AIR ISSUES & REGULATIONS COMMITTEE

A Committee of the Bay Area Clean Water Agencies

BACWA AIR COMMITTEE 2014 ANNUAL NEWSLETTER

UPCOMING MEETINGS

In 2014/2015, the AIR Committee will have approximately six meetings, depending on the urgency of upcoming issues. The next two meetings are planned as follows:

- **September 17, 2014** – CH2M HILL Offices in Oakland
- **November 19, 2014** – East Bay Municipal Utility District Wastewater Treatment Plant

COMMITTEE CHAIRS

The 2014/2015 AIR Committee Chairs are:

- Randy Schmidt, Central Contra Costa Sanitary District, RSchmidt@centralsan.org
- Nohemy Revilla, San Francisco Public Utilities Commission, nrevilla@sfwater.org

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BACWA'S AIR COMMITTEE

The Bay Area Clean Water Agencies (BACWA) Air Issues & Regulations (AIR) Committee updates Bay Area Publicly Owned Treatment Works (POTWs) on important air quality and climate change regulatory information and works with local, state, and federal regulatory agencies to ensure that the viewpoints of both large and small Bay Area POTWs are taken into account. Together, we proactively assist in the development of regulatory programs by ensuring that they are based on good science and are physically and financially feasible for our public utilities.

We also share information, develop comprehensive compliance programs, and form solid relationships with each other and with our regulatory agencies. These relationships develop forward thinking input and strengthen our lobbying, as regulations impacting Bay Area POTWs are constantly changing. We represent "one voice" to the regulatory agencies, speaking on behalf of the majority of the POTWs in the Bay Area, and public utilities statewide have benefited from our efforts.

Materials from recent meetings are publically available at http://bacwa.org/committees/air-issues-regulations. These bimonthly presentations provide a detailed description of developing regulations, upcoming seminars and conferences, and grant opportunities. Archived AIR Committee materials are available to AIR Committee members only.

IN THIS ISSUE

The purpose of the AIR Committee newsletter is to provide news and analysis to the broad BACWA membership about important issues that are ongoing at a local, regional, and national level that impact our members' facilities. For more information about these and other AIR Committee issues that are of interest to your facility, we invite you to join the AIR Committee and attend our bimonthly meetings, which are announced in the BACWA Calendar and BACWA Bulletin.

In the 2014 issue of the newsletter, we lead off with a discussion of the challenge of balancing air quality regulations with other regulatory drivers facing our member POTWs (pg 3).

Site visits to members' facilities are a key feature of AIR Committee meetings. In 2013/2014, we visited the City of Santa Rosa's Laguna Wastewater Treatment Plant (WWTP) and Central Contra Costa Sanitary District's (CCCSD) WWTP. Engineers at these two POTWs generously provided descriptions of the facilities that the AIR Committee toured (pg. 5).

The AIR Committee meets annually at the Bay Area Air Quality Management District (BAAQMD) Offices to discuss issues of importance directly with regulators. The meeting in February 2014 covered many topics, including a discussion on how to expedite permit application (pg. 9), as well as BAAQMD's Climate Action Plan (pg.12).

The AIR Committee works closely with the California Wastewater Climate Change Group (CWCCG), which leads the California POTW community's advocacy on issues related to climate change. This issue includes a description, provided by CWCCG, of the State's updates to the Assembly Bill 32 (AB 32) Scoping Plan (pg. 13).

Finally, the National Association of Clean Water Agencies (NACWA) has provided us with a description of a recent U.S. Supreme Court decision that will impact how the U.S. Environmental Protection Agency (EPA) can regulate greenhouse gas (GHG) emissions (pg. 15).

We offer a big thank you to our contributing authors.

The 2014 BACWA AIR Committee Newsletter was prepared by Lorien Fono, BACWA Regulatory Program Manager. She can be contacted at lfono@pmengineers.com.

THE CHALLENGE OF CROSS-MEDIA ISSUES

By Elyse Engel and Jim Sandoval, CH2M HILL, and Lorien Fono, BACWA Regulatory Program Manager

The AIR Committee supports regulators' intent to protect air quality in the Bay Area by continuing to reduce emissions of ozone precursors, particulate matter (PM), toxic air contaminants (TAC), and GHGs. However, implementation of prior regulatory actions has resulted in contradictory impacts to the municipal wastewater treatment sector. While regulatory actions may be seen as effective when each media (air, water, climate change, etc.) is addressed separately, the deficiencies become evident when the regulations are viewed holistically as one set of regulations for protecting the overall environment. This article outlines several concerns regarding cross-media regulatory coordination.

