Ohio | Environmental Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

June 6, 2012

Ms. Julie Cotrell
Agrana Fruits US, Inc.
P.O. Box 459
Botkins, OH 45306-0459

RE: Pretreatment Compliance Inspection Notice of Violation

Dear Ms. Cotrell:

On May7th I met with you to conduct a pretreatment compliance inspection of your facility. A summary of reported violations since my previous inspection (including two reported for the current reporting period) is as follows:

Parameter	Date (2011)		Limit	Reported Value
Biochemical Oxygen Demand	April	26	218 mg/l	755 mg/l
			136 kg	271 kg
	May	3	218 mg/l	623 mg/l
			136 kg	283 kg
		10	218 mg/l	561 mg/l
			136 kg	282 kg
		18	218 mg/l	241 mg/l
			136 kg	139 kg
Total Suspended Solids	May	3	218 mg/l	228 mg/l
	Date (2012)			
Total Suspended Solids	April	17	218 mg/l	222 mg/l
		24		325 mg/l

There is a strong case that Agrana's high biochemical oxygen demand in March and April 2011, caused by the loss of blowers, was likely the cause for the village of Botkins violating its monthly average total suspended solids limit in April 2011 as the organic load was converted into biomass. The performance of their plant improved in May as Agrana's loading decreased through improved performance of the treatment lagoon. With your prior explanations, there is no need to address these violations.

Wastewater Diversion to Large Lagoon

During the time you were experiencing problems with the aeration system in 2011, Agrana diverted 623,000 gallons of wastewater from the treatment lagoon to the large storage lagoon in March, 1,687,000 gallons in April and 767,000 gallons in May. Significant volumes are diverted during other months. I am not aware of any odor issues from these significant volumes of wastewater transfers to the storage lagoon.

Southwest District Office
401 East Fifth Street
Dayton, OH 45402-2911

937 | 285 6357
937 | 285 6249 (fax)
www.epa.ohio.gov

My concern is that the large lagoon may be a kind of "rug" that excess or troublesome wastewater is "swept under" thereby giving a false picture of the capability of the wastewater pretreatment system to handle all the wastewater generated. It is unclear whether any wastewater sent to the large lagoon is returned to the treatment lagoon. To address my concern, I ask that you include a note with future e-DMRs for station 602 explaining why reported wastewater flows were routed to the large lagoon.

Breakdowns of DAF Unit

You have recently indicated that the total suspended solids violations in April 2012 were caused by two breakdowns of the dissolved air flotation (DAF) unit that weren't caught in time to shut down the discharge and avoid the violations. The first violation was caused when the control board for the new DAF sludge pump went bad on a sampling day and the second was when a skimmer paddle broke on another sampling day. I encourage you to either look for alarm systems for these components or increase the frequency of system checks to ensure breakdowns are identified more quickly to avoid future violations.

Conditions in the Treatment Lagoon

The treatment lagoon is currently recovering from solids settling out because Agrana allowed the water level in the lagoon to rise to the point that the air diffusors lifted off the bottom of the lagoon. With the water level lowered to normal (identified as being the crown of the top withdrawal pipe), the anaerobic solids on the bottom of the lagoon are re-suspended which has caused the color of the mixed liquor in the lagoon to be black. The solids removed by the DAF were also black. I did not notice any objectionable odor.

There were a few points in the diffusor system where it appeared there were air leaks that need to be repaired and you indicated that you planned to attend to them. It is important that you maintain the aeration system for the lagoon (blowers and diffusers) so as to minimize breakdowns and optimize treatment.

Composite Sampling

In the past, I have noted that composite samples were collected at a rate of 750 milliliters every 5,000 gallons discharged. However, when we checked the programming of the automatic composite sampler, it was unclear how composite samples are collected. Actually, with a discharge of 145,000 gpd, this setting would produce a final composite volume of over 21 liters which is greater than the composite sample jug. It appeared that the sampler shuts off after 96 aliquots which is normally indicative of time-proportional sampling (100 ml/ 15 minutes = 9,600 milliliters which is just under the capacity of a typical 10-liter composite jug).

Please review the programming and let me know how it has been set and whether any changes are necessary or planned. It is ideal to target filling a 10 liter composite jug to approximately half full. With an average discharge of approximately 145,000 gpd, consider programming the sampler to collect 100 milliliters every 2,500 gallons discharged.

