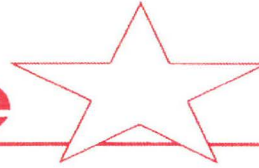




The Lone



September 15, 2014

*Via Electronic Transmission: A-and-R-Docket@epa.gov*

Environmental Protection Agency  
EPA Docket Center (EPA/DC)  
Mail Code 28221T  
Attention Docket ID NO. EPA-HQ-OAR-2003-0215  
1200 Pennsylvania Avenue NW  
Washington, DC 20460

Re: Docket ID No. EPA-HQ-OAR-2003-0215  
Comments on Proposed Standards of Performance for Municipal Solid Waste Landfills  
Docket ID No. EPA-HQ-OAR-2014-0451  
Comments on the Advanced Notice of Proposed Rulemaking for Emission Guidelines  
and Compliance Times for Municipal Solid Waste Landfills

Dear Ms. Ward:

The Texas Lone Star Chapter of the Solid Waste Association of North America (TXSWANA) appreciates the opportunity to provide comments on the "Proposed Standards of Performance for Municipal Solid Waste Landfills," (NSPS) and the comments on the "Advanced Notice of Proposed Rulemaking for Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills" (ANPRM EG) both published in the Federal Register on July 17, 2014.

TXSWANA is the Texas Chapter of the Solid Waste Association of North America (SWANA). TXSWANA has more than 425 individual members; these members represent 168 public entities, 79 corporate entities and several special districts throughout the state of Texas. SWANA's mission statement provides that it is dedicated to "advancing the practice of environmentally and economically sound management of municipal solid waste in North America." One way TXSWANA fulfills this mission is to provide its members with the opportunity to participate effectively in the public processes involved in shaping the solid waste management legislative and regulatory framework. One of the ways it does this is by enabling its members to join together to file comments on proposed regulations.

Due to the widespread nature of the TXSWANA membership because of the size of the State of Texas, it has been difficult to coordinate with the many different cities in Texas that will be impacted by this proposed rule. Insofar as this was foreseeable, TXSWANA requested an extension of the comment periods in both dockets. The concurrent publication of both dockets

and the limitation to a 60-day comment period further exacerbated our difficulty in providing thorough and reasoned comments. Please note our disagreement with your failure to grant the requested extension. One way we have determined to deal with this squeezed timeline is to combine our comments for both dockets into this one letter.

TXSWANA notes that much of the NSPS docket and almost all of the ANPRM EG docket request comments on issues that are not (yet) incorporated into the proposed rule. TXSWANA requests that the EPA afford the stakeholders the opportunity to comment upon any version of those issues EPA may ultimately elect to incorporate in the final rule that increase the costs or effort required to comply. We suggest a supplemental proposal or revised rule with a limited but reasonable time to commit.

TXSWANA appreciates the EPA's goal of seeking to reduce methane emissions and acknowledges that the existing NSPS rules have played a significant role in reducing methane emissions by requiring the solid waste industry to design and operate highly effective gas collection and control systems (GCCS). TXSWANA believes that further progress toward reducing methane emissions will continue without the proposed changes in today's NSPS proposed rule revision. Accordingly, TXSWANA will focus many of its comments on those rules which seemingly have no impact on reducing emissions; but instead merely increase the cost to the landfills, the administrative burdens to both the regulatory agencies and the landfills and actually delay, if not inhibit, the ability of landfills to take steps which would have an actual beneficial impact on reducing emissions.

In addition, TXSWANA will focus the bulk of its comments on issues relevant to its members. However, TXSWANA has reviewed the comments prepared by its national parent organization, SWANA, and endorses and supports all of SWANA's comments. However, some of SWANA's comments which relate to the industry's concerns about the lack of timely responses from many of the State regulatory agencies and the attendant enforcement risks to its members, has not been an issue within Texas.

Instead, TXSWANA notes at the outset that it has an excellent relationship with the Texas Commission on Environmental Quality (TCEQ). We appreciate how the TCEQ functions collaboratively with the industry and promptly undertakes those reviews required of it by the existing NSPS rule.

