



January 7, 2022

Lauren Jones  
Sanitary Engineer III  
Bureau of Materials Management and Compliance Assurance  
Subsurface Disposal Section  
Connecticut Department of Energy and Environmental Protection  
79 Elm Street, 2<sup>nd</sup> Floor  
Hartford, CT 06106

**Re: NOV No. NOVWRSS21102  
General Permit to Discharge from Subsurface Disposal Systems –  
Registration No. GSSD000144  
Registration / Wastewater Management Plan  
Lutheran Home of Southbury**

Dear Ms. Jones:

In response to the above referenced NOV No. NOVWRSS21102, BETA Group, Inc., on behalf of the Lutheran Home of Southbury, is pleased to submit for your review and approval, the General Permit Registration Form to Discharge from Subsurface Sewage Disposal Systems. The submission includes the Wastewater Management Plan for the facility and the compliance statement.

In addition to providing an appropriate response to the referenced NOV, the goal of the submission is to document significant improvements made to the facilities on-site wastewater renovation system (OWRS), obtain DEEP approval to be covered under the General Permit program, and request revocation of the existing Consent Order (WC-5171).

Southbury Real Estate Group, LLC (the current Permittee) acquired and began operating the Lutheran Home facility on February 26, 2015. As of July 14, 2021, Southbury Real Estate Group sold the facility to Ascentria.

#### Background

The Lutheran Home of Southbury (Lutheran Home) is a convalescent nursing and rest home for the aged, located at the intersection of Main Street North (Route 6) and Dublin Road in Southbury, Connecticut. The postal address for the facility is 990 Main Street North. Provided services include both rehabilitation and long-term health care. The facility is situated on a 10.5-acre parcel that is identified on Town of Southbury Tax Map 33 as Lot 6 within Block 22 (Parcel ID 33-22-6).

Two subsurface wastewater renovation systems exist on the property. A small system (OWRS 301) is located in the northwest corner of the property that serves 14 beds associated with the original building (Parley Manor). A second system (OWRS 302) is located in an area to the east of the building. This system was constructed circa 1982 and was assigned file number DEP/WPC 130/014. This system had leaching system issues in 1994, and in March of 1995 an engineering report was prepared by Dudley Ashwood, P.

E. to address the issues. Consent Order (WC-5171) was issued by the Connecticut Department of Environmental Protection that approved the engineering report and mandated the construction of the recommended remedy. The repair increased the infiltrative surface area and was completed in 1995. Since 1995, only minor modifications have been made to the system, however reports of leaching system issues reoccurred in 2009. Consent Order (WC-5171) remains in effect.

In 2016, Lutheran Home of Southbury submitted a General Permit Registration and Wastewater Management Plan that documented proposed system improvements that included replacement of the existing Subsurface Water Absorption System (SWAS) and provisions for flow equalization and dosing to the SWAS. The new SWAS incorporates patented Geomatrix GST 6212 leaching chambers coupled with the proprietary Soil Air Technology.

System improvements were substantially complete in November 2017. System Operation is generally "Automatic" and facility personnel are responsible for responding to alarm conditions and regular observation of the tanks and SWAS. As noted, SoilAir Technology is a proprietary system and information about the characteristics and operation of the SoilAir system and equipment is owned by SoilAir. Geomatrix has been contracted to monitor the system remotely, review alarm conditions and make adjustments to the operation.

Quarterly groundwater monitoring is being completed at seven (7) well locations surrounding the system, for the following parameters:

- Ammonia
- Dissolved Phosphate as P
- Nitrate as N
- Nitrate/Nitrite as N
- Total Kjeldahl Nitrogen
- Total Nitrogen
- Total Phosphate as P
- Fecal Coliform

#### Operation Information

A summary of results of the quarterly monitoring program is presented below. Coordination with CTDEEP regarding issues with confirming adequate system performance has been ongoing. CTDEEP staff familiar with the project include Michael Hart and Emily Annesse. The facility continues to monitor and collect data and the trend appears favorable.

