Report From Agency

REPORT TO LEGISLATURE

NR 500s, Wis. Adm. Code
Landfilling of solid waste

Board Order No. WA-15-06
Clearinghouse Rule No. 06-026

Basis and Purpose of the Proposed Rule

These proposed rules are a follow-up to Clearinghouse Rule No.04-077 which will require operators of new and expanded landfills to submit a plan for significantly reducing the amount of degradable organic material remaining after landfill closure in order to materially reduce the amount of time needed to reach landfill organic stability. By accelerating the decomposition of organic waste in a landfill or diverting organic waste away from landfills, operators can significantly reduce the environmental and public health risks of landfills to future generations. These proposed rules contain more specific detail on the minimum content of the required plans and the criteria by which they will be evaluated.

Summary of Public Comments

The Department conducted 2 public hearings on these proposed rule revisions. A total of 5 persons made appearances to provide comments at the hearings. In addition, the Department received 2 sets of written comments after the hearings.

Hearing commenters emphasized their preference for management of organic materials outside of landfills. They felt the rule leaves landfill owners with too much discretion to continue landfilling organic materials instead of diverting them for composting. They also expressed a concern that continued landfilling of organic materials and growth in the use of leachate recirculation to speed decomposition of organics in landfills might prompt landfill operators to attempt to overturn Wisconsin's ban on landfilling of yard waste, which helps support a thriving commercial composting industry.

During the comment period, the Department received written comments from 2 large landfill companies doing business in Wisconsin, including one company that participated in the technical advisory committee for the development of the proposed rule. These comments were generally opposed to adoption of the rule, due to concerns that the technology for accelerating decomposition in landfills is unproven and may not be capable of achieving the landfill stability goals provided in the rule.

The Department consulted with its technical advisory committee in developing responses to public comments. Ultimately, the consensus of the committee was that the Department should proceed with the proposed rule, subject to minor changes to the rule language involving the contingency plans and the applicability of the rule; the Department made the commended changes.

A Summary of Public Comments with the Department's responses is attached.

Modifications Made

The 2017 deadline for landfills approved before 2004 but still operating, to ensure that landfills that were approved prior to 2004 but were currently 'mothballed" would not be able to avoid eventual compliance with the stability planning has been eliminated. Instead a requirement that landfills that have not filled over 50% of their approved capacity by 2012 must submit a stability plan has been added.

Appearances at the Public Hearing

April 11, 2006 – Eau Claire

In support:

Terry J. Mesch, Pepin County, W9245 Big Coulee Road, Arkansaw, WI 54721

In opposition – none

As interest may appear:

Kathy Powell, 600 Moore Road, Plover, WI 54467

April 12, 2006 – Waukesha

In support – none
In opposition – none

As interest may appear:

James Syburg, White Oak Farm, LLC, P.O. Box 801, Oconomowoc, WI 53066
Helen Arens Bera, S46 W29840 Highway 59, Waukesha, WI 53189
Daniel Otzelberger, Republic Services, W8470 State Road 11, Delavan, WI 53115
Russell C. Evans, S19 W29051 Cambria Road, Waukesha, WI 53188
Vladimir Wojnar, STS Consultants, 1035 Kepler Drive, Green Bay, WI 54311
Charlene Lemoize, Waukesha Co. Env. Action League, 1240 Highpoint Lane, Waukesha, WI 53189

Changes to Rule Analysis and Fiscal Estimate

The rule analysis was not changed. The fiscal note was changed to lower the number of landfill estimated to be subject to the new rules. This lowered both of state and local fiscal impact.

Response to Legislative Council Rules Clearinghouse Report

The Department has considered all comments from the Legislative Council rules Clearinghouse, and has modified the rule accordingly. A copy of the comments and the Department's responses is included at the end of the attached Summary of Public Comments.

Final Regulatory Flexibility Analysis

None of the landfills which are directly affected by this rule meet the definition of a small business. There are no compliance and/or reporting requirements for small businesses. However, there may be indirect cost increases to small businesses depending on the choices a landfill operator makes to comply with the rule. Over time, these cost increases would be balanced out by the avoided long-term costs to society of managing long-closed waste disposal sites that still represent a risk to public health and the environment due to their content of undecomposed organics.