#### Modified Facilities

TXSWANA has two observations/concerns with regard to the EPA's apparent lack of consideration for the fact that there will be multiple facilities presently under the EG program that will expand or modify their landfill after July 17, 2014 and thus become subject to Subpart XXX. TXSWANA's first concern is that it believes that each of these modified sites will need time to comply with the new requirements set forth by Subpart XXX. TXSWANA recommends that an implementation timeline be established to allow for the needed changes of up to 3 years which TXSWANA believes to be consistent with other NSPS rules that require new equipment or testing.

Second, TXSWANA makes the observation that the EPA has failed to include those EG facilities that will expand and be covered by the proposed requirements in Subpart XXX in its cost estimates. EPA based its cost estimate on only greenfield sites. As a result of omitting the significant number of EG expansions planned in the next five years, EPA's cost estimates are grossly understated. TXSWANA urges the EPA to include those existing landfills that will modify their sites and then recalculate its cost estimate for implementation of this rule. The omission of these additional landfills mandates that EPA completely rethink the benefits and costs it is obligated to balance in proposing the NSPS rule. TXSWANA believes that the inclusion of the costs associated with the expansion of the control systems at these omitted landfills will exceed \$100M annually thereby triggering the requirements of the Unfunded Mandates Reform Act.

The following discussion addresses those issues that are either directly applicable to our Texas membership or of overruling importance and/or concern.

#### Threshold Reduction from 50 Mg/yr to 40 Mg/yr

TXSWANA has two concerns about the goal of the proposed rule to lower the threshold for triggering the requirement to install a GCCS from 50 Mg/yr to 40Mg/yr. First, there has been no scientific or technical study or analysis that suggests that 50 Mg/yr does not represent the appropriate standard – one that both balances the goal of reducing methane emissions against to cost of the attaining standard selected. Second, additional costs will be incurred if the reduced trigger of 40 Mg/yr is implemented on existing landfills that have closed and have decommissioned or are in the process of decommissioning their GCCS systems in accordance with the current 50 Mg/yr standard.

It appears that a key reason asserted by EPA in support of its proposed more stringent standard is the cost analysis EPA developed to justify the proposed reduction. However, TXSWANA believes EPA's cost analysis ignores the costs that will be experienced by those landfills that expand enough to trigger the more stringent standard of 40 Mg/yr that otherwise would be below the existing 50 Mg/yr rule e.g. 40 Mg/yr. Additionally, the EPA's cost analysis does not appear to take into account the extra costs that would be incurred for landfills as they go through closure and will not be able to remove the GCCS until they are able to meet the proposed lower threshold.

TXSWANA believes that closed sites or other sites that have decommissioned the GCCS systems because their reduced emission levels satisfied the present 50 Mg/yr requirement should be exempted from this reduction in the NMOC limit. It would be unreasonably costly to require re-installation or re-operation of a system that (1) acted in compliance with the then applicable rule and (2) had a diminished and declining gas curve. The extra costs of re-installing or refurbishing a GCCS system that will only be re-operated for a short term (until the NMOC emissions fell below 40 Mg/yr) and, during this short time, the emissions would be below the level presently considered acceptable imposes an unreasonable obligation. Not much upside for potentially a lot of cost.

## Definitions

TXSWANA offers comments on three definitions: (1) Modification, (2) Household Waste and (3) Existing Landfill.

### Modification

The current rule defines increases in design capacity only by increases in volume, such as by expanding the footprint of a landfill. The ANPRM proposes to also include increases in mass as a basis to trigger new Subpart XXX. TXSWANA is concerned, for example, that employing a best practices such as increasing the amount of compaction, could result in an increase in mass sufficient to trigger the proposed definition of modification and thus trigger NSPS even though no physical expansion of the landfill or the rate of inflow of waste to the landfill changed. Other factors such as a change in type of cover or amount of cover can also affect density or mass. No additional methane will be generated by virtue of the additional compaction or the heavier cover material. No emission benefit will result but additional cost and paperwork for both the regulatory agency and the landfill will result.

