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MANAGER'S REPORT NO.	44
COUNCIL MEETING	92/06/22

TO: ACTING MUNICIPAL MANAGER 1992 JUNE 17

FROM: ACTING CHIEF PUBLIC HEALTH INSPECTOR

SUBJECT: DAIRYLAND ICE CREAM DIVISION, 4047 LOZELLS AVENUE,
BURNABY - SUMMARY AND SEASONAL COMPARISON OF
OPERATIONAL NOISE MEASUREMENTS

PURPOSE: TO PROVIDE COUNCIL WITH A HISTORICAL SUMMARY AND
SEASONAL COMPARISON OF OPERATIONAL NOISE MEASUREMENTS
TAKEN FROM THE DAIRYLAND ICE CREAM DIVISION LOCATED AT
4047 LOZELLS AVENUE, BURNABY, B.C.

RECOMMENDATIONS:

1. THAT a copy of this report be forwarded to:
 - a) Mr. V. Milosavljevic, 7580 Dorchester Drive,
Burnaby, B.C., V5A 2Z3.
 - b) Mr. and Mrs. Bettiol, 3957 Lozells Avenue, Burnaby,
B.C., V5A 2Z3.
 - c) Mr. R. Williamson, Vice President Industrial
Division, Dairyland Foods, 6800 Lougheed Highway,
Burnaby, B.C., V5A 1W2.

REPORT

1.0 INTRODUCTION:

At the regular Council Meeting on 1992 June 01, Council received and reviewed Municipal Manager's Report (No. 40) regarding operational noise associated with Dairyland Ice Cream Division, 4047 Lozells Avenue, Burnaby, B.C.

Council, upon adopting the recommendation contained in the above-noted report, requested staff to provide a historical summary of noise levels emanating from the Dairyland Ice Cream Plant and in particular, a comparison of the noise levels between the summer months and the balance of the year.

The following report provides a summary of noise levels measured over the past two years from Dairyland Ice Cream Plant including a comparison of the noise variations between the summer months and the balance of the year.

2.0 NOISE MEASUREMENTS FROM DAIRYLAND ICE CREAM OPERATION:

The allowable noise levels generated from the Dairyland Ice Cream Division are regulated, in particular, by Section 6 of the Burnaby Noise or Sound Abatement Bylaw No. 7332. This section, which is applicable to commercial, industrial and comprehensive development districts, limits the allowable continuous noise from a site to 65 dBA's between the hours of 07:00 h to 22:00 h, and to 60 dBA's between the hours of 22:00 h to 07:00 h.

The noise readings taken between 1990 - 1992 (Attachment #1) were measured at the Dairyland Ice Cream property lines in accordance with the methods outlined in Schedule A of the Bylaw. As noted, with the exception of excessive readings obtained from the operation on two specific occasions for which summary of charges were presented to the Provincial Crown Counsel's Office, the noise measurements taken at all of the other times from the subject site have shown to be in compliance with the bylaw.

In addition, the noise measurements show a general trend in reduction of noise emanating from the subject property by a factor of 3 dBA's with the inclusion of operational modifications made by Dairyland Ice Cream Division.

However, a comparison of the 24-hour noise measurements between 1990 to 1992 has shown an average increase in the noise levels. The November 1991 report titled "An investigation of the Noise Exposure to the 7500 Block Winston Street, Burnaby, B.C." by Barron, Kennedy, Lyzun & Associates, states that the predominant source of noise is largely attributed to traffic on Winston Street. The relative increase in the average 24-hour noise levels could be a reflection of increased traffic on Winston Street over these years.

2.1 Seasonal Noise Variation From Dairyland Ice Cream Plant

It is important to note that noise measurements taken were mostly initiated through complaints and not specifically oriented to addressing seasonal noise variation. However, interpretation from the noise data obtained between 1990-1992 indicates that the noise levels generated from the subject site in the summer can be regarded as the worst case levels when compared to the balance of the year.

