

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for any constituent, does not exceed the concentration limit(s) listed in Tables 2
through 6 below.

**Table 2
Inorganic Compounds**

Parameters	Total Level		Leachate Level	
	Limit (mg/kg)	Frequency	Limit (mg/L)	Frequency
pH	6.0 – 8.0 std unit	1 per 4000 tons	-	-
Antimony	88	1 per 4000 tons	0.15	Monthly
Aluminum	190,000	-	5.0	Monthly
Arsenic	29	1 per 4000 tons	0.25	Monthly
Barium	15,000	1 per 4000 tons	50.0	Monthly
Beryllium	440	1 per 4000 tons	0.1	Monthly
Boron	20,000	1 per 4000 tons	3.15	Monthly
Cadmium	47	1 per 4000 tons	0.125	Monthly
Chromium (Total)	NA	1 per 4000 tons	2.5	Monthly
Chloride	-	-	250	Monthly
Copper	1,500	1 per 4000 tons	25	Monthly
Cyanide Free (Total)	4,400	1 per 4000 tons	0.2	Monthly
Iron	66,000	1 per 4000 tons	7.5	Monthly
Lead	500	1 per 4000 tons	0.125	Monthly
Manganese	31,000	1 per 4000 tons	2.5	Monthly
Mercury	66	1 per 4000 tons	0.05	Monthly
Molybdenum	18	1 per 4000 tons	4.375	Monthly
Nickel	420	1 per 4000 tons	2.5	Monthly
Selenium	1,100	1 per 4000 tons	1.0	Monthly
Silver	1,100	1 per 4000 tons	2.5	Monthly
Sulfate	-	-	500	Monthly
Thallium	15	1 per 4000 tons	0.0125	Monthly
Zinc	2,800	1 per 4000 tons	50	Monthly
Fecal Coliform	1,000 ¹	1 per 4000 tons	-	-

¹ In Most Probable Number (MPN) per gram of total solids.

² Leachability evaluations shall be conducted using the Toxicity Characteristic Leaching Procedure (EPA method 1311).

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Table 3
Volatile Organic Compounds

Parameters	Total Level		Leachate Level ²	
	Limit (mg/kg)	Frequency	Limit (mg/L)	Frequency
Benzene	0.8	1 per 4000 tons	0.005	Monthly
Carbon Tetrachloride	2.1	1 per 4000 tons	0.005	Monthly
Chlorobenzene	-	-	0.1	Monthly
Chloroform	0.5	1 per 4000 tons	0.1	Monthly
1,2-Dichloroethane	0.3	1 per 4000 tons	0.005	Monthly
1,1-Dichloroethene	1.0	1 per 4000 tons	0.007	Monthly
Tetrachloroethene	2.0	1 per 4000 tons	0.005	Monthly
Trichloroethene	2.0	1 per 4000 tons	0.005	Monthly
Vinyl Chloride	2.0	1 per 4000 tons	0.02	Monthly
TPH ¹	500	1 per 4000 tons	-	Monthly

¹Total Petroleum Hydrocarbon.

²Leachability evaluations shall be conducted using the Toxicity Characteristic Leaching Procedure (EPA method 1311).

Table 4
Polychlorinated Biphenyls (PCBs)

Parameters	Total Level		Leachate Level ¹	
	Limit (mg/kg)	Frequency	Limit (mg/L)	Frequency
Total PCBs	2.0	1 per 4000 tons	0.005	Monthly

¹Leachability evaluations shall be conducted using the Toxicity Characteristic Leaching Procedure (EPA method 1311).

Table 5
Pesticides and Herbicides

Parameters	Total Level		Leachate Level ¹	
	Limit (mg/kg)	Frequency	Limit (mg/L)	Frequency
Aldrin	0.3	1 per 4000 tons	2.06 x 10 ⁻⁶	Monthly
Alpha-BHC	0.71	1 per 4000 tons	5.56 x 10 ⁻⁶	Monthly
Beta-BHC	40	1 per 4000 tons	-	-
Delta-BHC	30	1 per 4000 tons	-	-
Gamma-BHC (Lindane)	3.0	1 per 4000 tons	0.0002	Monthly
4,4-DDD	20	1 per 4000 tons	1.46 x 10 ⁻⁴	Monthly
4,4-DDE	10	1 per 4000 tons	1.03 x 10 ⁻⁴	Monthly
4,4-DDT	10	1 per 4000 tons	1.03 x 10 ⁻⁴	Monthly

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Table 5 (Continued)

Dieldrin	0.3	1 per 4000 tons	2.10×10^{-6}	Monthly
Endosulfan I	60	1 per 4000 tons	0.21	Monthly
Endosulfan II	60	1 per 4000 tons	0.21	Monthly
Endrin	20	1 per 4000 tons	0.002	Monthly
Heptachlor	1.0	1 per 4000 tons	0.0004	Monthly
Heptachlor Epoxide	0.5	1 per 4000 tons	0.0002	Monthly
Methoxychlor	200	1 per 4000 tons	0.0004	Monthly
Toxaphene	4.0	1 per 4000 tons	0.002	Monthly
2,4-D	2.0	1 per 4000 tons	0.07	Monthly
2,4,5-TP (Silvex)	3.0	1 per 4000 tons	0.05	Monthly
¹ Leachability evaluations shall be conducted using the Toxicity Characteristic Leaching Procedure (EPA method 1311).				