TXSWANA is not aware of any instance where a landfill has not been fully regulated because mass was not a regulatory trigger. TXSWANA believes this part of the regulations is not broken and no fix is required.

### Household Waste

TXSWANA agrees that changes to the definition of household waste are needed and supports the proposed change. The problem with the present definition in WWW is that it is too inclusive. It covers any waste that comes from a household. The problem is that a construction and demolition (C&D) landfill in Texas could find itself subject to the NSPS rules if it accepted a load of shingles or inert materials from the demolition of a house. Remediating this problem appears from the preamble to be the goal of the redefinition. TXSWANA requests that the language of the rule also clarify that C&D waste is excluded from the definition of household waste.

### Existing Landfill

With pending proposed changes to the Emissions Guideline (EG) as noted in the ANPRM, TXSWANA requests that the EPA ensure that the currently approved Texas EG remains effective and unchanged. Texas currently has an approved date of October 9, 1993 as the trigger for when a site becomes subject to the EG. There would be a significant hardship placed on many landfills in the state of Texas if this date were altered as part of any future change to the EG rules. A large number of landfills in Texas relied upon this date as the date they could remain active until, without being subject to the new RCRA requirements or the NSPS requirements. This date was the result of negotiations between the State of Texas and EPA and both the State and the industry have relied upon it for 21 years. With as yet unknown

potential changes to the EG, TXSWANA wants to make sure that Texas' specifically approved EG date is not revised or made ineffective.

#### SURFACE EMISSION MONITORING

TXSWANA supports the current surface emissions monitoring (SEM) requirements and does not recommend any changes as there does not appear to be any substantial reasons for changing the current requirements. We are unaware of any research that would suggest the current requirements are not adequate or that another method would result in improved emission reductions. In fact, based on our history with SEM over the past 18 years we believe that the current requirements continue to provide accurate evaluations of the operation of a GCCS. In addition, given the variable climates that exist in Texas, we do not support any changes that are based on practices used in only one area of the country. We are aware that some new techniques and methods are being developed; however, we do not support implementing any changes based on methods and techniques that are still in the research and development phase. Until there is data supporting that a revision to the SEM methodology (e.g. tighter spacing, integrated monitoring, remote monitoring, cover penetration monitoring) would result in cost effective verifiable emission reductions, we believe the surface emissions monitoring protocol as it is currently required under Subpart WWW, is the appropriate method to use.

#### SURFACE PENETRATION

The preamble to the proposed rule stated that the quarterly SEM path should include the monitoring of every cover penetration, since "cover penetrations can be observed visually and are clearly a place where gas would be escaping from the cover, so monitoring of them would be required by the regulatory language." Although we can see how it could be assumed that cover penetrations are a potential source of emissions, we disagree with this interpretation. To assume that all cover penetrations, including gas extraction wells, are a place where gas is escaping is not correct. With the use of cover materials and well seals, most penetrations are very effective in capturing and controlling LFG emissions. No changes are needed to the existing rule in order to address penetrations. With the current requirement to monitor on a 30 meter path coupled with checking any visual observations which might indicate elevated concentrations of LFG, there is no need to increase the amount of monitoring as there is no documented evidence that penetrations create or are likely to create surface emissions.

#### TIER 4

As stated previously, TxSWANA continues to see value in the current SEM requirements and would recommend that SEM become more incorporated as a valuable method in determining the timing of the removal as well as the installation of a GCCS. The EPA requested comment on establishing a potential "Tier 4" to be used for determining when a GCCS would need to be installed. TXSWANA supports this and sees real value in including a "Tier 4" procedure. Incorporating SEM into the process of requiring when a GCCS must be installed, removed, and/or decommissioned will provide for a more site specific and data driven approach to making the decision about when landfill gas emissions need to be controlled. Given that Texas landfills

are faced with different climates, waste acceptance, and cover soil materials, the use of a SEM method as a key tool would mean that determining the need for a GCCS will be based on actual site specific information.

