
# 57th ALL-OHIO SAFETY AND HEALTH CONGRESS & EXHIBIT

**CLEVELAND CONVENTION CENTER**
**APRIL 7, 8, 9, 1987**

March 10, 1987

PLAINTIFF'S EXHIBIT BRK-88



Mr. Mike McGinnis
Safety Director
GMC Truck and Bus Assembly Plant
2601 W. Stroop Road
P.O. Box 1291
Moraine, Ohio 45439

Dear Mr. McGinnis:

As you know we received another complaint about adverse symptoms experienced by an employee in Department 2824 which the caller felt are work-related. The complaint was similar to that addressed in our letter dated December 9, 1986 except that the employee also complained of cold hands and feet, a light-headed feeling, wobbly legs, pain around ribs, and burning veins in addition to the symptoms of nausea, drowsiness, dizziness, headache and bitter taste in mouth reported earlier. OSHA has also asked you to investigate a complaint regarding carbon monoxide type symptoms in this area. I feel these complaints are related because during a phone conversation with the caller I mentioned that excessive drowiness, headache, and nausea could be related to carbon monoxide exposure from sources outside the work environment, e.g., poorly ventilated home appliances or faulty car exhaust.

We ran an Ecolyzer Model 2000 in the work area during second shift on February 24, 1987. The strip chart reading is attached. Even though there were problems with the stability of the meter during post calibration, we feel that enough data was obtained to show that there is not a carbon monoxide problem in the area.

The caller is convinced the symptoms are work-related because the symptoms only occur during working hours, usually about 6:45 p.m. and are of short duration. It seems doubtful that repeated air monitoring will help resolve this matter. I suggested to the caller that he/she try another job to see if the symptoms go away. The caller felt that other employees in the area are harrassing him/her and is afraid that someone

Cy: Marilyn Priddy/Rhonda Kistler-Central Office/cls

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Mr. Mike McGinnis
GMC Truck and Bus Assembly Plant

may have been tampering with gum and soft drinks consumed in the area. Thus, the complaint originating as a complaint about fumes and vapors in the work area may have other underlying causes. These allegations, real or not, are fairly serious and investigation should continue until the matter is resolved.

If you have any questions regarding this matter please call our office. Roger Aber will be conducting the evaulation of the engine test area as discussed during our last visit.

Sincerely,

MARILYN PRIDDY
Certified Industrial Hygienist

Atch
Strip Chart

MP:cls


# 57th ALL-OHIO SAFETY AND HEALTH CONGRESS & EXHIBIT

**CLEVELAND CONVENTION CENTER**
**APRIL 7, 8, 9, 1987**



December 9, 1986

Mike McGinnis
Safety Director
GMC Truck and Bus Assembly Plant
2601 W. Stroop Rd.
P.O. Box 1291
Moraine, Ohio 45439

Dear Mr. McGinnis:

On October 8,1986 Mr. Dick Gitzinger, Industrial Safety Consultant, visited the GMC Truck and Bus Assembly Plant in Moraine, Ohio to investigate an anonymous complaint phoned into our office on October 3, 1986. The caller stated that in Department 2824 an assembler of baffles and air deflectors was becoming drowzy, dizzy, nauseous, and had a bitter copper taste in the mouth. The caller felt these symptoms were related to fumes in the work area which were possibly coming from the paint house or the hydraulic brake department.

Mr. Gitzinger found no hazardous conditions existing during his visit to this area. He spoke to an employee who works at the same job described by the caller. The employee stated she was not troubled by any of the above symptoms but that occasionally there is an odor of paint solvent in the area. Mr. Gitzinger reported that Mr. Jim Rittenhouse had recently sampled the air in this department for toluene, acetone, xylene, carbon monoxide, hydrogen sulfide, and sulfur dioxide using direct-reading color indicator tubes. All of these results were negative. Mr. Gitzinger then referred the matter to our industrial hygiene section.

cy: Marilyn Priddy/Rhonda Kistler-Central Office/Company File/cls

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On October 31, 1986 I made a preliminary visit to the plant. I did not discern any solvent odor in the area or notice any other problems. I returned on November 6, 1986 to conduct full shift air monitoring. Again, I did not discern any odor in this department. We monitored during second shift because you had received an identical complaint from an employee who worked in Department 2824 on second shift. I planned to sample for at least seven hours but I misunderstood the shift's starting time so samples of slightly shorter duration were collected.

Breathing-zone samples for solvents were collected on activated charcoal using calibrated SKC sampling pumps. One employee who did not wish to wear a pump wore a 3M organic vapor badge. A 3M organic vapor badge was also used for an area sample. It was clipped to the roof side of the air intake unit located in the area. Breathing-zone samples for total particulate were collected on pre-weighed PVC filters using calibrated Gilian sampling pumps. The samples were analyzed by an accredited industrial hygiene laboratory. The activated charcoal tubes and 3M monitors were analyzed by routine gas chromatography and weight gain was determined for the PVC filters.

The results are summarized in the attached table. A very small amount of particulate was detected. None of the primary solvents used in the paint house were detected in any of the samples.

