


August 20, 1957

Mr. E. C. Shuman, Director
Research and Engineering Kaylo Division
Owens-Illinois
Toledo 1, Ohio

Dear Mr. Shuman:

We have your letter of July 31, 1957 regarding noise reduction measures completed at your Berlin, New Jersey plant.

We are appreciative of your statement that economic consideration has an important place in trying to satisfy neighborhood complaints. We are indeed regretful that it has not been possible for the New Jersey State Department of Health to formulate a performance code in which are stated actual sound pressure values above which the general welfare of the residents of a community is affected.

In the evaluation of a noise problem, this Department has been guided by a report of, "The Committee on the Hygiene of Housing" of the American Public Health Association. This report suggests that outside noises be excluded to the extent that noise within the dwelling does not normally exceed the following optimum figures:

| | |
|---|---|
| Study and sleeping | 30 decibels |
| Other habital rooms | 50 decibels |

In order to achieve these levels within the dwelling noise standards for housing sites are recommended as:

Table

| Average Ambient Sound Level should be | Grade of Attainment in db | | |
|---|---|---|---|
| | Minimum | Standard | Optimum |
| 50% of the time, less than | 60 | 45 | 40 |
| 90% of the time, less than | 70 | 60 | 50 |

Minimum - Livable conditions below which occupants risk impairment of privacy, comfort, health and sleep owing to noise.

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Standard - The recommended minimum conditions for normal living.

Optimum - The desirable condition for living with greatest possible freedom from noise disturbance, attainable by prudent expenditure.

The nearest approach to a standard, is an experimental code formulated by the City of Chicago, in cooperation with the National Noise Abatement Association and the Armour Institute of Technology. This code is based on both frequency and intensity as follows:

Limiting Noise Spectrum for Residential-Industrial Boundaries

| Octave-Band Frequencies in cycles per section | 0 - 75 | 75 - 150 | 150 - 300 | 300 - 600 | 600 - 1200 | 1200 - 2400 | 2400 - 4800 | above 4800 |
|---|---|---|---|---|---|---|---|---|
| Sound Pressure Levels in decibels | 72 | 67 | 59 | 52 | 46 | 40 | 34 | 32 |

Limiting Noise Spectrum for Commercial-Industrial Boundaries

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Sound Pressure Levels in decibels | 79 | 74 | 66 | 59 | 53 | 47 | 41 | 39 |

The point of measurement was chosen to be the boundary of any residential area in the vicinity of the particular industrial property.

Much attention has been given this subject in the pages of the magazine, "Noise Control", 57 East 55th Street, New York 22, N. Y., particularly

Volume 1 No. 6 November 1955
Volume 2 No. 4 July 1956
Volume 3 No. 3 May 1957

We trust that this information will be of value to you. One of our engineers has expressed the desire to see this installation, as a similar problem has been encountered in a plant in northern New Jersey.

Very truly yours,

Miriam Sachs, M.D., M.P.H.
Chief
Bureau of Acute and Occupational Health

CC: Mr. Paul Reilly
Mr. R. B. Platt

BC: Mr. Shimer
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