

Willkom, Mae - DNR

From: Willkom, Mae - DNR
Sent: Tuesday, May 7, 2019 3:58 PM
To: 'Miller, Anthony W.'; Myers, Will M - DNR
Subject: RE: Questions Regarding Work Plan for Additional Injections - WRR (55929.005)

The temporary exemption that expires in April, 2023 limits the total amount of remedial materials to be injected to the groundwater to the following:

B. Specific:

1. The remedial materials to be injected to the groundwater shall be limited to:
 - 5,000 lbs of Z-loy;
 - 10,000 lbs of Newman Zone 55 EVO;
 - 5,000 lbs of Newman Zone HRO;
 - 600 lbs of Newman Zone OS;
 - 30 liters of SDC-9 DHC microbes; and
 - 600 lbs. of sodium bicarbonate, as needed, to raise pH of mixture to 7.5.

Subsequently, on October 18, 2018 the Department acknowledged a modification to that exemption, allowing for the addition of up to 4,800 pounds of Neutral Zone, a calcium carbonate amendment, to the reagents already approved.

If you anticipate that the remaining injections, including Area B and any follow-up injections, cannot be conducted within the total limitations of the existing exemption (as already modified), then a separate formal injection request and associated fee must be submitted. (If this is the case, it would make sense to simply keep the exemption request for the Area B injections completely separate from the existing exemption.)

If you anticipate that the remaining injections, including Area B and any follow-up injections, can be conducted within the limitations in the existing exemption (as modified), then an addendum to your initial request will suffice, as stated in the existing approval. However the addendum must be submitted prior to any pilot and/or full-scale injection in Area B and must include all items necessary for any formal injection request (per RR-935).

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Mae E. Willkom

Phone: 715-839-3748

mae.willkom@wi.gov

From: Miller, Anthony W. <awmiller@GFNET.com>
Sent: Tuesday, May 7, 2019 9:32 AM
To: Myers, Will M - DNR <Will.Myers@wisconsin.gov>; Willkom, Mae - DNR <Mae.Willkom@wisconsin.gov>
Subject: RE: Questions Regarding Work Plan for Additional Injections - WRR (55929.005)

Woody –

Thanks.

Mae –

Woody didn't answer my last question, so I will direct it to you. Let me know the answer to that question and if we will need to include a review fee to the injection report and work plan we will be sending you next month after the spring round of groundwater samples are collected during the week of May 20th.

Anthony W. Miller, P.S.S. | Project Manager | Senior Environmental Scientist
Gannett Fleming, Inc. | 8025 Excelsior Dr., Madison, WI 53717-1900
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From: Myers, Will M - DNR <Will.Myers@wisconsin.gov>
Sent: Tuesday, May 7, 2019 9:26 AM
To: Miller, Anthony W. <awmiller@GFNET.com>; Willkom, Mae - DNR <Mae.Willkom@wisconsin.gov>
Subject: RE: Questions Regarding Work Plan for Additional Injections - WRR (55929.005)

below

Woody Myers
Phone: (715) 839-3726
Will.myers@wisconsin.gov

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From: Miller, Anthony W. <awmiller@GFNET.com>
Sent: Monday, May 06, 2019 1:40 PM
To: Myers, Will M - DNR <Will.Myers@wisconsin.gov>; Willkom, Mae - DNR <Mae.Willkom@wisconsin.gov>
Subject: Questions Regarding Work Plan for Additional Injections - WRR (55929.005)

Woody –

Thanks for the quick response. I have a few follow up questions:

- Just so I'm clear, you do need a new NOI sent, but as a separate document and not with the report/work plan for additional injections – is that correct? **Yes**
- Other than the NOI, what other attachments are you referring to in your first comment? Our October 2018 work plan included the NOI, an SDS for a new reagent we were proposing to inject, abandonment forms for the pilot test injection borings, and the lab reports for the groundwater samples discussed in the report. **I will need a map of where the injection wells are or will go. If it is part of an existing report, that is fine, but it should be stated in the NOI.**
- If we are asking to increase the volume of reagents that may be injected before the permit expires in April 2023 and you subsequently approve that, will that allow us to avoid having to submit a new work plan for approval every time we may want to inject in certain areas to maintain anaerobic conditions? As indicated in my email below, we would still notify you as to what we were injecting and where.