Under existing subpart WWW and proposed subpart XXX, landfill owner/operators can estimate NMOC emissions using a set of default values (Tier 1) for methane generation potential, rate, etc. A Tier 2 calculation for site specific NMOC concentration emissions is also available; however the site specific concentration is then used in a mathematical methane generation model that only provides a prediction of potential landfill gas generation. Finally, a Tier 3 test is available, but it is rarely used due to the expense and other operational challenges. Small entities requested that EPA consider adding a more flexible option that would allow landfill owner/operators to perform SEM to show that surface emissions at a site remain low even where the modeled emission rate shows a threshold exceedance. TXSWANA supports this SEM option, and recommends that this option be used either in place of or in addition to performing a Tier 1 or Tier 2 analysis prior to installing a GCCS for Subpart XXX.

By simply relying on a single Tier 1 or Tier 2 test, many sites have and could in the future be required install a GCCS when the site conditions do not warrant control. Although with Tier 2 testing a site specific NMOC concentration is determined, that concentration is then used in a mathematical methane generation model which is then used to estimate projected NMOC generation. However, experience has shown that the difference between a mathematical model of potential generation and actual emissions can be substantial. By incorporating the use of SEM procedures in determining the need for installing or decommissioning or removing a GCCS, wasteful spending, consumption of resources, and power could greatly be minimized while the environment will remain fully protected.

We recommend that implementation of "Tier 4" not be a sequential procedure, but rather that it is a method that could be employed instead of a Tier 1 or Tier 2 test or at any point following a Tier 1 or Tier 2 test in which the NMOC's have been calculated to be greater than the NMOC threshold and prior to the required installation of the GCCS. In addition, we propose that this method also be used in determining when to remove the NSPS requirements for all or portions of an existing GCCS. This approach to using "Tier 4" would enable SEM to gather site-specific information at a landfill or area of a landfill to determine if the actual data supports the need for a GCCS.

For active sites that are currently not required to install a GCCS under the NSPS/EG rules we propose that following a Tier 1 or Tier 2 test, which indicates that a landfill exceeds the NMOC threshold, a landfill owner/operator will have the option to perform SEM in the same areas and using the same methods currently established in the NSPS subpart WWW. If during this "Tier 4" SEM no exceedances of 500 ppm over background are detected, then the installation of a GCCS will not be required and annual "Tier 4" testing will be performed until the landfill or area of the landfill is closed.

If, however, an exceedance of 500 ppm over background is detected during a "Tier 4" SEM event the following process is proposed. The landfill will follow the same timelines and re-

monitoring procedures as currently outlined in the NSPS WWW. However, in place of expanding the well field, should a site be unable to timely remediate an exceedance, the site will be required to prepare a GCCS design plan within one year of the initial "Tier 4" SEM exceedance and within 30-months of the initial exceedance, a GCCS will be installed in the areas that were unable to timely remediate the surface emissions.

The "Tier 4" method should also be used in determining when and if any portion of a GCCS could be removed or decommissioned. Under the current regulations once a GCCS is installed it cannot be removed from applicability under the NSPS/EG until after it has been in operation for 15-years and is able to document through a series of tests that the emission of NMOCs are below the threshold. To clarify, GCCS removal applies to the entire GCCS whereas GCCS decommissioning refers to removing, disconnecting, or shutting off portions, components, or areas of a GCCS. These terms are in reference to the regulatory applicability and not necessarily the physical removal or dismantling of components or equipment. In other words, a GCCS may be removed and/or decommissioned but remain in operation. For example, once a GCCS or a portion of a GCCS is deemed to no longer be required under current or proposed regulations it will be "removed or decommissioned" from the applicable rule requirements but may still remain in operation for other reasons. TXSWANA requests that these terms be clearly defined in the proposed NSPS and the EG.