Discussions with the Dairyland Ice Cream Division officials substantiates staff's seasonal noise variation interpretation since they have confirmed that the plant throughput increases during the summer periods when compared to the rest of the year as noted below:

TABLE 1

DAIRYLAND ICE CREAM PLANT - PERCENTAGE OF ANNUAL PRODUCTION BY MONTH

JAN. 4%	FEB. 4%	MAR. 5%	APR. 8%
MAY 12%	JUNE 15%	JULY 17%	AUG. 14%
SEPT. 8%	OCT. 5%	NOV. 4%	DEC. 4%

In addition, the impact of trailer traffic, which is regarded as non-stationary noise source, varies between summer and the balance of the year as well. According to the Dairyland officials, a maximum of two trailers per day bound for Vancouver Island must be loaded at 03:30 h in order to meet the 06:00 h sailing. The total number of trailer traffic through the day is noted below for information:

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TABLE 2

TRAILER TRAFFIC PER DAY

	MONDAY - FRIDAY	SATURDAY	SUNDAY
SUMMER	14 to 16	3	nil
WINTER	3 to 5	2	nil


It should also be noted that the noise generated from stationary equipment within the site would remain constant although the duration that the equipment operates will be longer in summer than in winter.

3.0 CONCLUSION:

The noise measurements taken at the Dairyland Ice Cream Plant property lines indicates that noise measurements have shown to be in compliance with the Burnaby Noise or Sound Abatement Bylaw. Furthermore noise measurements have shown a general trend in reduction of noise emanating from the subject property by a factor of 3 dBA's with the inclusion of operational modifications made by Dairyland Ice Cream Division.

Interpretation of the noise data has shown that the noise levels generated from the site in the summer can be regarded as the worst case levels when compared to the balance of the year.

A comparison of the 24-hour noise readings between 1990 to 1992 has shown an average increase in noise levels which is possibly a reflection of increased traffic on Winston Street over these years.


K.C. Johnston, C.P.H.I.(C)
ACTING CHIEF PUBLIC HEALTH INSPECTOR

DD/KCJ/gl

Attachments

cc: Medical Health Officer
Director Administrative &
Community Services
Director Engineering

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ATTACHMENT #1

DAIRYLAND ICE CREAM PLANT, 4047 LOZELLS AVENUE, BURNABY, B.C.

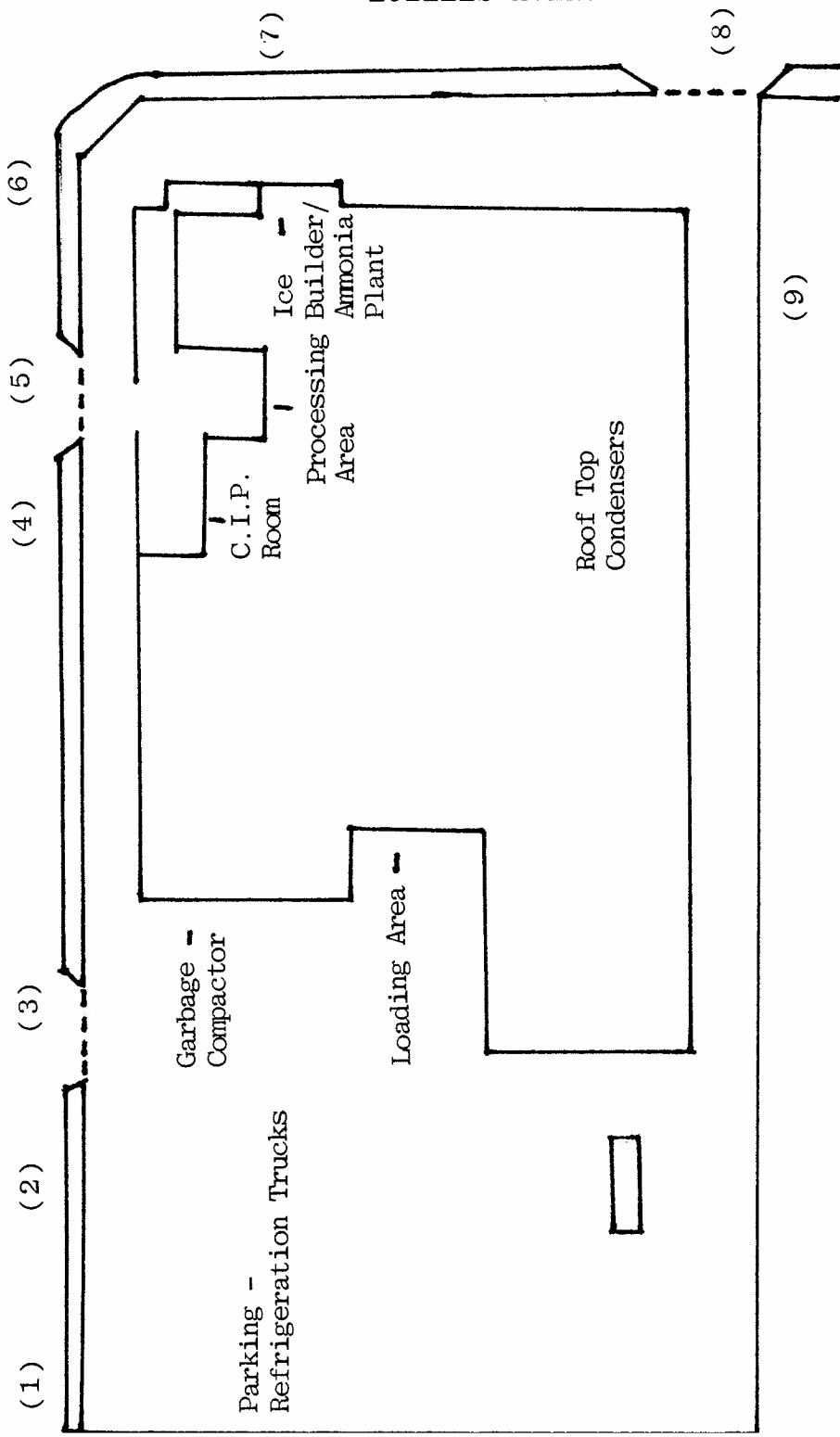
NOISE READINGS (1990 - 1992)