Table 6
Semi-Volatile Organic Compounds

Parameters	Total Level		Leachate Level ¹	
	Limit (mg/kg)	Frequency	Limit (mg/L)	Frequency
Acenaphthene	94	1 per 4000 tons	2.1	Monthly
Acenaphthylene	360	1 per 4000 tons	2.2	Monthly
Aniline	19	1 per 4000 tons	0.0028	Monthly
Anthracene	7.3	1 per 4000 tons	0.066	Monthly
Benzidine	0.078	1 per 4000 tons	1.52×10^{-7}	Monthly
Benzo (a) anthracene	20	1 per 4000 tons	0.0009	Monthly
Benzo (a) pyrene	2.5	1 per 4000 tons	0.0002	Monthly
Benzo (b) fluoranthene	3.7	1 per 4000 tons	0.0009	Monthly
Benzo (g,h,i) perylene	3.9	1 per 4000 tons	0.00026	Monthly
Benzo (k) fluoranthene	13	1 per 4000 tons	0.00055	Monthly
Benzoic acid	430	1 per 4000 tons	140.0	Monthly
Bis (2-ethylhexyl) phthalate	130	1 per 4000 tons	0.006	Monthly
Butylbenzylphthalate	460	1 per 4000 tons	2.7	Monthly
4-Chloroaniline	880	1 per 4000 tons	0.14	Monthly
Bis (2-chloroethyl) ether	0.96	1 per 4000 tons	3.18×10^{-5}	Monthly
Bis (2-chloroisopropyl) ether	32	1 per 4000 tons	0.3	Monthly
2-Chloronaphthalene	500	1 per 4000 tons	2.8	Monthly
2-Chlorophenol	330	1 per 4000 tons	0.04	Monthly
Chrysene	5.1	1 per 4000 tons	0.0019	Monthly
Di-n-butylphthalate	3,200	1 per 4000 tons	3.5	Monthly
Di-n-octylphthalate	500	1 per 4000 tons	-	-

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Table 6 (Continued)

Dibenzo (a,h) anthracene	2.5	1 per 4000 tons	0.00009	Monthly
Dibenzofuran	30	1 per 4000 tons	-	-
1,2-Dichlorobenzene	260	1 per 4000 tons	0.6	Monthly
1,4-Dichlorobenzene	210	1 per 4000 tons	0.075	Monthly
3,3-Dichlorobenzidine	40	1 per 4000 tons	7.78 x 10 ⁻⁵	Monthly
2,4-Dichlorophenol	660	1 per 4000 tons	0.02	Monthly
Diethylphthalate	440	1 per 4000 tons	5.0	Monthly
2,4-Dimethylphenol	4,400	1 per 4000 tons	0.73	Monthly
2,4-Dinitrophenol	22	1 per 4000 tons	0.019	Monthly
2,4-Dinitrotoluene	58	1 per 4000 tons	0.0021	Monthly
1,2-Diphenylhydrazine	0.92	1 per 4000 tons	4.38 x 10 ⁻⁵	Monthly
Fluoranthene	65	1 per 4000 tons	0.26	Monthly
Fluorene	76	1 per 4000 tons	1.4	Monthly
Hexachlorobenzene	0.15	1 per 4000 tons	0.001	Monthly
Hexachlorocyclopentadiene	66	1 per 4000 tons	0.05	Monthly
Hexachloroethane	22	1 per 4000 tons	0.001	Monthly
Indeno (1,2,3-cd) pyrene	25	1 per 4000 tons	0.0009	Monthly
Isphorone	1,900	1 per 4000 tons	0.1	Monthly
2-Methylnaphthalene	2,000	1 per 4000 tons	0.73	Monthly
N-Nitrosos-di-n-propylamine	2.6	1 per 4000 tons	5.0 x 10 ⁻⁶	Monthly
N-Nitrosodiphenylamine	100	1 per 4000 tons	0.00714	Monthly
N-Nitrosodimethylamine	0.023	1 per 4000 tons	3.1 x 10 ⁻⁶	Monthly
Naphthalene	140	1 per 4000 tons	0.1	Monthly
Nitrobenzene	110	1 per 4000 tons	0.018	Monthly
4-Nitrophenol	1,800	1 per 4000 tons	0.06	Monthly
Pentachlorophenol	150	1 per 4000 tons	0.001	Monthly
Phenanthrene	210	1 per 4000 tons	1.1	Monthly
Phenol	9,300	1 per 4000 tons	4.0	Monthly
Pyrene	46	1 per 4000 tons	0.13	Monthly
Pyridine	33	1 per 4000 tons	0.0097	Monthly
1,2,4-Trichlorobenzene	340	1 per 4000 tons	0.07	Monthly
2,4,6-Trichlorophenol	66	1 per 4000 tons	0.00318	Monthly
2,4,5-Trichlorophenol	12,000	1 per 4000 tons	3.5	Monthly

