



STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

DEH Circular Letter # 2002-24

To: Directors of Health, Chief Sanitarians, Professional Engineers, and Licensed Installers

From: Robert W. Scully, Supervising Sanitary Engineer, Environmental Engineering Section

Date: June 12, 2002

RE: Accessory Structures and Non-Flow Generating Additions on DEP Jurisdiction Sites

Enclosed please find a copy of a February 13, 2002 correspondence from Richard D. Mason, Assistant Director, Bureau of Water Management, Department of Environmental Protection (DEP). The letter requests assistance from local health departments in reviewing accessory structures and non-flow generating additions on properties that are under DEP jurisdiction relative to on-site sewage disposal. Frequently, local building officials request their local health departments sign off for these construction activities even though the property does not fall within the jurisdiction of local health departments under Sections 19-13-B100a and 19-13-B103 of the Connecticut Public Health Code. Properties under DEP jurisdiction include sites that have design sewage flows exceeding 5,000 GPD and properties utilizing community sewage systems. Residential developments (apartment/condo complexes, mobile home parks, ground lease subdivisions, etc) that accommodate more than 33 bedrooms would have design sewage flows exceeding 5,000 GPD, therefore, they are under DEP jurisdiction.

Mr. Mason is seeking your assistance with a six-step review process for accessory structures and minor building additions. This review and sign off is similar to a review conducted under B100a. Please note that the recommended procedure would not be valid for building conversions or change in uses.

Item 5 in Mr. Mason's letter refers to development of a proposed repair plan in order to preserve potential leaching areas. Although not specifically stated in item 5, DEP normally requires all such plans to be prepared by a professional engineer licensed in the State of Connecticut. If the property owner does not comply with the voluntary process outlined in Mr. Mason's letter, it's recommended the applicant be referred directly to DEP's Warren Herzig for formal response to the application. Please note that this a voluntary process and that local health departments may consider charging normal fees for site inspections, plan reviews and other charges for services provided. If there are any questions as to the suitability of the future repair plan designed by the professional engineer, those questions should be referred directly to Mr. Herzig for review and comment.

We appreciate DEP's guidance on this matter and hope it helps to clarify the extent of the authority that local health departments have in reviewing projects such as utility sheds, decks, porches and other accessory structures on sites under DEP jurisdiction. We hope you will consider providing DEP assistance on a voluntary basis and work with them to resolve matters of concern on DEP jurisdiction sites. It must be emphasized that local health departments should not deny construction projects on DEP sites by citing PHC regulation B100a, or Technical Standard separating distances. The DPH hearing office could not uphold appeals of such denials because these codes are not applicable on DEP jurisdiction sites. Applicants who do not cooperate with the health department in following these voluntary guidelines should be referred to Warren Herzig.

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STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

March 19, 2002

Jay Lukkarila
V.P. of Operations and Development
Gorman Aggregates, LLC
3217 Winsted Road
Torrington, CT 06790

RE: Manufactured Septic Fill

Dear Mr. Lukkarila:

This office has reviewed the technical support documentation you submitted on your manufactured sand. The information included a description of Gorman Aggregates quarry operations at three existing sites (Deep River, Naugatuck, Torrington) and one future site (Sterling). The information was submitted to this office for review and approval in accordance with the Technical Standards' requirement that manufactured select fill be approved by our Department before it is distributed for use as select fill/backfill for subsurface sewage disposal systems.

Your February 19, 2002 correspondence requested a variance to allow a deviation from the Technical Standards' particle size gradation criteria. The stipulated range for the number 10 sieve is 70 - 100 percent passing. You requested that this office lower the minimum percent passing to 65%. You further noted that Gorman Aggregates' manufactured sand consistently has less than 2% passing the number 200 sieve. Less than 2% is the desired amount of fines (minus 200 sieve) in select fill.

Select fill/backfill material (manufactured and bank run) is required to meet the gradation criteria in the Technical Standards unless otherwise approved by a professional engineer for use within a leaching system area. The particle size ranges were established to ensure the material has a satisfactory hydraulic conductivity and that it provides a sufficient interface to promote a stable biomat for proper treatment of septic tank effluent. Fill not meeting the prescribed ranges on the number 10 sieve would be a concern with regards to promotion of the biomat at the leaching system/fill interface.

Your correspondence indicated Gorman Aggregates' willingness to conduct any additional tests to confirm the suitability of your manufactured sand as select fill for subsurface sewage disposal systems. Conducting compaction and permeability tests on the manufactured sand would document its hydraulic conductivity. This office recommends these tests be conducted on a typical leaching system manufactured fill section. Fill should be placed and compacted as outlined in this office's Design Guidelines. Design engineers occasionally call for a specified permeability range of in place select fill. Documenting the typical permeability of your manufactured sand will allow design engineers to know what permeability range they can expect.



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Jay Lukkarila
March 19, 2002
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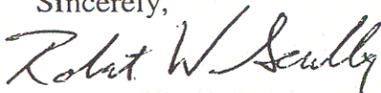
Your report noted that parent material of the manufactured sand is granite or granite-gneiss stone that typically has a Moh's hardness of 5.5 to 6.5. This exceeds the minimum 3 required per the Technical Standards. This office agrees that the Moh's hardness test is better suited for minerals than rock, which is why we also recommend that the stone used to make manufactured select fill meet the soundness and loss of abrasion requirements for coarse aggregate per Department of Transportation Form 814A Section M.03.01. It is my understanding from my discussions with you on the quality and durability of the Gorman Aggregates' rock that it meets these requirements.

