Exhibit No.:

Issue(s):

DNR Regulations and Violations

Warren County Water and Sewer-Water System

Witness/Type of Exhibit:

Daugherty/Surrebuttal

Sponsoring Party:

Public Counsel

Case No.:

WC-2002-155

# SURREBUTTAL TESTIMONY

# **OF**

# **DANIEL DAUGHERTY**

Submitted on Behalf of the Office of the Public Counsel

OFFICE OF THE PUBLIC COUNSEL

v.

WARREN COUNTY WATER & SEWER COMPANY AND GARY L. SMITH

Case No. WC-2002-155 (Consolidated with SC-2002-160)

# BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

Office of the Public Counsel, ) Complainant, )	
v. )	Case No. WC-2002-155
Warren County Water and Sewer ) Company and Gary L. Smith, ) Respondents.	
AFFIDAVIT OF	DANIEL DAUGHERTY
STATE OF MISSOURI )	
COUNTY OF ST. LOUIS )	
Daniel Daugherty, of lawful age and be	ing first duly sworn, deposes and states:
1. My name is Daniel Daugherty. Resources.	I am employee of the Missouri Department of Natural
<ol> <li>Attached hereto and made a par consisting of pages 1 through 26.</li> </ol>	t hereof for all purposes is my surrebuttal testimony
<ol> <li>I hereby swear and affirm that n true and correct to the best of my knowledge a</li> </ol>	ny statements contained in the attached testimony are and belief.
	Daniel Daugherty Daylory
Subscribed and sworn to me this 23 day of	
	College M. McCabe Notary Public
My commission expires 10/16/04	The state of the s
	COLLEEN M. McCABE Notary Public - State of Miscouri

APR-22-2002 16:33

County of St. Louis
My Commission Expires Oct 16, 2004

## STATE OF MISSOURI

# PUBLIC SERVICE COMMISSION

OFFICE	OF THE	PUBLIC	COUNSEI	ن	)	No.
					)	
	vs.				)	No. WC-2002155
					)	
WARREN	COUNTY	WATER 8	SEWER	COMPANY	)	
and GAI	RY L. SN	/ITH			)	

SURREBUTTAL DEPOSITION OF DANIEL DAUGHERTY, produced, sworn and examined on behalf of the Office of the Public Counsel on April 3, 2002, between the hours of eight o'clock in the forenoon and six o'clock in the afternoon of that day at the Department of Natural Resources, 9200 Watson Road, St. Louis, Missouri, before JANINA A. JAEGER, a Registered Professional Reporter and a Notary Public.

## APPEARANCES

The Office of the Public Counsel was represented by M. RUTH O'NEILL, Assistant Public Counsel, Office of the Public Counsel, Department of Economic Development, State of Missouri, 200 Madison Street, Suite 650, Jefferson City, Missouri 65102.

WC-2002-155

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- Q. What are your duties with the Missouri DNR?
- I'm a field unit chief under the Water Α. Section with the St. Louis Region. I supervise employees primarily in the drinking water unit. I conduct inspections of public water supplies. I provide technical assistance to public water supplies and the water supply operators. I collect samples and investigate consumer complaints. I also provide training for new employees here within the drinking water unit, and I also assist in conducting training for all MDNR drinking water field staff that our department puts on about every two years.
- In performing your duties with DNR, are you 0. familiar with the operation of Warren County Water and Sewer Company?
  - Α. Yes.
- Please describe how you became aware of this company?
- I first inspected the water system before it Α. was Warren County Water and Sewer Company in November of The next inspection was of the water and waste water system of March 1994 by which time it had become Warren County Water and Sewer Company.
- Please describe your duties related to this Q. company?
  - I conducted inspections of the water and

waste water treatment system from 1991 to recently, or within the last two years. I investigated some customer complaints, collected water samples, both drinking water and waste water samples, random checks of the system. I have been in contact with Mr. Smith from time to time when he's called in to ask questions or requested assistance.

- Q. How often, on average, do you go to the Warren County Water abd Sewer territory?
- A. At most it would have to be about once a year. That's an average. We normally do inspections of the waste water systems prior to permit renewal, which is every three years, if I'm not mistaken, and for drinking water the normal rate is once every three to four years.

