

AGENCY OF NATURAL RESOURCES  
DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
1 NATIONAL LIFE DRIVE  
MONTPELIER, VERMONT 05620-3521

INDIRECT DISCHARGE PERMIT

File Code: WST-9-0152

Permit No.: ID-9-0152  
PIN: NS88-0003

**SECTION A - "ADMINISTRATION"**

In compliance with provisions of 10 V.S.A. §1263, and in accordance with the following conditions, the permittees:

Carlos G. Otis Health Care Center, Inc.  
/dba/ Grace Cottage Hospital  
c/o Mr. Michael Brant, CEO  
P.O. Box 216  
Townshend, Vermont 05353

and

"Townshend Elementary School"  
Townshend School District  
P.O. Box 236  
Townshend, Vermont 05353

and

The Town of Townshend  
P.O. Box 223  
Townshend, Vermont 05353

are authorized to discharge treated domestic sewage from an existing subsurface disposal system serving the Townshend Elementary School and an adjacent Parsonage and a subsurface disposal system to serve the Grace Cottage Hospital, both located in Townshend, Vermont. The discharge is to the groundwater and indirectly into the West River. **This is a permit renewal.**

A1. Permit Summary:

Expiration Date	June 30, 2021
Type of Waste	Domestic Sewage
Treatment System	Septic Tank
Disposal System	
School System	Absorption Trenches
Hospital System	Infiltrator Trenches
Town	Townshend
Drainage Basin	West River
Design Capacity	3,709 gpd (School System) 6,947 gpd (Hospital System)
Receiving Water	West River
Drainage Area	Approx. 278 sq. mi.
Stream Flow:	
Low Median Monthly (LMM)	41,634,600 gpd (est.)
7Q10 Stream Flow	11,111,600 gpd (est.)
Dilution Ratio (at LMM)	
Stream Flow : Effluent	3907 : 1
Dilution Ratio (at 7Q10)	
Stream Flow : Effluent	1043 : 1

A2. Compliance Schedule:

The following schedule summarizes the actions and requirements necessary for compliance with the conditions of this permit. The permittees shall complete the requirements in accordance with the dates indicated. See the designated section for specific details.

<u>Condition # &amp; Description</u>	<u>Schedule Date</u>
A3. Apply for renewal of Indirect Discharge Permit	March 31, 2021
C2. Connect Business Office and one-bedroom apartment to sewage treatment and disposal system	Upon written notice from the Secretary
D2(A). Have a Vermont Registered Professional engineer complete an inspection of sewage collection, treatment and disposal system.	Annually in April

A2. Compliance Schedule (continued):

<u>Condition # &amp; Description</u>	<u>Schedule Date</u>
D2(B). Submit Annual Inspection Report	Annually prior to July 1 <sup>st</sup>
D2(C). Submit Schedule for Implementing engineer's recommendations	Annually prior to July 1 <sup>st</sup>
D3. Adjust weir plate in splitter box	Twice annually in June and September
D4. Notify Secretary of pumping of tanks and septage disposal	As specified
E1. Record water meter readings for school	Daily while school is in session
E2. Record flow meter readings for Hospital Pump Station #1	Daily
E3. Record depth of ponding in observation wells	Weekly during the period March 1 - June 1
Submit tabulated results	In annual inspection report by July 1 <sup>st</sup> each year
E1., E2. Submit results for required monitoring	By the 15 <sup>th</sup> of the month following the date of measurement

A3. Expiration Date:

This permit, unless revoked, or amended shall be valid until June 30, 2021 despite any intervening change in Water Quality Standards or the classification of receiving waters. Renewal of this Indirect Discharge Permit will be subject to all rules applicable at the time of renewal, including biological standards to determine significant alteration of aquatic biota.

The permittees shall apply for an Indirect Discharge Permit renewal by March 31, 2021. For the purposes of Title 3, an application for renewal of this indirect discharge permit will be considered timely if a complete application is received by the expiration date.

A4. Effective Date:

This permit becomes effective on July 1, 2016.

