

**TRI-TAC LAND COMMITTEE
ISSUE SUMMARY
LAST UPDATED May 2007**

1. LEGISLATIVE UPDATE

San Joaquin Valley Unified Air Pollution Control District Rule 4565

On March 15, 2007, the San Joaquin Valley Unified Air Pollution Control District adopted Rule 4565 pertaining to Biosolids management. This rule governs land application, ADC, composting and even regulates the use of animal manures. The private and public wastewater industry, in concert with CASA and Tri-TAC, discussed the Rule with SJVAPCD staff, submitted written comments, and testified at the hearing, with only limited success.

The outcome of the rule is as follows:

1. Alternative Daily Cover - Eliminates the option of using biosolids (except cured compost) as landfill alternative daily cover (ADC) in the SJVAPCD boundaries and potentially other air districts in the future. This is a major concern because, while biosolids are not currently used as ADC in the SJVAPCD, 21% of California's biosolids are beneficially used as ADC.

2. Land Application - Essentially requires incorporation of biosolids into the land within three hours of receipt at a land application site, or covering it with a waterproof covering. Fortunately, after a great deal of discussion, the SJVAPCD added in a provision to allow biosolids received after 6:00 PM to be incorporated by noon the next day, taking safety into consideration. This regulation will certainly add to the cost and complexity to use biosolids as a soil amendment.

3. Composting - Essentially requires that existing composting facilities be upgraded to aerated static pile or in-vessel composting, as well as employ other mitigation measures, if they process over 100,000 tons of total feedstocks per year. New facilities must meet Best Available Control Technology (BACT), which may be more restrictive than Rule 4565.

Due to the above capacity restrictions, as well as capital expenditures, and extreme operational conditions, we can expect to see added cost for land application and composting in the Central Valley, as we approach the 2008 compliance dates.

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SB55

SB 55 would define terms and do the following:

1. Require a POTW to submit a certification that the sewage sludge for disposal or processing meets the requirements and standards for pollutants listed in the WDR to any person or facility that accepts the sewage sludge for disposal or processing.
2. Require the POTW to submit a certification to sewage sludge transportation haulers that the sewage sludge is non-hazardous, and to identify whether the sewage meets certain treatment classifications.
3. Require the State Water Board to conduct a study by June 1, 2009 that would examine the content of, and management options for, sewage sludge that addresses, at a minimum, specified issues.
4. Prohibit land application of sewage sludge that does not meet certain requirements, and requires any person who applies certain types of sewage sludge to land to submit samples of that sludge to a laboratory to test for compliance with regulations.

2. BAY AREA EFFORT ON DEVELOPING A REGIONAL FACILITY

Seven wastewater treatment agencies (EBMUD, SFPUC, DDSD, DSRSD, FSSD, USD, and Millbrae) in the San Francisco Bay Area are pursuing the feasibility of developing a regional biosolids facility. The main impetus for proceeding with this study is the increasingly restrictive environment throughout the state for recycling biosolids.

Two preliminary feasibility studies were completed by the Bay Area Clean Water Agencies (BACWA) Biosolids Committee. The studies concluded there were three interested agencies to host a biosolids drying facility.

From those studies, the seven agencies executed the Joint Exercise of Powers Agreement (JEPA) in July 2006 to further evaluate the costs and impacts of a facility. The JEPA provides the framework for cost sharing and decision making for the Phase 3 efforts which include facility planning and environmental documentation for a regional thermal drying facility. The seven agencies went through a consultant selection process and retained Carollo Engineers to assist with engineering and environmental evaluation at the viable sites. Delta Diablo Sanitation District is the project coordinator and the project manager for the consultant contract.

The first task has been completed to identify options with costs that could be implemented if land application solutions are significantly restricted by legislation or regulation. These options are considered interim until a solids processing facility can be

fully evaluated and constructed. Some the interim solutions could also be considered for longer-term solutions.