¹ Leachability evaluations shall be conducted using the Toxicity Characteristic Leaching Procedure (EPA method 1311).

- b. The soil substitute may be beneficially used as a construction material or blended with other aggregate as a roadway sub-base for roadway construction use if the concentration for all constituents in the soil substitute meet the concentration limit(s) listed in Tables 7 through 9 below. Additionally, one of the following requirements shall also be met:

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- i. The soil substitute must comply with the requirements of the Pennsylvania Department of Transportation (PennDOT) specifications as outlined in their Publication No. 408 (Specifications).
- ii. The soil substitute conforms to the applicable engineering properties as the raw material it is being substituted for.
- iii. Where the soil substitute will be beneficially used under a project contract, the contract must specially address the engineering qualities and characteristics that must be met for completion of the job or project. The contract must specially indicate that the soil substitute satisfies the engineering requirements and the specifications for the job or project.

**Table 7
Inorganic Compounds**

Parameters	Total Level		Leachate Level ²	
	Limit (mg/kg)	Frequency	Limit (mg/L)	Frequency
pH	6.0 – 10.0 std unit	Bi-monthly	-	-
Aluminum	190,000	Bi-monthly	5.0	Bi-monthly
Arsenic	12	Bi-monthly	0.25	Bi-monthly
Barium	15,000	Bi-monthly	50	Bi-monthly
Boron	440	Bi-monthly	0.1	Bi-monthly
Cadmium	47	Bi-monthly	0.125	Bi-monthly
Chloride	-	-	250	Bi-monthly
Chromium (Total)	94	Bi-monthly	2.5	Bi-monthly
Copper	8,200	Bi-monthly	25	Bi-monthly
Iron	66,000	Bi-monthly	7.5	Bi-monthly
Lead	500	Bi-monthly	0.125	Bi-monthly
Manganese	31,000	Bi-monthly	2.5	Bi-monthly
Mercury	66	Bi-monthly	0.05	-
Molybdenum	18	Bi-monthly	4.375	Bi-monthly
Nickel	4,400	Bi-monthly	2.5	Bi-monthly
Selenium	1,100	Bi-monthly	1	Bi-monthly
Silver	1,100	Bi-monthly	2.5	Bi-monthly
Sulfate	-	-	500	Bi-monthly
Zinc	66,000	Bi-monthly	50	Bi-monthly
PCBs (Residential)	1.0	Bi-monthly	-	-
PCBs (Non-residential)	2.0	Bi-monthly	-	-
TPH ¹	500	Bi-monthly	-	-
Temperature	-	1 per shift	-	-
Total Solids	-	Monthly	-	-

¹Total Petroleum Hydrocarbon.
²Leachability evaluations shall be conducted using the Toxicity Characteristic Leaching Procedure (EPA method 1311).

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Table 8
Volatile Organic Compounds

Parameters	Total Level		Leachate Level ¹	
	Limit (mg/kg)	Frequency	Limit (mg/L)	Frequency
Benzene	0.8	Monthly	0.005	Monthly
Carbon Tetrachloride	2.1	Monthly	0.005	Monthly
Chlorobenzene	-	-	0.1	Monthly
Chloroform	0.5	Monthly	0.1	Monthly
1,2-Dichloroethane	0.3	Monthly	0.005	Monthly
1,1-Dichloroethene	1.0	Monthly	0.007	Monthly
Tetrachloroethene	2.0	Monthly	0.005	Monthly
Trichloroethene	2.0	Monthly	0.005	Monthly
Vinyl Chloride	2.0	Monthly	0.02	Monthly

¹ Leachability evaluations shall be conducted using the Toxicity Characteristic Leaching Procedure (EPA method 1311).

