Proposed Revisions to s. NR 538.06 and 538.08 Wis. Adm. Code, 9/13/2016

NR 538.06 Industrial byproduct characterization.

(1) General. Industrial byproducts that are beneficially used under this chapter shall be characterized as specified in this section to determine their appropriate categorization under s. NR 538.08. The results of this characterization shall be reported to the department as specified in s. NR 538.14. Written concurrence of the initial certification by the department shall be required prior to use. The department has the option of either concurring with the characterization or requesting additional information or analysis. The applicant shall be notified, in writing, of the department's decision within 10 business days of receipt of the initial certification request.

The testing program for materials not specifically listed in ~~tables 1A to 3~~ Appendix I shall be approved by the department prior to characterization. For those materials not listed in ~~tables 1A to 3~~ Appendix I the department may modify the list of parameters required to be analyzed for and may establish standards on a material specific basis for additional parameters.

(2) Initial characterization. A representative sample of each ~~an~~ industrial byproduct shall be properly characterized at the point of generation prior to beneficial use to determine its category under s. NR 538.08. The byproduct will need a case specific approval under s. NR 538.08(6) if it is subject to any post-generation conditioning or processing including the addition of additives, hydration or oxidation that changes the physical or chemical nature of the byproduct.

(3) Characterization methods.

(a) The limits of detection used in the characterization shall be at or below the concentrations listed in the Appendix I tables ~~1A to 3~~ for each parameter ~~for the specific target category where possible~~. When a limit of detection at or below a ~~target category~~ standard is not achievable~~, or if no concentration is listed~~, the method that will achieve the lowest detection limit shall be used. All material sampling, totals ~~elemental~~ analyses and analyses of elutriate from leach testing shall be performed using EPA SW-846 methods, unless otherwise approved by the department. The limit of detection and the limit of quantitation shall be reported with the sample results. If a substance is detected below the limit of quantitation, the detected value with the appropriate qualifier shall be reported.

(b) All industrial byproducts that are to be beneficially used under this chapter shall be determined not to be a hazardous waste as defined under s. NR 660.10 (52) using a method specified under ch. NR 661. The generator shall provide supporting documentation of the waste determination along with the initial certification submitted to the department per s. NR 538.06(1).

(c) All industrial byproducts ~~which are characterized to determine eligibility for category 1 to 4 under s. NR 538.08 (1) to (4)~~ shall be analyzed using the most recent version of the ASTM D3987~~-85~~ water leach test, except byproducts used as a soil or plant additive in accordance with s. NR 538.10(6).

(d) All industrial byproducts ~~which are characterized to determine eligibility for category 1 or 2 under s. NR 538.08 (1) or (2)~~ shall be analyzed using a totals ~~elemental~~ analysis for the parameters in Appendix I, unless another ~~analysis~~ analytical method is approved by the department.

Note: Copies of EPA SW-846 test methods are available at no cost at www.epa.gov/epaoswer/hazwaste/test/main.htm. Copies of the test methods are available for inspection at the offices of the Department of Natural Resources, the Secretary of State and the Legislative Reference Bureau. Copies may be obtained from the superintendent of documents, U.S. government printing office, P.O. Box 371954, Pittsburgh, PA 15250-7954, (866) 512-1800, www.gpo.gov. Copies may also be obtained from the National Technical Information Service, U.S. Department ~~O~~of Commerce, 5285 Port Royal Road, Springfield, VA 22161, (800) 553-6847, www.ntis.gov.

Note: ASTM-D3987-~~85~~ 12is the American society for testing and materials "Test Method for Shake Extraction of Solid Wastes with Water." Copies of the ASTM standard may be obtained from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959, 1-877-909-2786 ~~(610) 832-9585~~, www.astm.org. Copies of the standard are available for inspection at the offices of the Department of Natural Resources, the Secretary of State and the Legislative Reference Bureau.

Note: Due to the presence of combined water, samples of FGD gypsum should be dried at $45^{o} \pm 3^{o}$ C for 2 hours prior to testing in accordance with ASTM C 471M, “Standard Test Methods for Chemical Analysis of Gypsum and Gypsum Products”.

(4) Recharacterization.

(a) Industrial byproducts that are beneficially used under this chapter shall be recharacterized after the initial characterization in accordance with this section, unless the department approves an alternative recharacterization method. A representative sample of each industrial byproduct shall be recharacterized whenever there is a change in the process that produces the industrial byproduct that could result in a change of the category of the industrial byproduct.

