

August 16, 19-Safety-8

Mr. William Ramsey,
Supervisor of Safety
Chevrolet-Cleveland Division
Brookpark & Stumpf Roads
Parma, Ohio 44129

Dear Mr. Ramsey:

Enclosed are two copies of a report on the visit made to
the plant August 7, 1968.

Section 7 of the report recommends that a maintenance
procedure be scheduled for regular cleaning of the dust
collectors.

Please contact this Division any time it may be of service
to the Company on matters pertaining to accident prevention
or industrial hygiene.

Very truly yours,

Albert E. Scheible, P.E.
Safety Engineer

AES:fb
Enc:

August 16, 19-Safety-8

Re: Chevrolet-Cleveland Division
General Motors Corporation
Brookpark & Stumpf Roads
Parma, Ohio 44129

1. On August 7, 1968, a visit was made by the writer to the subject company. The visit was prompted by a communication from a member of the Local Union Safety and Compensation Committee. A request was made for a survey of atmospheric conditions in Department 45, automatic transmissions heat treating.
2. Mr. William Ramsey, Supervisor of Safety was contacted at the plant.
3. At this location, the Division manufactures automatic transmissions, drive shafts, and pressed steel parts for trucks such as fenders and hoods.

The plant is a large modern building covering about 45 acres. Outside air is brought in by mechanical equipment and distributed to various locations throughout the plant. There were no dusty operations and no visible dust observed in that part of the plant visited. For the type of work performed, the plant was exceptionally clean.

The area, in which an employee who had made a complaint works, is about 75' square. It is an interior area in the plant. The complainant is classified as a set-up man. A variety of duties are included in this classification including the operation of shakeout machines, in this case Wheelabrators. There are five Wheelabrators in the area. They are totally enclosed and locally exhausted to four dust collectors (one dust collector serves two Wheelabrators). Three Wheelabrators are normally in operation. At the time of the visit only two were being used. Atmospheric conditions were probably better than normal from a dust standpoint.

4. An air sample was taken while walking about the area in Department 45 where the complainant works. The sample indicated a dust concentration of only 0.8 million particles per cubic foot of air (appox).

A set-up man on duty at the time of the visit said that dust became visible if the dust collectors were not kept clean. He demonstrated this by shutting off the air exhaust from a machine that was operating. Considerable fine dust was observed to escape from the access door of the machine. He said that the dust collectors do not often become overloaded.

The small parts that were being processed were steel. Practically all of the parts processed are steel. Occasionally aluminum parts are put through the wheelabrators. Very little alloy comes to the area. Since the parts are already quite clean when they come to the area, the dust produced would be primarily steel dust. Steel dust would be considered an inert material. The threshold limit value for this dust has been established by the American Conference of Governmental Industrial Hygienists to be 50 mppcf.

Threshold limit values refer to air-borne concentrations of substances and represent conditions under which it is believed that nearly all workers may be repeatedly exposed, day after day, without adverse effect. It is generally recognized, however, that a wide variance of susceptibility exists among different people with respect to the effect of various substances. It is not implied or recommended that conditions be such as to permit concentrations to remain at or near threshold limit values.

5. It will be noted that the observed dust concentration was far below the threshold limit value. It was so low as to be practically negligible. This observer, on a past occasion, has found a higher dust concentration in outside atmosphere. He doubts, during increased activity in the area, the dust concentration would be higher than observed at the time of this visit. However, it is most unlikely that it would even approach the threshold limit value, except possibly at a time when all the wheelabrators were working and all the dust collectors needed cleaning. Such a situation would probably not occur, certainly not with any regularity.

Inhalation of insoluble inert material may result in some accumulation in the respiratory passages. Iron dust can cause siderosis of tissues if the iron remains in the tissues. This is believed to be a benign condition. However, it is desirable to control the concentration of such particulates in keeping with good industrial hygiene practice.

6. This survey has been made under Section IC-5-11 of IC-5, Specific Safety Requirements of The Industrial Commission of Ohio Relating to All Workshops and Factories.
7. The only recommendation made at this time is to schedule a maintenance procedure for regular cleaning of the dust collectors.

Respectfully submitted,

Albert E. Scheible, P.E.
Safety Engineer

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