Lutheran Home, Southbury CT - Compliance Sampling Data

Analyte	Date	MW-2R	MW-3	MW-9R	MW-10	MW-11	MW-12	MW-13	Wet Well - Raw Wastewater
Ammonia	6/14/2018	0.10	5.1	11	0.10	0.10	14	1.9	
	9/5/2018	1.53	5.62	12.9	0.10	0.35	15.4	1.87	
	1/7/2019	0.28	6.66	8.81	0.16	0.10	15.7	14.9	
	4/4/2019	0.38	4.9	6.58	0.1	0.10	14.6	0.1	
	8/22/2019	1.94	4.5	3.63	0.1	0.10	15.5	0.74	
	11/21/2019 (*)	8.53	4.36	6.25	<0.1	0.17	17.2	4.51	
	1/27/2020	0.17	3.99	8.29	<0.1	<0.2	16	0.47	
	4/23/2020	0.29	4.19	1.33	0.1	0.1	16.9	1.21	22
	5/27/2020	0.1		5.51					26.3
	7/22/2020	0.4	20.1	4.6	0.1	0.1	14.2	0.77	29.8
	8/7/2020		2.4						
	10/26/2020	1.6	5.52	4.75	0.1	0.1	19.4	2.11	
	1/25/2021	0.17	0.72	3.49	0.12	0	21.3	0.7	
	4/26/2021	0.12	3.19	2.69	0.12	0.23	18.5	0.18	11.6
	7/22/2021	0.43	1.54	2.39	0.11	0	16.5	1.13	22.9
10/25/2021	0.1	0.17	2.5	0.1	0.1	19.3	0.1	23.7	
Nitrate + Nitrite	6/4/2018	8.0	0.64	5.6	9.7	0.10	0.12	0.10	
	9/5/2018	0.218	0.412	6.25	6.98	0.020	0.020	0.020	
	1/7/2019	3.31	0.411	4.72	4.63	4.89	0.020	0.022	
	4/4/2019	3.68	0.313	8.93	0.776	0.025	0.020	0.257	
	8/22/2019	0.19	1.1	5.48	3.55	0.042	0.052	0.131	
	11/21/2019 (*)	26.9	0.405	27.3	8.67	0.452	<0.2	0.388	
	1/27/2020	5.01	0.481	22.9	3.57	0.856	<0.2	0.714	
	4/23/2020	8.32	0.46	17.61	2.26	2.61	<0.2	0.5	ND
	5/27/2020	11.6		16.6					ND
	7/22/2020	4.48	10.7	12.84	2.81	0.07	0.074	0.318	ND
	8/7/2020		1.75						
	10/26/2020	1.38	0.93	10.4	9.74	2.02	0.05	0.113	
	1/25/2021	12.51	1.89	14.96	0.998	0.16	0.036	2.01	
	4/26/2021	3.03	1.37	2.82	0.07	0.06	0.048	0.2	
	7/22/2021	7.44	3.69	9.21	0.367	0.251	0	0.205	ND
10/25/2021	0.31	0.37	6.75	0.3	0.249	0.06	0.04	0.04	

Lutheran Home, Southbury CT - Compliance Sampling Data (cont.)

Analyte	Date	MW-2R	MW-3	MW-9R	MW-10	MW-11	MW-12	MW-13	Wet Well - Raw Wastewater
TKN	6/4/2018	1.0	6.0	11	1.0	1.0	17	2.4	
	9/5/2018	2.63	8.16	12.8	0.82	0.59	20.6	3.00	
	1/7/2019	0.74	7.88	9.93	0.35	0.52	18.9	16.9	
	4/4/2019	0.56	5.84	6.86	0.41	0.38	18.7	0.74	
	8/22/2019	2.92	5.96	4.89	0.71	0.64	20.1	1.9	
	11/21/2019 (*)	6.38	5.58	5.5	<0.2	0.65	19.9	5.29	
	1/27/2020	0.32	5.93	8.09	0.97	1.64	19.9	1.45	
	4/23/2020	0.2	5.07	4.19	0.36	0.52	18.9	1.89	31.8
	5/27/2020	0.2		5.07					44
	7/22/2020	0.48	30.8	2.56	0.2	0.36	20.7	1.43	47
	8/7/2020		7.66						
	10/26/2020	2.24	27.1	4.43	0.22	0.42	22.1	2.95	
	1/25/2021	0	1.4	2.93	0.6	0.46	24.3	1.37	
	4/26/2021	0.2	3.97	2.5	0.2	0.44	23.2	0.6	43.6
	7/22/2021	0	3.43	1.66	0.4	0.46	23.9	5.05	34.4
10/25/2021	1	0.2	1.41	0.31	0.28	21.8	2.27	32	
Total Nitrogen	6/4/2018	8.0	6.7	17	9.7	1.2	17	2.4	
	9/5/2018	2.85	8.57	19.1	7.81	0.61	20.6	3.00	
	1/7/2019	4.05	8.29	14.6	4.98	5.41	18.9	16.9	
	4/4/2019	4.24	6.15	15.8	1.18	0.408	18.7	0.999	
	8/22/2019	3.11	7.06	10.4	4.26	0.684	20.1	1.9	
	11/21/2019 (*)	33.3	5.99	32.8	8.67	1.11	19.9	5.68	
	1/27/2020	5.32	6.41	31	4.53	2.49	19.9	2.17	
	4/23/2020	8.32	5.53	21.8	2.62	3.13	18.9	2.44	31.8
	5/27/2020	11.6		21.7					44
	7/22/2020	4.95	41.5	15.4	2.8	0.427	20.7	1.75	47
	8/7/2020		9.41						
	10/26/2020	3.62	28.1	14.8	9.96	2.44	22.1	3.06	
	1/25/2021	12.5	3.29	17.8	1.6	0.62	24.3	2.57	
	4/26/2021	3.03	5.34	5.32	0.2	0.5	23.2	0.8	43.6
	7/22/2021	7.44	7.12	10.9	0.763	0.713	23.9	5.25	34.4
10/25/2021	1.3	0.37	8.16	0.604	0.525	21.8	2.3	32	
Average Nitrogen		7.6	10.0	17.1	4.3	1.4	20.7	3.7	