Nutrient removal can impact facilities' GHG emissions

The San Francisco Regional Water Quality Control Board (Regional Water Board) recently issued a nutrient watershed permit for all POTWs that discharge to the San Francisco Bay. There are many uncertainties on the type and degree of impacts of nutrients in the San Francisco Bay. The current permit does not require effluent nutrient load reductions, but does require support of scientific studies that will indicate whether there will be a need for reductions in future permits.

The nutrient watershed permit can be viewed at: http://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2014/R2-2014-0014.pdf

As part of the nutrient watershed permit, POTWs are required to perform studies to evaluate alternatives for optimizing and upgrading their facilities to remove nutrients from their effluent. Because many nutrient removal technologies are energy-intensive, any future requirements to reduce nutrient loads in effluent will have an impact on energy-related GHG emissions. As part of the optimization and upgrade studies required by the permit, POTWs will quantify this increase in GHG emissions for the different nutrient removal alternatives to be considered. The final optimization and upgrade reports are due July 1, 2018.

Because requiring nutrient removal has the potential to increase GHG emissions, it may work against AB 32 and other BAAQMD climate change initiatives to reduce GHG emissions. POTWs should not be penalized for increased GHG emissions and additional economic burden as a result of more stringent future water regulations. The AIR Committee is encouraging BAAQMD to consult with the Regional Water Board and use the results of the GHG analyses, which will be part of the optimization and upgrade studies, to better understand the cross-media implications of nutrient removal.

Air quality regulations inadvertently discourage the use of renewable fuels

Increasingly stringent air quality regulations governing stationary combustion conflict with state and local government goals, and associated laws and regulations that target and encourage increased use of renewable fuels. For example, the EPA, California Air Resources Board (ARB), and BAAQMD want Best Performance Standards (BPS) for limiting air emissions from engines and boilers. Biogas-fired engines and boilers often face unique operational and technical challenges which may prevent them from achieving the same thermal efficiencies as natural gas-fired engines and boilers. Therefore, biogas-fired engines and boilers can neither cost effectively nor, in some cases, technically meet the BPS. In response to the BPS, an increasing number of POTWs are flaring biogas rather than using it as a renewable, non-fossil-fuel-based combustion fuel in engines and boilers to generate power from renewable sources that would otherwise unduly strain the waste management infrastructure of California, resulting in higher rates for the ratepayers and greater GHG emissions.

Challenges to using biogas in engines and boilers include the pretreatment of siloxane contaminants to minimize equipment fouling, removal of excess moisture prior to combustion, and higher carbon dioxide content in non-combusted biogas, which causes a lower temperature differential between the flame front and the exhaust stream temperature.

Alternately, biogas is a commonly and widely recognized renewable fuel that reduces GHG emissions when used in place of fossil fuels. Similarly, in the California Low Carbon Fuel Standard life-cycle analysis of alternative fuels, landfill gas has the lowest carbon intensity pathway of nearly every other fuel. In this regard, ARB is encouraging the use of biogas as a low carbon fuel to reduce anthropogenic GHG emissions, which is a direct contradiction to the implications of the BPS air regulations described above. Similarly, the California Public Utilities Commission's (CPUC) Self Generation Incentive Program (SGIP) recognizes biogas as a beneficial renewable fuel type that needs to be more widely utilized as part of California's renewables portfolio.

Las Gallinas Valley Sanitary District (LGVSD) in San Rafael has fallen victim to this regulatory conflict. The LGVSD wastewater treatment plant's biogas-fueled internal combustion engine, which generates renewable heat and power for on-site use, will not meet the BAAQMD Rule 9-8 emissions limits by 2016. The two most viable alternatives will cost LGVSD $100,000 to $200,000 per year over business-as-usual to utilize the biogas for renewable energy and may require significant biogas flaring.

Based on the foregoing, the AIR Committee will encourage BAAQMD to allow the use of renewable fuels, such as biogas, as a potential alternative BPS for combustion units. Although combustion units fired with renewable fuels may not achieve the same thermodynamic efficiency as their fossil fuel counterparts, the use of renewable fuels will result in radically lower GHG emissions originating from

fossil fuels. Therefore, the AIR Committee is encouraging BAAQMD to consult with ARB, CPUC, the California Energy Commission (CEC), and EPA to ensure uniformity between federal, state, and local regulations governing the use of renewable fuels, as well as establish technology-based standards that are achievable while supporting the renewable energy goals of the State. The multiple issues raised related to biogas quality, based on origin (e.g., landfill versus wastewater treatment, as raised by the CEC), also need to be resolved before further limitations can be reliably imposed.