Table 9
Semi-Volatile Organic Compounds

Parameters	Total Level		Leachate Level ¹	
	Limit (mg/kg)	Frequency	Limit (mg/L)	Frequency
Acenaphthene	94	1 per 4000 tons	2.1	Monthly
Acenaphthylene	360	1 per 4000 tons	2.2	Monthly
Aniline	19	1 per 4000 tons	0.0028	Monthly
Anthracene	7.3	1 per 4000 tons	0.066	Monthly
Benzidine	0.078	1 per 4000 tons	1.52 x 10 ⁻⁷	Monthly
Benzo (a) anthracene	20	1 per 4000 tons	0.0009	Monthly
Benzo (a) pyrene	0.6	1 per 4000 tons	0.0002	Monthly
Benzo (b) fluoranthene	3.7	1 per 4000 tons	0.0009	Monthly
Benzo (g,h,i) perylene	3.9	1 per 4000 tons	0.00026	Monthly
Benzo (k) fluoranthene	13	1 per 4000 tons	0.00055	Monthly
Benzoic acid	430	1 per 4000 tons	140.0	Monthly
Bis (2-ethylhexyl) phthalate	130	1 per 4000 tons	0.006	Monthly
Butylbenzylphthalate	460	1 per 4000 tons	2.7	Monthly
4-Chloroaniline	880	1 per 4000 tons	0.14	Monthly
Bis (2-chloroethyl) ether	0.96	1 per 4000 tons	3.18 x 10 ⁻⁵	Monthly
Bis (2-chloroisopropyl) ether	32	1 per 4000 tons	0.3	Monthly
2-Chloronaphthalene	500	1 per 4000 tons	2.8	Monthly
2-Chlorophenol	330	1 per 4000 tons	0.04	Monthly
Chrysene	5.1	1 per 4000 tons	0.0019	Monthly

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Table 9 (Continued)

Di-n-butylphthalate	3,200	1 per 4000 tons	3.5	Monthly
Di-n-octylphthalate	500	1 per 4000 tons	-	-
Dibenzo (a,h) anthracene	2.5	1 per 4000 tons	0.00009	Monthly
Dibenzofuran	30	1 per 4000 tons	-	-
1,2-Dichlorobenzene	260	1 per 4000 tons	0.6	Monthly
1,4-Dichlorobenzene	210	1 per 4000 tons	0.075	Monthly
3,3-Dichlorobenzidine	40	1 per 4000 tons	7.78 x 10 ⁻⁵	Monthly
2,4-Dichlorophenol	660	1 per 4000 tons	0.02	Monthly
Diethylphthalate	440	1 per 4000 tons	5.0	Monthly
2,4-Dimethylphenol	4,400	1 per 4000 tons	0.73	Monthly
2,4-Dinitrophenol	22	1 per 4000 tons	0.019	Monthly
2,4-Dinitrotoluene	58	1 per 4000 tons	0.0021	Monthly
1,2-Diphenylhydrazine	0.92	1 per 4000 tons	4.38 x 10 ⁻⁵	Monthly
Fluoranthene	65	1 per 4000 tons	0.26	Monthly
Fluorene	76	1 per 4000 tons	1.4	Monthly
Hexachlorobenzene	0.15	1 per 4000 tons	0.001	Monthly
Hexachlorocyclopentadiene	66	1 per 4000 tons	0.05	Monthly
Hexachloroethane	220	1 per 4000 tons	0.001	Monthly
Indeno (1,2,3-cd) pyrene	25	1 per 4000 tons	0.0009	Monthly
Isphorone	1,900	1 per 4000 tons	0.1	Monthly
2-Methylnaphthalene	2,000	1 per 4000 tons	0.73	Monthly
N-Nitrosos-di-n-propylamine	2.6	1 per 4000 tons	5.0 x 10 ⁻⁶	Monthly
N-Nitrosodiphenylamine	100	1 per 4000 tons	0.00714	Monthly
N-Nitrosodimethylamine	0.023	1 per 4000 tons	3.1 x 10 ⁻⁶	Monthly
Naphthalene	140	1 per 4000 tons	0.1	Monthly
Nitrobenzene	110	1 per 4000 tons	0.018	Monthly
4-Nitrophenol	1,800	1 per 4000 tons	0.06	Monthly
Pentachlorophenol	150	1 per 4000 tons	0.001	Monthly
Phenanthrene	210	1 per 4000 tons	1.1	Monthly
Phenol	9,300	1 per 4000 tons	4	Monthly
Pyrene	46	1 per 4000 tons	0.13	Monthly
Pyridine	33	1 per 4000 tons	0.0097	Monthly
1,2,4-Trichlorobenzene	340	1 per 4000 tons	0.07	Monthly
2,4,6-Trichlorophenol	66	1 per 4000 tons	0.00318	Monthly
2,4,5-Trichlorophenol	12,000	1 per 4000 tons	3.5	Monthly

¹ Leachability evaluations shall be conducted using the Toxicity Characteristic Leaching Procedure (EPA method 1311).