The seven agencies are contemplating the next task which is to prepare detailed facility plans for each site. Costs and impacts for each site will be considered and aid in the decision on which site provides the best solution for the group.

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Last Updated: May 2007*

3. MAJOR RESEARCH INITIATIVES

2007 WEF Residuals and Biosolids Conference, April 15-18, in Denver, CO

The following are highlights of the conference technical sessions:

40 CFR 503 Round Three Testing

From an initial 803 pollutants, 15 pollutants remain, which will undergo further exposure and hazard assessments in the next year, after the EPA National Sewage Sludge Survey results are posted. Round Four preliminary screening of new pollutants is scheduled for the first half of 2007. Per Alan Rubin (Envirostrategies), EPA may implement molybdenum standards in the future.

USGS Toxic Substances Hydrology Program

As a follow up to the 2006 ES&T article, "Survey of Organic Wastewater Contaminants in Biosolids Destined for Land Application", USGS will focus on the fate of Compounds of Potential Concern (CPC) post-land application in 2007. Research will include field studies, one study in an arid climate and one in a humid climate, and worm bioaccumulation of CPC. Other studies include new CPC analytical methods, a University of Arizona/ Metcalf & Eddy study of estrogenic compounds, and a study of organic wastewater contaminants in biosolids and biosolids leachate.

WERF Odor Study

Phase III of the study focused on the effect of alum addition and impact of dewatering processes on anaerobically digested biosolids. In summary, laboratory studies indicate that the addition of alum during conditioning reduces polymer demand, and can improve biosolids odor production during post-storage. The field trials of alum addition did not achieve the level of odor reduction compared to the laboratory trials, which may be attributed to the length of alum contact time. Further investigation of an improved field application protocol may be the focus of future studies. With respect to dewatering processes, equipment type and operational parameters were investigated in this portion of the study, which indicated an increase in odors as shear and/or cake dryness

increases. The high speed centrifuge produced the greatest amount of odors, followed by the low speed centrifuge, rotary press, and belt filter press. Lastly, emulsion polymers produce more odors than mannich polymers. Future odor studies may include the effect of reduced shear in dewatering operations, limiting the bioavailable protein, and the effect of enhanced digestion. The final report is scheduled for release in Summer 2007. A related study has focused on maximizing methanogenic activity in stored cake by mixing in "fresh" cake. This is expected to seed methanogens in the stored cake resulting in faster odor reduction. This study will be presented at WEFTEC later this year.

Microsludge

Results from the Microsludge trial at LACSD's Joint Water Pollution Control Plant (JWPCP) were presented, which indicated that the digester receiving Microsludge processed Waste Activated Sludge (WAS) only had a slight improvement of Volatile Solids Reduction (~4%) compared to the control. This may be due to the high WAS fraction of JWPCP biosolids. Results indicated that Microsludge processing may release enzymes that speed the degradation of the material. This leads to low organic sulfur accumulation for WAS and combined primary/secondary sludge, resulting in less odor potential.

University of Arizona Water Quality Center Spring Meeting

The WQC Spring Meeting will be held on May 14-15, 2007, in Tucson, AZ. For more information, please visit <http://wqc.arizona.edu>.

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Current as of May 2007*

4. LOCAL ORDINANCES

Kern County

On June 6, 2006, nearly 83 percent of Kern County voters approved Measure E, an initiative banning the land application of both Class A and Class B biosolids in *unincorporated* Kern County. The City of LA and its fellow plaintiffs filed suit in the U.S. District Court for the Central District of California challenging the Kern County initiative ordinance that bans the use of out-of-county generated biosolids. In light of Kern County's decision not to appeal the preliminary injunction granted to LA and its fellow plaintiffs on November 22, 2006, the case is ready to proceed before Judge Gary Feess. Before reaching the merits of the case, however, Judge Feess considered motions to intervene by several parties seeking to assist Kern County in defending the ban. Kern County Water Agency, Kern Water Bank Authority, Arvin-Edison Water Storage District, and Association of Irrigated Residents (AIR) all filed motions to intervene in the case. LA and the other plaintiffs argued none of these parties were

