

ADMINISTRATIVE RULES Fiscal Estimate & Economic Impact Analysis

1. Type of Estimate and Analysis <input checked="" type="checkbox"/> Original <input type="checkbox"/> Updated <input type="checkbox"/> Corrected	2. Date 03/20/19
3. Administrative Rule Chapter, Title and Number (and Clearinghouse Number if applicable) Ch. NR 538 Wisconsin Administrative Code (Board Order WA-11-15)	
4. Subject The beneficial use of high-volume industrial waste byproducts.	
5. Fund Sources Affected <input type="checkbox"/> GPR <input type="checkbox"/> FED <input type="checkbox"/> PRO <input type="checkbox"/> PRS <input checked="" type="checkbox"/> SEG <input type="checkbox"/> SEG-S	6. Chapter 20, Stats. Appropriations Affected NA
7. Fiscal Effect of Implementing the Rule <input type="checkbox"/> No Fiscal Effect <input type="checkbox"/> Increase Existing Revenues <input checked="" type="checkbox"/> Increase Costs <input type="checkbox"/> Decrease Costs <input type="checkbox"/> Indeterminate <input type="checkbox"/> Decrease Existing Revenues <input checked="" type="checkbox"/> Could Absorb Within Agency's Budget	
8. The Rule Will Impact the Following (Check All That Apply) <input type="checkbox"/> State's Economy <input checked="" type="checkbox"/> Specific Businesses/Sectors <input type="checkbox"/> Local Government Units <input type="checkbox"/> Public Utility Rate Payers <input type="checkbox"/> Small Businesses (if checked, complete Attachment A)	
9. Estimate of Implementation and Compliance to Businesses, Local Governmental Units and Individuals, per s. 227.137(3)(b)(1). \$Estimated Increase in Costs: \$37,500.00/year Estimated Decrease In Costs: \$23,425.00/year	
10. Would Implementation and Compliance Costs Businesses, Local Governmental Units and Individuals Be \$10 Million or more Over Any 2-year Period, per s. 227.137(3)(b)(2)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
11. Policy Problem Addressed by the Rule The Beneficial Use Program in chapter NR 538 originated in 1997, when chapter NR 538, Wis. Adm. Code, was first adopted. This code laid out a streamlined process whereby certain industrial byproducts such as coal combustion byproducts, foundry sand, lime-kiln dust, paper mill sludge and other high volume industrial wastes with similar characteristics could be beneficially used in a variety of approved applications. The process was designed to be mostly self-implementing, with byproduct generators responsible for characterization of their material and annual reporting of materials used. For some projects, the rule provided for department review to evaluate the potential for impacts to human health or the environment. The program has been generally successful over the years. However, the code is now outdated and needs updating to address new environmental standards, laws and changes in manufacturing and air pollution control processes, while continuing to encourage the beneficial use of waste materials that might otherwise be landfilled.	
12. Summary of the Businesses, Business Sectors, Associations Representing Business, Local Governmental Units, and Individuals that may be Affected by the Proposed Rule that were Contacted for Comments. In accordance with the Statutory provisions of the authorizing rule, a Technical Advisory Committee (TAC) was formed to meet and advise the department on rule revisions. The TAC consisted of representatives of the following: Wisconsin Cast Metals Association (2 members) Wisconsin Utilities Association Wisconsin Department of Transportation (2 members) Wisconsin Economic and Development Corp. Wisconsin Manufacturers and Commerce Wisconsin Paper Council Wisconsin Road Builders	

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Clean Wisconsin
Beneficial Reuse Management, LLC

13. Identify the Local Governmental Units that Participated in the Development of this EIA.
The department will solicit comments on this FE/EIA during the comment period.

14. Summary of Rule's Economic and Fiscal Impact on Specific Businesses, Business Sectors, Public Utility Rate Payers, Local Governmental Units and the State's Economy as a Whole (Include Implementation and Compliance Costs Expected to be Incurred)

The proposed revisions to the beneficial use rules under ch. NR 538, Wis. Adm. Code, will not impose any additional regulatory or fiscal requirements on the potentially affected industries since participation in the beneficial use program is entirely voluntary. Industrial byproduct generators can choose to beneficially reuse their byproducts in accordance with ch. NR 538 requirements or take the material to a licensed municipal solid waste or industrial landfill.

For industrial byproduct generators that voluntarily choose to participate in the beneficial use program under ch. NR 538, Wis. Adm. Code, there will be a mixture of cost increases and cost savings compared to the existing Code requirements as detailed below:

NR 538.06 - Initial Certification:

No fiscal impact to byproduct generators already in the beneficial use program is anticipated. The changes proposed for the Initial Certification do not require these generators to submit a new Initial Certification. Future prospective generators will see a decrease in costs due to the elimination of some sampling parameters as the Appendix tables will be focused only on identified constituents of concern. The anticipated cost decrease is unknown but likely to be minimal.

NR 538.06 - Recharacterization:

The department anticipates that changes to recharacterization of the byproduct material will result in a cost decrease. This is a result of revised sampling parameters and a change to a standardized recharacterization schedule of once every 4 years.