TXSWANA further requests that the current 15-year requirement to operate a GCCS be removed. Mandating a uniformly applicable 15-year operational period does not account for the variable site specific conditions that exist across the country. As a result, unnecessary costs, resources, and power are being consumed with no established correlation with the arbitrary requirement to operate for 15-years. TXSWANA proposes that a Tier 2 initially be performed on the closed landfill or closed area using actual flow rates. Should the Tier 2 test indicate that the NMOC rate is below the NMOC threshold, the GCCS or a portion of the GCCS is then turned off and allowed to remain off for 30-days. Following this 30-day period, an SEM will be performed. If no SEM exceedances are found or if an exceedance is remediated (1) without using the GCCS and (2) within the timelines and consistent with the re-monitoring requirements in the current rule, then the GCCS can remain off. This portion of the landfill (or the entire landfill) will then be retested using SEM in each of the next three quarters. If no SEM exceedances are detected or, even if detected, the exceedance is able to be remediated without the use of a GCCS within the timelines and consistent with the re-monitoring requirements currently set out in the rule for the following next three quarters, the GCCS may remain off. The closed area will then be tested one year following the last SEM. If during that follow up year the SEM shows that the closed landfill or closed portion of the landfill continues to have no exceedances or no exceedances that cannot be remediated without the use of the GCCS, the GCCS or portion of the GCCS may be removed from being subject to regulation under the NSPS/EG rules.

If however, during the quarterly SEM or the one year follow up SEM, there is an exceedance which cannot be remediated without use of the GCCS, the GCCS will be placed back into operation. The site may start the removal or decommissioning process over at some future date.



For non-producing areas of an active landfill, the use of SEM is also useful in establishing when an exemption to the operational wellhead standards may be justified for a well or wells. Similar to a closed landfill area, often a portion of a landfill which is not permanently closed but is not currently accepting waste may experience a period of time during which the area does not produce a sufficient quantity or quality of gas to maintain the operational wellhead standards. Requiring a well or wells to meet prescriptive wellhead standards during periods when there is no apparent need, increases the cost and administrative burden to all parties involved with no benefit to the environment. TXSWANA believes that these areas that are non-producing can be more efficiently and effectively addressed by following the procedures set out below. These proposed procedures follow the current EPA Applicability Determination Index (ADI) control No. 0600062 with some additional details regarding SEM.

- Collection points where oxygen concentrations do not decline to acceptable levels after more than one hour of reduced vacuum will be shut off until the gas quality recovers.
- The monthly monitoring will be conducted for the collection point which has been shut down, but positive pressure or elevated oxygen concentrations will not be considered exceedances of the wellhead operating standards.
- If monthly monitoring indicates that pressure has built up in the collection point and the oxygen concentration still exceeds five percent, the well will be opened to relieve the pressure and will be shut down until it is monitored the following month.
- If monthly monitoring indicates that the gas quality has improved (i.e., the oxygen concentration has dropped below five percent), the well will be brought back on line until the gas quality declines again.
- The quarterly surface emissions monitoring will be conducted in the areas of the non-producing collection points. The well may continue to remain shut down if no SEM exceedances are found within 30-meters of the collection point which cannot be remediated without needing to reactivate the collection point. If, however, SEM exceedances within 30-meters of the collection point cannot be remediated within the timelines and re-monitoring procedures currently outlined in the rule, then the collection point will be brought back on-line or another alternative will be approved by the administrator.

### LFG TREATMENT

TXSWANA members are actively involved in developing new and innovative LFG beneficial use projects. Consistent with this approach, TXSWANA supports EPA's clarification that treated LFG may be used in a wide variety of beneficial activities and is not limited to use only as a fuel for stationary combustion devices. We appreciate the EPA's recognition that there are many other types of beneficial use projects and EPA's willingness to support the continued



development of these uses. However, TXSWANA is concerned that some of the other proposed changes to the rule will be detrimental to the on-going and future beneficial use projects.

