



DOW CHEMICAL U.S.A.

LOUISIANA DIVISION

PLAQUEMINE, LOUISIANA 70754

604 687-4321

December 6, 1976

J. N. Wilkes
All Employees at LHC I

NOISE SURVEY 1976

The following are the results obtained in the annual noise survey. The range of levels measured in each area is shown:

<u>Area</u>	<u>dB</u>
Train I - Upper deck	89 - 105
Lower deck	81.5 - 98.5
Train II - Upper deck	89.5 - 100
Lower deck	90 - 95.5
Purification - Upper deck	81.5 - 96
Lower deck	83 - 89
Cooperhouse	89 - 97.5
Furnace Area	77.5 - 101
Quench Water Area	83 - 93.5
Slop Oil & Storage Drum Area	78 - 98.5

In Train I the highest noise levels were around E-113 (the surface condenser) and the coupling on K-20. The situation in Train II was similar with the highest levels recorded around E-503 (the surface condenser) and the coupling on K-520. However, the highest noise level in Train II was 5 dB less than the highest in Train I. Purification had high noise levels near the coupling on K-120. This level was 4 dB less than the high in Train II.

The Cooperhouse is probably the noisiest area as a whole. Levels inside the Cooperhouse run in the mid and upper 90's just about everywhere within the confines of the building. K-71 E & F are still the loudest machines. They are not that much louder than the other 4 machines and this may be due to the new exhaust packing on E & F. In the 1975 survey, they were quite a bit louder than the other machines.

The furnace area is generally not too bad at ground level. The space between the pairs of Solas furnaces is a good bit noisier. The fuel gas letdown station by F-1 is the loudest spot in the furnace area with a reading of 101 dB.

AN OPERATING UNIT OF THE DOW CHEMICAL COMPANY



DO 099033
CONFIDENTIAL

The quench water area was loudest around the air compressors in Train II and the steam letdown station in Train I. The letdown station has been improved considerably by covering with lead and insulation. Unfortunately, no readings are available before the insulation to determine how much quieter it is.

The slop oil and storage drum area is the quietest area. This is due to the lack of machinery in this area. The highest level in this area was only 88.5 dB.

The table below gives the average time on a daily basis that a person can spend in an area at a given decibel (db) level with no hearing protection.

90 dB or less	8 hours
96 dB	209 minutes (average)
102 dB	90 minutes (average)

An exposure of 115 dB or greater requires hearing protection for any time period.

All employees are urged to wear some form of hearing protection whenever they are in a process area for any length of time.

T. M. Gunn

/jd