Summary of Public Comments

INTRODUCTION

The Department held two hearings in connection with the proposed rule. The first hearing was held in Eau Claire on April 11, 2006; the second was in Waukesha on April 12, 2006. Dan Graff of the Bureau of Legal Services presided over both hearings. Additional Waste and Materials Management program staff attending the hearings were Gene Mitchell in Eau Claire and Brad Wolbert in Waukesha. Two persons filled out appearance slips at the Eau Claire hearing, and both made comments. Six persons filled out appearance slips at the Waukesha hearing, and three of them made comments. All comments at both hearings were provided in a cordial, non-confrontational manner. The Department received 2 sets of written comments during the public comment period for the draft rule revisions, and received additional comments from the Legislative Council Rules Clearinghouse.

Comments and the Department's responses are provided below. Many of the comments have been edited or paraphrased for the sake of brevity or clarity, or where multiple commenters made substantially the same point. In no case have we attempted to alter the substance of a comment.

GENERAL COMMENTS

1. Comment: Organic materials are valuable resources with many uses, and demand is increasing for these materials. Organic materials can be better utilized outside of landfills. [Associated Recyclers of Wisconsin (AROW); Waukesha County Environmental Action League (WEAL)]

   Response: The Department agrees with the comment with regard to many organic materials. Some organics are too contaminated or complex for currently available technology to prepare for reuse. The proposed rules would not pose a barrier to, and might encourage, market forces that reward the diversion of organic materials from landfills. Landfill operators that have control over collection systems might be more inclined to explore diversion programs as a way of complying with the proposed rule.

2. Comment: The proposed rules don't go far enough—the Department should ban non-inert materials from landfills. [Terry Mesch]

   Response: The extent of the Department's authority to ban such a broad class of materials from landfills through rulemaking is not clear. Existing landfill bans are established in statutes (i.e., s. 287.07, Wis. Stats.). We are also concerned that processing capacity and markets could not accommodate the volume of organic material that would result from a broad-based ban on organics in landfills.

3. Comment: Waste stabilization strategies that emphasize the use of organics within a landfill run directly counter to the Wisconsin DNR's "Moving Toward Zero Waste: A Shared Vision for Wisconsin's Future." [AROW; WEAL]

   Response: The primary purpose of the proposed rules stems directly from one of the 3 key goal areas of the "Moving Toward Zero Waste" report which is being used to guide policymaking in the DNR's Waste and Materials Management program. That goal area is " minimize the potential for environmental impacts of landfills." The proposed rule would allow, but not emphasize, the continued acceptance of some organics in landfills so long as measures are implemented to ensure that these organics are decomposed at a more accelerated pace so that the long term potential for environmental impacts is minimized.

Minimizing waste is another of the 3 key goal areas in the "Moving Toward Zero Waste" report, and the proposed rules also have the potential to reinforce waste minimization by offering landfill operators an option for compliance through diversion of organics.

4. Comment: Landfilling organic materials ranks very low on the waste management hierarchy and should be viewed as a last resort for these materials. Landfill stabilization should be brought about by means other than landfilling organics. [AROW]

   Response: We generally agree with this comment. However, we do not believe it is possible in the short term to pursue landfill stabilization without acknowledging the fact that, without a ban on landfilling and a mandated preprocessing step for organic materials, such as incineration, the waste industry, municipalities, businesses and residents will continue to dispose of organic wastes through landfilling. The purpose of the rule is to manage this situation in a way that reduces the consequent risk to future generations of the wastes our generation disposes of today.

5. Comment: Landfill operators will choose leachate recirculation as the preferred option under this rule, because it increases profitability. Leachate recirculation is not given an opportunity for public comment because it is often proposed in the Plan of Operation, which occurs well after the Feasibility stage of landfill siting when the public has a chance to comment. [WEAL]

   Response: The Department agrees that most landfill operators would likely rely on leachate recirculation or bioreactor operation to comply with the proposed rule. Many operators have already embraced the concept of leachate recirculation because of the economies it offers. To the extent that adding liquids into the landfill's waste mass speeds decomposition and reduces long-term risks, we view this as a positive development. Leachate recirculation affects more than just costs, such as reducing impacts on wastewater treatment plants and the associated trucking and fuel costs of transporting leachate from landfills to treatment plants.

   Regarding the practice of waiting until the plan of operation to propose leachate recirculation, we don't view this widespread operational practice as a site-specific feasibility issue in most cases. We would consider comments on leachate recirculation in connection with any landfill feasibility report, even if leachate recirculation was not specifically proposed at the feasibility stage, because we recognize that it is becoming standard practice among landfill operators.

   The Department recently conducted rulemaking, including public participation, for a package of changes to landfill design and operational standards that included a codification of leachate recirculation requirements.