The proposed rule sets out specific numeric values for LFG treatment including 10 microns for filtration systems and 45°F for temperature. The proposed rule also requires continuous monitoring systems that collect data on 15-minute intervals to monitor pressure drop for filtration and the cooling temperature. TxSWANA opposes these proposed changes and requests that the current definition of treatment not be modified. Given the wide range of beneficial use projects and various equipment used in these project, TXSWANA would request that EPA not mandate a “one-size-fits-all” treatment system definition. EPA should instead require that owners and operators to compress, filter, and dehydrate the landfill gas in accordance with the specific requirements provided by the equipment manufacturer or end user.

It is our understanding that in order to meet the 45°F requirement, a site would need to install chiller systems. Most LFG beneficial use projects in Texas do not currently have chillers as they are not recommended by the equipment manufacturers. TXSWANA understands that there are some beneficial use projects which do use a chiller but those are a small minority of projects, and the need for the chiller is driven by the needs of the project and end user.

Given the wide variety of project, equipment, and end users, the filtration specifications should be left to the demands of the project and the equipment. For the EPA to require a specific filtration requirement on treatment equipment there would need to be direct correlation that the treatment equipment is a source of emissions. However, the treatment process is not a source of emissions and therefore should not be regulated as a point of emissions.

EPA’s proposed continuous monitoring requirements will require the installation of expensive process and monitoring equipment and result in large volumes of data that will require significant resources to manage and report. There is no direct benefit to the environment for generating the voluminous amount of data using very costly equipment. Instead, the real benefit to the environment would be to provide a means that will allow the development of more LFG beneficial use projects by reducing any unnecessary monitoring requirements.

TXSWANA requests that EPA remove these proposed treatment requirements as they are very costly, do not result in any increase reductions in emissions, and will deter the development of beneficial use projects. Not only will there not be any emissions reductions with these prescribed requirements, TXSWANA is concerned that the proposed requirements will be detrimental to the environment as it will require additional fossil fuel usage to power these systems.

#### DESIGN PLAN REVISION

The proposed rule adds three criteria for when updates for design plans must be submitted. These include: 1) within 90 days of expanding into an area not previously approved; 2) prior to installing or expanding the GCCS in a manner other than described in the previously

approved design plan; and 3) prior to implementing higher operating values (HOV) for temperature, nitrogen, or oxygen.

The members of TXSWANA have established a collaborative working relationship with the Texas Commission of Environmental Quality (TCEQ). As such, we do not wish to impose any additional burdens on the TCEQ by requiring additional and redundant reviews and approvals. In an effort to streamline and not complicate the review and approval process, TXSWANA recommends that redundant reviews be removed and any changes that are needed to be made to a GCCS be performed under the direction of a third party professional engineer and documented in the NSPS report for state agency review.

Of most concern is the need to quickly implement design and operational changes. TxSWANA requests that the EPA not impede this process. The dual process EPA apparently envisions for approval of implementation; i.e. initial approval and then another approval as part of the design plan revision, is unnecessarily time consumptive and appears completely redundant. Most of the alternative solutions/remedies that are proposed in circumstances where time is of the essence and where the prescriptive remedy is not the most effective compliance alternative on these occasions, timely implementation of the needed changes must be performed. It is TXSWANA's proposal that the owner or operator should be allowed to establish the alternative HOV and rely on it as a compliance parameter subject to subsequent approval or denial of the parameter in the context of design plan review. This approach could also be used for alternative timeline requests.

#### Best System of Emission Reduction (BSER)

EPA has determined in connection with proposed Subpart XXX that BSER for landfills is a well-designed and operated GCCS. It specifically identifies a GCCS that includes a non-enclosed flare or an enclosed flare and/or any other control device capable of achieving 98% reduction of NMOC or an outlet concentration of 20 ppmvd of NMOC. TXSWANA agrees.

Notwithstanding its conclusion that GCCS represents BSER EPA asks in its ANPRM for comments on whether non-enclosed flares are capable of achieving the BSER technical standards.

