Environmental Appeal Board

APPEAL NO. 96/14 - HEALTH

In the matter of an appeal under s. 5 of the *Health Act*, R.S.B.C. 1979, C. 161

BETWEEN:	Maurice Hamer-Jackson	**APPELLANT**
AND:	Environmental Health Officer	**RESPONDENT**
AND:	Bruce Nyeste et al.	**THIRD PARTIES**

BEFORE:	A Panel of the Environmental Appeal Board	
	Bob Radloff	Chair
DATE OF HEARING:	December 2, 1996	
PLACE OF HEARING:	Salmon Arm, B.C.	
APPEARING:	For Appellant:	Maurice Hamer-Jackson
	For Respondent:	Norm Clarkson
	For Permit Holder:	Bruce Nyeste and Robin Bessette

APPEAL

This was an appeal against the September 19 1996 decision of the Senior Environmental Health Officer to cancel a permit for an on-site sewage disposal system for Lot 5, Plan 9999, Section 30, KDYD, 3294 and 3298 Gray Road, Blind Bay (the "Property"). The appeal was brought by Mr. Hamer-Jackson, who requested that the Board restore the permit as originally applied for. The Respondent and Third Parties sought to uphold the cancellation.

The Environmental Appeal Board has the authority to hear this appeal under section 11 of the *Environment Management Act* and section 5 of the *Health Act.* The Board or a Panel of it, may, after hearing all evidence, decide to vary, rescind or confirm a decision made by the Senior Environmental Health Officer.

BACKGROUND

The property for the proposed disposal system is located in an area known as Reedman Point on Shuswap Lake. There is no community water system, and the residents of the area use individual intakes from Shuswap Lake for their drinking water.

The existing sewage system on the lot pre-dates 1985 and there is no permit for it. It consists of an unknown length of disposal field. Based on evidence led at the

hearing, at best this system consists of 40 feet of disposal field. This substandard length of field served both a one bedroom cabin unwinterized and a three bedroom mobile home for many years without any evidence of malfunction.

Mr. Hamer-Jackson wishes to replace the existing three bedroom mobile home with a new three bedroom constructed residence. He plans to retain the cabin. He recently applied for and obtained a permit for an upgrade to the existing disposal system. This upgrade was designed by a professional engineer and incorporates in the main, a new 1100 gallon septic tank, an effluent pump and a seepage bed disposal system. It was proposed that effluent from the new tank would be pumped to the seepage pit. Overflow from the seepage pit, if any, would flow to the existing disposal field.

A permit for the above system was issued by Mr. Gregory, the local Environmental Health Officer, on August 12, 1996. This permit was subsequently cancelled by Mr. Norm Clarkson, the Senior Environmental Health Officer. In cancelling the permit, Mr. Clarkson highlighted a number of areas of the permit that do not meet the regulations. Specifically, the seepage pit does not meet the 10 foot property line setback requirement of Schedule 2, section 18(b) of the Regulation, and the setback from the seepage pit to the cabin was 1 foot less than the required 10 foot setback stipulated in Schedule 2, section 18(a). Mr. Clarkson noted that section 7(1) of the Regulation permits the Environmental Health Officer to relax some provisions of the Regulation; he may not, however, relax section 18. Section 7(2) of the Regulation can be used where the existing field is malfunctioning to relax even these setback requirements, however, since there is no malfunction, the use of section 7(2) is not justified. Consequently, the permit had to be cancelled.

In Hearing Developments

During the hearing, the Respondent learned that the existing tile field length was 40 feet or less. Given the above information, the Respondent was prepared to reverse his decision and to issue the permit citing the fact that a need to repair or alter the existing system existed as per section 7(2) of the *Act*. It was the Board's position that it would still make a determination on the matter. The compelling reason being that, should the Environmental Health Officer reverse himself now and issue the permit, this action would no doubt be appealed by the Third Parties present, leading all parties once again back to a further hearing on the matter, with much delay imposed upon the Appellant. The Appellant is now anxious to receive a final decision on the permit, having expended considerable monies on design and with construction of the house foundations now underway.