6. Comment: The proposed rule will not promote innovative methods to minimize waste of organic materials. Landfill operators will not of their own volition segregate and divert organic materials once they are delivered to the landfill. The proposed rule leaves too much of the decision making for waste minimization in the hands of landfill operators. Instead, the DNR should proactively endorse programs to separate organic materials at the source with composting as the preferred option. [WEAL]

   Response: As noted above, the proposed rule is not intended as a waste minimization rule, but as a means of reducing the long-term risk associated with the conventional landfilling of organic materials. As a practical matter, we have direct authority over MSW landfills, but the Department does not have direct authority over the generators of MSW. We believe that a combination of requirements on landfill owners directly will also have indirect effects on MSW generators. Public and private haulers may be in a better position to implement source separation at the collection point. Landfill operators with collection operations that service private businesses such as restaurants and grocery stores may also examine source separation more closely, particularly if demand for compost continues to increase. The Department endorses such programs, where collection, processing, and market infrastructure ensure environmentally sound operations.

7. Comment: Recently there were attempts in Iowa and Illinois to overturn landfill bans on yard waste on the basis that bioreactor landfills needed the organic material. Similar efforts could be seen in Wisconsin as a result of the proposed rule and the likelihood it will promote bioreactors and leachate recirculation. [WEAL]

   Markets for compost have relatively recently caught up with the volume of composted yard waste being collected and diverted from landfilling. Additional organic materials could and should be diverted for composting. We agree with DNR's Zero Waste efforts and are concerned that the emphasis on landfilling in the proposed rule could cause the loss of compostable organics back into landfills. [James Syburg, White Oak Farm LLC]

   Response: The Department would firmly oppose efforts to eliminate the yard waste landfill ban in s. 287.07, Wis. Stats. We believe the ban has been very effective in preserving valuable source-separated organic materials and beneficially and sustainably using them on the land to preserve nutrients, improve soil, and prevent erosion. Each year since the ban went into effect in 1993, several hundred thousand tons of yard waste have either been collected for composting or managed on site, substantially reducing the need for new landfill capacity. The demand for these materials continues to grow. In any case, the experience with Wisconsin landfills is that yard waste is not necessary to support vigorous generation of landfill gas or to assure high methane levels in landfill gas.

8. Comment: I'm proud that Wisconsin is in the forefront on the environmental issues related to landfills. My friends in Illinois do not have the same recycling ethic and concern for keeping materials out of landfills that we do in Wisconsin, and I'm concerned about the importation of wastes into Wisconsin for landfilling here. I'm not comfortable with the discretion left to landfill operators under the proposed rule unless there are economic incentives and more enforceability. [Helen Arens Bera]

   Response: The draft rule contains a stability planning requirement, but landfill operators would have discretion to choose the method they preferred for meeting the rule goals. We believe there are significant economic incentives to achieving organic stability in landfills on a faster schedule. Landfill operators are responsible for care and maintenance of their facilities in perpetuity; if the landfill can be stabilized sooner, the care and maintenance will cost less. The likelihood that such a landfill will require costly remediation will also be lowered. We are also working to develop a linkage between the required amount of financial responsibility proof that landfill operators are required to post, and the degree of stabilization of the landfill. This will provide another incentive for a landfill to achieve organic stability.

   With regard to landfilling in Wisconsin of wastes originating out-of-state, we don't believe the proposed rule would have a significant effect on the volume of this material. The rule would require landfill operators to include in their organic stability plans all incoming waste regardless of origin, and we would expect measures used on out-of-state waste to be identical to those used on Wisconsin-sourced waste.

9. Comment: The Department is overstating the problem of current landfill design. [Waste Management (WM)]

   Response: The Department would like to re-emphasize that today's highly engineered landfills are very successful at preventing groundwater contamination due to leachate production and methane migration due to gas emissions. We expect these designs to remain effective during the operating life of the site and for at least 40 years following landfill closure. What we don't know is when engineering systems, particularly the landfill cap, will begin to break down, and what the magnitude of the consequences of that breakdown will be. As Waste Mgmt has pointed out, not all unengineered landfill sites have resulted in multi-million dollar remediations. On the other hand, many have. Today's engineering systems that are so protective of the environment may break down slowly and allow the natural environment to absorb the impacts of increased gas and

leachate production. Or, the breakdowns could have more profound financial and environmental impacts. We just don't know at this point. But we believe it is better to anticipate reasonable, potential problems and act to prevent or lessen their consequences, than it is to pass off those consequences to future generations.