Let me know your thoughts.

Thanks,

Anthony W. Miller, P.S.S. | Project Manager | Senior Environmental Scientist
Gannett Fleming, Inc. | 8025 Excelsior Dr., Madison, WI 53717-1900

From: Myers, Will M - DNR <Will.Myers@wisconsin.gov>

Sent: Monday, May 6, 2019 1:04 PM

To: Miller, Anthony W. <awmiller@GFNET.com>; Willkom, Mae - DNR <Mae.Willkom@wisconsin.gov>

Subject: RE: Work Plan for Additional Injections - WRR (55929.005)

Please see below.

Woody Myers

Phone: (715) 839-3726

Will.myers@wisconsin.gov

We are committed to service excellence.

Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

From: Miller, Anthony W. <awmiller@GFNET.com>

Sent: Monday, May 06, 2019 10:58 AM

To: Willkom, Mae - DNR <Mae.Willkom@wisconsin.gov>; Myers, Will M - DNR <Will.Myers@wisconsin.gov>

Subject: Work Plan for Additional Injections - WRR (55929.005)

Mae & Woody –

We are preparing a report that summarizes the injection activities conducted at the WRR site last year. That report will include the results of groundwater samples collected from wells within and downgradient of the injected area and a work plan for injections that will be conducted this year. Our October 2018 report summarizing the results of the pilot test injections and follow-up sampling is attached for your reference, as is your confirmation/approval to proceed email below.

Below are a few questions I have regarding the report and work plan going forward:

- We will be proposing to conduct injections in a new area in the southeastern portion of the site (formerly referred to as Area B in previous correspondence). Should the report include an updated Notice of Intent Contaminated Groundwater from Remedial Action Operations form or will the one included in our October 2018 work plan suffice? **I prefer to have the facility send the NOI and attachments separate from the report.**
- We will be injecting the same reagents than were included in our October 2018 work plan for full-scale injections. Because the product information and safety data sheets were included in our previous work plans, I assume we do not need to include that information in our upcoming report; however, let me know if that is not the case. **I do not need to see the SDS if they have not changed.**
- Other than including a discussion of the injections and results in our annual operation and maintenance status reports, we would like to have this be the last report/work plan devoted to presenting the results of the injections. We would also like to request approval to injection more reagents than we plan to inject this year so that we could conduct follow up injections where and when necessary in the future without the need to submit a formal work plan for approval. We would still send you a notification of what we were planning to inject and where but having your approval to increase the amount of reagents that could be injected in the future will help streamline the process. Toward that end, let me know if there is anything that we should include in our work plan other than the amount of reagents that may be injected in the future.

Call me if you would like to discuss.

Thanks,

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From: Willkom, Mae - DNR <Mae.Willkom@wisconsin.gov>
Sent: Friday, October 12, 2018 10:47 AM
To: Hager, Jim <hagerjl@wrres.com>; Miller, Anthony W. <awmiller@GFNET.com>
Cc: Bob Fuller (bfuller@wrres.com) <bfuller@wrres.com>; Becky Anderson (andersrl@wrres.com) <andersrl@wrres.com>; Myers, Will M - DNR <Will.Myers@wisconsin.gov>; Carey, Angela J - DNR <Angela.Carey@wisconsin.gov>
Subject: WRR - Notice to Proceed with Full-scale Injection

The purpose of this email is to acknowledge modifications to an existing temporary exemption for the injection of remedial materials into groundwater, and to serve as a notice to proceed with full-scale injection as proposed in the email below.