Incentives are needed to facilitate the development of green infrastructure

There is a need for incentives to encourage green infrastructure. However, many of the energy initiatives applicable to POTWs are impeded by existing regulations, sometimes set forth in the absence of proven technologies that can be cost-effective and widely implemented, as described above, and institutional barriers. The most notable institutional barriers include lengthy permitting processes, capital costs associated with infrastructure, and lack of effective, proven technologies. By offering more financial or administrative incentives to POTWs, statewide GHG emissions reduction goals may be better realized. For example, POTWs could help increase biogas production through the anaerobic digestion of food waste, fats, oils, and greases (FOG), algae-based biodiesel production biomass, etc., thus increasing the use of renewable fuels throughout the state and adding to California's renewables portfolio.

As the BAAQMD updates the Clean Air Plan to incorporate a Climate Protection Strategy for the Bay Area (see pg. 12), the AIR Committee will work with BAAQMD staff to address a multi-pollutant strategy regarding feasible emissions control measures, and identify mechanisms for encouraging and tracking GHG emissions reductions.

AIR COMMITTEE MEMBER AGENCY SITE VISITS

LOCAL LAVA ROCK AS A SUCCESSFUL COMPOST BIOFILTER MEDIA, CITY OF SANTA ROSA LAGUNA WASTEWATER TREATMENT PLANT, SEPTEMBER 18, 2013

By Zachary Kay, Biosolids Coordinator, City of Santa Rosa

On September 18, 2013, the AIR committee visited Santa Rosa's Laguna WWTP and its composting facility. The biofilter for the City of Santa Rosa's compost facility has been in service since 1996, when the facility first started up.

A description of the facility

The City of Santa Rosa's Compost Facility came on-line in 1996, is located adjacent to the Laguna WWTP, and utilizes an in-vessel, forced air, agitated bed composting system. The facility is designed to process 76 cubic yards per day of digested biosolids, and 289 cubic yards per day of chipped yard waste, which is used as a bulking agent. The facility utilizes a biofilter to clean the air that is exhausted from the facility.

The biofilter at the Compost Facility was first constructed with 2 feet of rock media, consisting of ¾-inch drain rock covered with a filter fabric. Over that, a 3-foot layer of filter wood media was installed with a 6-inch top layer of bark mulch. The surface area of the biofilter is slightly more than 1 acre: 500-feet-long by 100-feet-wide. Five large exhaust fans pull air from the active composting area through air ducts above the composting bins. Up to 12 air changes can be performed per hour at a maximum blower speed of 152,000 cubic feet per minute (cfm).

Operational History

The biofilter was rebuilt twice before the lava rock was installed in 2007. The first rebuild was in 2000. Because of the large surface area, we had to use compact track loaders to push the expired material to an excavator to be removed. During the removal process, the filter fabric was torn and disturbed to the point that it had to be removed. When the new media was installed, the filter fabric was not replaced. The filter was rebuilt again in 2004.

In November of 2006, the exhaust fans were not moving the air as they should. The air inside the composting area was strong with ammonia and the air temperature higher than normal. When walking on top of the biofilter, there was no sound of any air flow. The perforated air lateral piping holes were found plugged with decomposed wood dust and, in some cases, small rocks. The biofilter was almost completely plugged.

Because of the plugging problem caused by the wood chips and the difficulty in trying to remove and install the wood chips every couple years, alternative media were investigated. Research on lava rock found that it had been used successfully in many other similar odor control projects, but not yet for a compost biofilter. Since the porous nature of the lava rock would allow a large surface area for the

biological growth, it would likely filter odors efficiently and reduce the biofilter replacement frequency by several years, at least. Therefore, the City of Santa Rosa decided that use of lava rock in this application would be worth a try.

The lava rock was purchased from a lava rock quarry North of Sonoma County – a local source of biofilter material! Three feet of lava rock material were installed using a belt conveyor truck that could discharge up to 50 feet, which allowed placement of the lava rock without use of compact track loaders.

Water sprays in the inlet towers were also replaced with fine misters upstream of each of the five exhaust fans that discharge air into the biofilter. These fine misters perform a dual purpose. First, the water mist absorbs around 50-60 percent of the ammonia gas in the air being pulled from the composting area. Second, the fine misters provide moisture to the lower area of the biofilter, which helps to keep the biological growth on the lava rock alive. Irrigation sprinklers on top of the biofilter help keep the top half moist.

The City of Santa Rosa considers the installation of the lava rock biofilter to be a huge success! Since installation, there have been no noticeable increases in offensive odors. In fact, any smell is of an earthy nature, like moist soil. Of highest importance and greatest benefit to the local community, the City of Santa Rosa has received no odor complaints from the public.