10. Comment: The Department is being extremely aggressive with unproven technology. [WM, Republic]

Response: The Stability Workgroup that collaborated with the Department to develop these rules also developed a table of over 20 strategies that could be employed either individually or in combination to meet the requirements of these rules. These strategies range from proven technologies and methods to technologies that are currently in the pilot project stage. The rules allow the landfill owner/operator to choose which technologies will best suit their needs. The rules also allow the ability to phase in an effort, rather than implementing the full plan on day one. In addition, the rules provide a high degree of flexibility to change to alternative approaches if the current approach is not satisfactory. Finally, the Department has recommended that a peer review group be established after the initial 5 years of implementation of the rules to evaluate the extent to which the goals are achievable with currently available technology and methods, and whether other changes to the rules are warranted in light of the experience we have gained.

11. Comment: We insist that the recommendation to convene a panel of independent experts in the field of landfill design and operations in 5 years must be tied directly to the regulation due to the many unknowns in the science of stabilizing landfills. [WM]

Response: The Department believes it is not appropriate to put a commitment of this nature in these administrative rules. However, we agree that the recommended 5 year evaluation by a panel of independent experts is an important adjunct to this rule. In order to provide the level of commitment requested in this comment, we will recommend that the Natural Resources Board direct the Department to convene the expert panel 5 years after the implementation date of the rule and report back to the Natural Resources Board with a proposed package of rule updates, as appropriate, within 1 year of convening the expert panel.

12. Comment: Alternative caps need to be directly tied to this regulation. The current regulation needs to be modified prior to or at the same time as implementing stability plans. [WM, Republic]

Response: This rule specifies the content and format of stability plans. It is intended to work in concert with other, existing rules which govern activities such as waste processing, leachate recirculation, bioreactor operation and alternative cap design. The Research, Development and Demonstration plan rules (NR 514.10) became effective on December 1, 2005, and will allow trials to determine whether alternative final cover systems are protective of the environment. However, there is no justification for a preemptive decision about the use of such designs. Water or leachate can still be inserted into the waste mass after conventional cover placement, if needed. Conventional final cover systems play a key role in controlling landfill gas emissions and enhancing the performance of gas extraction systems. If an operator succeeds in raising the municipal solid waste (MSW) moisture content to field capacity, it is not clear whether significant amounts of liquids need to be added for substantial periods of time after closure of a landfill. The science and engineering of alternative landfill cover systems is much less well developed than is that for accelerated waste decomposition, and we are not prepared to make general modifications to conventional final cover design for MSW landfills with this rule. The decision to implement an alternative cap is more appropriately made on the merits of a specific alternative cap proposal using the criteria set forth in NR 514.10.

13. Comment: The estimates cite only costs for WDNR review and the stability plan initial preparation for a very basic plan. The fiscal estimate does not reflect costs for construction, monitoring, record keeping and reporting. Also for a full blown bioreactor, the engineering costs will be substantially more than the $15,000 estimated. [WM, Republic]

Response: The purpose of the fiscal estimate is to estimate direct revenues and costs to State and local governments. The rule requires that landfills submit a stability plan and the fiscal estimate reflects this for municipally owned facilities. Implementation costs for waste diversion, pre-processing or in-situ treatment are beyond the scope of the fiscal estimate.

14. Comment: The rule doesn't include all landfills and that could create competitive disadvantages. [WM]

Response: The Department, after previous discussions with the Stability Workgroup, concluded that it would be impracticable to apply stability requirements to all landfills at once. There are a number of already-operating landfills that have completed a significant portion of their filling, and safely retrofitting stability measures might not be feasible at these sites. We also recognized that the Department approved a relatively large number of significant landfill expansions beginning in 2004, and we wanted the proposed stability planning requirement to apply to these facilities. Therefore, we proposed the 2004 applicability date to ensure the inclusion of recently approved/expanded landfills. We also proposed a 2017 deadline for landfills approved before 2004 but still operating, to ensure that landfills that were approved prior to 2004 but are currently "mothballed" would not be able to avoid eventual compliance with the stability planning requirement.

Based on further discussions with our Stability Workgroup, we are proposing to eliminate the 2017 date and require instead that landfills that have not filled over 50% of their approved capacity by 2012 must submit a stability plan. This partially addresses the competitive advantage issue in the near-term, and we believe it strikes a reasonable balance for phasing in these requirements given the impracticability of imposing the requirements on all landfills as of a single date.