Filter Press Backwash Pilot Study

Agrana is seeking to send backwash from the belt filter press to the discharge instead of the current practice of returning it back to the treatment lagoon. You are proposing to run a pilot study to evaluate the impact this change might have on the quality of your discharge. I am agreeable to conducting a pilot study so long as it does not cause or contribute to violations of your indirect discharge permit. If you wish to pursue this study, a proposed pilot study plan should outline at least the following:

- When the study would start;
- The duration of the study;
- Mechanism for re-routing the backwash to the discharge monitoring point;
- Special monitoring to be performed (parameters, location(s) and frequency);
- Criteria for determining viability of continued routing of backwash to the discharge; and
- Criteria for suspending or discontinuing the pilot study.

During the time of the study, I believe all collected monitoring data should be reported frequently (weekly or bi-weekly) to me so I can track the impact of the filter press backwash on your discharge instead of waiting until the end of the study or until you otherwise submit an e-DMR at the normally-required frequency.

To truly evaluate the viability of routing the filter press backwash to the discharge, I believe it will be necessary for Agrana to not discharge wastewater from either the treatment lagoon or DAF unit to the large lagoon. Exceptions could exist if the village of Botkins requests that you suspend discharge because of problems they are experiencing at their wastewater treatment plant, but I would expect that you would also suspend the pilot study during such times. Please let me know if you plan to pursue this pilot study and, if so, when you expect to submit a plan for it.

Please provide a written response to the topics raised by this letter by June 25th. If you have any questions about this letter or the inspection form, please contact me at (937) 285-6095.

Sincerely,

Matt Walbridge
Pretreatment Coordinator
Division of Surface Water

MW/tf

Enclosure

cc: Jesse Kent, Village of Botkins
Ryan Laake, Ohio EPA/Central Office/DSW

Ohio Environmental Protection Agency

Southwest District Office

PRETREATMENT INSPECTION REPORT

PERMIT NUMBER	FACILITY NUMBER	DATE CONDUCTED
*1DP00022*CP*	*OHP000126*	*May 7, 2012*

INSPECTION TYPE	INSPECTOR	FACILITY TYPE	TIME IN	TIME OUT
I	*S*	*2*	*1000*	*1300*

GENERAL INFORMATION

NAME AND LOCATION OF FACILITY

Agrana Fruit US, Inc.
16197 North County Road 25-A
Botkins, OH 45306

POTW RECEIVING DISCHARGE

Village of Botkins WWTP

MAILING ADDRESS OF FACILITY

Agrana Fruit US, Inc.
P.O. Box 459
Botkins, OH 45306

CONTACT (NAME/TITLE/PHONE/E-MAIL)

Ms. Julie Cotrell / Regulatory Coordinator / (937) 693-3821 / Julie.COTRELL@agrana.com

FACILITY EVALUATION (See Inspection letter for more complete description)

(S = Satisfactory, M = Marginal, U = Unsatisfactory, NA = Not Applicable)

M	Sampling Procedures	*NA*	Compliance schedule requirements
S	Reporting	*M*	Notification
*U**	Compliance with effluent limits	-	Other -

see inspection letter for summary

Name and Signature of Inspector(s)	Agency / Office / Telephone	Date
Matt Walbridge	*Ohio EPA / Southwest District Office / (937) 285-6095*	6-6-12
Signature of Reviewer	*Ohio EPA / Southwest District Office / (937) 285-6034*	Date 6/6/12

INDUSTRIAL USER INSPECTION CHECKLIST

Facility: ***Agrana Fruits US, Inc.***

Date of inspection: ***May 7, 2012***

Facility Number: ***OHP000126***

IDP Number: ***1DP00022*CP***

Facility Representative: ***Julie Cotrell***

Inspector(s): ***Matt Walbridge***

COMPLIANCE

1. Date of last pretreatment inspection: ***April 7, 2011***

2. Has the facility been in compliance with its permit limits since the last inspection? ~~Y~~ / N
   If no, explain: ***Violations of daily concentration and mass limits as follows:***

Parameter	Date (2011)		Limit	Reported Value
Biochemical Oxygen Demand	April	26	218 mg/l 136 kg	755 mg/l 271 kg
	May	3	218 mg/l 136 kg	623 mg/l 283 kg
		10	218 mg/l 136 kg	561 mg/l 282 kg
		18	218 mg/l 136 kg	241 mg/l 139 kg
Total Suspended Solids	May	3	218 mg/l	228 mg/l
	Date (2012)			
Total Suspended Solids	April	17	218 mg/l	222 mg/l
		24		325 mg/l

