

ITEM 4  
MANAGER'S REPORT NO. 74  
COUNCIL MEETING 86/12/15

RE: SKYTRAIN NOISE EMISSION LEVELS  
(Item No. 9, Report No. 29, 1986 April 28)

MUNICIPAL MANAGER'S RECOMMENDATION:

1. THAT the recommendation of the Chief Public Health Inspector be adopted.

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TO: MUNICIPAL MANAGER 1986 DECEMBER 09  
FROM: CHIEF PUBLIC HEALTH INSPECTOR  
SUBJECT: SKYTRAIN NOISE EMISSION LEVELS

RECOMMENDATIONS:

1. THAT a copy of this report be forwarded to:

- (a) Mr. R. Thwaites, Wayside Director, British Columbia Rapid Transit Company Ltd., 6800 Fourteenth Avenue, Burnaby, B.C., V3N 4S7 and
- (b) Mr. B.W. Yates, 6435 Neville Street, Burnaby, B.C., V5E 1A5.

REPORT

Further to an enquiry during the 1986 December 01 meeting of Council and a letter appearing on the 1986 December 08 Council Agenda from Mr. B.W. Yates, 6435 Neville Street, we would advise as follows.

BACKGROUND:

The 1986 April 28, Municipal Council Agenda contained a report on the assessment of SkyTrain noise emission levels on nearby residential properties. The report stated that monitoring of residential properties bordering the SkyTrain guideways revealed noise levels which would meet this Municipality's criteria for permitting multiple family residential construction. A concern was expressed in the report that individual SkyTrain cars were in excess by 10 dBA, the manufacturer's specification of 74 dBA.

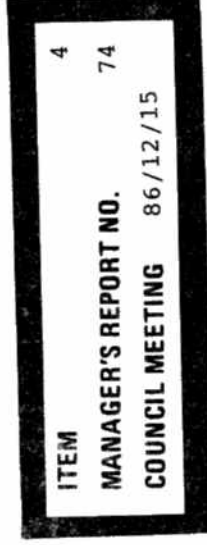
A further report received by Council on 1986 October 14 stated that B.C. Rapid Transit had commenced a program to reduce the individual car noise emission to a level below the manufacturer's specification of 74 dBA.

The purpose of this report is to update Council on current noise emission levels from the operation of SkyTrain.

1. CURRENT NOISE LEVEL READINGS

Recent noise level monitoring by the Environmental Health Division of the SkyTrain system detailed average passby sound levels of 68.8 dBA to 73.5 dBA. This noise level range is within the manufacturer's specification of 74 dBA.

With the exception of Mr. B.W. Yates' letters to Council, no complaints have been received by this office during 1986 regarding noise during operation of the SkyTrain system. One complaint has been received regarding early morning rail grinding while the system is shut down.



1.1 Rail Maintenance Program

The entire rail guideway within the Burnaby section of the SkyTrain system has been ground. A program is now in place to routinely grind the rail guideway on a monthly basis.

1.2 Determination of Individual Loud Cars

Recent noise level monitoring did record one passby event at 79.1 dBA. Through discussions with Rapid Transit officials it is apparent that the system will have, at times, cars operating with a noise emission level higher than the manufacturer's specification of 74 dBA. These individual cars are ones which require maintenance to correct vibrations usually caused by "out of round" wheels. The current system to identify individual loud cars and have them removed out of service is through reporting by the SkyTrain attendants.

We have discussed with Rapid Transit officials our concern over the possible length of time that individual cars requiring maintenance to reduce excessive noise levels may remain in service. We have recently sent correspondence to Rapid Transit officials stating our concern and recommending that they consider installation of a permanent noise monitoring station. The installation of a permanent noise monitoring station would immediately identify cars operating in excess of the manufacturer's noise specification.

Rapid Transit officials are currently examining our request.

1.3 Skytrain System Speed

The original speed during the start of the SkyTrain system was 80 kilometers per hour. This speed has been lowered to 70 kilometers per hour and will remain at this level until such time as any increase in speed will not cause an increase in noise level due to car vibrations.

1.4 Further Noise Reduction Methods

Rapid Transit officials are continuing to determine whether alterations to the individual cars can further reduce noise emission levels. There are no plans for any barriers within this Municipality's section of the guideway.

CONCLUSIONS:

Readings taken by the Environmental Health Division have shown that the average passby sound level of the SkyTrain system is within the manufacturer's specification of 74 dBA. Cumulative noise levels at properties bordering the SkyTrain guideway meet this Municipality's criteria for permitting multiple family residential construction.

The Environmental Health Division will continue monitoring the noise emission from the SkyTrain system and discussions with SkyTrain officials on their program for reducing noise.

The contents of this report has been discussed with Mr. B.W. Yates, 6435 Neville Street.

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cc: Medical Health Officer

Director Administrative &  
Community Services

*G. V. Harvie*

G.V. Harvie, C.P.H.I.(C)  
CHIEF PUBLIC HEALTH INSPECTOR