A5. Revocation:

The Secretary may revoke this permit in accordance with 10 V.S.A. §1267.

A6. Transfer of Permit:

This permit is not transferable without prior written approval of the Secretary. The permittees shall notify the Secretary immediately, in writing, before any sale, lease or other transfer of ownership of the property from which the permitted discharge originates. The proposed transferee shall make application for a permit to be reissued in their name. Failure to apply shall be considered a violation of this permit. Responsibility for compliance with the conditions of this permit shall be the burden of the permittees until such time as transfer of the permit to the transferee is complete. All application and operating fees must be paid in full prior to transfer of this permit. This permit shall be transferred only upon showing by the permittees or proposed transferee of compliance with the following conditions:

- a. The transferee shall be a legal entity, financially and technically competent to operate, inspect, maintain and replace the system.
- b. The transferee must have a lease or legal agreement with the Town of Townshend to continue to use the disposal field area.
- c. The transferee shall demonstrate that they have the legal authority to raise revenues for the proper operation, inspection, and maintenance of the system.
- d. The transferee shall provide a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee(s) to the Secretary.

A7. Minor Modifications of Permits:

The Secretary may modify this permit without requiring a permit application, a public notice, or a public hearing to correct typographical errors, or to increase the monitoring frequency in accordance with Condition E(4) of this permit.

A8. Indirect Discharge Rules:

This permit authorizes an existing indirect discharge.

This indirect discharge was reviewed and qualified for an Indirect Discharge Permit in accordance with Section 14-603(b) of the Indirect Discharge Rules for existing indirect discharges of sewage. No increase in sewage volume is allowed without the written approval of the Secretary.

The sewage treatment and disposal system serving the Townshend Elementary School was previously approved under Water Supply and Wastewater Disposal Permit #WW-2-0136 on June 23, 1989. Subsequently, on August 3, 1989, Water Supply and Wastewater Disposal Permit #WW-2-0136-1 approved the connection of the four bedroom Church Parsonage to the system.

A9. Right of the Agency to Inspect:

The permittees shall allow the Secretary or the Secretary's authorized representative upon the presentation of their credentials and at reasonable times:

- a. To enter upon permittee's premises in which any effluent source, treatment or disposal system is located or in which any records are required to be kept under the conditions of the permit;
- b. To have access to and copy any records required to be kept under conditions of this permit;
- c. To inspect any monitoring equipment or method required in this permit;
- d. To sample any discharge of waste, groundwater or surface water; and
- e. To inspect any collection, treatment, pollution management and disposal facilities required by this permit.

A10. Permit Availability:

A copy of this permit shall remain at the office of the permittees and, upon request, shall be made available for inspection by the Secretary.

A11. Minor Modifications To System:

Minor modifications of the engineering design which do not reduce the treatment effectiveness or increase the capacity of the system may be approved in writing by the Secretary without permit amendment.

Before making modifications to the treatment and/or disposal system the permittees shall submit plans to the Secretary for review and approval. These plans must be approved before any of the modifications or additions are made.

A12. Correction of Failed Systems:

The Secretary may, upon discretion, issue an Amendment to the Indirect Discharge Permit for the design and reconstruction of a failed wastewater disposal system where the replacement system design was not previously approved.

Before reconstruction of the failed system the permittees shall submit plans to the Secretary for review and approval. These plans must be approved before any reconstruction occurs. Due to the urgency of the need to correct failed disposal systems, the Secretary will process these Amendments as soon as possible.

A13. Operating Fees:

This indirect discharge is subject to operating fees. The permittees shall submit the operating fees in accordance with procedures provided by the Secretary.

**SECTION B "INDIRECT DISCHARGE"**

B1. Location of Indirect Discharge:

This indirect discharge is located in the West River drainage basin in the town of Townshend, Windham County, Vermont. The indirect discharge can be located on the Saxtons River, Vermont 15' quadrangle map at Latitude N 43° 02' 39.23" and Longitude W 72° 40' 20.56 ".