- c. The soil substitute may be beneficially used, as lined area landfill daily/intermediate cover and as asphalt plant feed as an ingredient or a component in the production of hot mix asphalt-paving material, if the following requirements are met:

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- i. The concentration in the soil substitute, for any constituent, does not exceed the concentration limit(s) listed in Table 10 below; and
- ii. The asphalt-paving material meets the applicable requirements of the American Society for Testing and Materials (ASTM) Standard, or other National, state, or industry standard for which it is being used.

**Table 10
Inorganic Compounds**

Parameters	Total Level	
	Limit (mg/kg)	Frequency
pH	6.0 – 12.0 standard units	Bi-monthly
Arsenic	29	Bi-monthly
Barium	15,000	Bi-monthly
Cadmium	47	Bi-monthly
Chromium (Total)	-	Bi-monthly
Copper	1,500	Bi-monthly
Lead	500	Bi-monthly
Mercury	66	Bi-monthly
Molybdenum	18	Bi-monthly
Nickel	420	Bi-monthly
Selenium	1,100	Bi-monthly
Silver	1,100	Bi-monthly
PCBs (Residential)	1.0	Bi-monthly
PCBs (Non-residential)	2.0	Bi-monthly
TPH ¹	500	Bi-monthly
Zinc	2,800	Bi-monthly
Temperature	-	1 per shift
Total Solids	-	Monthly
¹ Total Petroleum Hydrocarbon		

- 3. During the first thirty (30) days after the operation is commenced and prior to the first use of the soil substitute for each beneficial use type (i.e., compost plant feed, landscaping application, landfill daily/immediate cover, construction material, etc.) authorized in Condition C.2. of this general permit, the permittee shall collect representative samples of soil amendments and soil substitute and analyze for constituents as specified in Condition C.10. of this general permit. Laboratory results of analyses during this 30-day period shall be submitted to the appropriate Department Regional Office (see attached list) no later than 90 days after the commencement of operation.

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4. Analytical testing required by this general permit shall be performed by a laboratory accredited under the Pennsylvania Environmental Laboratory Accreditation Act, Act of 2002, 27 Pa. C.S.A. §§ 4101-4113.
5. Soil substitute that does not meet the requirements as specified in Condition C.2. of this general permit shall be managed properly at a permitted disposal facility or may be beneficially use at locations outside the Commonwealth provided the soil substitute is authorized for beneficial use by the State authority.
6. The soil substitute authorized under this general permit shall not be used in primary food production and shall not be applied to agricultural land (including grazing land), a lawn, a home garden, a forest or a public contact (i.e., public park, playground, etc.) site.
7. The soil substitute may not be beneficially used at a mine reclamation site unless the reclamation activity is permitted or otherwise authorized by the Department's Bureau of Mine and Reclamation.
8. The soil substitute shall not be used as a valley fill material, to fill open pits from coal or other fills, or to level an area or bring an area to grade where the construction activity is not completed promptly after the placement of the soil substitute.
9. Unless otherwise authorized by the Department in writing, the soil amendments and soil substitute shall not be stored for more than one (1) year, and at any one time the maximum amount stored may not exceed 1,700 cubic yards (CY) of soil amendments and 2,300 CY of the soil substitute as described in the approved application.
10. In compliance with the requirements specified in Conditions C.1. and C.2. of this general permit, the soil amendments and soil substitute shall be monitored as follows:
 - a. For each source of soil amendments intended for beneficial use, the permittee shall collect representative samples of each soil amendment type and analyze for the total (mg/kg) and leachable (mg/L) levels for each constituent listed in Table 1 of Condition C.1. of this general permit.
 - b. Prior to the first beneficial use of the soil substitute and at the frequencies specified in Condition C.2. of this general permit thereafter, representative samples of the soil substitute shall be analyzed, based on the intended beneficial use, for the total (mg/kg) and/or leachable (mg/L) levels for each parameter listed in Tables 2 through 10 of Condition C.2. of this general permit.

Representative sampling is one of the most difficult aspects of monitoring. To obtain a representative sample of the soil amendment or soil substitute, the samples must be taken from the correct locations and represent the entire amount of soil amendment or soil substitute. In the batch process, more than one sample is usually necessary to accurately represent a particular batch of the soil amendment(s) or a storage pile of soil substitute.

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The key is to obtain a representative sample. In general, the more samples taken, the greater the chance that the sampling results will be representative of the soil amendment or soil substitute and because the pollutant limits pertain to the quality of the soil substitute that will be beneficially used, samples must be collected after the final stage of the soil substitute generation process and prior to storage. Should knowledge of the soil amendment(s) received or soil substitute generation, visual observations, or analytical results indicate variability in the quality of the soil amendment or soil substitute, more frequent testing shall be conducted.