3. Is the facility in compliance with all other requirements?
   Sampling procedures ***(although there is some question about flow-proportional sampling)*** Y / ~~N~~ / ~~NA~~
   Reporting (late reporting, failure to report, etc) Y / ~~N~~ / ~~NA~~
   Compliance schedules ~~Y~~ / ~~N~~ / NA
   Submitted BMR and 90 day compliance reports ~~Y~~ / ~~N~~ / NA
   Any other requirements ~~Y~~ / ~~N~~ / NA

   If any of the above five answers is no, explain:

4. Was the facility required to perform any actions as a result of the last inspection? Y / ~~N~~
   Explain any unresolved actions: ***None***

FACILITY OPERATIONAL CHARACTERISTICS

5. Number of Employees: ***~145***

6. Shifts/Day: ***3*** ***(sanitation usually occurs on 2nd shift on Tuesdays)***

7. Production Days/Year: ***~252*** ***(5-day work weeks w/ some Saturdays)***
   (6 or 7-day work weeks during January – March because New Year's resolution diets)

8. Hours/shift: ***8***

9. Any production changes since the last inspection? Y / ~~N~~
   If yes, explain: ***In the fall of 2011, the cherry line was removed and made into Line 8. With the removal of the cherry line, there is no longer a brine waste. Seven of the eight lines are normally being operated. (Line 7 is normally not run)***

10. General facility description and operations:

    Fruit preparations for use in the dairy industry. Sole supplier to Dannon. Also supply Yoplait.

    Frozen Fruit → Thaw → Portioning → Cooker → Cool → Packaging → Cool → Ship

    ↑ *starch, sweeteners, flavor, etc.* ↑ *mostly totes (~99%)*

11. Any change in materials used in production since the last inspection? ~~Y~~ / N

If yes, explain:

(Basic ingredients include fruit, starch, pectin, sweeteners and flavorings)

12. Any expansion or production increase expected within the next year? Y / ~~N~~
If yes, explain:

Production is expected to increase.

WASTEWATER TREATMENT

13. Provide a schematic diagram and description of the wastewater treatment system:

Please see attached diagrams.

14. Was a PTI issued for the treatment system? Y / ~~N~~

15. Were there any modifications to the treatment system since the previous inspection? Y / ~~N~~

A new variable-speed centrifugal sludge pump has been installed to replace the air diaphragm pump which broke down and was very loud. The break down caused a limit violation.

A third new blower for the treatment lagoon is ready to be installed where the remaining original is located. The remaining original is starting to show signs of wearing out. The new blower needs to be retrofitted to allow installation and is expected to be installed by the first part of June.

If yes, was a PTI obtained? ***Blower is presumed to be an in-kind replacement.*** ~~Y~~ / N
The new sludge pump likely requires a PTI.
PTI Number: Date:

16. What is the treatment mode of operation? ~~Batch~~ / Continuous / ~~Combination~~

If batch, list the frequency and duration:

17. Who is responsible for operating the treatment system?

Julie Cotrell is the supervisor. The treatment lagoon operates 24/7. The DAF system is operated 24 hours per day, Monday through Friday fifty percent of the time and 24 hours per day seven days per week the other fifty percent of the time. This is based on the DAF not being operated two Sundays a month. The belt filter press is operated 8 hours per day, 5 days a week. Terry Fisher operates the DAF/belt filter press during 1st shift and it is his primary responsibility. Other staff in the maintenance department operate the system during 2nd and 3rd shifts if needed to make up for lost time on 1st. System checks on 2nd and 3rd shifts are documented.

18. How often is the treatment system checked?

Throughout the day.

Operational targets are ~5,000 MLSS (up from ~3,000) which is checked weekly. An Imhoff cone is used daily to check for settlability.

19. Is there an alarm system for the system? Y / ~~N~~
Explain: ***Ms. Cotrell has five web cam feeds of the DAF to her desktop PC where she can see if surface solids get too close to the effluent end of the DAF. There is an autopager for the aeration power system and a high and low-level alarm on the lift station. There is also a relay to shut off the discharge pump if daily flow exceeds permitted flow at the DAF and at the monitoring location.***

There are set points for flow for the DAF influent and effluent. There are set points for pH on the effluent from the DAF. There is also an alarm for diversion of flow to the treatment lagoon.

20. Is there an operations and maintenance manual? Y / ~~N~~
The equipment maintenance manuals have been inserted into the preventive maintenance scheduler – this included the blowers that recently failed. The maintenance manual was generated in-house and was scheduled to be reviewed in early May.