7580 Dorchester Drive

3957 Lozells Avenue

WINSTON STREET

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KEY (LOCATIONS):

1. North west corner of property with potential noise impact from parked refrigeration trucks.
2. North of the refrigeration truck parking area.
3. North gate entrance to loading area.
4. North of the transfer pump and exhaust fan for C.I.P. room.
5. North gate entrance for sugar delivery and directly north of the exhaust fan for the processing area.
6. North of the electric motor.
7. East of the new ice builder.
8. East entrance to the property.
9. South of the doors to processing area

NOTE: Layout not to scale

ATTACHMENT #1

DATE (TIME)	LOC. #1	LOC. #2	LOC. #3	LOC. #4	LOC. #5	LOC. #6	LOC. #7	LOC. #8	LOC. #9	TRAFFIC NOISE	LDQ (24)	OBSERVATIONS
90 05 02 (14:35 h.)		62.0			60.0					75.0		Within allowable limits
90 06 13 (15:15 h.)	60.8		59.1 - 60.8							65.0 - 67.0		Within allowable limits 11 refrigeration trucks present; 2 trucks being repaired.
90 06 13 - 90 06 14										65.92		Equipment placed east of Loc #3, traffic noise predominant.
90 06 20 - 90 06 21										60.35		Equipment placed at 7580 Dorchester Drive. Traffic noise predominant.
90 07 04 - 90 07 05										65.5		Equipment located at 7580 Dorchester Drive. Traffic noise predominant.
90 08 11 (11:25 h.)					70.0 - 72.0					63.0 - 74.0		Non operational noise - cleaning of building drains.
90 08 13 (10:55 h.)			60.0 - 62.5	59.6 - 60.1						72.5 - 76.8		Within allowable limits

* NOTE: All readings taken in DBA's

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ATTACHMENT #1 (CONTINUED)

DATE (TIME)	LOC. #1	LOC. #2	LOC. #3	LOC. #4	LOC. #5	LOC. #6	LOC. #7	LOC. #8	LOC. #9	TRAFFIC NOISE	LDQ (24)	OBSERVATIONS
90 08 17 (23:40 h.)			54.3 -	53.4 -	55.8					76.0		Within allowable limits
90 09 08 (00:35 h.)		58.2		58.8	58.8							Within allowable limits Refrigeration trucks operating 42.2 in front of Dorchester Drive.
91 02 03 (02:35 h.)		54.0 -	56.0				55.5 -					Within allowable limits
91 03 06 - 91 03 07									67.07			Equipment located on Dairyland roof-top.
91 04 16 (22:45 h.)			55.0 -	60.5								Within allowable limits
91 04 21 (13:32 h.)				73.0 -	78.3							Fan noise from CIP room repaired.
91 06 03 (21:15 h.)			57.0 -	58.0								Within allowable limits 52.0 from balcony at 7580 Dorchester Drive.
91 06 27 (22:00 h.)		57.1	65.9	54.6	61.2	62.3	59.2	57.1				