ISSUES AND EVIDENCE

Issue 1: Is there a need to repair or alter the existing disposal system?

This is the primary issue of the appeal. If it is determined that there is a need to repair or alter the existing field, section 7(2) of the Regulations confers on the Environmental Health Officer broad discretion to rectify the problem. Under section 7(2) he may waive the provisions of Schedule 2 or 3 as appropriate. He is restrained by the requirement only to permit systems that 'will not constitute a health hazard.' Should a need to repair or alter not exist, the Environmental Health

Officer may only permit construction of systems meeting Schedule 2 excepting sections 1, 16 and 22 and meeting Schedule 3 excepting sections 11, 12 and 18.

The Third Party indicated a contrary interpretation. That is, that under section 7(2) it states 'where a sewage disposal system, constructed or installed prior to December 20, 1985, is in need of repair or alteration…the public health inspector may issue a permit to repair or alter under section 3….' Section 3 stipulates that alteration or repair comply with the standards set out in the Regulations.

It is noted by the Board that the context of section 7(2) is progressive from section 7(1) indicating a higher relaxation of standards should alteration or repair be necessary. Further, section 7(2) specifically states 'where a sewage disposal system, constructed or installed prior to December 20, 1985, is in need of repair or alteration and the appropriate work cannot reasonably be effected in accordance with this regulation, the public health officer may…' Clearly, the words waive all sections of the regulation. The sole constraint on the Environmental Health Officer in this case is that the system not constitute a health hazard.

There was agreement from the Appellant that there is a need to alter the existing disposal system. On reflection, the Respondent agreed that there is a need to alter the system. The Appellant did not challenge this point. It was concluded by the Board on the evidence that there was a need to alter the existing system. Evidence in support of this included:

- The fact that the existing field was short of the required length required by the Regulations.

- The field had not visibly malfunctioned however it was subject only to seasonal use. It is proposed to use the field continually at this time consequently failure is now more likely.

- The breakout point must be significantly less than the Regulation from inspection of drawings and photo evidence.

Issue 2: Does the proposed solution pose a health hazard?

Provided that section 7(2) of the Regulation applies in this case, a remaining test of the Environmental Health Officer's decision is whether the proposed system poses a health hazard? Provided it does not, the Environmental Health Officer has broad discretion to waive sections of the Regulation.

The Board heard evidence from the Appellant that the seepage pit was excavated in a schisty shale rock. This rock dips naturally into the slope down to the lake. This means the dip angle of the rock is into the face and away from the direction of the lake. The schisty shale was excavated by a one cubic yard track machine indicating the shale was rippable. The bottom of the seepage pit was blasted to break-up the base. The Respondent brought evidence of the shale to the hearing. It had a friable platy structure and was composed of some sandy materials. It would not break easily in your hands but striking it would provide some breakage.

The Third Party questioned the validity of the Appellant's assertion that effluent would flow along the dip angle of the rock and away from the lake. The Third Party questioned whether fractures across the platy structure would permit flow towards the lake. Neither the Appellant nor the Respondent asserted that flow could not flow through fractures to the lake; rather they asserted that the predominant flow would be along the dip angle of the shale only.

From evidence given at the hearing, the proposed seepage pit is approximately 118 feet horizontally from the high water mark of the lake and about 20 feet vertically above it. It seemed evident to the Board that almost all flow would have to flow to the lake eventually, given that the lake is the low point in the water table and groundwater seepage wherever disposed on the slope would have to make its way to that point. There was no evidence led by either Appellant or Respondent to refute that assumption.

Provided effluent flow travels ultimately to the lake the question of health hazard would rest on the shaly material's ability to renovate the effluent before discharging to the lake.

