

**North Carolina Division of Water Quality Response to Comments**  
**Draft NPDES General Permit NCG240000 for Compost Facilities**  
September 21, 2011

**Background**

According to the Division of Waste Management, approximately 180 composting facilities were regulated in North Carolina in 2009. Of those facilities, the surface and groundwater discharges of approximately 60 may eventually be regulated by permit from the North Carolina Division of Water Quality (DWQ). DWQ's estimate is that discharges from approximately 30 of that number may be covered under the General Permit for Compost Facilities (NCG240000, or NCG24). Any surface water discharges from the remainder of the compost facilities will be authorized via individual permits or the No Exposure Exclusion from Permitting.

Session Law 2009-322 directed the North Carolina Division of Water Quality (DWQ) to develop a water quality permitting program specifically tailored to the compost manufacturing industry. Part of DWQ's development process was to convene the Compost Operation Stakeholder Advisory Group (COSAG) to obtain industry input. The COSAG engaged in a 9-month public input process, resulting in several specific recommendations from the COSAG to DWQ as to the form and substance of the new water quality permitting program. One of the COSAG consensus recommendations to DWQ was to establish a General Permit covering both stormwater and wastewater discharges. In response to the Session Law and the subsequent COSAG recommendation, DWQ developed the draft General Permit for Compost Facilities.

After the COSAG public input process, DWQ sought additional public comment, and the draft NCG24 was announced in February 2011 via the means required by NC rule, and additional means. The end of the public comment period was first extended from March 18 to April 18, and extended again to May 18, 2011; both extensions were in response to requests for more review time from the regulated community.

DWQ's NPDES General Permits are limited by rule to no more than a five-year term. 2011 will be the first issuance of NCG24, and it will be reissued in 2016. Every five years DWQ reviews collected analytical data from the previous five-year term; evaluates identified compliance problems; reviews problems in permit enforcement; and seeks to improve the effectiveness of the permits as water quality management tools for the permittees.

EPA Region IV staff in Atlanta reviewed and approved draft NCG24 on January 3, 2011, with the provision that their additional review and approval would be necessary if the proposed final form of NCG24 incorporated significant changes from the draft or if significant public comments objecting to the permit were received. DWQ concludes that neither of these conditions has been established, and that further EPA review is not required.

DWQ has prepared this summary document both for those interested parties that have submitted written comments on the draft NCG24, as well as for other interested parties. We will post this document on the DWQ Stormwater Permitting Unit website for public access.

## **Comments and Responses**

DWQ received written comments from fourteen parties during and after the public comment periods: six local government composters, one private sector composter, four industry interest groups spanning both private and public sector membership, one representative of a local government stormwater utility, and two North Carolina Department of Environment and Natural Resources (NCDENR) staff outside of DWQ's Stormwater Permitting Unit, and not directly responsible for the development of NCG24.

In general the comments addressed the costs involved in complying with requirements to control pollutants in site discharges, and the potential for implementation difficulties, either for DWQ, or for the regulated community. DWQ appreciates the time and effort reflected in the comments. The comments have been grouped below by topics. Every written comment pertaining to the new General Permit for Compost Facilities has been incorporated in the related topics below. We have noted which comments have been adopted in some form in the final version of NCG24. We have also identified those comments that we did not incorporate, and why.

- 1. *Recommendations for changes to the draft NCG24 in order to reduce the permittees' costs associated with compliance with the permit conditions. AND,***
- 2. *Comments recommending that a schedule of compliance for existing facilities should be added to the final form of NCG24.***

The costs involved in compliance with water quality permitting for compost facilities was the single most urgent concern identified in nine months of face-to-face meetings with the regulated community in the COSAG, as well as in the public comments in response to draft NCG24. DWQ has revised draft NCG24 in two significant ways to address the concern for costs and to lessen the immediate impact on the regulated community: NCG24 as revised provides for an extended compliance schedule for existing facilities (but not for new facilities); and we have selected a less conservative design storm. We have grouped the issue of costs and the issue of the compliance schedule together immediately below. Our response on the topic of setting a design storm as a cost reducing provision is addressed under item 3 below.

Comments on the costs of controlling polluted discharges from composting facilities were presented from several perspectives as follows:

- a. *Some composters may shift to mulching-only operations in order to avoid the costs attendant with controlling polluted discharges from their facilities under NCG24; Is this the result intended by the legislature? Should this point be reviewed by stakeholders prior to enactment of NCG24?***

Response: The COSAG also considered comments on the possibility of some degree of re-alignment within the industry in general as a result of previously existing, but newly enforced water quality regulations. DWQ's interpretation is that the group recognized that DWQ was under the mandate of Session Law to roll out a water quality permitting program for the industry, and while this comment was received by the group, it did not produce significant discussion in the COSAG.

Result: No change to draft NCG24 requested; none incorporated.

- b. *Three municipalities provided comments on the timing of their budgeting calendar, and noted that immediate compliance with draft NCG24 would not be possible.***

Response: Draft NCG24 has been revised to allow existing facilities to set a compliance calendar in conjunction with the local DWQ Regional Office Surface Water Protection Supervisor. While the permit still requires expeditious pursuit of the control of polluted discharges, the revised NCG24 provides a way to lessen the immediate impact on the regulated community by spreading the costs out over time, and by allowing the regulated facility time to adequately characterize the polluted flows so that cost-efficient treatment designs may be implemented.

