Meeting Summary between CASA and US EPA Representatives in Washington DC

February 25th, 2014

Meeting Participants: CASA – Greg Kester (CASA), Mike Connor (EBDA), Omar Moghaddam (City of LA), Jim Colston (OCSD), and Jayne Strommer (Delta Diablo SD)

USEPA – Rick Stevens (OW/OST – National Biosolids Lead); Kathryn Gallagher (Branch Chief, ERAB / HECD / OST / OW); Santhini Ramasamy (OW / OST); Bob Bastian (OW / MSD); Andrew Hudock (OECA) – Electronic Reporting Rule update; Neeharika Naik-Dhungel (CHP Partnership Program Manager); Jeff Jollie and Bruce Kobelski (OGWDW / UIC Program) – Changes to the UIC Codes to incorporate the City of LA deep well injection program; Craig Dufficy (OSWER) – The Agency doesn't promote landfills as bioreactors

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Via Conference call - Lauren Fondahl (EPA Region 9 Biosolids Coordinator); Charlotte Ely (EPA Region 9 Air Office) – CAA (ozone standards) and climate change mitigation; Eric Byous (EPA Region 9 Air Office); Tom Huetteman (EPA Region 9 Air Office)

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1. CASA overview of regulatory and legislative issues in California as well as a summary of biosolids management practices. - Greg
2. Status of potential changes to part 503 – Rick Stevens - **No changes are anticipated in the foreseeable future for the federal biosolids regulations. This could change based upon the finalization of item 3.**
3. Status of risk assessment for the 9 constituents (plus molybdenum) identified in 2003 biennial review (and for those in the TNSSS) – Rick Stevens – **The new probabilistic risk assessment (PRA) for the ten constituents identified in 2003 is ~~in the final stages of internal peer review. An~~ undergoing external peer review ~~process is beginning~~ and will be completed by June 2014. At the conclusion of the peer review process, risk management decisions may need to be made by the agency. The remaining 135 pollutants analyzed during the Targeted National Sewage Sludge Survey (TNSSS) (2009) will be screened using a deterministic risk assessment (DRA) to determine hazard indices (HI). If a HI is over 1 it means that further evaluation is warranted (not necessarily a risk but that more review is needed), and ideally a PRA would be conducted. If a HI is less than 1, it means that pollutant needs no further evaluation. EPA believes it has enough data to conduct a (PRA) for about 72 of the constituents but that additional data would be necessary for the other 63. Work continues through WERF to fill those data gaps in a three pronged effort, in which I remain involved on the project team along with EPA and others. The DRA screening exercise should be completed by the end of this calendar year.**
4. EPA role in state action such as recent efforts in South Carolina relative to PCBs - Rick Stevens – **There was a recent illegal discharge of PCBs into a wastewater treatment system in South Carolina. The discharger has been identified and legal action is pending against them. However, the state of South Carolina initially recommended that all biosolids with any detectable level of PCBs should be banned from land application. At the request of a large biosolids management firm (who also does business in California), I provided information on PCBs from my experience as the biosolids regulator for the state of Wisconsin, including a**

paper I co-authored that was published in the Journal of Environmental Quality. We developed robust analytical methodology, including clean-up and extraction methods and which if used, our conclusion was that PCBs would be detected at very low levels in virtually every sample since they are ubiquitous in society. Our recommendation was to impose the risk based limit of 2.4 mg/kg developed as part of the part 503 rule. USEPA has been in discussion with them and will consider our recommendation. In the meantime, the state has modified their approach to institute a limit of 1 mg/kg in biosolids, which is likely achievable. However, we would still prefer to use a science based value (2.4) rather than an arbitrary value which we believe is based on soil screening values which are not applicable to land application. The reason this is of importance to us, is that once states take such an action, they are often copied elsewhere and can become a national standard (indeed North Carolina is not contemplating similar action).

5. Update on cancer slope factor for Inorganic Arsenic – Santhini Ramasamy (OW/OST) – **This ongoing effort is led by the Integrated Risk Information System (IRIS) program. It is of interest to us because in 2010 they recommended a new cancer slope factor (CSF) for inorganic arsenic that would have assumed a 17 fold increase in its carcinogenicity but used flawed scientific studies (in CASA and many others views) and for which many comments were submitted. The National Academies of Science recommended a defined process for determining which scientific studies were to be used in the development of CSF and IRIS is now following those protocols. A report on the process and the science used will be released by IRIS, including the use of recommended background levels from the NAS, and draft recommendations for a new CSF will be released to the NAS by the end of 2014.**
6. Products derived from wastewater and biosolids – Bob Bastian (OWM) – **Questions have surfaced over how to regulate products derived from wastewater or biosolids, such as struvite or phosphorus fertilizers such as through the Oster~~r~~a process. Understanding that it is a bit like fitting a round peg in a square hole, there is limited ability to regulate these products outside of part 503. More discussion will be necessary on this issue, but it was noted that there is no pathogen treatment process nor vector control process (I don't know; Boise proved it can be done and they submitted a 2014 compliance report for Struvite, demonstrating compliance with pollutants, pathogens, and VAR. Is there something about the Ostara process that is different?) to which these products are subjected, which makes regulation under part 503, tenuous at best. We indicated a strong willingness to work with EPA to help determine an appropriate path forward to facilitate the use of such products.**
7. Electronic Reporting Rule update (response to comments) - Andrew Hudock (OECA) – **USEPA released their draft rule in 2013 and the public comment period ended on December 12, 2013. A Supplemental Notice is expected to be released this summer and will include a response to public comments, clarification on a number of items from the proposed rule, and a new public comment period (IS THIS CORRECT? – I believe this is correct). A Final Rule is expected to be released in early 2015. It is expected that minimum data standards will be required but not a prescribed data base so that states can utilize their own system and transmit only those data points as required by federal law. (State or even individual facility? Not sure about this; I forwarded this to Andrew Hudock, but haven't heard back) Data systems will need to be CROMMER certified in accordance with 40 CFR 3. The final rule is not likely to include performance goals or limits. We will need to continue to monitor and track this process as specific questions related to our submitted comments remain unanswered. Mr. Hudock is very willing to work with us as this process proceeds.**