However, in one year, at the request of the homeowners' association, I did four quarterly inspections in one year. That would be for inspections. Other times I would, might be by there during the course of the year to investigate a complaint or collect a sample as a response to an inquiry from a customer.

- Q. So you do have contact with the company's customers?
  - A. Yes, from time to time.
- Q. And is that generally in response to complaints that the customers have?
  - A. Yes, usually in response to a complaint.

frequently?

- A. Yes, depending upon the contaminant we are looking for. Nitrates and disinfective by-products are tested for annually. Most of the other chemicals are tested for once every three years with the exception of radiologicals, which is usually once every four years.
- Q. And if there is chlorine or some other kind of disinfectant used, are there tests for that?
- A. The water systems that are disinfect are supposed to test for a daily chlorine residual at least daily, and also at time of collecting a bacteriological water sample.
- Q. Are they supposed to report those results to you on any schedule?
  - A. Only if we've requested it.
- Q. Has this company had problems complying with their monthly testing sample requirements?
- A. Not with the bacteriological testing. A review of the most recent six years has revealed only three violations that have occurred during that time period.
- Q. And can you describe those violations, please?
- A. Yes. The oldest one was in February of 1996 when no sample was submitted. That was referred to as a major monitoring violation.

In July 2001 the water system had a maximum contaminant level violation for total coliform bacteria when they had two or more routine samples test positive for coliform bacteria, and then in August he had a minor monitoring violation where he was supposed to submit five routine samples in August following the sample in July, but only two routine samples were submitted, and both of those routine samples were safe.

- Q. Is there any requirement about where he is supposed to take the samples from?
- A. They are to come from the distribution system and should be taken at a routine site that he has designated on a sampling site plan.
- Q. Do you know whether or not he has a sampling site plan?
- A. I'm not a hundred percent positive, but I believe he did submit one, although he has inadvertently added at least a dozen more sampling sites to that plan by collecting routine samples at new houses that were not orginally part of the plan.
  - Q. Okay. How are the samples collected?
  - A. His samples, or our samples?
  - Q. Well, let me ask you.

How often does DNR take those samples for testing from this company?

In addition, if it happens to be a kitchen mixing

St. Louis, MO

faucet, then we can run hot water for several minutes to

help sterilize the faucet, after which time, if we have

used hot water, then we turn it back to cold water for a

Concannon & Jaeger

faucet.

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A. Yes. I know Mr. Baker has been out several times to talk to Mr. Smith. Mr. Baker is our water specialist and does training for water and waste water operators. I believe Mr. Baker was present when Missouri Rural Water Association was out and helped Mr. Smith with smoke testing the sewer lines to detect leaks that would

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allow for inflow into the sewer system and overload the package plants.

Mr. Smith at one time did contact me about the storage capacity of his stand pipe, his water tower there, and sent me information on his pumping rates for the previous year so that I could send him a letter back advising him if that stand pipe is adequate for his current and future needs so that he could present that to the Public Service Commission as part of his, I believe it might have been for a rate increase to show that he does need a larger capacity tower.

- Q. Did your testing verify that he needed more storage capacity?
- A. Based on the pumping data that he was providing he was just about at or about ready to exceed the average daily limit for that stand pipe, or the stand pipe in gallons was about at the average daily consumption rate, which is the criteria that we usually use.
  - Q. So would that --
- A. So the letter then stated that it was time for him to consider moving ahead with plans of adding additional storage, or a new storage structure for his water system.
- Q. Do you recall about when that took place? Was it several years ago?

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- It would have to have been at least three, Α. maybe four years ago.
  - Would 1996 or 1997 sound right to you? ٥.
  - Α. Approximately, without looking at the file.
- I want to show you what is marked as Q. Okay. Schedule KKB-3 which is attached to the direct testimony of Kimberly Bolin. It's several pages long, and could you tell me if you can identify, in general, what those documents are?
- The first page is an enforcement action Α. request completed by Paul Mueller of our office on June of 2001.
- That's fine, and I don't need you to tell me Ο. definitely what all of these consist of, but are those documents from your office, the Department of Natural Resources?
- Α. Yes, and they seem to be basically all related to the waste water treatment system for Warren County Water and Sewer.
- But they do appear to be copies of documents from your files?
  - Α. Yes.
- Does DNR require regulated utilities Q. to pay any fees for licenses or for permits?
  - For drinking water systems they would Α. Yes.