11. The permittee and subsequent sellers of the soil substitute shall inform all persons or municipalities and other entities who purchase soil substitute from the permittee, which propose to beneficially use the soil substitute covered under this permit of all conditions and limitations imposed on the beneficial use of soil substitute by the Department of Environmental Protection (Department). This notification shall be as follows:
 - a. Provide a copy of Appendix "A" (Use Restrictions) of this permit to all persons or municipalities which propose to beneficially use the soil substitute. The conditions in Appendix "A" also apply to: (1) any permittee who obtains a Determination of Applicability to conduct activities authorized by this permit, and (2) all subsequent end-users of the soil substitute, and
 - b. Obtain a signed written "Terms and Conditions" agreement with all persons or municipalities which propose to beneficially use the soil substitute.

The permittee shall record the name and address of each person who is given or purchases the soil substitute and shall record its intended use(s). This information shall be included in the annual report required in Condition E.3. of this general permit.

12. The beneficial use of the waste as a soil amendment is contingent upon compliance with this permit and, if sold, the Pennsylvania Fertilizer, Soil Conditioner and Plant Growth Substance Law of the Pennsylvania Department of Agriculture. (Information relating to this law may be obtained from the Department of Agriculture by writing the Bureau of Plant Industry, Division of Agronomic Services, 230 North Cameron Street, Harrisburg, PA 17110-9408.)
13. Upon cessation of permitted operations at the facility, the permittee shall assure removal of all wastes and provide for the processing, recycling, beneficial use, or disposal of wastes in accordance with the SWMA, the environmental protection acts and the regulations promulgated thereunder.
14. The activities authorized by this permit shall not cause or allow conditions that are harmful to the environment, public health or safety, including but not limited to, odors, noise, or other public nuisances. The permittee shall not cause or allow the attraction, harborage, or breeding of vectors.
15. The permittee shall develop and implement a Preparedness, Prevention and Contingency Plan (PPC) that is consistent with the Department's most recent guidelines.

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16. All activities conducted under the authorization granted in this permit shall be conducted in accordance with the permittee's application. Except to the extent the permit states otherwise, the permittee shall utilize materials as described in the permit application.
17. The permittee shall comply with the fugitive emissions regulations under 25 Pa. Code, Chapter 123 (relating to standards for contaminants) issued under the Air Pollution Control Act, the Act of January 8, 1960, P.L. 2119, 35 P.S. §4005, and shall comply with all the applicable provisions of 25 Pa. Code §§123.1 and 123.2 (relating to prohibition of certain fugitive emissions and fugitive particulate matter).
18. Nothing in this permit shall be construed to supersede, amend, or authorize a violation of any of the provisions of any valid and applicable local law, ordinance, or regulation, providing that said local law, ordinance, or regulation is not preempted by the Solid Waste Management Act (SWMA), 35 P.S. §§ 6018.101—6018.1001; and the Municipal Waste Planning, Recycling and Waste Reduction Act of 1988, 53 P.S. §§4000.101, et seq.
19. As a condition of this general permit and of the permittee's authority to conduct the activities authorized by this general permit, the permittee hereby authorizes and consents to allow authorized employees or agents of the Department, without advance notice or search warrant, upon presentation of appropriate credentials and without delay, to have access to and inspect all areas on which solid waste management activities are being, will be, or have been conducted. This authorization and consent shall include consent to collect samples of waste, soils, water, or gases; take photographs; perform measurements, surveys, and other tests; inspect any monitoring equipment; inspect the methods of operation and inspect and/or copy documents, books, and papers required by the Department to be maintained. This permit condition is referenced in accordance with Sections 6018.608 and 6018.610(7) of the SWMA, 35 P.S. §§ 6018.608 and 6018.610(7). This condition in no way limits any other powers granted under the SWMA.
20. Any independent contractors or agents retained by the permittee in the completion of activities authorized under this general permit shall be subject to compliance history review by the Department prior to performance of any activities, as specified by the SWMA.
21. Failure of measures herein approved to perform as intended, or as designed, or in compliance with the applicable laws, rules, and regulations and terms and conditions of this permit, for any reason, shall be grounds for the revocation or suspension of the permittee's approval to operate under this permit.
22. The activities authorized by this general permit shall not harm or present a threat of harm to the health, safety, or welfare of the people or environment of this Commonwealth. The Department may modify, suspend, revoke, and reissue the authorization granted in this general permit if it deems necessary to prevent harm or the threat of harm to the public health, and the environment or if they cannot be adequately regulated under the conditions of this general permit.