There are no easy tests available to conduct on a select fill to evaluate whether a stable bio-mat will develop at the leaching system/fill interface. The concern with too many coarse sand particles (sand between #4 - #10 sieves) is that effluent breakthroughs may occur when the bio-mat is unable to bridge the void space between the particles. The potential for bio-mat effluent breakthrough is highly dependent upon the nature of the domestic sewage.

This office will consider lowering the percent passing limit for the number 10 sieve in our next revision of the Technical Standards. Public Health Code regulation 19-13-B103d(b) stipulates changes to the Technical Standards shall be made available January 1st of each year. This office requests that compaction and permeability test data be submitted on your manufactured sand. Test results for the above noted DOT tests should also be submitted. The data will be presented to our code advisory committee as part of our consideration to modify the fill specifications.

This office approves Gorman Aggregates manufactured sand as select fill/backfill. As noted above the manufactured fill must meet the gradation requirements in the Technical Standards unless the project's design engineer authorizes its use. Engineers, installers, and local health departments must be made aware that you are distributing manufactured select fill. Sales slips and in house records should specify the product purchased. Typical specifications on engineer's plans call for a bank run product. These specifications would have to be modified in order for your manufactured sand to be acceptable. Feel free to reproduce this letter in its entirety as a means of notifying applicable parties of this office's approval. This approval is not to be construed as an endorsement of your product or any other select fill. If you have any questions or would like to further discuss this matter please contact this office.

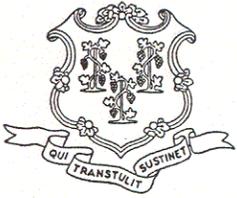
Sincerely,



Robert W. Scully, PE
Sanitary Engineer III
Environmental Engineering Section

cc: Frank Schaub
Sean Merrigan

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STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION



February 13, 2002

Mr. Frank Schaub
Supervising Sanitary Engineer
Department of Public Health
410 Capitol Avenue
P.O. Box 340308
Hartford, CT 06134

Re: out building and deck additions

Dear Mr. Schaub:

Section 19-13-B100a of the Public Health Code was amended to address sewage treatment and disposal needs when a building is being considered for a conversion or a change in use, when a building addition is being considered, when accessory structures are being considered or if a lot line relocation is being considered. The Department of Environmental Protection (DEP) fully supports the Health Department's regulation.

For those on-site subsurface sewage treatment and disposal systems (OSSTDS) that are or should be regulated by DEP, Section 19-13-B100a does not apply. The DEP has no desire to review every outbuilding or deck addition that is being proposed at those sites which should be operating under a DEP permit to discharge, and our office could not possibly handle that workload. The Department does recognize the value of the review given to OSSTDS to ensure that a proposed action requiring a building permit does not increase sewage flow, adversely impact an on-site subsurface sewage treatment and disposal system or impact a potential repair plan.

The Department further recognizes that many on-site systems exist that were approved and may have been previously permitted by the local and state health department before the adoption of the DEP regulations. However, because of the quantity of discharge to one lot or the system being deemed a community system these systems should be operating under a permit issued by the Commissioner of DEP.

Regarding these OSSTDS it has been the Department's practice to require a permit when a failure was identified or an expansion is proposed which would increase the sewage flow. Examples include existing mobile home parks that had either design sewage flows of over 5,000 gallons per day or systems that would be deemed a community system when two or more residential buildings would be connected to a common system.

For those instances where the local building official is looking for a sign-off for sewage disposal on existing developments whose OSSTDS should be permitted by DEP, it is suggested that local health department officials proceed in the following manner.

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Mr. Frank Schaub

On these properties where the design flow clearly exceeds 5,000 gpd, the local building official may seek a sign-off from the Local Health Department prior to issuing approvals. DEP is requesting assistance from Local Health Departments and offers the following procedure to expedite local request for pools, small out buildings, decks, porches and other non flow generating additions:

1. Review plans for the proposed construction to ensure that the construction activity shall not result in any additional sewage flow.
2. Conduct a brief site inspection to ensure that the current development's OSSTDS is not exhibiting a surface failure.
3. The lot owner should be advised to contact the DEP with any questions about the need for a discharge permit.
4. If it is determined that the construction activity will not result in an increase in water use and the present OSSTDS are not failing the construction activity needs to be evaluated to insure the activity will not impact the existing system and will not reduce the potential repair area.
5. Require the applicant/owner to develop a plot plan locating existing structures, existing on-site sewage treatment and disposal system components, the proposed construction activity, and how a repair plan would be designed should the need arise in the future.
6. If the property owner is unwilling to cooperate with the Local Health Department, refer the applicant to our Water Management Section.

This should address the need expressed in particular for the construction of small outbuildings or small deck additions. A need for further discussion may arise for other situations.

Should you have any questions on this matter please contact Warren Herzig at 860-424-3801.

Very truly yours,



Richard D. Mason
Assistant Director
Bureau of Water Management

RDM:WH/rmb

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