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program indicates was paid up was 1998, so they haven't

In performing your duties as an employee of 0. the DNR, does DNR provide you with any rules, regulations

received the 1999, 2000, or 2001.

or guidelines?

- A. Yes. We all have a copy of the Safe Drinking Water Law and Regulations. Each employee that works with drinking water has that, as well as the community and noncommunity design guides, and so we have a copy at our desk, and there is also an extra copy at the office for outside people to review if they want to look at a copy.
- Q. Is there an online place where those regulations and law can be found?
- A. Yes. The law and regulations can also be found at the Secretary of State's website.
- Q. Do any of these rules, regulations, or guidelines address safety issues that may be involved, especially in the operation of small water and sewer systems?
- A. With regard to water systems, the regulations rarely address safety issues as we would normally consider safety.

The drinking water regulations all address the water quality in which -- in that respect, the safety and health of the consumer.

Safety around the plant in terms of physical safety would be addressed in the design guide, which isn't a regulation at this time.

With respect to waste water treatment

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and fencing for lagoons but, in general, that's sort of the standards that they both go by.

Q. And do you know where those standards would

be found in the regulations?

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- I believe the, one of the first citations Α. would be in the Clean Water Commission Regulation which is 10 CSR 20-8.020(11)(C)11.
- Why is it important for you to follow a 0. safety policy regarding access to sewage treatment facilities?
- Primarily to discourage, if not completely prevent, trespass by unauthorized individuals. This is for the protection of the individuals who may not understand the natuire of the facility and could fall in or otherwise be harmed either by falling in or by the machinery present, as well as to prevent vandalism of the equipment, so this will prevent possible damage to the waste treatment system and also possible litigation against the waste treatment system should anybody be hurt on their premises.
- So adequate warning signs, fences, and locked ο. gates are, have an important purpose around a sewage treatment plant?
  - Α. Yes.
- And would you say it is especially important that these safety policies be followed if the plant is in an area where children may be present?
  - Α. Yes.
  - Does DNR have rules and regulations also

related to water pressure per square inch?

O. What are those rules?

Yes.

Α.

- A. In the Safety Drinking Water Regulations, 10 CSR 60-4.080(9), it requires that water systems maintain a minimum pressure of at least twenty pounds per square inch in the distribution system at all times during normal operating pressures.
- Q. Do you know whether this company has violated this standard?
- A. As the system is designed, the houses that are closest to the stand pipe in terms of elevation, I believe have difficulty maintaining the twenty pounds per square inch, or close to it. I would have to pull the files to see what the readings were, but that was a design flaw in the construction of the water system and the height of the stand pipe that the original developer put in, I guess, during the 1980s.
- Q. Could that be addressed, at least to some degree, if additional storage was placed on the system?
- A. My understanding is that was part of the intent of additional storage would be to have sufficient storage for expansion of the system along that area there in Warren and Lincoln County, and with an elevated storage tank provide adequate pressure throughout the entire

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- Q. At this time is Warren County Water and Sewer required to disinfect with chlorine?
- A. They are not required, but as long as they are using sequestration agents to help correct for an iron

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problem, it's highly recommended, because the polyphosphate can be a nutrient source, and we don't have a regulation that specifies that they must disinfect, but it's our recommendation that they do disinfect.