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23. The permittee shall comply with the terms and conditions of this general permit and with the environmental protection acts to the same extent as if the activities were covered by an individual permit. The Department may require an individual permit be obtained if the permittee cannot comply with the conditions of this general permit or is conducting an activity that harms or presents a threat of harm to the health, safety, or welfare of the public or the environment of this Commonwealth.
24. This permit does not authorize and shall not be construed as an approval to discharge any waste, wastewater, or runoff from the site of processing to the land or waters of the Commonwealth.
25. Best Management Practices shall be implemented to divert storm water run-on from the storage area(s). Storm water runoff shall be managed in accordance with The Clean Streams Law and regulations promulgated thereunder. Prior to beginning operations at the facility, the operator must obtain all necessary storm water management permits.
26. The permittee shall maintain in force and affect a general liability insurance policy in accordance with 25 Pa. Code, Chapter 287, Subchapter E (relating to bonding and insurance requirements) to provide continuous coverage during operation of the facility and until the Department issues a final closure certification.
27. The permittee shall maintain in force and affect a bond in sufficient guarantees in accordance with 25 Pa. Code, Chapter 287, Subchapter E (relating to bonding and insurance requirements) to provide continuous coverage during operation of the facility and until the Department issues a final closure certification. The bond shall continue for the operational life of the facility, until 10 years after final closure of the facility, unless released in whole or in part by the Department, in writing, prior thereto as provided by 25 Pa. Code §287.341 (relating to Release of Bonds).
28. Equipment used for the storage of soil amendments and soil substitute shall be maintained in good operating condition. Weekly inspections of each storage area and surrounding environs shall be conducted to determine compliance of the terms and conditions of this general permit and for evidence of failure.
29. Storage of soil amendments or soil substitute by the permittee shall be in a manner that complies with the requirements set forth in 25 Pa. Code, Chapter 299 (relating to storage and transportation of residual waste).
30. With the exception of the thermally treated soil authorized in accordance with Condition A.2. of this general permit, the soil amendments or soil substitutes shall not be mixed with other types of solid wastes, including hazardous waste, municipal waste, special handling waste, or other residual waste, as the terms are defined in 25 Pa. Code § 287.1.

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D. Recordkeeping:

1. The permittee shall maintain records of all analytical evaluations conducted in accordance with this permit, and records shall be made available to the Department upon request. Required records shall be retained for a minimum of 5 years. Records of analytical evaluations must include, at a minimum, the following for each sample: the dates of sampling and testing, sampling procedures utilized, name of the individual who collected the sample, the volume or weight of the sample, each parameter tested, the analytical results, the name of the analytical laboratory used, and the analytical methodologies employed.
2. The permittee shall maintain records of all waste accepted by the facility, and records shall be made available to the Department upon request. Required records shall be retained for a minimum of 5 years. Records of each source of incoming waste must include, at a minimum, the following: the name, address, and phone number of each source of incoming waste; the date of receipt; the quantity of waste received; the results of visual observations; and the name, address, and phone number of the destination of each outgoing shipment of waste. The permittee shall also maintain records of spills or releases that include, at a minimum, the following: the location, date, time, identification, and quantity of spilled or released material, and a description of how the material was cleaned up. The permittee shall also maintain records of all reports submitted to the Department or to the U.S. Environmental Protection Agency.
3. The permittee shall maintain records of all waste that is unauthorized, unacceptable, and rejected by the facility, and records shall be made available to the Department upon request. Required records shall be made available to the Department upon request. The records shall include the name and address of the disposal location, the date of disposal, and the volume or weight of the waste that is disposed.

E. Reporting Requirements:

1. Any person that operates under the provisions of this permit shall immediately notify the Department via certified mail or via electronic transmission (with confirmation of receipt by the Department) of any changes in: the company name, address, owners, operators, and/or responsible officials of the company, compliance status, and the status of any permit issued by the Department or federal government under the environmental protection acts.
2. Any person that operates under the provisions of this permit shall immediately notify the Department via certified mail or via electronic transmission (with confirmation of receipt by the Department) of any changes in: the physical or chemical characteristics of the soil amendments or soil substitute; the manufacturing process which generates the soil substitute; and the status of bonding and insurance of the facility.
3. Persons operating under the provision of this general permit shall submit to the appropriate Department Regional Office (see attached list), an annual report on the beneficial use activities conducted under this permit by March 1 for the preceding

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calendar year. This report shall include the information outlined in Conditions C.1., C.10., C.11., and D.1-3., and summarizes the name and address of generator(s) of biosolids and weight or volume of each soil amendment type and soil substitute in storage, sold, traded or given away during the preceding calendar year.

4. The permittee shall immediately notify the Department's Emergency Hotline by telephone at 800-541-2050 and the waste management program in the appropriate DEP regional office (see attached list) of any accidental spills and shall take appropriate immediate action to protect the health and safety of the public and the environment.