The system has been producing favorable results at five (5) of the seven (7) wells. Nitrogen levels have been consistently below CTDEEP standards at MW-2R, MW-3, MW-10, MW-11, and MW-13. Adjustments to system dosing have been made and have resulted in improvements at well MW-9R. Results at MW-

12 are difficult to explain. The well is generally upgradient of the system and it is believed that recorded Nitrogen levels may be impacted by surrounding conditions not associated with the SWAS. Future replacement of the well is recommended.

Sampling completed in November 2019 resulted in elevated levels of Nitrogen at MW-1 and MW-9 and results were not consistent with previous rounds of sampling. Upon investigation of system operation, it was determined that a portion of the system had been turned off for approximately one month. A subsequent round of sampling was conducted in January to verify that the system was functioning appropriately. The review of data and follow up with system operation is verification that the system inspection/maintenance process is effective in assuring system performance.

It is also noted that well samples for Fecal Coliform have been inconsistent. MW-3, specifically, has had the most erratic results. Investigations to identify a source have resulted in some speculation but nothing absolute. A theory that is currently being evaluated includes the potential that the monitoring well is not properly sealed at the top and broken curb in the vicinity of the well is allowing surface water to run over the grass and potentially contaminating the well. Arrangements are being made to repair the curb and the seal for MW-3. Fecal Coliform will continue to be monitored.

If we can be of any further assistance regarding this matter, please contact us at our office.

Very truly yours,  
BETA Group, Inc.



Christopher Cronin, P.E.  
Vice President

cc: Ziad Baroody, Ascentria

Attachments

- Certificate of Accuracy
- Compliance Statement
- General Permit Registration
- Lutheran Home Wastewater Management Plan

Job No: 5051

**Certification of Accuracy**

I certify that the information in this Compliance Statement and any attachments thereto are true, accurate and complete, and I understand that any false statement may be punishable as a criminal offense under Connecticut General Statutes sections 22a-6 and 53a-157.


12/29/2021  
Date

  
Signature

774-992-4388  
Telephone

Ziad Baroody, Administrator  
(Type name and title)

12-29-2021  
Date

  
Preparer's Signature,  
if different from above

401-333-2382  
Telephone

Christopher Cronin, P.E.  
(Type name and title)

cc:



**Connecticut Department of  
Energy & Environmental Protection**

## Applicant Compliance Information

DEEP ONLY

App. No. \_\_\_\_\_  
Co./Ind. No. \_\_\_\_\_

**Applicant Name:**

Mailing Address: Ascentria (Lutheran Home of Southbury), 900 Main St North

City/Town: Southbury

State: CT

Zip Code: 06488

Business Phone: 203-264-9135

ext.:

Contact Person: Ziad Baroody

Phone: 203-264-9135 ext.

\*E-mail: [zbaroody@ascentria.org](mailto:zbaroody@ascentria.org)

If you answer yes to any of the questions below, you must complete the Table of Enforcement Actions on the reverse side of this sheet as directed in the instructions for your permit application.

- A. During the five years immediately preceding submission of this application, has the applicant been convicted in any jurisdiction of a criminal violation of any environmental law?

Yes  No

- B. During the five years immediately preceding submission of this application, has a civil penalty been imposed upon the applicant in any state, including Connecticut, or federal judicial proceeding for any violation of an environmental law?

Yes  No

- C. During the five years immediately preceding submission of this application, has a civil penalty exceeding five thousand dollars been imposed on the applicant in any state, including Connecticut, or federal administrative proceeding for any violation of an environmental law?

Yes  No

- D. During the five years immediately preceding submission of this application, has any state, including Connecticut, or federal court issued any order or entered any judgement to the applicant concerning a violation of any environmental law?

Yes  No

- E. During the five years immediately preceding submission of this application, has any state, including Connecticut, or federal administrative agency issued any order to the applicant concerning a violation of any environmental law?

Yes  No

## Table of Enforcement Actions

(1) Type of Action	(2a) Date Commenced	(2b) Date Terminated	(3) Jurisdiction	(4) Case/Docket/ Order No.	(5) Description of Violation

Check the box if additional sheets are attached. Copies of this form may be duplicated for additional space.