~~(b) A representative sample of each category 1 industrial byproduct shall be recharacterized in the same manner as specified for the initial characterization once each year. Recharacterization is not required for any category 1 industrial byproduct of which less than 1000 cubic yards were beneficially used or stored for beneficial use in the previous year.~~

(~~c~~b) A representative sample of each ~~category 2~~ industrial byproduct shall be recharacterized in the same manner as specified for the initial characterization once every 2 years. ~~Recharacterization is not required for any category 2 industrial byproduct of which less than 2000 cubic yards were beneficially used or stored for beneficial use during the previous 2-year period.~~

~~(d) A representative sample of each category 3 industrial byproduct shall be recharacterized in the same manner as specified for the initial characterization once every 3 years. Recharacterization is not required for any category 3 industrial byproduct of which less than 3000 cubic yards were beneficially used or stored for beneficial use during the previous 3-year period.~~

~~(e) A representative sample of each category 4 industrial byproduct shall be recharacterized in the same manner as specified for the initial characterization once every 5 years. Recharacterization is not required for any category 4 industrial byproduct of which less than 5000 cubic yards were beneficially used or stored for beneficial use in the previous 5-year period.~~

History: Cr. Register, December, 1997, No. 504, eff. 1-1-98; CR 05-020: am. (3) (c) Register January 2006 No. 601, eff. 2-1-06; corrections in (3) (b) made under s. 13.92 (4) (b) 7., Stats., Register February 2010 No. 650.

NR 538.08 Industrial byproduct categories. The categories of industrial byproducts, characterized in accordance with s. NR 538.06, for beneficial use under this chapter are as follows:

(1) Category 1 industrial byproducts. Industrial byproducts that have been determined to contain less than the concentrations specified for the parameters listed in the category 1 ch. NR 538 Appendix I, t~~T~~ables ~~1A and 1B,~~ are category 1 industrial byproducts.

~~(2) Category 2 industrial byproducts. Industrial byproducts that have been determined to contain less than the concentration specified for the parameters listed in ch. NR 538 Appendix I, Tables 2A and 2B, and are not category 1 industrial byproducts are category 2 industrial byproducts. If in the total elemental analysis total polyaromatic hydrocarbons exceed 100 mg/kg, department concurrence is necessary prior to classification as a category 2 industrial byproduct. Unless authorized by the department the total elemental analysis for industrial byproducts not listed in Table 2B shall also include aluminum, antimony, barium, boron, cadmium, hexavalent chromium, cobalt, copper, lead, mercury, molybdenum, nickel, phenol, selenium, silver, strontium, thallium, vanadium and zinc.~~

~~(3) Category 3 industrial byproducts. Industrial byproducts that have been determined to contain less than the concentration specified for the parameters listed in ch. NR 538 Appendix I, Table 2A, and are not category 1 or 2 industrial byproducts are category 3 industrial byproducts. Coal ashes are category 3 industrial byproducts if the concentration of boron is less than 3.4 mg/l and the concentration of all other parameters are less than those concentrations listed in ch. NR 538 Appendix I, Table 2A.~~

(~~4~~2) Category ~~4~~ 2 industrial byproducts. Industrial byproducts that have been determined to contain less than the concentrations specified for the parameters listed in the category 2 ch. NR 538 Appendix I, t ables ~~3,~~ but are at or above the concentrations in category 1 ~~and are not category 1 to 3 industrial byproducts~~ are category ~~4~~ 2 industrial byproducts.

(~~5~~3) Category ~~5~~ 3 industrial byproducts. Industrial byproducts that have been determined not to be a hazardous waste as defined in s. NR 660.10 (52) but are at or above the category 2 concentrations in the Appendix I tables ~~and are not category 1 to 4 or 2 industrial byproducts~~ are category ~~5~~ 3 industrial byproducts.

(4) Mixing. If separate industrial byproducts are mixed together, the resulting mixture shall be assigned the category of the highest category byproduct in the mixture unless otherwise approved by the department under s. NR 538.08(6).

(~~6~~5) Criteria and process for using category standards.

(a) If a standard for a parameter listed in ch. NR 538 Appendix I is above the limit of detection and the limit of quantitation, the standard shall be considered to be exceeded if the parameter is reported at or above the standard.

(b) If a standard for a parameter listed in ch. NR 538 Appendix I is between the limit of detection and the limit of quantitation, inclusive, the standard shall be considered to be exceeded if the parameter is reported at or above the limit of quantitation.

(c) The following applies when a standard for a parameter listed in ch. NR 538 Appendix I is below the lowest achievable limit of detection:

1. If a parameter is not detected in a sample, the standard will be considered to have been met.

2. If a parameter is reported at or above the limit of detection but below the limit of quantitation, a confirmation analysis shall be conducted. The standard shall be considered to be exceeded if the presence of that parameter has been confirmed by the use of an appropriate analytical method.

3. If a parameter is reported at or above the limit of quantitation, the standard shall be considered to be exceeded.

(~~7~~6) Case specific. The department may review the characterization results for an industrial byproduct in response to a request from the generator of the industrial byproduct not defined in s. NR 538.03 (4) and assign a category or categories for that material, or conditionally approve a beneficial use that does not meet the beneficial uses or standards specified in this chapter, on a case specific basis. The department may require additional information prior to a case specific approval. Any exemption or

approval granted under this subsection shall be in accordance with the applicable requirements of s. 289.43 (4), (7) and (8), Stats.

Note: The department may revise this rule to add or remove parameters or revise standards if changes in ch. NR 140, or other information warrant modifications.

History: Cr. Register, December, 1997, No. 504, eff. 1-1-98; CR 05-020: am. (3) and (7) Register January 2006 No. 601, eff. 2-1-06; corrections in (1) to (5), (6) (a) to (c) made under s. 13.93 (2m) (b) 7., Stats., Register April 2013 No. 688.