CENTRAL CONTRA COSTA SANITARY DISTRICT'S SEWAGE SLUDGE INCINERATORS, APRIL 16, 2014

By Rita Cheng, Associate Engineer, and Robert Hess, P.E and Assistant Engineer, CCCSD

On April 16, 2014, the AIR Committee toured one of only two facilities in the state of California with Sewage Sludge Incinerators (SSI). CCCSD, located in Martinez, California, treats an average dry weather flow (ADWF) of 40 million gallons per day (MGD) of wastewater for approximately 470,000 customers in central Contra Costa County. CCCSD provides primary sedimentation treatment and secondary activated sludge treatment with ultraviolet (UV) disinfection before discharging its effluent to Suisun Bay. CCCSD is a NACWA-16 Platinum Award recipient, and has operated its treatment plant for the last six years without any Title V violations.

The tour focused on the Solids Conditioning Building, which houses major combustion sources: two 27 million British thermal units per hour (MMBtu/hr) SSIs; two 28 MMBtu/hr auxiliary boilers; and a 3.5 megawatt (MW) cogeneration turbine. These sources generate steam to drive a steam turbine that powers aeration blowers for the secondary process. The topping-cycle cogeneration unit produces power and steam for on-site use.

In addition to being one of two SSI facilities in California (the City of Palo Alto is the other), CCCSD is one of the few wastewater facilities in California that is classified as a Title V Major Facility. The major combustion sources mentioned above, along with other minor sources, are regulated under CCCSD's Title V permit. CCCSD uses a combination of routine emissions source testing, a process monitoring control system, and monitors to demonstrate continuous compliance.

The two SSIs at CCCSD are 4-story, 11-hearth furnaces, with their primary purpose to reduce sewage sludge volume. For a majority of the year, only one furnace is online while the other furnace undergoes bi-annual maintenance. Primary sludge and thickened secondary sludge are dewatered in centrifuges before being sent to either furnace for incineration. The centrifuge process reduces the wet sludge into dewatered sludge with approximately 20 percent solid content. Approximately 200 tons of wet sludge is reduced to 14 tons of sterile ash daily, which is a 93 percent volume reduction.

Dewatered sludge is fed into the second hearth of the operating furnace and is moved completely across each hearth by rotating rabble arms, dropping down level by level. Natural gas and/or landfill gas is fed to the operating furnace to drive the combustion process. Each 11-hearth furnace has three distinct operating zones. In the drying zone (Hearth No. 2), where a majority of the volume reduction occurs, most of the moisture in the dewatered sludge is evaporated. In the combustion zone (Hearth Nos. 3 through 6), the cake is burned and temperatures typically range from 1,400 to 1,700 degrees Fahrenheit. Organic material is converted to carbon dioxide, water, and ash during the combustion process. In the cooling zone (Hearth No. 7 and below), the sludge, which has now been reduced to ash, slowly cools before being discharged from the bottom of the furnace. Ash is hauled off-site 2 to 3 times per week to be used as a soil amendment component.

CCCSD utilizes multiple air pollution control devices to control the pollutants released from incineration through each furnace exhaust. The top hearth of each furnace acts as an afterburner and is maintained above 1,000 degrees Fahrenheit to destroy organic compounds and control the emissions of nitrogen oxides (NO_x) and carbon monoxide (CO). Upon leaving each furnace, the induced draft fan draws the furnaces' exhaust gas into a dry scrubber, where the cyclone action combined with gravitational force cause the large particulates to drop towards the bottom of the dry scrubber, then into the ash system.

The Waste Heat Boiler recovers the waste heat from the incineration exhaust and generates supplemental steam to assist the aeration process. Heat recovery from the incineration reduces overall energy usage for the treatment plant. The exhaust is then routed to a multi-stage wet scrubber, where it

is mixed with a fine spray of water to remove finer PM and metals. The opacity of the exhaust is measured continuously to ensure adequate PM removal.

REGIONAL NEWS

HOW TO EXPEDITE YOUR PERMIT APPLICATION

By Kimberlee West, PME (adapted from presentation by Gregory Stone, Supervising Air Quality Engineer, BAAQMD)

In 2014, the AIR Committee conducted a survey of its members to investigate how long it took BAAQMD to issue a permit once an application is filed. The responses varied from a few months to over a year. Recently, BAAQMD has prioritized reducing its backlog. This article reviews the application process and strategies that applicants can implement to expedite the permit review process.

