VIRGINIA:

BEFORE THE STATE HEALTH DEPARTMENT
SEWAGE HANDLING AND DISPOSAL APPEAL REVIEW BOARD

In Re: Edward L. Haynie

FINAL ORDER

Mr. Haynie appeals the Department's denial of his application for a permit[1] for an onsite sewage disposal system on his property at lot 13, Misty Drive, Ship Point Homes Subdivision in York County. The history of this appeal is set out in the Health Department's proposed findings of fact. The Board heard this appeal on August 8, 1995 in Richmond.

The Department argues that the lot fails to meet the minimum requirements of the *Sewage Handling and Disposal Regulations* (Bd. of Health, 1989) in the following respects:

- Insufficient depth of suitable soil to the seasonal water table;
- On portions of the lot, the presence of fill material;

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[1]Code § 32.1-164.B.1 authorizes the Board of Health to adopt regulations to include "[a] requirement that the owner obtain a permit from the Commissioner . . . ." Section 2.12 of the Board's *Sewage Handling and Disposal Regulations* imposes that requirement. Section 1.4 of the *Regulations* authorizes the Commissioner to delegate his authority under the *Regulations* (except for variances and orders) to the Department and appoints the Department as the primary agent of the Commissioner for the purpose of administering the regulations. Pursuant to that authority, the Commissioner has delegated the authority to issue and deny permits. Denials of permits and variances may be appealed to this Board for the final administrative decision pursuant to Code §§ 32.1-164.1 and 32.1-166.6.

- Insufficient depth of suitable soil to restrictive horizons; and
- Insufficient rate of adsorption in the restrictive horizons.

See Department Exhibit 4.

Mr. Haynie argues that the depth to seasonal water table is adequate in light of the permeability of the soils, and he avers that there are no restrictive horizons on the property.

The Board will deal with these issues *seriatim.*

1. Depth to Seasonal Water Table

Section 4.30.C.1 of the *Regulations* requires that absorption trenches have a minimum sidewall depth of eighteen inches. Section 4.30.A.3 and Table 4.5 of the *Regulations* provide the minimum separation distance from the trench bottom to the seasonal water table. As set out in Table 4.5, that distance can range from two inches in soils with a percolation rate of five minutes/inch to twenty inches in soils with a percolation rate of 120 minutes per inch. Thus, the initial inquiries are the depth to seasonal water table and the percolation rate of the soils in question.

The Department's expert, Mr. Peacock, and Mr. Haynie's expert, Mr. Kane, ~~each~~ each augured three holes. *See* Department Exhibit 4 and Appellant Exhibit 1; the location of these holes is shown on Department Exhibit 24. In summary, the depth to seasonal water table (gray mottling, *Regulations* § *4.30.A.3)* found by

these investigations is:

Hole	Depth to Water Table
Peacock JP1	24"
Peacock JP2	24"
Peacock JP3	24"
Kane 1 (near JP3)	24"
Kane 2 (near JP2)	18"[2]
Kane 3 (near JP1)	32"

Thus, by any account, the seasonal water table begins at about 24" in the small area on this lot that is not covered by fill[3] and is appropriately set back from the shellfish waters.

Mr. Kane classifies the soils in question as Texture Group II, and estimates the percolation rate as 35-40 minutes/inch. Appellants Exhibit 1. Mr. Peacock also classifies the soils above the seasonal water table as Texture Group II (aside from the compaction issue, *see* below); the *Regulations* assign a percolation rate of 17 to 45 to these soils. *Regulations* § 3.5.C.1.b. The Department uses a worst case estimate of 45 minutes/inch.

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[2]In Mr. Kane's #2 hole, the depth to grays is 30", but there is 12" of fill on top of the surface. Appellant's Exhibit 1. Thus the natural soil depth to grays is 18"

[3]Indeed, Mr. Peacock points out that the chroma 3 mottles in two of his three observation holes indicate a more shallow seasonal water table than indicated by the chroma 2 mottles at 24". *See* Department Exhibit 4.

Using the Department's percolation rate, the setoff from trench bottom to water table is 12"; using Mr. Kane's fastest rate (35 min/in), the setoff is 9". The corresponding minimum distances to the water table are 30" and 27".

By the Department's estimates, all three of Mr. Peacock's holes show unsuitable soils (24" or less to water as against a required 30"); by the appellant's estimates, two of the three holes show unsuitable soils (24" and 18" to water as against a required 27"). Thus, based upon the appellant's own data, approximately two thirds of the proposed drainfield would be placed in unsuitable soils. The Board concludes that the soils on this site are unsuitable because of insufficient distance to seasonal water table.

II. Fill Material

It is undisputed that the majority of the site is covered with fill material. Section 3.3.D of the *Regulations* prohibits placement of a drainfield in fill, with one exception for mountainous areas, not applicable here. As Mr. Peacock points out, the placement of fill on natural soils creates a discontinuity that can prevent the normal functioning of an adsorption system. As Mr. Peacock further points out, the Department's earlier soils data (and, indeed, Mr. Kane's #2 hole) show that, under the fill area, there is 24" or less of suitable soil, so that removal of the fill is not an option.

III. Restrictive Horizons

Mr. Peacock found some compaction of the soils at 12 to 16-18 inches, and estimated the percolation rate in these compacted areas at >120 min/in. He testified that the soils there resisted the auger and came out in chunks. Pursuant to Table 4.4 in the *Regulations*, any such compaction would have to be below 30". Mr. Peacock attributed this compaction to traffic or other artificial processes. Mr. Kane, in contrast, found some "blockiness" but he did not attribute this to compaction.

The Board will follow Mr. Peacock in this matter. The site has been partially filled, which is consistent with compaction of the soils by heavy equipment. Moreover, the "blockiness" that Mr. Kane noticed supports Mr. Peacock's conclusions that the soils have been compacted. As Mr. Peacock points out, the compaction he observed would not likely be from a drought; in York County the spring of 1994 was unusually wet, not a period of extended drought as would be necessary to produce indications that could be interpreted as compaction.

IV. Rate of Adsorption in the Restrictive Horizons

Having followed Mr. Peacock on the question of the existence of the restrictive horizons, the Board also will follow his estimate of the permeability of those horizons.

V. Conclusion

The soils on this site do not meet the requirements of the *Regulations* as to depth to seasonal water table, fill material, and soil restrictions. As Mr. Peacock testified, these soils are not suitable for a conventional system. Accordingly, the Department's denial of Mr. Haynie's application must be sustained.

Mr. Haynie may initiate a judicial appeal of this decision by filing a notice of appeal with the Board's Secretary, Beth Bailey Dubis, Division of Environmental Health Services, 1500 East Main Street, Richmond, Virginia 23219 within 33 days of the date of mailing of this order to him. Other requirements for perfecting an appeal are set out in Part 2A of the Rules of the Supreme Court of Virginia and in the Administrative Process Act.

Suzanne T. Grove
Chairman

Dated: August 22, 1995

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