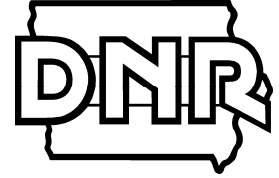


Beneficial Use Determination: Solid By-Product Management Plan



ANALYTICAL TESTING REPORT

| | |
|--|---|
| <p>Date: _____</p> <p>Project Site Name: _____</p> <p>Responsible Official: _____</p> <p>Address: _____</p> <p>City: _____, State: __, Zip: _____</p> <p>Solid By-Product: _____</p> | <p>Send completed report form(s) and supplemental Solid By-Product Management Plan documentation to:</p> <p>Iowa Department of Natural Resources Land Quality Bureau Solid Waste Section 502 East Ninth Street Des Moines, IA 50319-0034</p> <p>For questions concerning this reporting template please contact the department at (515) 281-8150.</p> |
|--|---|

All recipients of beneficial use determinations granted pursuant to 567—108.5(455B,455D) and coal combustion by-product and foundry sand beneficial uses listed in 567—108.4(455B,455D) shall develop and maintain a Solid By-Product Management Plan. These plans are to be submitted to the department whenever that plan is revised or within 60 days of the end of the calendar year, whichever is earlier. To ensure regulatory limits are being adhered, the department requests updated testing results for each approved by-product be submitted.

ANALYTICAL TESTING RESULTS

Synthetic Precipitation Leaching Procedure (SPLP), EPA Test Method 1312 & Statewide Standards for Contaminants in Soil (Total Metals):

| * | Contaminant | SPLP | | | Total Metals | |
|--------------------------|-------------|------------|-----------|-------------|------------------|-------------|
| | | MCL | 10 X MCL | Test Result | Regulatory Limit | Test Result |
| <input type="checkbox"/> | Antimony | 0.006 mg/L | 0.06 mg/L | mg/L | 31 mg/kg | mg/kg |
| <input type="checkbox"/> | Arsenic | 0.010 mg/L | 0.10 mg/L | mg/L | 17 mg/kg | mg/kg |
| <input type="checkbox"/> | Barium | 2.0 mg/L | 20.0 mg/L | mg/L | 15,000 mg/kg | mg/kg |
| <input type="checkbox"/> | Beryllium | 0.004 mg/L | 0.04 mg/L | mg/L | 2.6 mg/kg | mg/kg |
| <input type="checkbox"/> | Boron | | | | 16,000 mg/kg | mg/kg |
| <input type="checkbox"/> | Cadmium | 0.005 mg/L | 0.05 mg/L | mg/L | 70 mg/kg | mg/kg |
| <input type="checkbox"/> | Chromium | 0.1 mg/L | 1.0 mg/L | mg/L | 210 mg/kg | mg/kg |
| <input type="checkbox"/> | Copper | 1.3 mg/L | 13.0 mg/L | mg/L | | |
| <input type="checkbox"/> | Lead | 0.015 mg/L | 0.15 mg/L | mg/L | 400 mg/kg | mg/kg |
| <input type="checkbox"/> | Manganese | | | | 10,000 mg/kg | mg/kg |
| <input type="checkbox"/> | Mercury | 0.002 mg/L | 0.02 mg/L | mg/L | 23 mg/kg | mg/kg |
| <input type="checkbox"/> | Molybdenum | | | | 390 mg/kg | mg/kg |
| <input type="checkbox"/> | Nickel | | | | 1,500 mg/kg | mg/kg |
| <input type="checkbox"/> | Selenium | 0.05 mg/L | 0.5 mg/L | mg/L | 390 mg/kg | mg/kg |
| <input type="checkbox"/> | Silver | | | | 370 mg/kg | mg/kg |
| <input type="checkbox"/> | Thallium | 0.002 mg/L | 0.02 mg/L | mg/L | 5.5 mg/kg | mg/kg |
| <input type="checkbox"/> | Vanadium | | | | 490 mg/kg | mg/kg |
| <input type="checkbox"/> | Zinc | | | | 23,000 mg/kg | mg/kg |

