



State of Ohio Environmental Protection Agency

Northeast District Office

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Twinsburg, Ohio 44087

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Ted Strickland, Governor  
Lee Fisher, Lieutenant Governor  
Chris Korleski, Director

July 24, 2008

RE: CHAPARRAL CAMPGROUND  
MAHONING COUNTY  
GREEN TOWNSHIP  
NPDES PERMIT NO. 3PR00346

Mr. Tim Armbruster, Owner  
Chaparral Family Campground  
10136 Middletown Road  
Salem, OH 44460

Dear Mr. Armbruster:

On July 18, 2008, this writer met with you to inspect and discuss the wastewater treatment system for the Chaparral Family Campground. Following is a record of observations and discussions during the meeting and inspection.

Observations

1. The activated sludge in aeration tank appeared to be light. Mixing and air supply to the tank were both satisfactory. Both sludge return lines were returning a light sludge to the aeration tank. The color of the aeration tank was medium brown. A good activated sludge culture evident by a biological floc was not apparent.
2. At the time of the inspection, one of the two blowers was operational. We discussed the problems you have had with the motors. You indicated that motors have failed in the past because of several potential reasons that are now being addressed.
3. The clarifiers had a heavy growth of duck weed on the surface. However, the clarifier baffle was preventing the duck weed from migrating to the weir. As we discussed, the surface skimmer is missing and in need of replacement in order to reduce amount of scum and plant growth on the surface of the clarifier. The surface of the clarifier should be free of any scum, sludge or plant growth.
4. We discussed that the v-notched weir plates were in need of replacement. One location of the weir was leaking through the wall directly into the weir trough.

A potentially inexpensive way to correct this problem is to manufacture new v-notched weir plates. The new weir plates must be manufactured with bolt slots so that the plates can be leveled after installation. The old weir plates can be removed by unbolting from the sides of the weir trough. The new plates can then be bolted onto the sides of the trough and leveled once installed.

5. Both dosing pumps were operational at the time of the inspection. This writer previously recommended that the control box be replaced. It was explained during the meeting that instead of replacing the control box, you preferred to replace the hinges and gasket on the door, and place a cover over the box to protect it from the weather. This writer is agreeable to these proposed maintenance items in lieu of purchasing a new control box. The control box must be made waterproof and safe for access.

6. The sand filters were being cleared of weeds at the time of the inspection. You were cutting the weeds and burning the stalks in preparation for removing roots. As discussed, the sand will be raked as free of vegetation as possible and leveled. The walls for three of the four filters were previously repaired. The concrete walls for one sand filter remained to be repaired.
7. At the time of the inspection, both the chlorination and de-chlorination systems were installed and the appropriate tablets were in each. The tablets must be maintained in the holders during the period of May 1<sup>st</sup> through October 31<sup>st</sup> of each year.

### Compliance Review

A review of the Monthly Operating Reports for the Chaparral Family Campground was conducted to determine the compliance status of the wastewater treatment plant. The period of review was July 2007 through June 2008. Following are violations of the NPDES Permit identified for the review period.

<u>Parameter</u>	<u>Limit Type</u>	<u>Limit</u>	<u>Reported Value</u>	<u>Violation Date</u>
Chlorine, Total Residual	1D Conc.	0.019	.12	8/1/2007
Chlorine, Total Residual	1D Conc.	0.019	.25	8/15/2007
Chlorine, Total Residual	1D Conc.	0.019	.1	9/12/2007
Chlorine, Total Residual	1D Conc.	0.019	.08	9/26/2007
Chlorine, Total Residual	1D Conc.	0.019	.08	10/3/2007

We discussed the chlorine violations during the meeting. You indicated that changes were made to the number of chlorine tablets in the dispenser. The number of tablets was reduced to a level necessary to disinfect the wastewater while at the same time maintaining compliance with the residual chlorine limit in the NPDES Permit. No violations of the fecal coliform or residual chlorine limits have been documented in 2008.

### Actions to be Taken

During the meeting and inspection, we discussed the merits of monthly inspections to monitor improvements to the system. Following are activities improvements we agreed will be taken prior to the next inspection on August 15, 2008.

1. Re-furbish two of the sand filters. The improvements include:
  - a. Removing the remaining vegetation, including as much of the root material as possible,
  - b. Replacing the distribution pipes with 6 in. PVC pipe and ending with notched, downturned elbows and pipe supports if necessary,
  - c. Placing splash plates at the outlet from the distribution lines and placing gravel (1 or 2 inch gravel) approximately one or two feet around the splash plate to prevent sand erosion, and

Mr. Tim Armbruster  
Chaparral Family Campground  
July 24, 2008  
Page 3

- d. Possibly place weed barrier fabric on one of the filters to see if this is effective at preventing weeds from germinating in the filter beds. As you mentioned, the filter fabric should be secured with anchors to prevent wind disturbance.