Result: Draft NCG24 revised to incorporate a compliance schedule in order to delay and reduce costs for existing facilities.

- c. Recommendation that draft NCG24 be revised to incorporate a 2-year implementation period. Similar recommendation from another municipal composteur for a 3-year implementation period. Another municipal commenter suggested 4 years for his facility to come into compliance.***

Response: DWQ concurs that in most circumstances it will not be possible for existing facilities to attain compliance with the stormwater benchmarks and process wastewater limits immediately. Draft NCG24 has been revised to allow existing facilities to set compliance calendars in conjunction with the DWQ Regional Office Surface Water Protection Supervisor. While providing flexibility in scheduling, in no case shall the attainment of compliance with the benchmarks and limits exceed four years. The draft permit has not been revised to allow the same delay in compliance for new facilities. New facilities should be compliant upon DWQ's issuance of the COC under NCG24.

Result: Draft NCG24 revised to incorporate a compliance schedule in order to delay and reduce costs for existing facilities.

- d. In a series of comments, one municipality provided recommendations on the need for a reasonable compliance schedule. The several aspects of their comments included: citation and analysis of federal and North Carolina rules requirements as they may pertain to the draft permit requirement for an Authorization to Construct permit (ATC) for his existing facility; and the need for any compliance schedule to be contained within the permit text itself (rather than outside of the permit text as originally contemplated by DWQ) as a defense while the facility comes into compliance.***

Response: The issue of the proper timing of an ATC for this commenter, and all existing facilities, is made moot by the July 1, 2011, Session Law revisions to GS 143-215.1. Per that legislation enacted after the draft permit comment period had ended, DWQ may not require an ATC permit of industrial facilities already covered under a water quality discharge permit. (See item 7i below for the provisions of the Session Law.) Draft NCG24 has been revised to eliminate the requirement for existing facilities.

On the second point, this series of comments was the key exchange with the regulated community that prompted and informed the changes made to draft NCG24 with respect to a compliance schedule. Draft NCG24 has been revised to allow existing facilities additional time for compliance.

Result: Draft NCG24 revised to incorporate a compliance schedule in order to delay and reduce costs for existing facilities.

**3. Recommendations that draft NCG24 be revised to set a design storm and to allow for treatment unit bypasses in large rain events.**

*This topic represents a series of detailed comments, most from a single municipal composting facility. The comments generally noted that the draft NCG24 prohibits bypasses, and does not identify a design storm for stormwater and process wastewater design. The two concepts of allowable bypasses and a design basis storm must work together in order for there to be a rational engineering design of treatment facilities, otherwise costs can be disproportionate to benefits as larger and larger facilities are designed. Commenter suggests identifying the 10-year, 24-hour storm as the design storm for stormwater BMPs; and the 25-yr, 24-hr storm as the design storm for wastewater treatment units. He further suggests that bypasses occasioned by rainfall in excess of the design storms should be considered unavoidable bypasses as described in the permit boilerplate. Another commenter suggests that the hydraulic design of treatment facilities should be accomplished by a Professional Engineer.*

Response: DWQ concurs that revisions to the draft permit on these related points are necessary, and would be helpful in controlling the size, and ultimately the costs, of treatment facilities.

For wastewater bypasses: We note that while the text in the permit boilerplate is presented in terms of prohibiting bypasses, in fact the broad conditions found in the same paragraph that allow bypasses represent standard, reasonable, good engineering practice and facility operation. The bypass provisions in the boilerplate of the permit seem appropriate for the circumstances that would pertain to wastewater bypasses at a compost site.

However, we note and agree with the commenter that a bypass feature designed for the appropriate storm event would preserve the physical and functional integrity of the process wastewater treatment system under extreme hydraulic loading, and so would be categorized as an **unavoidable bypass** based on the description in the permit text, as suggested by the commenter.

Design storm selection for process wastewater treatment systems: DWQ agrees that the permit text should address the selection of a design storm. Further, considering that compost sites generally are expansive in extent and can generate large volumes of water, it is our judgment that the design storms suggested by the commenter (**10-yr for stormwater, and 25-yr for wastewater**) would lead to very large treatment units, and very large costs. DWQ notes that there is some limited DWQ precedent for setting a design storm for bypasses of wastewater treatment facilities in special permitting and compliance circumstances. For NCG24, DWQ has established that process wastewater system bypass discharges in response to rainfalls greater than the **2-yr, 24-hour rainfall** meet the qualifications for an **unavoidable bypass**, and so are permissible under the permit conditions in NCG24, provided that the bypass meets the other related conditions in the permit boilerplate as well. For discharges driven by rainfall events, control and treatment of the **2-yr, 24-hr storm** should address well in excess of 90% of the total annual pollutant discharges.

For stormwater bypasses: We take a different view of the need to set a design storm for stormwater BMPs. We note that a stormwater benchmark exceedance is not a permit violation, but a call for management awareness and response. In the case of a benchmark exceedance the structure of the permit contemplates a stepped approach that evaluates the feasibility of measures to achieve benchmark compliance. We think this is an adequate approach, and we believe that the design engineering community and the regulated

permittees can size stormwater BMPs on the basis of their own analysis of risk and compliance.