To issue an air permit, the BAAQMD must:

- Determine completeness of the application
- Evaluate the information provided
- Issue an Authority to Construct (A/C) permit
- Receive an equipment installation and start-up notification from the applicant
- Issue a Permit to Operate (P/O) for each piece of equipment

File a Complete Application

A complete application must include data forms, additional information, and associated fees. The BAAQMD will notify the applicant in writing whether the application is complete or incomplete within 15 working days of receipt of the application, or 30 days for Prevention of Significant Deterioration (PSD) permits or permits that require public comment. If the application is incomplete, the BAAQMD will notify the applicant of the additional information, data, or fees required. The applicant then has 30 days to pay any necessary fees or 60 days to submit any outstanding information and data with the possibility of extensions between 90 to 180 days total. Additional information that may be requested includes:

- Source-specific information
- Information on emissions
- Toxics risk evaluation
- Rule applicability or compliance
- School notification
- Accelerated permits

- Best Available Control Technology (BACT)
- Offsets
- PSD
- California Environmental Quality Act (CEQA) requirements

Fees include:

- Application filing fees for administrative processing
- Permit initial fees for engineering evaluation of application
- Health Risk Screening Analysis (HRSA) fees
- Permit fees to cover ongoing compliance assistance and verification activities within the first year of operation
- Toxics risk evaluation fees
- Back fees for sources constructed without an A/C

BAAQMD staff review each application to determine whether it meets the BAAQMD's emissions criteria and write an Engineering Evaluation Report for the application that includes the following:

- A background discussion
- Emissions calculations of criteria pollutants, toxic compounds, and a HRSA, if applicable
- Compliance determination of new source review (NSR) permitting, BACT, and offsets with respect to BAAQMD, state, and federal rules
- Permit conditions
- Final recommendations

Types of Air Permits

- *Authority to Construct (A/C)* - permit to install a new non-exempt source or modify an existing one in a way that will increase emissions
- *Permit to Operate (P/O)* - required for each operating, non-exempt source of air pollution at a facility (each individual piece of equipment), valid for one year, and subject to permit conditions
- *Portable Equipment Registration* - for equipment that does not operate for >12 months in any one location within the state, allows one air district's permit to suffice throughout the state
- *Major Facility Permit (Title V)* - federal permit for facilities with a potential to emit >100 tons per year (tpy) of any pollutant (or 10 tpy of a Hazardous Air Pollutant), lists all sources and requirements applicable to each source at a facility, certified annually, renewed every five years, supplements a P/O
- *Synthetic Minor Permit (Title V)* - federal permit for facilities with a potential to emit >100 tpy that agree to limit emissions to <100 tpy

As part of NSR, if a new or modified source can emit more than 10 pounds per day (lb/day) and has any increase in emissions, BACT is triggered. The BAAQMD will issue a permit within 35 working days of determining that an application is complete or 30 days after receipt of the final Environmental Impact Report (EIR) or Negative Declaration, as appropriate. For PSD permits or permits requiring public comment, a preliminary decision is made within 90 days of the application completeness date, and final action is taken within 180 days of the completeness date or 30 days after receipt of the final EIR or Negative Declaration, as appropriate.

Title V Permitting

The BAAQMD is also integral in Title V renewal applications. Eighteen months before a renewal application is due, the BAAQMD sends each applicant the previous Title V permit, all Engineering Evaluation Reports for NSR applications issued since the previous permit, and the applicable forms. The BAAQMD requests electronic updates and submission of Title V permit applications and revisions, including monitoring requirements and permit conditions.

What you can do to expedite your application

BAAQMD is committed to reducing backlogs in processing permits. However, when filing an application, there are steps that applicants can take that will reduce the turnaround time to permit issuance. To expedite the application process, the applicant should:

- Submit a complete application
- Provide a cover letter describing the project
- Include emissions data whenever possible
- Respond to questions and pay fees quickly
- Apply early to allow ample time for the application process
- Minimize back-and-forth discussion
- Meet with the permit engineer or supervisor, as needed, to help the BAAQMD prioritize application needs, and be sure the applicant understands the rule requirement

Online Tools

The BAAQMD's website provides tools, such as the Permit Handbook (http://www.baaqmd.gov/Divisions/Engineering/Authority-to-Construct-Permit-to-Operate/Permit-Handbook.aspx) and the BACT/Best Available Control Technology for Toxics (TBACT) Workbook (http://www.baaqmd.gov/Divisions/Engineering/Authority-to-Construct-Permit-to-Operate/BACT-TBACT-Workbook.aspx), that include sample evaluations, emissions calculations, permit conditions, and other resources that may be useful in the application process.

BAAQMD IMPLEMENTS CLIMATE ACTION PLAN

By Sigalle Michelle, Senior Environmental Planner, BAAQMD

In November 2013, the BAAQMD adopted an ambitious climate protection goal to reduce regional GHG emissions by 80 percent below 1990 levels by 2050. The goal is part of a 10-point Climate Action Work Program (Climate Program) approved by the BAAQMD's Board of Directors. The BAAQMD's GHG goal matches the State's 2050 GHG target set by executive order S-3-05.

The Climate Program directs the BAAQMD's priorities over the next couple of years to achieve significant, long-term GHG reductions. These priorities, listed as the 10 points listed in the side bar, requires each of the BAAQMD's different functions to play a role in reducing regional GHG emissions. These functions include air quality planning, rule development, incentives, compliance and enforcement, stationary source permitting, air monitoring, and public outreach.