(*) Required contaminant to be tested

Toxicity Characteristic Leaching Procedure (TCLP), EPA Test Method 1311:

| Metals | | | | Volatile Organic Compounds | | | |
|--------------------------|----------------------------|------------------|-------------|---------------------------------|-----------------------|------------------|-------------|
| * | Contaminant | Regulatory Limit | Test Result | * | Contaminant | Regulatory Limit | Test Result |
| <input type="checkbox"/> | Arsenic | 5.0 mg/L | mg/L | <input type="checkbox"/> | Benzene | 0.5 mg/L | mg/L |
| <input type="checkbox"/> | Barium | 100.0 mg/L | mg/L | <input type="checkbox"/> | Carbon tetrachloride | 0.5 mg/L | mg/L |
| <input type="checkbox"/> | Cadmium | 1.0 mg/L | mg/L | <input type="checkbox"/> | Chlorobenzene | 100.0 mg/L | mg/L |
| <input type="checkbox"/> | Chromium | 5.0 mg/L | mg/L | <input type="checkbox"/> | Chloroform | 6.0 mg/L | mg/L |
| <input type="checkbox"/> | Lead | 5.0 mg/L | mg/L | <input type="checkbox"/> | 1,2-Dichloroethane | 0.5 mg/L | mg/L |
| <input type="checkbox"/> | Mercury | 0.2 mg/L | mg/L | <input type="checkbox"/> | 1,1-Dichloroethylene | 0.7 mg/L | mg/L |
| <input type="checkbox"/> | Selenium | 1.0 mg/L | mg/L | <input type="checkbox"/> | Methyl ethyl ketone | 200.0 mg/L | mg/L |
| <input type="checkbox"/> | Silver | 5.0 mg/L | mg/L | <input type="checkbox"/> | Tetrachloroethylene | 0.7 mg/L | mg/L |
| | | | | <input type="checkbox"/> | Trichloroethylene | 0.5 mg/L | mg/L |
| | | | | <input type="checkbox"/> | Vinyl chloride | 0.2 mg/L | mg/L |
| Pesticides | | | | Semi-Volatile Organic Compounds | | | |
| * | Contaminant | Regulatory Limit | Test Result | * | Contaminant | Regulatory Limit | Test Result |
| <input type="checkbox"/> | Chlordane | 0.03 mg/L | mg/L | <input type="checkbox"/> | o-Cresol | 200.0 mg/L | mg/L |
| <input type="checkbox"/> | Endrin | 0.02 mg/L | mg/L | <input type="checkbox"/> | m-Cresol | 200.0 mg/L | mg/L |
| <input type="checkbox"/> | Heptachlor (& its epoxide) | 0.008 mg/L | mg/L | <input type="checkbox"/> | p-Cresol | 200.0 mg/L | mg/L |
| <input type="checkbox"/> | Lindane | 0.4 mg/L | mg/L | <input type="checkbox"/> | Cresol | 200.0 mg/L | mg/L |
| <input type="checkbox"/> | Methoxychlor | 10.0 mg/L | mg/L | <input type="checkbox"/> | 1,4-Dichlorobenzene | 7.5 mg/L | mg/L |
| <input type="checkbox"/> | Toxaphene | 0.5 mg/L | mg/L | <input type="checkbox"/> | 2,4-Dinitrotoluene | 0.13 mg/L | mg/L |
| | | | | <input type="checkbox"/> | Hexachlorobenzene | 0.13 mg/L | mg/L |
| | | | | <input type="checkbox"/> | Hexachlorobutadiene | 0.5 mg/L | mg/L |
| | | | | <input type="checkbox"/> | Hexachloroethane | 3.0 mg/L | mg/L |
| | | | | <input type="checkbox"/> | Nitrobenzene | 2.0 mg/L | mg/L |
| | | | | <input type="checkbox"/> | Pentachlorophenol | 100.0 mg/L | mg/L |
| <input type="checkbox"/> | 2,4-D | 10.0 mg/L | mg/L | <input type="checkbox"/> | Pyridine | 5.0 mg/L | mg/L |
| <input type="checkbox"/> | 2,4,5-TP (Silvex) | 1.0 mg/L | mg/L | <input type="checkbox"/> | 2,4,5-Trichlorophenol | 400.0 mg/L | mg/L |
| | | | | <input type="checkbox"/> | 2,4,6-Trichlorophenol | 2.0 mg/L | mg/L |

(* Required contaminant to be tested)

APPLICANT CERTIFICATION

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Signature: _____

Date: _____

Printed Name: _____

Title: _____