A. Permit Provisions and Program Elements

Michigan

Manure Transfer Requirements

Michigan’s NPDES Wastewater Discharge General Permit for Concentrated Animal Feeding Operations (CAFO) (Permit No. MIG010000, NPDES CAFO General Permit) requires that all who land apply manure and wastewater (CAFO waste) generated by NPDES-permitted CAFOs, including non-CAFO manure recipients, inject or incorporate the manure within 24 hours or follow the state’s winter spreading technical standard. Michigan’s winter spreading restriction for non-CAFO manure recipients is in effect during the months of January, February, and March. For CAFOs, this restriction applies to surface applications to frozen and snow-covered ground.

Michigan’s current NPDES CAFO General Permit was issued on April 30, 2015 and expires on April 1, 2020. Michigan’s previous NPDES CAFO General Permit allowed NPDES-permitted CAFOs to avoid restrictions on applying manure to frozen or snow-covered ground by transferring manure to unpermitted recipients. The current NPDES CAFO General Permit addresses this.

The Natural Resources Conservation Service’s (NRCS) Manure Application Risk Index (MARI) has been completed to identify fields, or portions of fields, that scored 37 or lower on the MARI (<19 is very low potential for manure movement from the field, 19-37 is low potential for manure movement from the field).

The Michigan Department of Environmental Quality’s (DEQ) 2005 Winter Spreading Technical Standard assumes that surface runoff from snowmelt and/or rainfall will occur, and that the runoff will be polluted if CAFO waste is surface-applied on frozen or snow-covered ground without incorporation or injection. To prevent these discharges CAFO waste must only be applied to fields, or portions of fields, where the runoff will not reach surface waters. The technical standard requires that a field-by-field assessment be completed to identify fields with low risk for runoff to reach surface waters, and all of the following requirements be met and documented:

1. The Natural Resources Conservation Service’s (NRCS) Manure Application Risk Index (MARI) has been completed to identify fields, or portions of fields, that scored 37 or lower on the MARI (<19 is very low potential for manure movement from the field, 19-37 is low potential for manure movement from the field).
2. An on-site inspection of the entire field, or portion of field, that scored 37 or lower under the MARI. A MARI score of 37 or lower is generally indicative of soil test P values less than 300 pounds per acre, minimal slope (less than 6% for solid manure or 3% or less for liquid manure) and no discharge of concentrated flow into a surface water body such as a waterway, watercourse, wetland, flowing stream or county drain.
3. Based on the on-site field inspection, the Comprehensive Nutrient Management Plan (CNMP) will document all fields or portions of fields where the runoff will not flow to surface waters on
The CNMP must designate these fields or portions of fields as the only areas authorized for surface application without incorporation to frozen or snow-covered ground.

4. The findings of the on-site field inspection and CNMP documentation must be approved by a certified CNMP provider. This assessment is incorporated into the CNMP and submitted to DEQ as part of each year’s CNMP Executive Summary.

The generator and recipient of the manure must complete and sign a manifest form to track the transfer and use of the CAFO manure. All manifests must be kept on-site with the CAFO owner or operator’s CNMP for a minimum of five years and made available to DEQ upon request.

Programmatic Framework

No rule-making or legislative action was required for inclusion of this requirement in the NPDES CAFO General Permit. The manifest was already included in the permit and this requirement was included as part of the manifest form.

Implementation

As of 2014, under the expired general permit, there were 200 Certificates of Coverage (COC) under the NPDES CAFO general permit and 25 individual NPDES CAFO permits (MDEQ 2014); 14 CAFOs with a No Potential to Discharge Determination, no permit required (MDEQ 2014). DEQ stated that compliance with the winter spreading restrictions will be evaluated through review of manifest forms during regular compliance inspections and notification of discharges or complaints.

While Michigan’s NPDES CAFO General Permit asserts DEQ’s oversight of permitted CAFOs, DEQ has no regulatory oversight of land application practices by unpermitted recipients. If DEQ finds or is notified of a discharge or improper land application by an unpermitted recipient, DEQ is allowed, under the permit, to prohibit NPDES-permitted CAFOs from selling, giving, or otherwise transferring manure to that recipient. Transfer to the recipient may resume once the NPDES-permitted CAFO demonstrates, in writing, that the improper land application, use, or disposal has been corrected, and DEQ approves the demonstration.

No additional information on implementation or effectiveness is currently available as the winter spreading restrictions for unpermitted recipients of CAFO manure becomes effective as COCs under the general permit are reissued and those reissuances began in January of 2016.

References

MDEQ (Michigan Department of Environmental Quality). 2014, March 12. Email from Mike Bitondo (MDEQ) to Shanika Whitehurst (EPA HQ) regarding updates to the state AFO/CAFO program profile.