With respect to wastewater treatment facilities, NC rule already requires that wastewater treatment facilities be designed by a Professional Engineer; we do not think it is necessary to repeat that rule requirement in the permit text. However, it will be inserted in the application form for NCG24.

Result: In order to reduce initial construction costs, DWQ has revised the draft NCG24 to add the requirement of a 2-yr, 24-hr design basis minimum for any bypass to qualify as an unavoidable bypass of a process wastewater treatment system. Draft NCG24 has been revised to require recording in the SPPP of every bypass from process wastewater treatment units. DWQ will continue to implement the existing NC rule requirement for process wastewater treatment facility design (including hydraulic design) by a Professional Engineer.

**4. Questions or recommendations as to changes to draft NCG24 in order to change the scope of industrial activities regulated by the permit and/or DWQ's permitting program.**

**a. Comment stating that mulching operations are not regulated by NCG24.**

Response: (Note: it was DWQ's suggestion in the original discussions of HB1100, subsequently SL 2009-322, that the scope of the bill be revised to exclude mulching operations since they are fundamentally different from a process perspective.) DWQ's authority to regulate is limited to industrial activities, at the captured industrial site, which in the case of NCG24 includes all the on-site steps involved in compost manufacture at the compost facility. What that means is that discharges from mulching at a stand-alone mulching-only operation (not a composting facility) are not regulated by NCG24. Discharges from mulching taking place at a compost facility to provide shredded or chopped feedstock materials to the on-site composting operation are regulated by NCG24. DWQ considers that stand-alone mulching operations lack the qualifying characteristic of significant accelerated biological decomposition that characterizes composting operations.

Result: No change requested to draft NCG24; none incorporated.

**b. Comment that Type 1 yard waste facilities should be exempt from the stormwater permitting process. Another related comment was that one facility operator is not aware of any water quality problems due to discharges from his Type 1 facility. Additionally: DWQ received two verbal inquiries, but no written comments as to how new legislation in SL 2011-394 would impact draft NCG24 and the composting water quality permitting program authorized by SL 2009-322. The 2011 law provides that DWQ shall not require water quality permitting for Type 1 facilities, "unless required to do so by federal law."**

Response: Federal rule requires that stormwater permits be issued to industrial activity described in 40CFR122.26(b)(14), which includes compost manufacture, and does not exclude Type 1 compost facilities. Further note that Session Law 2009-322 requires DWQ to tailor a permitting program especially for the composting industry, and does not specifically exclude Type 1 facilities from regulation. DWQ notes the qualifying phrase in the Session Law, and believes that it operates to allow the conclusion that DWQ may require water quality permitting of Type 1 facilities on the basis of federal rule requirement, while still complying with SL 2011-394.

Regarding the report that a particular facility has operated for many years without the operator being aware of any water quality problems, no additional information was supplied to indicate what level of vigilance in water quality monitoring and testing was employed to support the report, and the presumably implied conclusion that there have been no polluted discharges.

During the nine-month public COSAG discussion, there was no evidence presented in support of any assertion that the discharges from Type 1 facilities did not contain the pollutants suggested by the data presented to the COSAG in DWQ Report #3, and reproduced in the Fact Sheet.

Result: No change in the draft permit text.

***c. Comment stating the understanding that a compost facility located on an MSW landfill would not be regulated by NCG24.***

Response: Case-by-case circumstances would dictate whether additional coverage under NCG24 would be appropriate. MSW operations are currently the location of many varying activities that do not fit the narrowest description of landfilling, including composting. As a beginning point for case-by-case considerations, we currently imagine that the **stormwater** discharges from a small-scale composting operation at a large MSW facility would not warrant an extra permit (NCG24) in addition to the presumably already existing stormwater General Permit for Landfills. On the other hand, the Landfill General Permit only authorizes the discharge of stormwaters, and does not authorize the discharge of **wastewaters**, and any process wastewater generated from a small scale composting operation would have to be handled on site, i.e. could not be discharged. There may be many variations of site conditions that could give rise to different regulatory scenarios. We intend to address the case-by-case circumstances as they arise.

Result: No change to draft NCG24 requested; none incorporated.

***d. Recommendation that storm debris sites should not be regulated by NCG24.***

Response: Stand-alone storm debris-only sites are not regulated by NCG24. However, if storm debris piles are on the site of a compost manufacturing activity, for the purpose of providing feedstocks to the composting process, the debris staging area would be considered part of the compost manufacturing activity and discharges from the storm debris would be subject to the site-wide permit applicable to the other on-site operations, NCG24.

Result: No change to draft NCG24 requested; none incorporated.

***e. Recommendation that Large Type 3 and Type 4 compost operations should be allowed coverage under NCG24, contrary to the scope limitations currently in the draft permit.***

Response: DWQ is concerned that larger facilities with more varied feedstocks and with manures and sludges deserve a closer regulatory review than what we hope will be an expedited review under NCG24. Also note that the determination to initially exclude Large Type 3 and Type 4 facilities from NCG24 was the consensus recommendation from the COSAG to DWQ. It may be that once we have more experience with permitting the industry, we can expand the scope of NCG24 to allow

us to issue it to Large Type 3 and Type 4 facilities. We view the draft permit exclusion as precautionary, and as parallel to the DWM classification system which recognizes an increased risk with increasing compost facility Type category. Note that the face page of NCG24 does allow that it may be used, at DWQ discretion, upon our finding that a Type 3 or Type 4 facility is sufficiently similar to the lower category facilities which are covered by NCG24.