entitled to intervene “as a matter of right”, but did not oppose their intervention by court permission. Agreeing with the plaintiffs, the court denied the parties’ motions to intervene as a matter of right but permitted them to intervene. The scope of the intervention was thereby limited to participating in Kern County’s planned discovery, briefing, and oral arguments. The court put the interveners on notice that if the burdens of their intervention began to outweigh the benefits, their intervention could be further restricted.

In granting the preliminary injunction, Judge Feess held that LA and the other plaintiffs have a reasonable likelihood of succeeding on the merits of three of the four remaining claims in the suit. The judge found that the biosolids ban is likely to impermissibly discriminate against interstate commerce, because it was enacted for the purpose of protecting the reputation of Kern County agricultural products and exclude out-of-county generated biosolids. In addition, the judge held, Measure E is likely preempted by State waste management laws and constitutes an invalid exercise of the police power because the ordinance “cannot reasonably be said to accommodate the regional interest in safe, cost-effective management of biosolids.” Judge Feess’ order enjoins Kern from “directly or indirectly enforcing the ordinance known as Measure E” against plaintiffs City of Los Angeles, Los Angeles County Sanitation Districts, Orange County Sanitation District, several private biosolids contractors and “any other persons in active concert or participation” with the parties.

Both plaintiffs and defendants have filed motions for summary judgment. Specifically, the Plaintiffs filed a partial motion for summary judgment based on the argument that the California Integrated Waste Management Act preempts Measure E. Defendants filed a motion for summary judgment on every claim. The summary judgment motion will be heard on July 9, 2007.

Contact: Layne Baroldi, OCSD
Current as of: May 2007

Kings County

On June 7, 2005, the Tulare County Superior Court adopted the Kings County’s statement of decision as the decision of the Court, thus upholding the validity of the Ordinance allowing for the use of Class A/EQ compost as the only form of biosolids to be allowed in Kings County.

In April 2006, the Kings County Planning Commission granted a two-year extension for a permit to build a 500,000 ton/year biosolids composting facility near Kettleman City. The facility’s output would then be land applied on 12,000 acres of nearby farmland owned by the Sanitation Districts of Los Angeles County. The Kings County Board of Supervisors approved the project in 2004.

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Current as of: September 2006

Solano County

The Solano County revised ordinance permitting the continued land application of Class B biosolids has been in effect since Spring 2003, and will sunset in October 2007. For the past six months, representatives of various POTWs, including San Francisco, Union Sanitary District, East Bay Municipal Utilities District, and Fairfield Suisun Sewer District, have been engaged in a series of biosolids stakeholders meetings. These meetings, led by Solano County Department of Resource Management Staff, aim to have an open dialogue for all stakeholders with regards to biosolids regulation in the County. POTW participants have attested to quality management practices, concern for the community and public health, and a desire for continual improvement. Hearings on proposed changes to the ordinance are expected to begin soon.

This summer, County staff also released the results of two separate research projects, funded by a research fee that is added to the tipping fee. The first, performed in the summer of 2005, relates to regrowth of fecal coliform. Several cake samples were taken following centrifugation at three Bay Area POTWs followed by a second set of cake samples collected upon arrival of the biosolids haulers to the field sites. Cake samples were split and sent to two different labs. Results were mixed, with some cake samples exceeding 2.0×10^6 MPN/dry g, but many meeting the Class B limit at the field. Results between labs differed as well, indicating the difficulty of performing this sort of analysis. The second set of research results released this year were preliminary results of a study executed by the University of Mississippi on the presence of personal care products in land applied biosolids. The results were generally favorable, with concentrations of many compounds being extremely low or non-detect. It is anticipated that the final results will be released later this year.

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Current as of: May 2007*