

**Gilliam, Allen**

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**From:** Gilliam, Allen  
**Sent:** Wednesday, March 14, 2012 1:49 PM  
**To:** quinn@actagro.com  
**Cc:** Henderson, Katie  
**Subject:** AR0021580\_Osceola Categorical Determination Request\_Actagro Fertilizer mixing\_blending company 40 CFR 418 applicability\_20120314  
**Attachments:** Dev Doc Fertilizer.pdf; Actagro-Osceola Process Description.docx

Jack,

Per our phone conversation this morning, please find below the best answer I believe will be seen from EPA HQs in making a categorical determination for your process wastewater.

Based on the below from EPA HQs and my notes from conversations with EPA folks somewhat knowledgeable about the various categories (effluent guidelines) and their development, this office will have to agree that your process wastewater does fall under the categorical standards located in 40 CFR 416.70, Subpart G, Mixed and Blend Fertilizer Production Subcategory located @ [http://edocket.access.gpo.gov/cfr\\_2003/julqtr/pdf/40cfr418.70.pdf](http://edocket.access.gpo.gov/cfr_2003/julqtr/pdf/40cfr418.70.pdf) .

Should you wish to discharge any wastewater to the City's sewage collection system, your limits would be located in 40 CFR 414.76. Also as mentioned today, Actagro would be subject to reporting requirements (to ADEQ) under 40 CFR 403.12 @ <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=2753562da990f74bf99072c7e64a3e45&rgn=div8&view=text&node=40:29.0.1.1.4.0.1.12&idno=40> .

ADEQ has provided James Carlock with the City of Osceola with a Zinc local limit which I'm assuming you've seen.

Should you wish to pursue land application of your off-season waste fluids, Richard McConnell (phone # 501.682.0045; e-address [mcconnellr@adeq.state.ar.us](mailto:mcconnellr@adeq.state.ar.us)) would be the person to contact for that type of permit.

Please keep this office apprised of your decision.

Sincerely,

Allen Gilliam  
ADEQ State Pretreatment Coordinator  
501.682.0625

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-----Original Message-----

From: Jan Pickrel [<mailto:Pickrel.Jan@epamail.epa.gov>]  
Sent: Friday, February 17, 2012 2:20 PM  
To: Gilliam, Allen  
Cc: Ahmar Siddiqui  
Subject: Categorical Request: Fertilizer mixing/blending company in a non-pretreatment city - 40 CFR 418.76 (PSNS) applicability?

Dear Allen -

You requested assistance in determining whether a facility's process is subject to the categorical standards of 40 CFR 418, Fertilizer Manufacturing.

I have reviewed the process description you submitted via email on September 20, 2011, for the Actagro facility in Osceola, AR [process description dated 9/13/2011].

In addition, I have reviewed the Development Document for Fertilizer Manufacturing., dated 1975, as well as the associated Federal Register notices from 1974 and 1975, and in particular Subpart G of the regulations, "Mixed and Blend Fertilizer Production Subgroup.

In the process description, the process is described as having 2 distinct parts; first, treatment and processing of leonardite, followed by a second step of mixing with ammonia and phosphoric acid.

Part 1 - processing of leonardite - is described as follows:

Leonardite is put through inductors and into blenders of hot water.

"Using various methods, the outputs from the blenders are then separated to remove the insolubles because the leonardite is a mined product which contains soil particles and insoluble lignite."

Part 2 is a mixing of the extracted "(organic acids) and reacting them with anhydrous ammonia and phosphoric acid using a process called 'organic complexation'". Additional micronutrients are complexed with the organic acids, including zinc and manganese compounds.

The Federal Register for Subpart G = Mixed and Blend Fertilizer Production Subgroup [39 FR 36095, October 7, 1974] states:

"The mixed and blend fertilizer plants are subcategorized primarily on the basis of raw materials and the manufacturing and effluent control processes involved. The raw materials of this segment are principally products obtained from the basic fertilizer processes. The effluent control practices of the mixed and blend subcategory involve containment and reuse of the wastes."

"(2) Mixed and blend fertilizers. a mixed fertilizer is manufactured by the mixing of straight and mixed fertilizer materials through chemical reactions into complete mixed goods. The process involves the controlled rate addition of both dry and liquid raw materials to a granulator for mixing. The mixed fertilizer product is dried, sized, and cooled and then conveyed to storage or shipment. Significant process waste waters result from the use of water scrubbing of drier, cooler, and ammoniator exhaust gases. Water is also used for pump seals and plant wash-up. Spills and leaks and nonpoint source discharge also account for a small portion of the waste water load."

"The blend fertilizer process has no liquid requirements. Process raw materials include only dry materials, and only dry type air effluent control equipment is used. Treatment technologies are not required for this process to achieve no discharge of process waste water pollutants to navigable waters.

For mixed fertilizer plants the effluent control system consists of a closed loop contaminated water system with a small retention pond for settling and clarifying the contaminated water. Pond water is returned for use in the granulator and in wet scrubbers which remove noxious gases and particulate material."

The term "mixed fertilizer" and "blend fertilizer" are both defined in the regulation at 40 CFR 418.71(b) and (c) respectively.

40 CFR 418.71(b) The term mixed fertilizer shall mean a mixture of wet and/or dry straight fertilizer materials, mixed fertilizer materials, fillers and additives prepared through chemical reaction to a given formulation.

40 CFR 418.71(c) The term blend fertilizer shall mean a mixture of dry, straight and mixed fertilizer materials.

I found a definition for "straight" fertilizer materials through a tabulated list page 13 of the Development Document [adobe page 23], which separates "straight" versus "mixed" fertilizers.

Straight fertilizers are Ammonia, Urea, Ammonium Nitrate, Ammonium Sulfate, Phosphoric Acid, Normal Superphosphate, Triple Superphosphate.

Examples of mixed fertilizers in this table include Ammonium Phosphates.

Part 2 of the facility's process description fits the definition of mixing 2 different "straight fertilizers": '(organic acids) and reacting them with anhydrous ammonia and phosphoric acid using a process called 'organic complexation'].

I conclude that:

- Part 1 is treatment and processing of leonardite, realistically a mineral processing step. There is no effluent guideline nor categorical pretreatment standard under 40 CFR 436, Mineral Mining and Processing, for this. The wastewater or "reclaimed water" generated here would not be subject to categorical standards, but would be subject to local limits.

- Part 2 is "organic complexation" which is covered as a mixing process in Subpart G of 40 CFR 418. Any wastewater generated as part of this part is subject to 40 CFR 418.76.

Please let me know if you have any questions or concerns.

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