Result: No change in the draft permit text; note that some flexibility on this point is already built into the permit.

***f. Recommendation that draft NCG24 be revised to exempt vehicle maintenance area monitoring requirements if all maintenance is done under roof.***

Response: The provisions for stormwater monitoring of vehicle maintenance runoff in draft NCG24 are identical to most other stormwater permits issued by DWQ since the mid-1990's. There is EPA guidance, and well established precedent within the DWQ NPDES stormwater permitting program, that being under roof does not exempt a facility from the vehicle maintenance area monitoring.

The posture of the NPDES stormwater program is to address activities on an industrial site beginning with whether an activity or material is present, not necessarily how likely a polluted discharge may be. Industrial activities are frequently fluid with respect to staff awareness and site management attention to stormwater pollution, manufacturing processes, and physical configuration of manufacturing steps. We note that draft NCG24 carries the standard threshold above which monitoring activities are required in other stormwater permits. Where there is greater than the threshold amount of 55 gallons of motor oil per month, DWQ believes the increased risk of pollutant discharge from those vehicle maintenance activities deserves the extra attention involved in monitoring the discharges.

Result: No change in the draft permit text.

***5. Recommendations and questions related to the monitoring and other recurring requirements of draft NCG24.***

***a. Request that the quarterly monitoring results obtained under NCG24 be compiled annually by DWQ, interpreted, and made available to the public.***

Response: DWQ has already accepted this assignment from the COSAG, and several industry participants in the COSAG have volunteered to assist in review and interpretation.

***b. Request to eliminate heavy metals testing from Type 1 facilities based on information in the Fact Sheet.***

Response: We feel this comment may misinterpret the limited data as evidence of the absence of heavy metals in compost discharges from Type 1 facilities. In the COSAG meetings industry representatives offered anecdotal comments that heavy metals are concentrated in woody feedstocks. Data contained in the Fact Sheet represented mixed feedstock facilities in other states showed heavy metals content. While those facilities did not have only Type 1 feedstocks, they did include as part of

the feedstock materials the feedstocks that would be present in Type 1 facilities. Once the required analytical testing results from NCG24 begin to accumulate, DWQ and the COSAG volunteers can review that data against this question.

Result: No change in draft permit text.

- c. Why are analytical and visual inspections both required quarterly instead of semi-annually like other permits? This extra testing increases the cost of compliance.***

Response: It is correct to note that where NCG24 requires quarterly monitoring, most other stormwater permits require only semi-annual monitoring. However, DWQ considers that composting operations have the potential for much greater exposure of process materials than most other manufacturing activities largely under roof: significantly more of the process is outdoors in composting operations. More significantly, compost operations have the potential for much greater variability in site configuration over time. These two aspects of a typical compost site work together in our eyes to suggest that the greater frequency of monitoring is a prudent tool in the site manager's execution of his responsibility to control the discharge of pollutants from his site.

Result: No change in the draft permit text.

- d. Recommend eliminating requirement for continuous flow measurement on process wastewater discharges in footnote to Table 7 as these flows may be intermittent. Recommend allowing for estimates of total flow. Related comment: Recommend eliminating total flow measurement for process wastewater discharges based on the observation that some facilities have been designed for overland flow.***

Response: The footnote has been revised to include general language intended to broaden the acceptable bases for calculating total flow. Estimating the total flow based on an assumed runoff coefficient for the contributing area is not an acceptable basis for calculating total flow. Where facilities have overland flow treatment systems or discharges, DWQ will consider case-by-case exceptions to the total flow, but absent a specific example to serve as a model, we will not revise the permit text to address what we believe is an infrequent site condition.

Result: Footnote 3 to Table 7 revised to allow for greater flexibility in total flow measurement.

- e. Recommendation that DWQ initiate a 5-year study period so that reasonable process wastewater discharge limitations may be set. Additional similar verbal comment received in the DWQ/DWM workshop for composters held April 28, 2011 in Winston-Salem.***

Response: A 5-year study for further pollutant characterization of the process wastewater discharges would not change the federal rule establishing the limits. The discharge limits in draft NCG24 are found in federal rule at 40CFR133.102 which identifies the minimum level of effluent quality attainable by secondary treatment. These are the numerical values to be attained after treatment. Further sampling and study for characterization of the untreated discharges is not directly relevant to the setting of discharge limits for treated discharges.

Result: No specific change requested in the draft permit text; none incorporated. The recommendation is not persuasive as a basis to delay the roll-out of DWQ's permitting program for compost facility discharges.

- f. Recommendation for more testing to establish reasonable stormwater discharge benchmarks instead of from the highly variable data from a single in-state yard waste facility. Review of the data in the Fact Sheet suggests that many if not all facilities might fail to meet benchmarks, setting up an untenable, unreasonable regulatory result. More discussion is needed to establish reasonable benchmarks.***

Response: All industries in North Carolina with stormwater discharges have identical stormwater benchmarks wherever a particular parameter is of concern. (Some benchmarks may vary depending on the class of the receiving waters, but not on the industry category.) The numerical values of benchmarks are set at a level to protect the receiving waters, and are not set based on what level of pollutants might be in any one industry's stormwater discharges. Compost benchmarks are the same as other industries'.