* NOTE: All readings taken in dbA's

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DATE (TIME)	LOC. #1	LOC. #2	LOC. #3	LOC. #4	LOC. #5	LOC. #6	LOC. #7	LOC. #8	LOC. #9	TRAFFIC NOISE	LEQ (24)	OBSERVATIONS
91 07 03 (21:00 h.)	59.5 -	56.4 -	57.3	56.8 -	57.4					51.0 - - 52.0		13 refrigeration trucks operating. Within allowable limits.
91 07 29 (00:20 h.)	55.0 -	60.0						60.0	70.0 -			Summary of charges forwarded to Crown Council's Office.
91 08 02 (08:50 h.)					54.0					65.0 - 82.0		Within allowable limits
91 08 13 (14:15 h.)				54.6	58.4				57.4	70.0 - 82.0		Only two delivery trucks on site. Within allowable limits.
91 08 15 (14:45 h.)	64.5	62.5	62.9									13 refrigeration trucks in compound. Within allowable limits.
91 08 18 (00:30 h.)	53.8		55.8		56.0	51.8	55.3	58.0				Within allowable limits
91 08 21 (12:25 h.)		55.6 -	55.9	51.9	56.4		51.1	57.2				Within allowable limits

* NOTE: All readings taken in dB's

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ATTACHMENT #1 CONTINUED

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DATE (TIME)	LOC. #1	LOC. #2	LOC. #3	LOC. #4	LOC. #5	LOC. #6	LOC. #7	LOC. #8	LOC. #9	TRAFFIC NOISE	LEQ (24)	OBSERVATIONS
91 08 29 (13:50 h.)					70.1 - 71.8					73.1 - 80.9		Sugar delivery (at half speed) - not operation-ally associated. High traffic noise intrusion
91 09 29 (01:30 h.)			55.0					55.0 - 56.0				Within allowable limits
91 10 19 (19:10 h.)			69.0 - 76.8									Noise from pressure washer, not operation-ally associated; charges laid.
91 11 30 (02:50 h.)	49.5 - 49.6		54.2 - 54.5	53.9 - 54.0			53.3 - 53.5		40.9 - 41.7			8 refrigeration trucks on site. Within allowable limits.
91 12 10 (01:10 h.)	56.7 - 57.0		51.8 - 52.2	54.5 - 55.0								8 refrigeration trucks on site. Within allowable limits.
92 01 11 (09:30 h.)			45.0 - 48.0									Within allowable limits

ATTACHMENT #1 CONTINUED

* NOTE: ALL readings taken in DBA's

* NOTE: All readings taken in dB's

DATE (TIME)	LOC. #1	LOC. #2	LOC. #3	LOC. #4	LOC. #5	LOC. #6	LOC. #7	LOC. #8	LOC. #9	TRAFFIC NOISE	LDQ (24)	OBSERVATIONS
92 05 02 (00:19 h.)	55.3	51.9	52.9	51.9	53.4	48.5	50.9	59.6				10 refrigeration trucks on site. Within allowable limits.
92 05 06 (23:30 h.)	54.6	54.6	50.4	50.0	52.7	49.9	52.4	54.5	59.7			8 refrigeration trucks on site. Within allowable limits.
92 06 03 - 92 06 04											71.7	Equipment located south of 7580 Dorchester Dr., traffic noise dominant.
92 06 11 [14:30 h.] (20:30 h.)	[53.7] (52.5)	[60.0] (54.5)	[63.0] (53.9)	[59.0] (53.0)	[59.6] (58.0)	[57.6] (56.0)	[55.8] (55.5)	[65.2] - door open	closed door (60.5)-			Within allowable limits
92 06 11 - 92 06 12											74.4	Equipment located one block west of Loc. #1, the traffic noise was predominant.

ATTACHMENT #1 CONTINUED

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