COMMENTS ON SPECIFIC PROPOSED RULE PROVISIONS

15. Comment: Section NR 514.07(9)(b)5 references the definition of landfill organic stability in s. NR 500.02(120g). This definition was supposed to be a placeholder. It was never approved or discussed by the advisory committee, contrary to the Department's stated intent. [WM]

Response: This definition was developed by the Stability Workgroup and adopted as part of a previous rule package. The definition is necessary because the landfill organic stability plan, which is the subject of this rule making package, is intended to move the landfill towards a state of landfill organic stability at a rate faster than conventional landfill operations. The proposed rule package does not require that the landfill achieve landfill organic stability within a specific time frame.

The Department has received comments previously that indicate some landfill owner/operators are concerned that the definition of landfill organic stability would be used as the basis for the Department to require that a landfill reach organic stability before allowing landfill engineering systems (e.g., the landfill gas extraction system) to be reduced or shut off. These rules do not impose any such requirement, and the definition is not a basis for the Department to take that position. In the situation where a landfill owner/operator wishes to reduce or terminate a landfill maintenance activity such as gas or leachate extraction, the appropriate basis for making that determination is whether the action will put human health or the environment at risk. The mechanism for making that determination would be a site-specific risk analysis which takes into account existing standards and receptors. For example, an appropriate means for evaluating reducing gas extraction activities would be to determine what the levels of methane and other gas emissions would be at the point of standards application as a result of the proposed action, rather than determining if the landfill is still producing gas. This allows us to take into account

attenuation factors such as gas degradation as it passes through the soil cover material, and atmospheric dispersion.

16. Comment: NR 514.07(9)(b)7; NR 514.07(9)(c)1; NR 514.07(9)(c)4; NR 514.07(9)(e). The goals of landfill stability as defined in the proposed rule are not supported by known science and technology. NR 514.07(9)(c)1 requires a landfill gas generation rate of k=0.078 to meet the goal over the active and long term care period of the landfill. The US EPA Land Gem model uses a k value of 0.04. There is little data to support the ability to sustain a k value of 0.078 over the life of site and long term care period. The issue of alternative cap design is raised again as composite capped facilities will see a reduced amount of available liquid resulting in a significant decrease in gas generation. [Republic, WM]

    Response: The default k value used by EPA (0.04) in their model is for conventional landfill operations. We believe a k of 0.078 is conservative for a landfill which is adding moisture to achieve field capacity and optimizing conditions for organic decomposition. We expect that higher levels of decomposition will be maintained during the operating life of the site. The landfill industry is refining other methods of continuing moisture additions after closure, and we know from experience that engineering research and on-site expertise have led to advantageous technical innovations. Landfill operators also have other options for reducing the timeframe needed to achieve organic stability, including waste pre-processing and diversion.

    We also recognize that there is insufficient data at this point to know that these goals can be met on a consistent basis. That is why we are proposing to convene an independent panel of experts 5 years after implementation of the rules to evaluate the data generated and progress made, and to recommend changes to the rule to reflect our broader knowledge base at that time.

17. Comment: NR 514.07(9)(b)7 requires a contingency plan outlining measures to be taken if periodic evaluation of the landfill organic stability efforts indicate the facility is unlikely to achieve the goal in par. (c). While the Department has identified these goals as being non-enforceable, the consequence for not meeting the stability plan milestones will be to require that the contingency plan be implemented. The proposed rule should not include the contingency requirement but rather allow for re-evaluation of available technology and information as it becomes available to industry. [WM, Republic]

    Response: The framework of the landfill organic stability plan is such that it allows great flexibility for the landfill owner/operator in determining how to reach the goals, including setting milestones against which to assess progress. It allows the landfill owner/operator to make adjustments along the way. The purpose of the contingency plan is to provide a level of accountability if the plan's milestones are not being substantially met and allow the Department to require a landfill owner/operator to implement a new plan if the landfill owner/operator does not do so on his own. The Department has committed to not requiring implementation of a contingency plan at individual landfills until after the independent expert panel has had an opportunity to review the first 5 years of progress statewide and make recommendations for changes.

    We strongly agree that the industry should be encouraged to re-evaluate both their existing plans and their contingency plans as available technology and information become available. The rule proposal already encouraged this approach through annual and 5 year evaluations for existing plans, and we have added language to the contingency plan requirement for keeping the plan updated.