Your request for a temporary exemption to inject certain compounds into groundwater at the WRR Environmental Services site was dated February 15, 2018, was received on February 16, 2018 together with the appropriate fee, and was subsequently granted approval on April 25, 2018. The temporary exemption included coverage under WPDES Wastewater Discharge Permit WI-0046566-06 for Contaminated Groundwater from Remedial Action Operations. Please be advised that general Permit WI-0046566-06 was recently redrafted and has now been superseded by WPDES Wastewater Discharge Permit WI-0046566-07 (<https://dnr.wi.gov/topic/wastewater/documents/46566permit.pdf>).

Pilot testing was conducted in June, 2018, as described in the attached report. The report recommends the use of up to 4,800 pounds of Neutral Zone, a calcium carbonate amendment, in addition to the reagents approved in the existing temporary exemption, for the purpose of further increasing the alkalinity and pH of the groundwater. I have contacted Brian Austin, Injection Coordinator for the DNR Drinking Water and Groundwater program, and received his verbal concurrence with this modification.

Please continue to adhere to all provisions of the existing April 25, 2018 temporary exemption and of WPDES Permit WI-0046566-07. Failure to do so may result in the DNR requiring revisions to the remedial action design, operation or monitoring procedures, or the revocation of the exemption and the implementation of an alternative remedial action to restore soil or groundwater quality, or both.

Thank you for your continued efforts to restore the environment at this site.

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Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

Mae E. Willkom
Phone: 715-839-3748
mae.willkom@wi.gov

From: Miller, Anthony W. <awmiller@GFNET.com>
Sent: Wednesday, October 3, 2018 1:42 PM
To: Willkom, Mae - DNR <Mae.Willkom@wisconsin.gov>; Myers, Will M - DNR <Will.Myers@wisconsin.gov>
Cc: Hager, Jim <hagerjl@wrres.com>; 'Bob Fuller' <bfuller@WRRES.com>; 'Becky Anderson' <andersrl@WRRES.com>
Subject: BRRS#02-18-000274_WRR Environmental Srvc - 55929.005

Mae and Woody –

Attached is a report summarizing the pilot test injections that were performed in June at the WRR Environmental site in Eau Claire. Generally speaking, the pilot test injections went really well; we were able to inject a 5,020-gallon mixture of reagents into the groundwater at a flow rate above 3.5 gallons per minute. Note that the report does not include the Discharge Monitoring Report Form table that was included in the WDNR's April 25, 2018, letter approving the pilot test injections. That information is provided in the tables included with the report.

The report also includes a work plan for the first phase of full-scale injections. The work plan for the first phase includes the injection of a 15,000-gallon mixture of the following reagents into 30 borings in the northern portion of the site where the highest concentrations of chlorinated volatile organic compounds (CVOCs) are present in the groundwater.

- Micro Zero Valent Iron (μ ZVI) – 1,200 lbs
- Newman Zone 55 EVO - 9,000 lbs
- Newman Zone OS – 200 lbs
- SDC-9 DHC microbes – 15 liters
- Neutral Zone – 4,800 lbs
- Sodium bicarbonate – up to 100 lbs, as needed, to raise the pH of the mixture to 7.5

With the exception of Neutral Zone, all of the reagents listed above were approved by you in your April 25th letter to WRR. Neutral Zone is a calcium carbonate amendment that will increase the alkalinity and pH of the groundwater, both of which are important factors in the growth and activity of the microbes that facilitate reductive dechlorination. Copies of the product information and safety data sheet for Neutral Zone are included with the work plan as Appendix C. A signed copy of the Notice of Intent form is included with the work plan as Appendix D.

We are scheduled to conduct the first phase of investigation during the weeks of October 15th and 22nd. We will also be collecting the fall round of semi-annual groundwater samples from the on- and off-site wells during that time period. Please review the proposed work plan for injections and let me know if you have any questions. I will be traveling with limited phone and internet connections next week and then at a conference during the week of October 15th; however, I will respond to messages as time allows. If necessary, the best way to reach me is to call my cell phone (608-354-7730).

Let me know if you have any questions or need additional information to approve the work plan.

Thanks,

Anthony W. Miller, P.S.S. | Project Manager | Senior Environmental Scientist
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