B2. Nature of Indirect Discharge:

Existing System For Townshend Elementary School and Parsonage:

Sewage is treated in a 4,000 gallon septic tank, and then flows by gravity to a siphon chamber which discharges to the existing absorption trenches. The disposal capacity of the system is 3,709 gpd.

The school population used as the basis of design for the sewage disposal system can be found in the Water Supply and Wastewater Disposal Permits issued for the school to the Townshend School District.

Existing System for Grace Cottage Hospital:

Sewage is treated in septic tanks, and flows by gravity to a new effluent pump station. The sewage is pumped to the existing gravity sewer line serving the Townshend Elementary School/Parsonage. The sewage then flows by gravity to a new splitter box which diverts the School portion of the flow to the existing siphon chamber (referenced above) and the rest of the flow to a new dosing pump station. That sewage is then pumped to the disposal field (infiltrator trenches). The disposal capacity of the system is 6,947 gpd.

The volume of effluent authorized by this permit is limited to the volume generated by the existing use of the Grace Cottage Hospital. All connections must be approved through the issuance of a Water Supply and Wastewater Disposal Permit. No increase in sewage volume is authorized by this permit.

**SECTION C "SYSTEM APPROVALS"**

C1. Previous Approvals:

A. Townshend Elementary School and Parsonage:

The sewage collection, treatment, and disposal system serving the Townshend Elementary School/Parsonage was constructed in accordance with the following plans and specifications prepared by Peter Boemig, P.E. of Southern Vermont Engineering:

Sheet 1 of 8 entitled "School Site Plan" dated 6/13/89, last revised 7/24/89;

Sheet 2 of 8 entitled "Leachfield Site Plan" dated 6/13/89, last revised 8/3/89;

C1. Previous Approvals (continued):

A. Townshend Elementary School and Parsonage (continued):

Sheet 3 of 8 entitled "Sewer Profiles" dated 6/16/89, last revised 8/2/89;

Sheet 4 of 8 entitled "Sewage Disposal System Details" dated 6/13/89, last revised 8/3/89;

Sheet 5 of 8 entitled "Manhole Details" dated 6/13/89;

Sheet 6 of 8 entitled "Trench Details" dated 6/13/89; and

Sheet 7 of 8 entitled "Seal Details" dated 6/13/89;

B. Grace Cottage Hospital:

The sewage collection, treatment, and disposal system for the Grace Cottage Hospital was constructed in accordance with the following plans and specifications prepared by Peter Boemig, P.E. of Southern Vermont Engineering:

Sheet 1 of 8 entitled "Site Plan and Profile" dated 3/6/91, last revised 6/17/91;

Sheet 2 of 8 entitled "Site Plan" dated 3/6/91, last revised 7/24/91;

Sheet 3 of 8 entitled "Leachfield Plan and Detail" dated 3/6/91, last revised 6/17/91;

Sheet 4 of 8 entitled "Leachfield Plan" dated 3/6/91, last revised 7/24/91;

Sheet 5 of 8 entitled "Pump Station Details" dated 3/6/91, last revised 8/7/91;

Sheet 6 of 8 entitled "Leachfield Sections & Details" dated 3/8/91, last revised 7/24/91;

Sheet 7 of 8 entitled "Sanitary Sewer Details" dated 3/6/91, last revised 7/8/91;

Sheet 8 of 8 entitled "Leachfield Sections & Details" dated 3/8/91, last revised 7/24/91;

and which were stamped "APPROVED" by the Secretary, dated 10/7/91.



C2. Additional Plans Required - Other Connections:

The performance of the existing subsurface disposal system, which is proposed to remain in use to serve the Business Office and the one-bedroom apartment, will be evaluated by the Secretary to determine if it can function properly under reduced sewage flows. Because there is the possibility that the system will continue to fail, the permittees were required to submit plans and specifications showing how the flows will be directed to the new collection, treatment, and disposal system for the Hospital. The permittees submitted the required plans and specifications on September 3, 1991 and September 30, 1991. Water Supply and Wastewater Disposal Permit WW-2-0124-1R1 was issued for the above facilities on October 16, 1991.