The benchmarks were not set based on data from the in-state yard waste facility. The data presented in the Fact Sheet is descriptive of untreated stormwater discharges. In contrast, the stormwater benchmarks are goals set for the treated discharges, and are applied state wide to all industrial dischargers, whether composters or not.

Concerning many facilities not meeting benchmarks and the untenable regulatory result, we agree that if a facility chooses to discharge untreated stormwater it is likely that they will not meet benchmarks, and the consequential provisions of the permit would apply. However, the comparison of the pollutant content of untreated flows with the treated discharge benchmark values is not meaningful because it presumes that the facility will not treat the stormwater. The treatment of stormwater to reduce the pollutants discharged is the specific objective of the permitting program.

Result: No specific change requested in the draft permit text; none incorporated. The comments are not persuasive as a basis to delay the roll-out of DWQ's permitting program for compost facility discharges.

- g. Recommendation to amend draft NCG24 to allow a tiered response to wastewater violations so that facilities can address problems in a timely fashion. The comment cites the following supporting considerations: effluent limitations were based on a highly variable and very limited data set; every facility cited in the fact sheet would exceed the limitations resulting in an untenable and unreasonable regulatory result; stormwater benchmarks are more lenient than wastewater limits and should be adopted for wastewater.***

Response: As noted above, the process wastewater limits were not based on the site-specific data reported in the Fact Sheet, but are based on federal rule values. DWQ feels it is erroneous to conclude that every facility will violate process wastewater limits unless we assume that every facility will fail to install sufficient treatment facilities. As to setting the process wastewater limits equal to the more

lenient stormwater benchmarks, the benchmarks and limits contained in draft NCG24 were discussed in the COSAG, and formed the basis of the COSAG's recommendation back to DWQ. Extended discussion over the rules-based distinction between wastewater and stormwater took place in the COSAG, including the difference in limits vs. benchmarks. DWQ feels compelled to assign significant weight to the negotiated and consensus results from the COSAG process in preference to contrary comments.

However, DWQ appreciates that some extended time may be necessary for facilities to design, install, and bring into compliance wastewater treatment facilities capable of reliably meeting the process wastewater limits. Based on this consideration we have included the compliance schedule provisions discussed in response to comment topics 1 and 2 above.

Result: Draft NCG24 has been revised to incorporate provisions to allow an extended time frame for full compliance with the process wastewater effluent limitations. NCG24 will not be revised to incorporate tiered response provisions for wastewater discharges.

***h. Recommendation that draft NCG24 be revised to make the stormwater benchmarks less stringent, and comparable to the benchmarks and monitoring frequency in the General Permit for stormwater discharges from landfills.***

Response: The parameters recommended by the COSAG for DWQ's permit monitoring requirements were chosen based on the assessment of risk from the industry's discharges. All the parameters included appear in the literature as actual pollutants discharged from compost sites in other states. For the three shared analytical parameters common to both the landfill permit and NCG24 (TSS, COD, and fecal coliform), the benchmark values for the two permits are identical; draft NCG24 is not more stringent for those pollutants, contrary to the comment. The numerical values for wastewater limits are found in federal rule as noted above.

Result: No change in the draft permit text.

***6. Recommendations and questions related to the definitions of stormwater and wastewater in draft NCG24. These comments encompassed several perspectives, but most sought to revise the draft permit definitions of wastewater and stormwater, or their applicability to Type 1 facilities:***

***a. Two similar comments may be taken together: There is no rules basis for considering yard waste runoff stormwater. There is no EPA definition establishing that yard waste runoff is process wastewater.***

Response: The basis for regulating flows from composting facilities was discussed at length in the public COSAG meetings, and was presented in written form to the COSAG in DWQ Report #1 which is posted on the COSAG website hosted by DWM. The COSAG agreed by consensus to recommend to DWQ the definitions of wastewater and stormwater reflected in draft NCG24.

Additionally, DWQ's rationale for regulating stormwaters and wastewaters was presented at the time of the initial publication of draft NCG24 in the Fact Sheet. We

note that these comments object to regulation of stormwater and wastewater discharges, but do not advance any rules-based argument in support of the objection, and contradict the clear requirements in federal rule. In short, stormwater flows are regulated by federal rule by inclusion of discharges from SIC 28 facilities (compost manufacture is included in SIC 28 via category SIC 2875) as part of the definition of regulated stormwaters; process wastewater discharges are regulated by federal rule via the definition of 'process wastewater' at 40CFR122.2.

Result: No change in draft permit text.

- b. Runoff from yard waste is not considered a wastewater when it is at the curbside, so it seems inconsistent and without basis to consider it wastewater at a compost facility.***

Response: DWQ's regulatory authority in federal rule is attached to discharges from industrial facilities. The manufacture of compost is considered an industrial activity. In this case, DWQ's permitting authority follows federal rule in that we are limited to permitting flows from the site of manufacturing activities. DWQ has no permitting authority to regulate discharges from curbside deposits of yard waste. This principle of the NPDES program was explained verbally to the COSAG membership, including the several representatives primarily concerned about yard waste facilities (representatives from Solid Waste Association of North America (SWANA), North Carolina League of Municipalities (NCLM), and North Carolina Association of County Commissioners (NCACC)), and presented to the COSAG in written form in DWQ Report #1.