Schedule 2 of the Regulation requires that the vertical distance of the disposal field to 'an impervious layer of soil or bedrock' should be greater than 4 feet. This appears to be the ideal although as alluded to above, section 7(2) does permit the Environmental Health Officer to relax this requirement. In this case it is difficult to assess where bedrock is. Is the seepage pit in fact in bedrock; the evidence is somewhat inconclusive. The Appellant contended that since the material was rippable by a 1 cubic yard track machine, that the shale is not 'rock'. Further it readily absorbs effluent. This in itself, however, is a concern. The percolation tests indicate that the schisty shale has a perc rate averaging 2.5 min/inch, leading the Board to conclude that effluent travel times to the lake will be short, particularly since the property slopes steeply toward the lake. It would appear that renovation of effluent by the shale would likely be minimal. Given the heavy use of lake water for potable water supply, a health hazard may be indicated.

DISCUSSION

It was evident from evidence that the proposed disposal system does not meet certain elements required by the regulations for new developments. These include setback from property lines (0 feet instead of 10 feet), setback from structures (9 feet instead of 10 feet) and distances to breakout points (28 feet instead of 50 feet.) Nevertheless, the salient point in this case is that these requirements may be waived given that alteration or repair of the existing system is needed. The Respondent advised in the hearing that alteration of the existing system is necessary given new information about existing field length. The Appellant agrees as is evidenced by his desire to upgrade the system. The Third Party was silent on this issue, however, on the balance of evidence presented it seemed evident to the Board that some upgrading is in order.

The remaining question to be resolved was health risk. The Environmental Health Officer may relax the requirements of the regulation but not to the point of creating a health risk. Does one exist? This is difficult to assert positively however a number of factors point to a need to err on the side of safety. These are:

- The lake is a source of water supply for many residents.

- Evidence indicated that the lake is already suffering pollution impacts showing high nitrogen and phosphorous levels.

In this context the adequacy of the 'soil' to safeguard the lake is in doubt particularly as:

- The lot slopes steeply to the lake suggesting that overall hydraulic gradients are high.

- The 'soil' by virtue of the perc test results will not slow the flow of effluent and provide adequate renovation effects.

- The possibility of fractures across the 'dip' direction of the rock are possible if not likely and may provide for 'short circuiting' of effluent to the lake.

DECISION

In making this decision, the Panel of the Environmental Appeal Board has carefully considered all of the relevant documented evidence and all comments made during the hearing, whether or not they have been specifically reiterated here.

After reviewing the evidence presented at the hearing and relevant legislation the Panel finds that the existing system is in need of alteration. Consequently, the Environmental Health Officer has considerable discretion to relax requirements of regulations such as setbacks from structures, property line and breakout point. The Board does not find the relaxing of these requirements to be an overriding concern given the circumstances. In fact, they are made with a mind to improve the existing non-ideal situation.

The Board, however, finds that the disposal system as proposed may constitute a health hazard. Though the nature of this hazard is difficult to quantify, given the factors of domestic water use and current pollution effects, it cannot be ignored. As a result the Board directs that the permit be issued however that it be amended to include the following:

a) That the permittee be required to provide a treatment step prior to discharge to the disposal system and after the proposed septic tank. This treatment step must be capable of achieving secondary treatment effluent quality.

b) That the discharge from this secondary treatment step be alternated between the existing field and the proposed seepage bed to effect a resting period for both disposal mechanisms. The period and frequency of this alternation to be left to the permittee.

COMMENTS

Step a) as ordered is required to reduce potential health and environmental impact for this site by reducing the reliance on the disposal field/seepage pit alone to renovate the septic tank effluent. It also has the practical significance of reducing the length of field requirements by approximately 65 per cent as per Schedule 3 of

the Regulation. The result is a required field length much closer to the existing disposal field length.

Step b) as ordered, recognizes the fact that, as a 'field' the existing disposal mechanism may represent the more ideal disposal method. Some resting of this field, however, is needed given its inadequate length. Consequently, it is recommended to the Appellant to use the seepage bed option in winter months to effect this resting.

The discretion left to the Appellant in alternating disposal mechanisms is appropriate given that the Appellant has demonstrated his consideration for public health and the environment by initiating the upgrade on his volition.

Bob Radloff, Panel Chair
Environmental Appeal Board

January 6, 1997