F. Renewal:

A generator or supplier that plans to continue the operations authorized under this general permit, after the expiration date indicated on the approval for coverage page, shall file a complete application for permit renewal at least 180 days before the expiration date of this general permit unless permission has been granted by the Department for submission at a later date. The renewal applications shall be submitted to the appropriate DEP Regional Office (see attached list) and include, at a minimum, the following:

1. General Information Form (Authorization Application for a Residual or Municipal Waste General Permit Application),
2. Form B (Professional Certification),
3. Form 20 (Application for a Municipal or Residual Waste General Permit),
4. Form 27M (Acceptance of General Permit Conditions),
5. Form RMC-W
6. Updated Bonding Calculation Worksheets, and
7. Renewal application fee in the amount identified in Section A (General Information) of the Form 20. A check shall be made payable to the "Commonwealth of Pennsylvania."

In the event that a timely and complete application for renewal has been submitted and the Department is unable, through no fault of the permittee, to reissue the general permit or approval for coverage before its current coverage expiration date, the terms and conditions of the approved coverage will automatically continue and will remain fully effective and enforceable pending the issuance or denial of the renewal for permit coverage, provided the permittee is, and has been, operating in compliance with the terms and conditions of the general permit.

APPENDIX "A"

ACCEPTABLE USES AND USE RESTRICTIONS GENERAL PERMIT NO. WMGR074

The following "Use Restrictions" apply to the beneficial use of the soil substitute, a resultant mixture of soil amendments (i.e., biosolids, water treatment plant sludge, paper pulp sludge and lime naturalized industrial water sludge) with the thermally treated soil. Persons receiving, storing and/or using the soil substitute for beneficial use purposes must comply with the following requirements:

USE RESTRICTIONS:

1. The soil substitute shall not be placed in direct contact with surface water or groundwater of the Commonwealth.
2. The soil substitute shall not be placed within 300 feet of an exceptional value wetland and or within 300 feet of a private or public water source.
3. The soil substitute shall not be used as a valley fill material, to fill open pits from coal or other fills, or to level an area or bring an area to grade where the construction activity is not completed promptly after the placement of the soil substitute.
4. Except for the thermally treated soil authorized in Condition A.2 of this general permit, hazardous waste, municipal waste, special handling waste, and other residual wastes may not be mixed and/or stored or beneficially used with the soil substitute.
5. Unless specifically approved by the Department in writing, the soil substitute shall not be stored for more than one (1) year, and as follows:
 - a. The soil substitute is not accumulated before being beneficially used unless the operator shows that the soil substitute is potentially reusable and has a feasible means of being beneficial use; and
 - b. During the calendar year (commencing on January 1), the soil substitute that is beneficially used, equals at least 75% by weight or volume of the soil substitute accumulated at the beginning of the period. In calculating the percentage of turnover, the 75% requirement is to be applied to each waste of the same type (i.e., soil substitute from a specific facility) that is beneficially used in the same way (that is, from which the same material is recovered or that is used in the same way).
6. The storage or use of the soil substitute shall be in a manner which will not create a nuisance or be harmful to the public health, safety or the environment. The storage of soil substitute shall comply with the requirements of 25 Pa Code, Chapter 299 (relating to Storage and Transportation of Residual Waste).
7. Runoff from the soil substitute storage area(s) shall not cause surface water pollution or groundwater degradation and shall be managed in accordance with The Clean Streams Law and regulations promulgated thereunder.

**Department of Environmental Protection
Regional Offices
(and Counties Served)**

- I. Bucks, Chester, Delaware, Montgomery, Philadelphia.

Southeast Regional Office
2 East Main Street
Norristown, PA 19401
Phone: (484) 250 - 5960

- II. Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, Schuylkill, Susquehanna, Wayne, Wyoming.

Northeast Regional Office
2 Public Square
Wilkes-Barre, PA 18711-0790
Phone: (570) 826 – 2516

- III. Adams, Bedford, Berks, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry, York.

Southcentral Regional Office
909 Elmerton Avenue
Harrisburg, PA 17110-8200
Phone: (717) 705 – 4706

- IV. Bradford, Cameron, Centre, Clearfield, Clinton, Columbia, Lycoming, Montour, Northumberland, Potter, Snyder, Sullivan, Tioga, Union.

Northcentral Regional Office
208 West 3rd Street - Suite 101
Williamsport, PA 17701
Phone: (570) 327 – 3653

- V. Allegheny, Beaver, Cambria, Fayette, Greene, Somerset, Washington, Westmoreland.

Southwest Regional Office
400 Waterfront Drive
Pittsburgh, PA 15222-4745
Phone: (412) 442 – 4000

- VI. Armstrong, Butler, Clarion, Crawford, Elk, Erie, Forest, Indiana, Jefferson, Lawrence, McKean, Mercer, Venango, Warren.

Northwest Regional Office
230 Chestnut Street
Meadville, PA 16335-3481
Phone: 814-332-6848