Result: No change in draft permit text.

- c. Recommend that Type 1 and Type 2 should be subject only to stormwater discharge regulations and not subject to NCG24.***

Response: This recommendation is contrary to the recommendation received via the public stakeholder process in the COSAG. DWQ feels compelled to assign preferential weight to the considered and negotiated recommendations from that group. We note the objection; however, there is no rules-based argument here that might persuade DWQ to a different interpretation of the federal rules. Compost facilities are captured by federal rule, and no exemption for them is provided in federal rule.

Result: No change in draft permit text.

- d. How will DWQ know when a final product qualifies as finished compost? And consequently whether a discharge from final product is regulated as stormwater or wastewater? Can DWQ provide guidance on this point?***

Response: DWQ will rely on DWM to inform us as to the character of the final product authorized under the DWM composting permit for each facility. This topic was discussed in the COSAG process and formed the basis of a recommendation

from the COSAG to DWQ. The final product may meet the newly defined category, 'finished compost', or it may not, depending on the permitted (DWM permit) degree of completion of the biological degradation attained in the final product. In the first case, DWQ will presumptively consider the flows to be stormwater. In the second case, DWQ will consider the flows to be wastewater. This rationale is presented in the Fact Sheet and addressed as well in Part II Section E of the draft NCG24.

Result: No change to the draft permit text. However, we concur that additional explanation and communication would be helpful on this new feature of the DWM composting program and its application in the DWQ permit. We will seek out additional ways to communicate to the industry on this topic. We do not think that the additional explanation and communication should take place within the text of NCG24, where it is already addressed briefly.

- e. All discharges from Type 1 facilities should be regulated as stormwater because facilities can meet stormwater benchmarks much cheaper than meeting wastewater limits, which may require the construction of wastewater treatment facilities. The difference in cost makes regulation as stormwater economically feasible, but makes regulation as wastewater too costly.***

Response: DWQ recognizes that the additional costs generated by compliance with existing federal rule and DWQ's proposed draft permit requirements may be substantial. Large existing facilities especially may face considerable costs. We concur that draft NCG24 should be revised to reduce the financial impact to existing facilities. Consequently, we have revised draft NCG24 to include an extended time period in which existing facilities may approach full compliance in a stepped manner, thereby spreading out costs over time.

At the recommendation of the COSAG, DWQ has revised draft NCG24 to allow existing facilities extra time for compliance, but to require new facilities to attain full compliance upon issuance of the Certificate of Coverage under the permit. See the related responses to comments in items 1 and 2 above.

In response to concerns about costs, DWQ has amended the bypass provisions to consider that bypasses resulting from the 2-yr, 24-hr rainfall event are permissible as 'unavoidable bypasses.' We are aware of recent preliminary designs for public sector and private sector composters that used, in part, the 25-yr, 24-hr rainfall event for preliminary estimates of construction costs, a significantly more costly engineering approach. One Type 1 yard waste, public sector composter commented that facilities should be designed for the 10-yr storm for stormwater BMPs and the 25-yr storm for process wastewater treatment facilities. DWQ's revisions to draft NCG24 should significantly reduce the ultimate costs, and should spread out those costs over time.

While NCG24 treats new facilities differently than existing facilities, no persuasive argument has been advanced that legitimizes a difference in regulatory treatment between Type 1 facilities and other types of composting facilities.

Result: Draft NCG24 has been revised to allow existing facilities (whether Type 1 or other) an extended period of time to spread out the costs in order to come into full compliance with permit requirements. However, we do not think the redefinition of wastewater and stormwater contrary to federal rule should be the basis of addressing this very significant issue. There is no change to draft NCG24 as to the definition and application of the distinction between wastewater and stormwater discharges.

- f. Recommend that the draft NCG24 definition of 'finished compost' be revised to make no distinction as to degree of completion of the final product. (DWQ also received a contrary comment from DWM recommending that the draft NCG24 permit definition be retained, as per the original COSAG recommendation to DWQ.)***

Response: The rationale behind the COSAG approval of the new terminology 'finished compost' was the shared recognition that final product might meet the DWM requirements of PSRP and PFRP and yet still be significantly different in character and different in pollution potential from the most completely degraded compost products, with respect to potentially high concentrations of pollutants other than bacteriological pollutants. The comment provides no additional information that would persuade DWQ to abandon the recommendation from the COSAG.

Result: No change in the draft permit text.

***7. Miscellaneous and narrow scope comments; pertaining to specific text provisions of draft NCG24, or the DWQ implementation of our water quality permitting program for composters, and other comments.***

- a. Part I Section A, fifth paragraph. Comment suggests that this paragraph could be revised to clarify when an existing facility should apply for an individual permit.***

Response: NCG24 is intended to focus on those facilities to which it pertains. This paragraph in the permit text while accurate is informational, and not intended to define the remainder of our program implementation. All existing permittees were sent a letter jointly authored by DWM and DWQ in the first quarter of 2011 indicating the upcoming deadline of July 2012 for application submittal to DWQ, whether for the General Permit NCG24, or whether for an individual permit. A follow-up letter will be sent in January 2012 to all existing facilities reminding them again of the same deadline. Other than this reference on the availability of individual permit coverage, we prefer to keep the elements of the implementation of the individual permits outside of the General Permit text.