A general drawing of a slow sand filter is enclosed with this letter.

2. Build and install a new clarifier skimmer.
3. Mow all remaining areas surrounding the wastewater treatment system. All areas of the treatment plant must be kept accessible by mowing at least once every two weeks.

We also discussed activities for the September inspection. They are as follows.

1. Refurbish the remaining two sand filters as described above and include the repair of the filter walls on the remaining filter.
2. Make the control box for the dosing system weather proof by replacing the weather stripping inside the door and replacing the hinges. You also discussed building a box to fit over the existing control box to protect against water intrusion.

### Operations and Maintenance

A good O&M plan is important for keeping the system in good working order. The activities become routine once they are established by you and your operator.

On an ongoing basis, it is recommended that you review and follow the enclosed operation and maintenance schedule. This schedule is intended to help you and your operator identify items that need periodic service and to establish a preventive maintenance schedule. Also, it is recommended that the enclosed Monthly Operation and Maintenance Record be used to document activities at the treatment system.

For additional information regarding the Operations and Maintenance of a package plant, a detailed guidance manual for operations and maintenance of package plants is available at the following Web address:

<http://www.epa.state.oh.us/dsw/documents/PacPlant2000.pdf>

### Operator Contract

The NPDES permit issued to Chaparral Family Campground required that the treatment system be under the direction of an individual with at least a Class I certification. As discussed, a contract with the Class I operator is advantageous for the Chaparral Family Campground. Following are items that should be included in the contract.

- Operations and maintenance items that you would like to see the operator complete such as:

Mr. Tim Armbruster  
Chaparral Family Campground  
July 24, 2008  
Page 4

- (i) Spend at least 3 days per week for a period of 1.5 hrs per week at the treatment system and maintain on site for inspection, a log book of times on site and activities conducted each day (required),
- (ii) Clean weir trough if needed,
- (iii) Scrape clarifier hoppers each visit,
- (iv) Check blower belts and air filter each visit,
- (v) Check sludge return lines and notify the owner if a problem is identified,
- (vi) Skim the clarifiers of material if needed,
- (vii) Check the disinfection chemicals each visit and notify the owner if additional chemicals are needed,
- (viii) Conduct 30-minute settling test 1/month to determine if sludge should be removed from the system (highly recommended), and
- (ix) Provide technical assistance regarding operations, routine maintenance and repair requirements (highly recommended).

You had indicated that maintenance items, such as keeping the sand filters clean, switching the filters, and replacing disinfection tablets, would be completed by you rather than the operator. Items ii through vii above could also be done by you to reduce operator costs. However, the items must be done routinely, at the frequency included in the attachments, in order to prevent problems with the system.

- Submit monthly reports to Ohio EPA with a copy of the report to the Chaparral Family Campground. Attached to the report should be either an electronic receipt form Ohio EPA for electronic submittals, or a receipt from the postal service for hardcopy reports sent to Ohio EPA,
- Return of all property and records regarding the treatment plant upon termination of services, and
- Include a term of contract agreement. The term should not be for less than 12 months.

The items stated above are regarding operations and maintenance of the treatment system. Be advised that recommendations of legal issues, such as the transferability of the contract, are not the intention of this letter. The contract should be reviewed by attorneys for both parties.

#### "Ability-to-Pay" Information

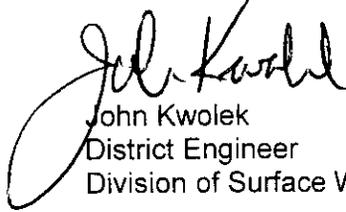
Finally, you requested information regarding the ability to pay a penalty for past violations. Enclosed with this letter is a summary of information that should be submitted to our legal section in Columbus. Your contact regarding this issue is Pete Simcic. The requested information should be sent to the following address.

Pete Simcic, Attorney  
Ohio EPA  
P.O. Box 1049  
Columbus, Ohio 43216-1049

Mr. Tim Armbruster  
Chaparral Family Campground  
July 24, 2008  
Page 5

You may contact this writer at (330) 963-1251 to discuss any questions you may have regarding this letter, the wastewater treatment plant, or the NPDES Permit.

Respectfully,



John Kwolek  
District Engineer  
Division of Surface Water

JK/mt

Enclosures (5)

cc: Joe Mansky, Mahoning County Health Department  
Pete Simcic, Ohio EPA, Legal, CO

File: Semi-Public/Mahoning County/Green Twp./Chaparral Family Campground