18. Comment: In summary, these comments are a sincere plea to reject this proposed rule until extensive changes are made reflecting scientific knowledge and accepted operating practices. [WM, Republic]

    Response: The Department has worked closely with an external advisory group for over 2 years to develop the proposed rules. The rules are structured to be low-risk, flexible, and to allow the

landfill owner/operator to make the decisions regarding implementation of strategies for reducing degradable organics in landfills, as well as the ability to change strategies as necessary. We believe that the current state of the science provides sufficient justification for moving forward now to addressing the problem, and a wide array of means to do so with a reasonable chance of success. We must reiterate that landfill stability can be achieved by waste diversion as well as by accelerated decomposition or pre-disposal processing, and the rule does not predispose the choices that a landfill operator can make. In addition, we are recommending that an expert peer review panel be convened within 5 years after implementation of the rule to recommend adjustments, as necessary. We recognize that not all strategies have the same level of scientific knowledge, but we believe that by moving forward with this rule now we will support the necessary step of going beyond the research and pilot plant stages to full scale application of reducing overall environmental effects of landfilling. Delaying this rule will delay application of established as well as innovative processes to full scale operating facilities.

LEGISLATIVE COUNCIL RULES CLEARINGHOUSE COMMENTS

19. Comment: When a rule SECTION renumbers a provision in the administrative code, the treatment clause for the SECTION should identify the renumbered provision by a complete citation to the provision. This style was not followed in the treatment clauses in SECTIONS 9 and 13. For example, the treatment clause in SECTION 9 should state "NR 514.07 (9) is renumbered NR 514.07 (9) (a) and amended to read:".

    Response: We have made the requested changes.

20. Comment: Section NR 514.07 (9) (c) 1. to 3. contain text that includes chemical abbreviations and text in parenthesis. The preferred drafting style is to avoid both undefined abbreviations and parenthetical text. See s. 1.01 (6) and (8), Manual.

    Response: We have eliminated the chemical abbreviations and taken the text out of parentheses.

21. Comment: In s. NR 514.07 (9) (e), "(b) 7." should replace "(b) 7".

    Response: We have made the requested change.

22. Comment: The inclusion of "respectively" in the treatment clause in SECTION 13 is unnecessary and contrary to preferred drafting style. It should be removed from the rule.

    Response: We have made the requested change.

23. Comment: In the analysis accompanying the rule, the list of statutes interpreted includes ss. 289.24 and 289.30, Stats. These references include provisions that are not interpreted by the rule. Can the department be more specific and cite particular subsections within these sections? In addition, it is not clear why this list of statutes interpreted includes s. 289.61, Stats., and excludes s. 289.41, Stats., as the rule makes no changes in solid waste management fees but does amend one financial responsibility requirement.

    Response: We have changed the list of statutes interpreted to be more specific and have substituted the correct references to statutes for the proposed rule changes.

24. Comment: In the analysis accompanying the rule, the list of statutes providing authority for the rule includes ss. 289.05 and 289.06, Stats. Can the department be more specific on which subsections in these sections provide this rule-making authority? Sections 289.24 (1) and 289.30 (4), Stats., also provide explicit authority for rule-making on subject matter covered by the rule. It is not apparent why these statutes are also not included in the list of statutes providing authority

for the rule. Finally, this list of statutes providing authority for the rule includes s. 289.07, Stats., inappropriately, as this section does not explicitly grant rule-making authority to the department.

Response: We have changed the list of statutes providing authority for the rule to be more specific, and have added the statutory references included in the list of statutes interpreted where these grant rule-making authority.

25. Comment: The first sentence in s. NR 514.07 (9) (c) (intro.) refers to the provisions in subds. 1. to 3. as "characteristics" and in subd. 4. as "the timeframe." The second sentence in par. (c) (intro.) refers to the provisions in subs. 1. to 4. as "goals." To avoid any ambiguity in the interpretation of these two sentences, the department should use consistent terminology to refer to the provisions in subds. 1. to 4. Also, sub. (9) (c) (intro.) should be redrafted to meet the provisions of s. 1.03 (8), Manual; namely, it should end with a colon and lead into the subdivisions that follow.

Response: We have made the terminology consistent by eliminating the references to "characteristics" and "the timeframe," and substituting "goals" for both. We have substituted the colon as suggested.

26. Comment: It is not clear when the characteristic in s. NR 514.07 (9) (c) 3. is to be applied. Is it upon site closing or some unspecified time after site closing?

Response: We have changed the wording slightly to clarify that this provision would be expected to be reached sometime after site closing.