The BAAQMD's Climate Program complements the considerable climate planning efforts already taking place at state, regional, and local levels. Climate action is growing fast on the local level with approximately fifty local Bay Area governments adopting climate action plans over the last several years, which is more than any other metropolitan region in the U.S. This momentum creates opportunities for BAAQMD staff to collaborate with local governments on innovative GHG reduction actions. On the state level, the Climate Program supports measures in the State's AB 32 Scoping Plan, such as assisting in enforcing statewide regulations and air monitoring of GHG emissions.

The 10-Point Climate Action Work Program includes the following elements:

1. Set a GHG reduction goal to reduce emissions in the Bay Area 80 percent below 1990 levels by 2050.
2. Update the BAAQMD's regional GHG emissions inventory for the Bay Area.
3. Implement local monitoring of certain GHGs, including methane and carbon dioxide.
4. Develop a regional climate action strategy to set the Bay Area on a course for meeting the GHG reduction goal.
5. Support and enhance local GHG reduction activities through enhanced technical assistance to local governments.
6. Initiate rule development to advance GHG reduction in sources subject to BAAQMD regulatory authority, and identify opportunities to require GHG emission reductions in existing rules and policies.
7. Expand enforcement of statewide regulations to reduce GHGs.
8. Launch a climate change and public health impacts initiative to collect and synthesize information, reports, and data on climate change impacts related to air quality and public health.
9. Report progress to the public in an informative and engaging manner.
10. Explore the Bay Area's energy future by assigning the BAAQMD's Advisory Council to investigate related technical issues.

In developing the Climate Program, BAAQMD staff engaged extensively with stakeholders to present and gather feedback on the Climate Program. Along with a regional public workshop, BAAQMD staff participated in meetings with regional and local government agencies, special districts, transportation agencies, business organizations, environmental

advocacy groups, and community-based organizations. The Climate Program will be included as an element in the BAAQMD's 2015 Clean Air Plan. Stakeholders will have additional opportunities to review and provide feedback on the Climate Program as part of the 2015 Clean Air Plan development process. The 2015 Clean Air Plan will serve as an update to the BAAQMD's 2010 Clean Air Plan and will outline the BAAQMD's effort to implement all feasible measures to reduce ozone precursor emissions, as well as PM, air toxics, and GHG emissions.

Achieving the BAAQMD's and the State's 2050 goal will require collaboration and commitments across Bay Area sectors and communities. BAAQMD staff welcomes the opportunity to work with BACWA to identify actions and explore regulatory approaches to reduce GHG emissions in the clean water agency sector.

More information on the BAAQMD's Climate Program and 2015 Clean Air Plan process is available on the BAAQMD's website, www.baaqmd.gov.

STATEWIDE NEWS

FIRST UPDATE TO CALIFORNIA'S CLIMATE CHANGE SCOPING PLAN PURSUANT TO ASSEMBLY BILL 32 (GLOBAL WARMING SOLUTIONS ACT OF 2006)

By Sarah Deslauriers, CWCCG Program Manager

AB 32 required the ARB to develop a Scoping Plan that describes how California plans to reduce statewide GHG emissions to 1990 levels by 2020. AB 32 also lays the groundwork for achieving post-2020 GHG reduction goals (by 2050) set in Executive Orders S-3-05 and B-16-2012. The AB 32 Scoping Plan was first approved by ARB in 2008 and must be updated every five years. Thus, it defines ARB's climate change priorities for the next five years in meeting various 2020 targets, including:

- Reducing GHG emissions to 1990 levels
- Providing 33 percent of the state's energy needs from renewable sources
- Reducing the carbon intensity of transportation fuel used in the state by 10 percent
- Recycling 75 percent of solid waste generated in the state

The document developed by ARB, titled "Updates to the Scoping Plan," was published in May 2014 and outlines the action items for the key issues and sectors covered under this update. This document can be found at: http://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf.

Not only is the AB 32 Scoping Plan tasked with showing California's progress toward meeting these 2020 targets, it is also tasked with aligning the State's post-2020 GHG reduction strategies with other state policy priorities across nine economic sectors (energy, transportation, agriculture, water, waste management, natural and working lands, short-lived climate pollutants, green buildings, and the cap-and-trade program). For example, the following Water

sector goals identified in the AB 32 Scoping Plan should be coordinated and aligned with Energy sector goals related to renewable energy production:

- The State Water Resources Control Board (SWRCB) and CPUC are to develop incentives by 2015 for resource-recovery related wastewater treatment projects.
- The SWRCB and Regional Water Boards are to modify policies and permits by 2016 to achieve conservation, water recycling, stormwater reuse and diversion (i.e., green infrastructure), and wastewater-to-energy goals.