Relative to 2017 data available, the department anticipates these changes will reduce compliance cost by about \$77,500 for the next 4 years under the proposed rule revisions (\$19,375/year).

The estimated reduction in compliance cost relates to the cost savings from increasing the standardized recharacterization schedule of most categories from once every 2 years to once every 4 years. Based on the department's analysis the estimated total recharacterization cost under this revised rule is approximately \$106,700/year compared to an estimated annual recharacterization cost of \$184,200 in 2017.

NR 538.10 - Eligible Uses:

The department anticipates an estimated cost savings for generators that currently must obtain a case-specific approval for flue gas desulfurization and lime waste byproducts every 5 years. Assuming only 5 such approvals are currently active, this will represent a cost savings of \$550/year since the ch. NR 520 review fee will no longer be necessary. This will also apply to certain livestock fills that currently require a case-specific approval. Averaging one of these approvals every year translates into a cost savings of \$550/year due to the elimination of the review fee. Unconfined fills of less than 5000 cubic yards will no longer be required to obtain a concurrence from the department. From 2013-2017, our records indicate we have an average of 3 of such approvals every year. Conservatively assuming a simple concurrence application costs \$500, the elimination of the concurrence submittal translates into a cost savings of \$1500.00/year.

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Other expenses associated with changes in the eligible uses should not be significantly different.

NR 538.12 - Geotechnical fill requirements:

The change in requirements for separation to the groundwater table may limit geotechnical fill locations, but should not impose a direct cost. The new requirement to notify the department of any geotechnical fill project that comes within 100 feet of a water supply well may also result in some additional cost, but it is unknown if any current or future projects will meet this criteria.

NR 538.14 - Reporting:

The department estimates that the collection of the information and preparing an Annual Report will cost approximately \$5000/year for larger generators. This estimate is based on discussions with experts in the department and the industry. The revised rule will require some additional reporting such as identifying each beneficial use and the recipient of the byproduct. Under the current rule this information is not required and is only being reported voluntarily by some generators. The department projects that the cost of this additional reporting requirement will be no more than an additional 10% of reporting for an estimated additional cost of \$500/year for each of the 75 byproduct generators (2017 data). This represents a total cost increase of \$37,500/year. There is a potential cost increase for collecting and reporting GIS information for geotechnical fill sites greater than 5000 cubic yards. The department does not anticipate this cost increase to be significant due to the ease of collecting locational information from readily available electronic devices. There is an additional potential cost for being required to report project modifications to the department but, again, the additional costs should be insignificant, since most modifications are already informally reported to the department.

NR 538.22 - Property Owner Notification:

There is an additional requirement that the byproduct generator or broker of certain geotechnical fill projects notify the property owner in writing that the fill they are receiving is a byproduct material and that a copy of that notice is sent to the department. The property owner notification is an existing requirement for most projects and the additional cost of supplying the department with a copy of the notice is not significant especially if the information is submitted electronically.

There are other potential additional costs or reductions in costs in the rule revision which are not quantifiable due to a lack of information, but we do not expect those potential cost changes to be significant.

Participation in the beneficial use program is entirely voluntary and no entity is required to participate in the program. However, the beneficial use program will still represent a significant cost savings to high-volume industrial byproduct generators versus the cost of operating and maintaining their own landfill or paying for landfill disposal at a commercial site even with the increases in reporting costs. The department does not anticipate a change in the number of byproduct generators participating in the program, nor a change in the annual number of projects due to the proposed rule changes.

15. Benefits of Implementing the Rule and Alternative(s) to Implementing the Rule

The proposed ch. NR 538, Wis. Adm. Code, revisions will streamline, update and simplify the existing rules by eliminating a confusing set of use categories, adding new use standards so generators will no longer need to obtain case-specific approvals, and adding new reporting requirements that will ensure that beneficial use projects can be recorded and tracked to avoid unnecessary investigations when the site is eventually redeveloped. The analytical requirements have been updated to reflect current studies and sampling intervals have been made uniform to make compliance easier. Definitions and standards have been updated to reflect new administrative code and federal rule requirements.

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The alternative is to leave the existing, outdated rules in place and try to clarify the requirements through guidance documents and policy decisions.

16. Long Range Implications of Implementing the Rule

The long range implication of this rule will be the same as the short range implication. Enactment of the proposed revisions to the beneficial use of industrial byproducts rules under ch. NR 538, Wis. Adm. Code, will not substantially change the basic functioning of the rule as it now exists. The beneficial use program will remain voluntary and mostly self-implementing with some additional reporting requirements to the department. One long range effect of this additional reporting will be the ability of the department to better record and track beneficial use fill projects so they can avoid going through the remediation process under ch. NR 700, Wis. Adm. Code, when the site is eventually redeveloped into another use. The proposed revisions spell out the process for dealing with beneficial use projects once they are at the end of their useful life and need to be excavated and redeveloped. Maintaining an up-to-date beneficial use program means less need to site new landfills and a reduction on the need to develop virgin sources of material for cement, asphalt, soil amendments and fill material.