Result: No change in the draft permit text.

***b. Comment suggests that DWQ develop technical guidance on BMPs and provide that to the permittee along with the initial transmittal of his Certificate of Coverage.***

Response: At the request of the COSAG, DWQ has already begun development of a brief BMP Manual for composters. The single page per BMP format is intended to generally inform interested parties, but it cannot be a complete design manual. We will post the BMP Manual on the SPU website when it is completed, in November 2011. Due to budget constraints we must make the electronic version publicly available rather than printing color copies of the document.

Result: DWQ concurs that the BMP Manual may be helpful, and we will make it available on the Stormwater Permitting Unit website. We will not include a copy of it in each COC to our permittees.

***c. Part I Section A, second and third paragraphs. Comment requesting clarification and suggesting that the distinction drawn between wastewater and stormwater is not as presented verbally in a DWQ/DWM informational workshop held in Winston-Salem on April 28, 2011.***

Response: The two referenced paragraphs of the permit text supersede any verbal interpretation made in the workshop, and we judge that the two paragraphs taken together are clear. We apologize for the unintentional miscommunication in the workshop.

Result: No additional clarification will be provided in the permit text.

***d. Part II Section A1(e). Why must stormwater outfalls be inspected annually rather than just once like other permits for the presence of non-stormwater discharges? What constitutes recertifying?***

Response: This provision for annual recertification is included in every NPDES industrial stormwater permit (approx. 2000 permits in North Carolina) containing the requirement for an SPPP. It is intended to insure that the site manager checks at least once each year to be certain that no other flows are getting into stormwater outfalls. The recertification does not require more than the site manager or his/her staff examining the outfalls on a dry day to ascertain that there are no other discharges in the stormwater outfalls, and that he signs a recertification statement to that effect.

Result: No change requested; no change in the draft permit text.

***e. Part II Section A4. Question as to why the Preventative Maintenance and Good Housekeeping Program is more detailed and more extensive than in other stormwater permits.***

Response: Every NPDES industrial stormwater permit requiring an SPPP also contains this section in one form or another. DWQ typically makes minor changes to the content in this portion in order to more directly tailor the general permit requirements to the specific industry it applies to, and to the stormwater pollutant risks identified for that industry sector. The question did not specifically identify a particular provision as being inappropriate, and upon further review of the section the provisions in it seem reasonable management actions for the control of pollutant risk from composting operations.

Result: No specific change requested; no change in the draft permit text.

- f. Part II Section A7. Suggestion that instead of the annual update to the SPPP, the draft permit text should be revised to require an update in the event of a significant change in design, operations, construction or maintenance. Comment notes that additional work and expense is involved with annual updates.**

Response: The draft permit text already requires that the SPPP be updated in the event of a change that may impact the potential for stormwater pollution. The text also requires that management update the SPPP at least annually. These are the same provisions contained in all other North Carolina NPDES industrial stormwater permits requiring an SPPP.

The SPPP is intended to be a working tool for the on-site manager in the control of pollutants in his stormwater discharges. While some costs might arise from portions of the SPPP update being accomplished by consultants charging a fee, the primary purpose of the SPPP update is to have on-site management actively participating and actively aware of changing on-site conditions and how they might impact stormwater pollution. This is a task that must be primarily accomplished by the on-site manager, not by a paid consultant.

Compost sites have the potential to be much more fluid in configuration than many other manufacturing activities. Different process configuration and different uses for any one area of a site could give rise to different pollutant risks in the discharges from the area. DWQ expects the site manager to be alert to those changes and how they might potentially impact the risk of stormwater pollution. An annual review seems consistent with the site manager's responsibility for controlling polluted discharges from his site.

Result: No change in the draft permit text addressing SPPP updates; the permit will continue to require both an annual update as well as revisions when significant changes occur.

- g. Several commenters requested copies of the two studies that DWQ reviewed in considering the characterization of discharges from compost facilities.**

Response: Data from the two studies were presented in the COSAG meetings as DWQ Report #3, and it is posted on the COSAG website hosted by DWM. The studies were also cited in the Fact Sheet, published concurrently with draft NCG24. Full attributions as to the source of the data were provided, and the reports are available via internet search. Due to budget constraints, DWQ is not able to provide paper copies of large documents.

Result: The two studies may be searched for by the following titles:

- Evaluation of Compost Facility Run off for Beneficial Reuse – Phase I and Phase II, Clean Washington Center, January 2000.
- Commercial Composting Water Quality Permit Development, prepared for Oregon DEQ Land Quality and Water Quality Divisions, by CH2M Hill, May 12, 2004.

***h. DWQ received one set of comments related to the pollutant characteristics of runoff from woodland areas in comparison to runoff from municipal yard waste compost manufacturing facilities (Type 1 facilities). Have any studies been done on woodland runoff? Have any studies been done on yard waste facility runoff? How do they compare? The results might be very informative.***

Response: DWQ reads the set of comments all together to mean that discharges from Type 1 compost facilities may be relatively innocuous when compared to woodland runoff. In nine months of public COSAG meetings, there were no occasions when any representatives from the municipal sector (largely Type 1 facilities, with representatives from SWANA, NCLM, and NCACC) provided evidence supporting innocuous discharges from their facilities. While it may be the case that Type 1 yard waste facilities may be less polluting than other types of composting, the limited literature available from out-of-state compost facilities suggests that mixed facilities including yard waste and other types of composting still have the potential for highly polluted runoff.

