



Nonmetallic Mining Newsletter

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Revisions to NR 135 Now in Effect

Chapter NR 135, Wis. Adm. Code, has been in effect since December 2000. The code was revised in 2006 and the changes became effective **December 1, 2006**. You may obtain the new rule by going to <http://www.legis.state.wi.us/rsb/code/nr/nr135.pdf> or you may request a copy from your DNR regional contact.

The revised rule required changes in the dates for fee collection and reporting but could not become fully effective until Regulatory Authorities (RAs) amended their reclamation ordinances. Now that the amended ordinances are in place, it is possible to realize the benefits that come with the streamlining of routine administrative process. For example, the due date for fees and annual reports have been synchronized, and annual reports are now based on the same year during which fees were collected. In addition, the DNR has developed a new web-based application that further streamlines this process. This web-based reporting tool is discussed below.

Online Annual Reporting and Fee Transmittal Now Available

The administrative process for both annual fee transmittal to the DNR and annual reporting have been integrated and simplified, thanks to a new web-based reporting tool. This new reporting process takes the place of both the Excel template, previously used for electronic annual reporting, and the fee transmittal cover sheet.

Appropriate RA staff should have received an introductory email or letter informing them of this new approach and process. Each contact has been given an ID and password, a link to the reporting tool and directions for its use. **Please save this information for future report years.**

Once you have logged on to the reporting tool, you will be guided through two pages of mandatory questions and one page of optional questions. After

completing those questions, the report will be submitted electronically; however, you will still need to print and sign the last page of the report and mail it, along with appropriate fees, to the department.

Your NR 135 regional contact can provide a paper version of the new report upon request. If you lose your password or have questions regarding the new reporting tool, please contact Steve Drake (steve.drake@wisconsin.gov) or 608-267-7567.

Using Waste Fill Materials in Nonmetallic Mining Reclamation

Recently, we've received questions about the practice of using waste materials such as foundry sand and "clean fill" at nonmetallic mine reclamation sites.

Certain types of waste are considered "clean fill" under s. NR 500.08(2), Wis. Adm. Code and may be used without prior approval from the DNR. See the sidebar for a list of acceptable alternative fill materials.

Clean fill must be used in a nuisance-free and aesthetic manner and may not be placed in a floodplain. In accordance with s. NR 504.04(4)(a-f) Wis. Adm. Code, using clean fill for reclamation must not result in the taking of a threatened or endangered species, or negatively impact wetlands, surface or groundwater.

Industrial byproducts are another class of waste materials sometimes proposed for use in mine reclamation projects. Any project involving these wastes must be managed in accordance with ch. NR 538, Wis. Adm. Code, beneficial reuse rules. The wastes are assigned a category based on analytical test results and their potential to impact the environment. Their use is restricted based on these categories.

For Mine Operators:

Be aware of all sources of fill material being placed in your mine site and where material is placed. Make sure sediment running off the waste piles does not impact a natural wetland or surface water body. Place materials above the water table to avoid potential impacts to groundwater.

If you are approached by a waste broker or generator regarding the potential use of industrial byproducts as part of your mine reclamation, make sure the broker is reputable and has the financial resources available to implement the project. Most larger projects need DNR concurrence, so plan on making your site and reclamation plans available for the reviewers.

You should be aware that certain projects using more than 30,000 cubic yards of waste material will require public notice and a possible public information hearing in accordance with s. NR 538.18, Wis. Adm. Code.

Contact your local officials to determine if the reclamation plan needs to be modified and to see if any additional permits are required.

For RAs:

As the NR 135 RA you will have approved this in the reclamation plan (existing plans will need to be modified to include the use of these materials. Notify the DNR if any waste appears to be an unacceptable material or is being placed in an unacceptable manner.

Municipal solid waste- what most of us think of as household garbage- and unsorted residential construction and demolition waste cannot be used as fill material in mine reclamation. These wastes contain materials that can adversely impact the environment (i.e. lead paint, asbestos, plastics).