- Are there also maximum levels of chlorine in ο. the standards for Missouri safe drinking water?
- Yes, there is a maximum residual disinfectant level of four parts per million, or milligrams per liter of chlorine. That regulation hasn't taken effect for all water systems. For small systems under 10,000 population, it will be come effective December 16, 2003.
- Is there a reason that that level for Q. chlorine was determined to be the maximum residual level?
- EPA had some guidelines, and I believe Α. most of it has to do with disinfectant by-products, which are chemicals which could be considered carcinogenic. they have established a maximum disinfectant residual, however that is a monthly average of four parts, four milligrams per liter that is, rather than a one time dose, and the regulation also allows for temporary increases via water system to combat a potential fense or confirmed bacteriological contamination of a water system.
- Since this is determined on the basis of a monthly average, is that one of the reasons that it's important for the company to test its water daily?

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sample and the repeat samples have multiple samples that

ONE OR MURE OF

If during the course of the month the routine

required to notify their customers.

It would either be through a direct mailing, posting at a common bulletin board, a notice in the newspaper, and that would depend upon the type of water

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#### NOTARIAL CERTIFICATE

STATE OF MISSOURI )
) SS.
COUNTY OF ST. CHARLES )

I, JANINA A. JAEGER, a Registered Professional Reporter and a duly commissioned Notary Public within and for the State of Missouri, do hereby certify that there came before me at the Department of Natural Resources, 9200 Watson Road, St. Louis, Missouri,

### DANIEL DAUGHERTY,

who was by me first duly sworn to testify to the truth and nothing but the truth of all knowledge touching and concerning the matters in controversy in this cause; that the witness was thereupon carefully examined under oath and said examination was reduced to writing by me; that the signature of the witness was not waived; and that this deposition is a true and correct record of the testimony given by the witness.

I further certify that I am neither attorney nor counsel for nor related nor employed by any of the parties to the action in which this deposition is taken; further, that I am not a relative or employee of any attorney or counsel employed by the parties hereto or financially interested in this action.

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 800 day of April, 2002.

My commission expires April 1, 2004.

Motary Public, within and for the State of Missouri

Surrebuttal Testimony of Daniel Daugherty

WC-2002-155

WITNESS: DANIEL DAUGHERTY

In Re: Office of the Public Counsel vs.

Warren County Water and Sewer Company

and Gary L. Smith April 3, 2002

## DEPOSITION CORRECTION SHEET

UPON READING THE DEPOSITION AND BEFORE SUBSCRIBING THERETO, THE DEPONENT INDICATED THE FOLLOWING CHANGES SHOULD BE MADE:

Page 5 Line 16 Should read: In one year. Ther would be Four puspection).

Reason assigned for change: CHANGE WOOD "FOR" PO NUMBER FOUL.
A) THERE WERE I INSPECTIONS CONDUCTED

Page 19 Line 21 Should read: WATER SYSTEM TO COMBAT A PORTERIGIAL OR COMPLETED

Reason assigned for change: - work "FENCE" Over NOTBEWALL

Page 20 Line 25 Should read: SAMPLE AND ONE OF THE

Reason assigned for change: CLARNING SENTENCE.

Page Line Should read:

Reason assigned for change:

Deponent

CONCANNON & JAEGER

705 Olive Street Suite 604 St. Louis, Missouri 63101 (314) 421-1000

April 10, 2002

Re: Office of the Public Counsel

Warren County Water and Sewer Company and Gary L. Smith

Mr. Daniel Daugherty Environmental Specialist Missouri Department of Natural Resources 9200 Watson Road, Suite 201 St. Louis, Missouri 63126

Dear Mr. Daugherty:

Enclosed please find the original copy of your deposition, given on April 3, 2002, along with the original Signature Page and Deposition Correction Sheet.

Please read your deposition at your earliest possible convenience, making any changes you feel necessary. Please reflect each change on the DEPOSITION CORRECTION SHEET, together with your reason for changing it. After you have finished reading your deposition, sign the Deposition Correction Sheet and the original SIGNATURE PAGE in the presence of a notary public, have the notary notarize the SIGNATURE PAGE, and mail the transcript to M. Ruth O'Neill, Assistant Public Counsel, Office of the Public Counsel, Department of Economic Development, 200 Madison Street, Suite 650, Jefferson City, Missouri 65102.

I hope that you will find this method of reading your deposition more convenient than coming to my office to read the original transcript. If you have any questions, please call me at the above phone number.

Yours truly,

Jan Jalya Shorthand Reporter