21. Is an inventory of critical spare parts maintained? Y / ~~N~~
If yes, list: ***They have an automated inventory management system (keeps track of when inventory is tapped and notifies when it's time to order new parts).***

Belts and oil for the blowers.
Actuator and cylinders for belt filter press, extra belt for press, rebuild kits for pumps.
Motors for pumps can be fixed in a few days. The filter press belt recently failed because of a broken roller/cylinder. There isn't an extra belt.

22. Are there any ~~bypasses~~ diversions in the system? ~~Y~~ / N
If yes, describe the location:
(Although wastewater was diverted from the treatment lagoon up to the large lagoon.)

Have ~~bypasses~~ diversions occurred since the last inspection? ~~Y~~ / N

Was the POTW notified? ***NA*** ~~Y / N~~

23. Are residuals or sludges generated? Y / ~~N~~

Method of disposal: ***Sludge from DAF filter press goes into a trailer and then is hauled to Kloeppel Farm as animal feed and compost feed stock.***

Residues from the micro screen, from C.I.P. and tote washing and any off-spec materials are collected in a tanker kept on-site. Agrana has hog and cattle farmers that pick it up for use as animal feed.

Frequency and amount of disposal: ***~5,000 gallons of residues from the micro screen, C.I.P., tote washing and any off-spec materials are generated from weekly to monthly (depends on how much off-spec material is generated).***

Approx. 20 tons of DAF solids (pressed) are generated twice a week. About ten loads per month. The amount has increased significantly beginning in March 2012 when they started processing all the accumulated solids in the treatment lagoon.

Name of hauler/landfill/disposal facility: ***Jay Holman out of the Maria Stein area (hog farmer) takes the residues - Ringler Feeds is the back-up. Kloeppel Farms takes the DAF solids and waste fruit – believe they're using it in animal feed.***

Is any sludge generated subject to RCRA regulations? ~~Y~~ / N

If land applying sludge, is there a sludge management plan? ***N.A.*** ~~Y / N~~
Composting facilities are not covered by surface water rules

PROCESS AND WASTEWATER INFORMATION

24. List all processes generating wastewater, current wastewater flows, and where applicable, production rates as well as values on which the permit limits are based:

REGULATED PROCESS	SAMPLE LOCATION	WASTEWATER FLOW (GPD)		PRODUCTION DATA (SPECIFY UNITS)	
		Permit	Current	Permit	Current
1. *Tote Washing*	*N.A.*	-	*Flows from individual processes are not measured*	*N.A.*	*N.A.*
2. *Clean in place (CIP)*	*N.A.*	-		*N.A.*	*N.A.*
3. *Floor Wash Downs*	*N.A.*	-		*N.A.*	*N.A.*
(These 3 are in order of water usage)					
4.					
5.					
Total Regulated Process Flow	*Flow Monitoring Station*	*165,000*[1]	*~135,000* [2]		
Noncontact Cooling	-	-	-		
Boiler Condensate	*(3)*	-	-		
Reverse Osmosis		-	-		
Demineralizer Regeneration	*(3)*	-	-		
Softener Backwash	-	-	-		
Filter Backwash	-	-	-		
Compressor Condensate	-	-	-		
Storm water	-	-	-		
Total of Dilute Flows	*N.A.*	*N.A.*	*N.A.*		
Unregulated Flows	*N.A.*	-	-		
Sanitary	*N.A.*	*N.A.* [3]	*N.A.* [3]		
TOTAL FLOW	*Flow Monitoring Station*	*165,000*[1]	*~135,000* [2]		

[1] Can be higher if O.K.'d by Village of Botkins and OEPA.

[2] This valued is based on reported discharge flows for 2011. The average flow for the last six months of 2011 is approximately 145,000 gpd.

Higher flows on some production days/weeks are attenuated by the volume of the treatment lagoon.

Substantial volumes of wastewater have been sent to the large storage lagoon.

[3] Only process wastewater is present at sampling point. Other wastewaters (sanitary, regeneration of small softener used for boiler feed) are discharged to the sewer via a separate line.

25. For the above flows not discharged to the POTW, list point of discharge and permit (if any).

(Storm water runoff is discharged through a swale to the roadside ditch in front of the facility – this runoff continues to appear to be of poor quality at the point of origination but is dispersed as it travels through the grassy lawn area prior to the roadside ditch.)