There are existing regulatory and financial barriers that are preventing WWTPs from realizing their full potential as renewable energy providers, suppliers of a marketable renewable organic fertilizer/soil amendment product, suppliers of a sustainable (drought-proof) water supply, and environmental stewards of our natural and working lands. ARB acknowledges wastewater as a "resource for energy production and environmental protection" and plans to look into "funding programs that capture multiple benefits, including energy efficiency, water quality, and water supply." Policy measures and regulations (such as those listed in the Water sector goals above) need to be developed that provide the long-term certainty businesses need for financial planning purposes (such as for building infrastructure to process additional waste streams).

The CWCCG has been tracking ARB's development of the AB 32 Scoping Plan over time, providing review and comment, as well as meeting with staff at ARB and CalRecycle to discuss key wastewater issues during the first update. The table below provides a list of the key issues CWCCG is focused on right now, CWCCG's action, and the status of each action outcome.

Key Issue of Concern	CWCCG Action	Status
AB 32 Scoping Plan shows "wastewater" as the 5th largest source of anthropogenic methane	Met with ARB staff to review their GHG inventory and requested they break out septic tank and industrial wastewater emissions	ARB's inventory now shows municipal WWTPs contributing only 26 percent of total "wastewater" emissions
GHG monitoring program to examine WWTPs for underestimated fugitive methane emissions over the next 5 years	Met with ARB staff to discuss the monitoring program and provided recent studies showing WWTP fugitive methane emissions are not underestimated	ARB staff agreed to draw from WWTP experience/studies and do not believe WWTPs are an underestimated source
ARB Research Group to inquire about WWTP nitrous oxide emissions	Continue to meet directly with ARB staff to discuss and provide previous studies performed at WWTPs	CWCCG to provide ARB information/previous studies
Allocation of Cap-and-Trade auction proceeds to wastewater related projects	Provided input to the Bioenergy Investment Plan prepared by the Bioenergy Association of California	CWCCG to continue reviewing and providing input to the Bioenergy Investment Plan, as needed

Municipal WWTPs have opportunities to significantly contribute toward achieving multiple state goals by 2020 and 2050, if given the necessary support. CWCCG is working to gain that support

and eligibility to participate a reality. If you have any questions on this article or would like more detailed information on the AB 32 Scoping Plan, please contact the CWCCG Program Manager, Sarah Deslauriers, at (925) 705-6404 or sdeslauriers@carollo.com.

FEDERAL NEWS

U.S. SUPREME COURT LIMITS POTW CLEAN AIR ACT PERMIT OBLIGATIONS FOR GREENHOUSE GASES

By Cynthia Findley, Director of Regulatory Affairs, NACWA

On June 23, 2014, the U.S. Supreme Court ruled, in *Utility Air Regulatory Group (UARG) v. EPA*, that EPA is prohibited under the Clean Air Act (CAA) from regulating stationary sources via the Title V and Prevention of Significant Deterioration (PSD) programs based solely on GHG pollutants. POTWs will benefit from this decision because the vast majority are considered non-major sources under the CAA and potentially faced future Title V and PSD permitting due to GHG emissions generated on-site by burning biogas and/or biosolids, process emissions, or other sources of GHG emissions. The EPA has issued a memorandum (which can be viewed at http://www.epa.gov/nsr/documents/20140724memo.pdf) describing how they will implement this court decision.

The U.S. Supreme Court's decision will keep many POTWs out of the Title V and PSD programs altogether and allow others to narrow the scope of their Title V obligations. This article provides details on the decision and its implications for POTWs

Background

In 2010, EPA determined that it was required to regulate GHG emissions from stationary sources under the CAA via the Title V and PSD programs. As a result, the EPA issued a Tailoring Rule to clarify which stationary sources would be covered. Under the Tailoring Rule, POTWs that reached the specified GHG emissions threshold would need to meet CAA permitting requirements. EPA also issued a separate deferral rule that would have deferred regulations of biogenic emissions under the Tailoring Rule for three years. Biogenic emissions include emissions from wastewater treatment processes and the combustion of biogas and biosolids, as well as the combustion of other biomass, such as agricultural and forest products.

EPA's decision to exempt biogenic sources was challenged in a separate federal lawsuit by environmental activist groups before the U.S Court of Appeals of the District of Columbia (D.C. Circuit) but the D.C. Circuit ultimately struck down the exemption in July 2013. However, because a number of separate legal challenges had been filed regarding EPA's underlying efforts to regulate GHG emissions from stationary sources – all of which were ultimately consolidated into the *UARG* case – the D.C. Circuit stayed its decision on the biogenic exemption, pending resolution of the U.S. Supreme Court in the *UARG* case.