17. Compare With Approaches Being Used by Federal Government

Disposal of industrial waste materials is governed by 40 CFR, Subtitle D, but there are no federal rules under this section directly related to beneficial use. The one exception is in 40 CFR, Part 257 which was adopted on April 17, 2015 for the purpose of regulating the disposal of coal combustion residuals (CCRs). In this section of the federal rule, beneficial use of CCRs (a class of materials that are defined as "high-volume industrial waste" in s. 289.01(17), Wis. Stats.) is determined by evaluating the use against a set of four "legitimacy" criteria, including requirements that the use provides a functional benefit, can substitute for a virgin material, can meet product specifications, and unencapsulated, non-roadway fills are less than 12,500 cubic yards unless they meet certain protective criteria. The first three criteria were incorporated into the revised ch. NR 538, Wis. Adm. Code, language. The volume limits of the fourth legitimacy criteria have been challenged, so they were not included, although the existing and revised ch. NR 538 contains mechanisms for evaluating the potential environmental impact of the byproducts before use. The federal CCR rule also clearly states that any placement of CCR in a gravel pit or quarry does not meet the definition of "beneficial use" and should be regulated as a landfill. The revised ch. NR 538 contains a note referencing the federal CCR rules, but does allow for placement of other byproducts as mine reclamation in limited circumstances.

18. Compare With Approaches Being Used by Neighboring States (Illinois, Iowa, Michigan and Minnesota)

The State of Michigan regulates the beneficial use of various industrial waste materials under Part 115 Rule (statute) through authority granted to the Michigan Department of Environmental Quality (MDEQ). Acceptable beneficial uses are listed under Section 11502(8) of the rule, which divides the uses into five separate categories. Specifications for testing and criteria for use are explained in other sections of Rule 115. Acceptable beneficial uses include bonding into cement or asphalt, construction fill under roadways, land application, waste treatment at landfills, soil blending, and flue gas scrubbing reagent. Uses must be demonstrated to be protective of groundwater and surface water quality as well as human health and the environment.

The State of Minnesota regulates the beneficial use of certain industrial waste byproducts through Minn. Rule Ch. 7035.2860 and .2861 by establishing a process under which waste generators can apply to the Minnesota Pollution Control Agency (MPCA) for a case-specific beneficial use determination (CSBUD) or make use of a list of standing beneficial uses (SBUD) that do not require prior MPCA approval. The list of SBUD uses includes reclaimed glass as aggregate, coal fly ash as an ingredient in cement, recycled concrete as an aggregate, tire chips as aggregate, shingles in asphalt mixes, and lime-bearing wastes as an agricultural soil amendment. Foundry sand is only approved for use in cement mixes.

The State of Illinois regulates the beneficial use of certain industrial byproducts in accordance with Section 22.54 of the Illinois Environmental Protection Act by requiring the generator or applicant to submit a formal Request for a Beneficial Use Determination for review by the Illinois Environmental Protection Agency (IEPA). All determinations are case-specific and based on the properties of the byproduct and site-specific conditions. All applications must justify that the

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byproduct materials are being legitimately beneficially used; there are no pre-approved uses listed.

The State of Iowa regulates industrial byproducts through Beneficial Use Determinations issued under ch. 108 of the Iowa Adm. Code. This Code also covers use of byproducts as alternate daily cover at landfill disposal sites. Similar to WI requirements, s. 108.04, IA Adm. Code lists a variety of byproducts and specified eligible uses for each byproduct material that do not require prior approval by the IDNR. One section of the Code, 108.5, IA Adm. Code, includes a provision for obtaining a beneficial use determination from the IDNR for byproduct materials or uses not specified in the Code. The information required for submission includes analytical results, project details, and evidence the use will not violate certain locational criteria, including a 5-foot separation to the seasonal high water table.

19. Contact Name Philip Fauble, Beneficial Use Coordinator	20. Contact Phone Number (608) 267-3538
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This document can be made available in alternate formats to individuals with disabilities upon request.

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ATTACHMENT A

1. Summary of Rule's Economic and Fiscal Impact on Small Businesses (Separately for each Small Business Sector, Include Implementation and Compliance Costs Expected to be Incurred)

2. Summary of the data sources used to measure the Rule's impact on Small Businesses

3. Did the agency consider the following methods to reduce the impact of the Rule on Small Businesses?

- Less Stringent Compliance or Reporting Requirements
- Less Stringent Schedules or Deadlines for Compliance or Reporting
- Consolidation or Simplification of Reporting Requirements
- Establishment of performance standards in lieu of Design or Operational Standards
- Exemption of Small Businesses from some or all requirements
- Other, describe:

4. Describe the methods incorporated into the Rule that will reduce its impact on Small Businesses

5. Describe the Rule's Enforcement Provisions

6. Did the Agency prepare a Cost Benefit Analysis (if Yes, attach to form)

- Yes No
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