TXSWANA comments as follows:

- TXSWANA specifically reiterates its position that non-enclosed flares represent BSER. We reach this conclusion because non-enclosed flares provide the greatest flexibility of operation due to their higher turndown ratios. This provides flexibility at the beginning of operation when LFG generation is ramping up, provides flexibility during beneficial use when it can serve as a back-up device with wide operating range, and provides flexibility after closure when LFG production is declining. The continued use of non-enclosed flares is essential for landfill owners and operators in Texas as they provide the most efficient option for controlling LFG. Given the wide range of climate, waste acceptance, size, and age of landfills in Texas, there is a need

for a LFG control device that is reliable, and can meet the various conditions in Texas. Non-enclosed flares have been proven to be the most reliable with the ability to provide the most flexibility in the varying conditions that exist with landfill generation through the state. We specifically support the continued use of non-enclosed flares as BSER.

- TXSWANA is not aware of any new information that exists that establishes or even suggests that non-enclosed landfill flares cannot satisfy the requisite criteria. Nor are we aware of any data that suggests non-enclosed flares are not as effective as enclosed flares, the apparent alternative that EPA is considering.
- TXSWANA is aware that there has been a study of flares in other industries (primarily oil refining). If and when EPA or any reputable entity conducts a study of landfill flares, then those results may drive different conclusions about BSER or suggest improved operational methods. So far as TXSWANA is aware no “apples to apples” study has been undertaken. The other industry study is not sufficient to cause a potential expensive mandatory shift to enclosed flares.
- The cost impact of such a mandated shift to enclosed flares would need to also be included in the Unfunded Mandate Act calculations as they have obviously been omitted to date.

TXSWANA believes this inquiry by EPA presents an opportunity to explain how some of the prescriptive requirements EPA has included in the existing rule actually inhibit the effective functioning of a GCCS system.

The most problematic prescriptive requirement that inhibits the efficient operation of a GCCS system and that creates a disincentive to operators to expand their GCCS systems to include leachate collection systems as components in a GCCS system are the temperature, oxygen and nitrogen well head standards coupled with the unnecessarily redundant and time consuming approval process. Please see our discussion above in the Tier 4 and Design Plan Revision Sections for a more complete discussion.

#### Biocovers and Biofilters

The TXSWANA appreciates EPA’s willingness to recognize the role that methane oxidation plays in mitigating methane and NMOC emissions from landfills and for soliciting information regarding the potential use of cover systems to achieve emissions reductions. The use of biocovers and biofilters is promising. Some information on the performance of biocovers and biofilters at controlling methane and other volatile organic compounds has been reported in the scientific literature. A small number of field-scale demonstrations have also been published but the long term effectiveness of these project are still unknown.

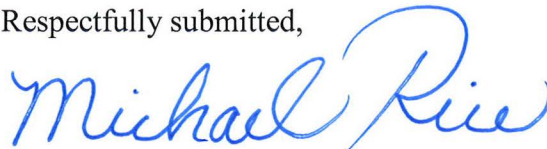
As these types of project are still in the research and development phase we do not recommend requiring the use of biocovers and biofilters, but rather allow their use until they become a viable proven option.

### CONCLUSION

In summary, as can be seen from our varied comments, TXSWANA, like the rest of the industry, supports the goal of reducing landfill gas emissions. In furtherance of that goal, TXSWANA has voiced support for some ideas and rules such as BSER and Tier 4. TXSWANA has also identified those rules or portions of rules which do not lead to a reduction in landfill gas emissions, but instead merely adds to the cost and the administrative burdens of both the regulators and our members and, in some cases, actually inhibit emission reductions – such as wellhead monitoring requirements and the redundant review requirements of HOV modifications and design change approvals.

TXSWANA trusts that the EPA will accept our comments as attempting to assist EPA in crafting rules that balance the goal of reducing landfill gas emissions with the goal of doing so in a reasonable, cost effective and in a way supported by scientific or engineering studies.

Respectfully submitted,

A handwritten signature in blue ink that reads "Michael Rice". The signature is fluid and cursive, with the first name "Michael" and last name "Rice" clearly distinguishable.

Michael Rice, TXSWANA Past President