Our review of the limited existing data available from the largest Type 1 facility in North Carolina suggests that untreated discharges from that facility:

- Had discharges that regularly contained greater than the numerical value of in-stream water quality standards for fecal coliform, usually by several orders of magnitude;
- Exceeded total suspended solids wastewater limits on four occasions out of six data points; and exceeded stormwater benchmarks 50% of the time;
- Exceeded stormwater benchmarks for phosphorus six times out of 10 data points;
- Exceeded stormwater benchmarks for COD nine times out of 10 data points;
- Exceeded wastewater limits for BOD three times out of 10 data points;
- And were uniformly compliant, untreated, for pH, oil and grease, and the several nitrogen species commonly employed as pollutant measures.

While we note that permittee monitoring under NCG24 will provide data to better characterize the industry discharges as the permittees complete their monitoring obligations, DWQ concludes that there is sufficient evidence now to continue forward with the permitting and regulation of discharges from Type 1 yard waste facilities.

Result: No specific draft permit revision was suggested; no change in the permit text.

***i. Session Law 2011-394 Section 9(a5), effective July 1, 2011, may also affect NCG24. A section of the law provides that DWQ may not require an Authorization to Construct permit for facilities that have already received a DWQ discharge permit. The relevant part of the law appears to be, in part:***

*"No permit shall be required...to construct, install, or alter any treatment works or disposal system within the State when the system's or work's principle function is to ...treat... or dispose of industrial waste or sewage from an industrial facility and the discharge of the industrial waste or sewage is authorized under a permit issued for the discharge of the industrial waste..."*

Response: DWQ will comply with this new provision in the General Statutes in two ways in NCG24.

- **For existing facilities**, we will abide by previous legislation (SL 2009-322) requiring that our permit program be completely phased-in not later than

October 2012, by holding to the previously publicized July 2012 deadline for receipt of permit applications from all existing and future composters subject to regulation via a water quality discharge permit. We have revised draft NCG24 to remove the ATC requirements for existing facilities, since we plan to issue permits to them well before it would be reasonable to expect meaningful ATC submittals to us. These existing facilities will have coverage under NCG24, and in compliance with SL 2011-394, we will not require an ATC permit.

- **For new facilities**, we will preserve the draft permit text that requires plan submittal, review, and approval prior to issuing coverage under NCG24. This approach is consistent with the qualifying language present in the text of SL 2011-394. We note that the revisions to GS 143-215.1 make the exemption from an ATC permit contingent upon the facility already having a discharge permit, which these new facilities will not have:

"No permit shall be required...when...the discharge is authorized under a permit issued for the discharge of the industrial waste or sewage".

Note further the overall intent of the Session Law as captured in the partial title of SL 2011-394,  
"AN ACT TO AMEND CERTAIN ENVIRONMENTAL AND NATURAL RESOURCES LAWS TO...(9) PROVIDE THAT NO PERMIT IS REQUIRED FOR THE CONSTRUCTION OR ALTERATION OF A SEWER SYSTEM OR TREATMENT WORKS **THAT ALREADY HAS A DISCHARGE PERMIT**" [Bold text added for focus.]

Result: DWQ revised draft NCG24 to eliminate the requirement for an ATC for existing facilities eligible for NCG24. The requirement of treatment system plan review and approval for new facilities is retained in concept, and minor wording revisions have been incorporated in NCG24.

***j. Recommendation to add definitions of compost, compost facilities, and the types of compost facilities to the draft permit text.***

Response: The face page of draft NCG24 already references the sections of solid waste regulations describing all of the requested definitions. We believe the existing text is sufficient, and that there is some small risk of incompatible definitions should DWM subsequently change their regulations.

Result: No change in the draft permit text.

***k. Several commenters observed that cities have been prohibited from the landfilling of yard waste by act of the North Carolina Legislature in 1989, and requested NCDENR to revise that law to allow the landfilling of yard waste. DWQ received one additional comment disputing the relevance of the original comment.***

Response: DWQ notes that some sectors of the composting industry feel that the 1989 yard waste ban should be repealed.

Result: No change to draft NCG24 requested; none incorporated.

**8. One private sector composter urged DWQ to expedite the DWQ permitting process for Large Type 3 and Type 4 composting facilities, noting that past water quality permitting for compost facilities has been an extremely drawn out process.**

Response: DWQ agrees that, for a variety of reasons, past permitting durations have been unduly protracted for most of the very few existing facilities (5) that have ever applied for a water quality permit for composting operations. While the development and implementation of NCG24 will not directly speed permitting for Large Type 3 and Type 4 facilities (since they will be covered by individual permits, not NCG24), NCG24 will serve as our beginning template for individual permits. Our expectation is that this will speed up the issuance of individual permits.

Result: No specific change to draft NCG24 proposed and none incorporated. Constructive comment on DWQ program implementation outside of NCG24 acknowledged.

END