Illegal disposal of solid waste at abandoned mine.
(Photo by Tom Portle, DNR)

Acceptable alternative materials

Materials defined as clean fill and exempt from ch. NR 500 solid waste rules:

- Mine spoils (crushed stone, sand and overburden soils)
- Clean soil
- Brick
- Building stone
- Unpainted concrete (even if reinforced)
- Unpainted/untreated wood
- Broken pavement (even if it contains asphalt)

Materials defined as industrial byproducts and regulated under ch. NR 538 (beneficial use rules):

- Coal combustion ash and slag
- Foundry system sand
- Lime kiln dust
- Flue gas desulfurization waste

Miscellaneous:

- Compost from municipal recycling programs
- Sediment from stormwater ponds
- Paper mill sludge

If the operator plans on achieving final grades by accepting off-site fill materials, those details must be included in the approved reclamation plan. Proposed uses of any waste materials need to conform to the approved plan; otherwise the plan will need to be modified in accordance with s. NR 135.24, Wis. Adm. Code.

Reclamation Opportunities with Alternative Materials

Another use of alternative materials is the mitigation of safety or stability hazards associated with vertical or other steep highwalls. Alternative materials may be used to construct a safety berm at the top of a potentially hazardous highwall to control access.



Materials used in backfilling a highwall can serve to mitigate safety hazards and improve slopes for reclamation. (DNR Photo)



Proper highwall reclamation may provide scenic landscapes and recreational opportunities. (Above photos courtesy of Dr. Bruce Brown, WGNHS)

Substitute Soil may be in need in cases where topsoil and/or subsoil are in short supply; there may be an opportunity to use alternative materials to amend or supplement soil. Check with local municipal recycling programs regarding the availability of compost material and other organic materials.



Use of these organic materials can help provide a more optimum soil environment and rooting zone to support plant growth. Refer to NR 135.03 (24) for the definition of substitute soil.

The use of **industrial byproducts** in reclamation of the Foley Pit serves as an illustration of permitting considerations and coordination among agencies, the mine, and the generator. The project received a Grant of Exemption from the DNR to allow the use of industrial byproducts in mine reclamation. It also required cooperation between the DNR solid waste and reclamation staff, as well as the East Central

Wisconsin Regional Planning Commission (ECWRPC), which administers the NR 135 program in that jurisdiction. The foundry sand proved to be a safe and cost effective fill material when used in achieving approximate original contours (AOC).



Foundry sand being incorporated as part of grading activities during reclamation of the Foley Pit (Photo by Dave Misterek, DNR)



Successful Reclamation Outcome at the Foley Pit. (DNR photo)

How Do Alternative Materials Fit into the Reclamation Plan?

The nature of the material itself, the proposed use, current reclamation plan language and permit conditions may need to be considered. Each case must be evaluated to ensure compliance with applicable state and local laws.

While some cases, like the Foley Pit reclamation, require direct DNR involvement, these are the exception rather than the rule. Typically, either the operator and/or the RA will review the reclamation plan to ensure that it covers the proposed material and its proposed use. When necessary, the reclamation plan may be amended or permit modified. Please keep in mind that both the reclamation plan and its corresponding financial assurance must be updated to reflect current conditions and costs.

Additional Resources

- Substitute soil was addressed in articles that appeared in Issues 2 and 4 of the NR 135 Newsletter, available at: <http://dnr.wi.gov/topic/Mines/NonmetallicPubs.html>.
- Highwall mitigation was covered in a special issue of the NR 135 Newsletter, available at: <http://dnr.wi.gov/topic/Mines/NonmetallicPubs.html>.
- Also see PUBL WA-834 2002, *Guide to Developing Reclamation plans for Nonmetallic Mining Sites in Wisconsin*, available at: <http://dnr.wi.gov/topic/mines/documents/nonmetrecplan.pdf>.

Contact Information

- For more information on beneficial use, mine reclamation or related administrative code requirements, see <http://dnr.wi.gov/topic/Waste/Beneficial.html>
- or <http://dnr.wi.gov/topic/Mines/Nonmetallic.html>
- To find your DNR contact, visit <http://dnr.wi.gov/topic/Mines/Nonmetallic.html>
- For other questions, contact: DNRWasteMaterials@Wisconsin.gov
(608) 266-2111

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