In the *UARG* decision, the U.S. Supreme Court was reviewing the Tailoring Rule and how EPA sought to regulate GHG emissions for stationary sources under the CAA. The U.S. Supreme Court affirmed EPA's authority to regulate GHGs from stationary sources but rejected the way EPA proposed to implement that authority. The U.S. Supreme Court held that EPA cannot impose Title V or PSD permitting requirements on stationary sources based only on emissions of GHGs. At the same time, the U.S.

Supreme Court ruled that sources already subject to PSD permitting requirements (so-called "anyway" sources because they are required to undergo PSD permitting "anyway" for conventional, non-GHG emissions) could be required to include GHG emissions in their Best Available Control Technology (BACT) analyses.

POTW Title V Permit Determinations

The U.S. Supreme Court's decision will affect the number and scope of Title V permits required for POTWs. For the vast majority of POTWs that are not already considered major source emitters under Title V, this ruling prohibits EPA from using GHG emissions alone to require that a POTW obtain a federal operating permit. Whether the GHGs are biogenic is now irrelevant because all GHGs are excluded from the major source determination for Title V purposes. The decision will not affect the small number of POTWs that are required to obtain Title V permits because they are currently major sources for non-GHG pollutants.

The U.S. Supreme Court's decision may also affect the scope of Title V permitting for the POTWs required to obtain a Title V permit due to the SSI rule. POTWs that operate incinerators for biosolids management have been required to apply for a Title V permit as one of their new obligations under the SSI rule. For POTWs that did not previously have a Title V permit, the SSI rule allows the permitting authority to issue a Title V permit that covers only the SSI unit. Prior to the *UARG* decision, GHG emissions in excess of the major source threshold would have been a justification for issuing a facility-wide Title V permit. After the U.S. Supreme Court's decision, these POTWs would be justified in asking the permit authority to limit the scope of the Title V permit to their SSI units, as allowed under the SSI rule. Note, however, that some states may choose to proceed with facility-wide Title V permitting on the basis that they have the discretion to be more stringent than what federal rules require.

POTW PSD Permitting

The U.S. Supreme Court decision also narrows the circumstances when POTWs will trigger major source PSD permitting obligations. PSD applies only to major stationary sources. Under the *UARG* decision, POTWs can no longer be considered major PSD sources based on their GHG emissions alone. The U.S. Supreme Court determined that the PSD program will only regulate GHG emissions at existing sources that are major for a non-GHG pollutant and for which PSD is triggered by a modification causing a significant net emission increase of non-GHG pollutants.

Very few POTWs in the country are major PSD sources based on non-GHG emissions. Fewer still will undergo modifications that trigger PSD based on a significant net emission increase of non-GHG pollutants. However, to the extent a POTW triggers PSD anyway based on its non-GHG emissions, the U.S. Supreme Court found that EPA could require that the source apply BACT to GHG emissions resulting from the PSD project. But the U.S. Supreme Court also affirmed EPA's discretion to set a *de minimis* level for GHGs, below which a project would not be required to apply GHG BACT. More agency rulemaking on this issue is expected in the future to establish this necessary justification. NACWA will work closely with EPA to set a *de minimis* level that would further exclude POTWs from PSD requirements for GHGs.

State Regulations May Be More Stringent

The U.S. Supreme Court decision did not address whether states could be more stringent in their treatment of GHGs. Thus, the decision may not be self-executing in states that have adopted the Tailoring Rule into their state rules. States may need to act to remove their Tailoring Rule provisions to implement this decision. States may also need to consider how biogenic GHGs are treated in their regulations. POTWs should consult with their state regulators to determine the status of permitting requirements in their state.

Conclusion

POTWs benefit from the U. S. Supreme Court's *UARG v. EPA* decision in the following material ways:

1) The U.S. Supreme Court decision eliminates the risk that GHGs will increase the number of POTWs subject to Title V and PSD permitting, without further debate over whether biogenic sources should be exempt or not. Unless POTWs are already considered CAA major sources subject to Title V and PSD for conventional, non-GHG emissions, they do not have to worry about new permitting requirements based solely on GHG emissions from on-site processes such as burning of biogas and/or biosolids, process emissions, or other sources of GHG emissions.
2) By eliminating GHGs as a trigger for Title V permitting, POTWs obtaining new Title V Permits under the SSI rule for their incinerators are better able to avoid facility-wide Title V permits and limit their federal operating permit burden to their SSI units only.
3) While the U.S. Supreme Court affirmed EPA's authority to impose GHG BACT on the major sources that trigger PSD based on non-GHG emissions anyway, POTWs will rarely trigger PSD permitting when GHGs are excluded from the applicability determination.