The connection of the Business Office and the one-bedroom apartment to the new sewage disposal system must be accomplished within 60 days of written notice from the Secretary that the existing subsurface system is not functioning properly.

**SECTION D "SYSTEM OPERATION"**

D1. General Operating Requirements:

The sewage treatment and disposal system shall be operated at all times in a manner that will: (1) not permit the discharge of sewage onto the surface of the ground; (2) not result in the surfacing of sewage; (3) not result in the direct discharge of sewage into the waters of the State; and (4) not result in a violation of the Vermont Water Quality Standards.

In accordance with accepted design practices, the effluent disposal rate to the disposal fields serving the Townshend Elementary School/Parsonage shall not exceed 3,709 gallons per day except as may occur on an occasional basis during normal operation.

In accordance with accepted design practices, the effluent disposal rate to the disposal fields serving the Grace Cottage Hospital shall not exceed 6,947 gallons per day except as may occur on an occasional basis during normal operation.

D2. Annual Inspection, Report and Implementation Schedule:

A. Annual Inspection:

Annually during the month of April the permittees shall engage a Vermont Registered Professional Engineer to make a thorough inspection, evaluation, and report of the complete sewage collection, treatment and disposal system serving both the Townshend Elementary School/Parsonage and the Grace Cottage Hospital. The engineer's inspection shall include, but not be limited to the following:

1. inspecting the entire collection system, removing manhole covers to observe the condition of the sewers and manholes, and noting any signs of inflow or excess infiltration. This also entails inspection of the two observation manholes to determine if the sections of force main encased by sleeves are leaking;
2. evaluation of the accumulation of solids and scum in all septic tanks and determining whether the tanks should be pumped that year;
3. inspecting and verifying the proper operation of all lift station pumps, alarms, and controls;
4. verification of the proper operation of the dosing siphon;
5. confirming that the distribution boxes for the school system are level and functioning properly;
6. inspecting the Hospital disposal field observation wells for ponding;
7. evaluating the past year's water usage records from the Townshend Elementary School and the pump hour readings from the Pumping Station #1 (for Hospital sewage flows) to determine the proper setting for the weir plate in the splitter box (see Condition D3); and
8. noting any necessary repairs or maintenance that is needed on the sewage collection, treatment, and disposal system.

D2. Annual Inspection, Report and Implementation Schedule (continued):

B. Annual Inspection Report:

By July 1<sup>st</sup> each year the permittees shall have a professional engineer submit an annual report including the following items:

1. a complete list of the items inspected and the results of the inspection;
2. the measured depths of sludge and scum in each septic tank;
3. verification that the weir plate has been set in accordance with Condition D(3)(A) below;
4. the tabulated measurements of ponding from the observation wells for the period March 1 - June 1; and
5. a discussion of the recommended repairs and maintenance required.

C. Implementation Schedule:

Before July 1<sup>st</sup> each year the permittees shall notify the Secretary in writing stating how the engineer's recommendations are to be implemented and including a schedule for the required repairs and maintenance.

D3. Weir Plate Adjustment:

Twice per year, in June and September, the weir plate in the splitter box shall be adjusted to account for the expected ratio of flows between the Townshend Elementary School and the Grace Cottage Hospital.

A. Summer Weir Adjustment:

In June, the engineer shall set the weir so as to direct 90% or more of the flow to the Grace Cottage Hospital disposal fields. The permittees may collect water usage information for the Townshend Elementary School during the months of June, July, and August for the purpose of adjusting this percent split in the following summer. Any change in that percentage split will be subject to the review and approval of the Secretary.

D3. Weir Plate Adjustment (continued):

B. Fall Weir Adjustment:

In September, the engineer shall review the previous year's water usage and sewage flow records and determine the proper setting for the weir plate to assure proper distribution of the flows through the splitter box. By September 30<sup>th</sup> of each year the engineer shall submit a letter to the Secretary verifying that the weir plate has been adjusted and the basis for that adjustment.