8. Efforts to refine Combined Heat and Power report on anaerobic digestion and methane utilization (how can CASA help) - Neeharika Naik-Dhungel (w/OAR and CHP Partnership Program) and How CASA can assist the Agency with renewable energy initiatives - Bob Bastian – **While EPA agrees that the report needs to be better quantified there is a real issue with where to obtain credible data. They worked with CASA and others on the WEF sponsored and NEBRA led national effort to update this data, but we agree it still needs improvement. Limiting funding and the lack of updated data from the Clean Water Needs Survey are outstanding and unresolved obstacles. While there are no plans to update the report soon, we agreed to continue to work with each other to try and determine a means to provide credible data on anaerobic digestion, methane utilization, and related renewable energy issues.**
9. Potential proactive action to mitigate competing requirements relative to CAA (ozone standards) and climate change mitigation (ie, South Coast rule 1110.2 forced by ozone severe non-attainment but which will force POTWs to flare methane rather than use it) – Bob Bastian (OWM), Eric Byous and Charlotte Ely (Region 9 Office of Sustainability) – **Kester provided a more detailed overview of competing priorities in California – GHG emission reductions versus CAA ozone requirements and the adoption by SCAQMD of Rule 1110.2. Byous noted his biogas workgroup is looking at technologies from around the world to allow cost effective compliance with the rule and confirmed that Region 9 is encouraging POTWs to accept hauled in organic waste for co-digestion for all the reasons stated under item 1 above. Omar Moghaddam also noted that the Department of Energy now also has direct interest in this. No real solutions appear immediately forthcoming however, we will remain engaged with the Region 9 workgroup and others.**
10. CA is actively seeking to eliminate organic waste at landfills – how does this comform with agency and national efforts to promote landfills as bioreactors? – Craig Dufficy (OSWER) – **The Office of Solid Waste does not officially promote the use of landfills as bioreactors. They do however acknowledge that there are landfills across the nation that do operate in that mode. Some even accept liquid biosolids or septage to promote the breakdown of waste, increased methane production and capture, and extended site life for the landfill. Examples include the Yolo County landfill (I will further investigate this) and one in Michigan.**
11. Changes to the UIC Codes to incorporate the City of LA deep well injection program - Jeff Jollie and Bruce Kobelski (OGWDW's UIC Program) – **Omar Moghaddam provided an excellent update on the Terminal Island Renewable Energy (TIRE) project. The City of Los Angeles is completing its 6th year of operation of deep well injection of biosolids at its Terminal Island plant into depleted oil reserve caverns at a depth of 6,000 feet. They have injected over 200 million gallons of biosolids at 6% total solids. They inject 100% of their Terminal Island biosolids as well as several truck loads a day from Hyperion. They have just been issued a new Class 5 UIC permit which will allow them to inject to a depth of 7500 feet. They are drilling a fourth well so will now use two wells for injection and two wells for monitoring, which will allow 24 hour injection while rotating between the two injection wells. They have monitored between 51 and 90% methane generation in the caverns but have not extracted any yet.**
12. Update on SSI rules relative to gasification. Also biosolids used as renewable energy source (i.e., fuel at cement kilns); on biogas (a commodity fuel processed from waste materials) from anaerobic digestion and sewage sludge processed into a non-waste biofuel – Amy Hambrick (OSWER) – **Amy was unable to join us but provided the attached summary in response to our questions. She was unable to provide an update on pending action related to the tailoring rule so we will follow up separately with her on that issue.**
13. Recycled water update and how to facilitate expanding the program. **Kester provided a summary of the recent survey conducted by WaterReuse and ACWA and the fact that funding**

is sorely needed to advance water recycling and that we can provide shovel ready projects to help address the drought in California. EPA was engaged and interested and we will continue the dialogue.

14. Update on pyrethroid survey conducted in California and discussion of regulatory approaches. (Held in the afternoon at OPP in Crystal City). Attended by Mike Connor, Greg Kester and Al Barefoot (Dupont and the Pyrethroid Working Group (i.e., Manufacturers) and Molly