SELF MONITORING

26. Sample location(s) described in the facility's permit:

"Flow-proportional samples shall be collected from the wastewater treatment system flow monitoring station."

27. Is the facility sampling at the location(s) described in the permit? Y / ~~N~~
If no, describe the actual location:

28. Is the location(s) where the facility is sampling representative? Y / ~~N~~
If no, indicate a representative location:

29. Is the flow measured or estimated? Measured / ~~Estimated~~

If measured, how often is the meter calibrated?

ISCO came out to the facility in Fall 2011 to calibrate the meter. They indicated that they performed some type of repair; it would be good to know what that repair was.

Agrana often checks to see if the meter reads zero when there is no flow.

If estimated, describe method of estimation:

30. Is pH monitored continuously? ***(The lowest recorded value is what is required to be reported)*** Y / ~~N~~

If yes, how often is the meter calibrated?
Every month – it's part of the preventative maintenance program.
Done using 4 & 10 buffer solutions with a 7 buffer solution check.

31. Does the facility collect its own samples? ~~Y~~ / N
If no, specify the sample collector:
Terry sets up the automatic sampler to collect the sample. Mr. Swank picks up the sample and takes it to the lab.

The autosampler collects a sample every day. Personnel from the Village of Botkins empty the sample jug every day after they pick up their sample - except on Tuesdays.

Agrana collects their weekly sample on Tuesdays (the village won't dump if they're there first).

32. Are appropriate sampling procedures followed?
Monitoring frequencies Y / ~~N~~
Sample collection (grab for pH, O&G, CN, phenols, VOCs) Y / ~~N~~
Flow proportioned samples ***(~750 ml aliquot collected every 5,000 gallons*)*** Y / ~~N~~
Proper preservation techniques Y / ~~N~~
Sample holding times Y / ~~N~~
Chain-of-custody forms Y / ~~N~~
**** although a review of the programming raised questions – this is a follow-up item***

33. Are samples analyzed in accordance with 40 CFR 136? Y / ~~N~~

34. Laboratory conducting analyses:

Brookside (Chain of Custody sheets are returned with analytical results)

TOXICS MANAGEMENT

35. Are any listed toxic organics used in the facility? ~~Y~~ / N
If yes, identify organics:

36. Does the facility have a current toxic organic management plan (TOMP)? (N *NA* ~~Y~~ / N

If yes, is it being implemented? *NA* ~~Y / N~~

37. Has the facility had any uncontrolled releases or spills to the POTW since the previous inspection? If yes, please explain: ~~Y~~ / N

38. Does the facility need a spill prevention plan or slug discharge control plan? ~~Y~~ / N

If yes, does the facility have a written plan? *NA* ~~Y / N~~

39. Identify any potential slug load or spill areas: ***There are 300-gallon totes of aqua ammonia and phosphoric acid that are used to feed nutrients to the treatment lagoon. Chemical is fed using a small feed pump. The slug load potential from an upset of the treatment system is considered low.***

REQUIRED FOLLOW-UP ACTIONS

See inspection letter.

OBSERVATIONS

- ***A new blower was being stored in the treatment building awaiting installation.***
- ***Looking into possibly discharging filtrate from the filter press instead of sending it back to the lagoon.***
- ***They let the water level in the treatment lagoon rise which lifted the air diffusors off the bottom of the lagoon which caused solids to settle out. Agrana has identified that the proper water level is at the crown of the top withdrawal pipe.***
- ***There was an odd accumulation of strands of a gelatinous material on the sampler intake strainer ahead of the flume in the sampling manhole (not sticking to it – just hung up on it they broke up and floated away freely). The material was clear, had no odor and was difficult to break. It might be related to polymer usage.***
- ***Sampler programming was not able to be discerned when they tried to step through it to get pacing information. It appeared that the aliquot volume was 370 milliliters, but it wasn't determined what the frequency interval was (gallons discharged or elapsed time)***
- ***In 2011 Agrana sent almost 5 million gallons of waste water from the treatment lagoon and approximately 400,000 gallons from the DAF unit to the large storage lagoon.***
- ***Returned totes (full or partially full) are now dumped into a tanker truck located outside the waste water treatment building.***
- ***Beginning in March 2012, returned totes (essentially empty) now get rinsed out with water into a tanker prior to cleaning/sanitizing. This tanker is located next to the production building. This rinse water used to go to the drain to the treatment lagoon. This removes ~12,000 gallons per week of waste water going to the lagoon.***