D4. Septage Disposal:

During the system's annual inspection the depth of sludge and scum shall be measured in all septic tanks. The septic tanks shall be pumped if: 1) the sludge is closer than twelve (12) inches to the outlet baffle or; 2) the scum layer is closer than three (3) inches to the septic tank outlet baffle or; 3) if otherwise recommended by the inspecting engineer. Before pumping the tanks, the permittees shall notify the Secretary in writing of the name and address of the pumper and the municipal sewage treatment facility, or other facility approved by the Secretary, where the septage is to be disposed.

D5. System Operation and Maintenance:

The sewage collection, treatment, and disposal system shall be operated and maintained at all times in a manner satisfactory to the Secretary and in a manner that will not pose a risk to the public health and safety, or cause contamination of drinking water supplies, groundwater and/or surface water.

D6. Reporting of Failures:

The permittees shall immediately report any failure of the sewage collection, treatment, or disposal system to the Secretary, first by telephone within 24 hours of the failure and then in writing within 5 days of the failure. The written notice shall include a discussion of the actions taken or to be taken to correct the failure.

D7. Discharge Restrictions:

The permittees shall not allow any person to discharge or cause to be discharged anything other than sanitary sewage to this collection, treatment and disposal system.

## **SECTION E "MONITORING"**

### **E1. Water Meter Readings:**

The permittees shall record the water meter readings at the Townshend Elementary School/Parsonage daily while school is in session at approximately the same time every day and submit the monthly tabulated results indicating gallons of water used per day to the Secretary prior to the 15<sup>th</sup> day of the following month.

### **E2. Grace Cottage Hospital Sewage Flow Measurement:**

The permittees shall record the flow meter for the pump in lift station #1 on a daily basis at approximately the same time every day and submit the monthly tabulated results indicating sewage flow in gallons per day to the Secretary prior to the 15<sup>th</sup> day of the following month.

### **E3. Observation Wells:**

The permittees shall monitor the eight observation wells (two per field) in order to determine if ponding is occurring in the infiltrator trenches. The frequency of monitoring shall be weekly during the period March 1 - June 1, and once during the month of October. If ponding is noted, the depth of ponding shall be recorded.

Annually, during the engineer's inspection, the observation wells shall be inspected and the depth of ponding in the trenches at each observation well noted.

The tabulated results of these measurements and observations shall be submitted to the Secretary as part of the engineer's annual inspection report, due July 1<sup>st</sup> each year.

### **E4. Monitoring Requirements:**

No water quality monitoring of the system is required under this permit. However, the Secretary reserves the right to require monitoring of the system in accordance with Condition A(7) should operation of the system fail to meet the requirements of Sections D(1) and D(5).

## **SECTION F "COMPLIANCE REVIEW"**

If the results of any inspection or monitoring indicate that a violation of the effluent disposal rate, or a violation of the Vermont Water Quality Standards, is occurring, or is likely to occur, the Secretary may require the permittees to take appropriate corrective actions to eliminate or reduce the possibility of a violation.

The issuance of this permit, ID-9-0152, to the Carlos G. Otis Health Care Center, Inc., the Townshend School District, and the Town of Townshend by the Secretary relies upon the data, designs, judgement and other information supplied by the applicant, the applicant's consultants and other experts who have participated in the preparation of the application. The Secretary makes no assurance that this system will meet the performance objectives of the applicant and no warranties or guarantees are given or implied.

## **SECTION G "EFFECTIVE DATE"**

This Indirect Discharge Permit, ID-9-0152, issued to the Carlos G. Otis Health Care Center, Inc., the Townshend School District, and the Town of Townshend for the discharge of wastewater from the Grace Cottage Hospital and the Townshend Elementary School and Parsonage located in Townshend, Vermont is effective on July 1, 2016.

Alyssa B. Schuren, Commissioner  
Department of Environmental Conservation  
Agency of Natural Resources

By:

  
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George Desch, Acting Director  
Drinking Water and Groundwater Protection Division

Date: May 25, 2016