In many cases when routine gas chromatography is used as an analytical method, the chemists will note that the gas chromatograph has produced additional responses, that is, responses which do not correspond to those chemicals that they were asked to quantify. To report these findings, the chemists group the additional responses and quantify them as if they were hexane. These "hexane equivalents" were detected in only one sample. If the value reported as hexane were high, we would consider additional monitoring. In this case the amount detected was only a trace, right at the detection limit, and we do not feel additional sampling is needed.

During certain weather conditions, the air intake could possibly pick up some of the exhaust from the paint building, causing a faint solvent odor in the assembly area. It would be difficult to imagine that this would

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occur with enough frequency and result in solvent concentrations high enough to cause any health problems.

I do not feel that repeated air monitoring is the answer to addressing this type of complaint. You may want to consider having the employees in this area keep a log to record dates and times when the odors are noticeable. When entries are made, someone could then record the weather conditions, i.e., wind speed, direction, barometric pressure, rain, etc. The log may be useful in determining if there really is a relationship between the weather and the complaints.

We asked our Resource Center to search for a relationship between the symptom "a bitter copper taste in the mouth" and known occupational exposures since this was a somewhat unusual complaint. The data base search did not yield any information. If the symptoms continue, the employee should be advised to see a physcian for a thorough exam.

In summary, we did not find any conditions during our survey which we could relate to the symptoms reported. If you have any questions regarding this letter or desire assistance in the future, please call our office at (513) 898-3206. Again, thank you for your courtesy and for the tour of the facility.

Sincerely,

Marilyn Priddy

Marilyn Priddy
Certified Industrial Hygienist

Attachments: Data Tables

Moraine, Ohio

11-06-86 Dept. 2824

-- in ppm --

| NAME/SITE SAMPLED | POSITION/ OPERATION | CONTAMINANT | SAMPLED (MINUTES) | CONCENTRATION DETERMINED | OSHA PEL | NIOSH REL | ACGIH TLV |
|---|---|---|---|---|---|---|---|
| Andrae Patterson #52456 | 730 Repairman Inspect & repair FESM | xylene | 356 | < 1.0 | 100 | 100 | 100 |
| | | toluene | 356 | < 1.0 | 200 | 100 | 100 |
| | | benzene | 356 | < 1.0 | 10 * | L.L.F. | 10, A2 |
| | | acetone | 356 | < 1.0 | 1000 | 250 | 750 |
| | | rest as "hexane equivalents" | 356 | 1.0 | - | 60 ** | - |
| Steve Caudill #53080 | 615 Assemble · Windshield washer nozzle, hood pad | -- Samples not submitted for analysis, pump failed to post calibrate -- | | | | | |
| Barbara Patla #52263 | 615 Assembler Left park lamp, engine label | xylene | 410 | < 1.0 | 100 | 100 | 100 |
| | | toluene | 410 | < 1.0 | 200 | 100 | 100 |
| | | benzene | 410 | < 0.03 | 10 * | L.L.F. | 10, A2 |
| | | acetone | 410 | < 1.0 | 1000 | 250 | 750 |
| | | rest as "hexane equivalents" | 410 | < 1.0 | - | 60 ** | - |

TWA - Time-Weighted Average
TLV - Threshold Limit Value
PEL - Permissible Exposure Limit
REL - Recommended Exposure Limit
ACGIH - American Conference of Governmental Industrial Hygienists
OSHA - Occupational Safety and Health Administration
NIOSH - National Institute for Occupational Safety and Health

ppm - Parts per Million Parts of Air
$mg/M^3$ - Milligrams per Cubic Meter of Air
dBA - Decibels A-Scale
N.D. - None Detected
(STEL) - Short-Term Exposure Limit
N.A.S. - No Applicable Standard
< = Less than
L.L.F.= Lowest limit feasible

OSHA Standard 29 CFR 4910.20 requires that air sampling and other employee exposure information be made available employees or employee representatives upon request. We recommend that employees in the areas sampled be provided with copy of air sampling data.

* = reduction pending
** = as refined petroleum solvents
A2 = suspect carcinogen, ACGIH

GM TRUCK & BUS PLANT
Moraine, Ohio

11-06-86 Dept. 2824

**TABLE**

--- in ppm ---

| NAME/SITE SAMPLED | POSITION/ OPERATION | CONTAMINANT | SAMPLED (MINUTES) | CONCENTRATION DETERMINED | OSHA PEL | NIOSH REL | ACGIH TLV |
|---|---|---|---|---|---|---|---|
| Bobbie Arrington #52193 | 615 Assembler; right park lamp, hood latch assembly | xylene | 195 (first part of shift only) | < 1.0 | 100 | 100 | 100 |
| | | toluene | | < 1.0 | 200 | 100 | 100 |
| | | benzene | | < 0.02 | 10 * | L.L.F. | 10, A2 |
| | | acetone | | < 1.0 | 1000 | 250 | 750 |
| | | rest as "hexane equivalents" | | < 1.0 | - | 60 ** | - |
| Vilma Camancho #52773 | 615 Assembler, front bumper air deflector | xylene | 377 | < 1.0 | 100 | 100 | 100 |
| | | toluene | 377 | < 1.0 | 200 | 100 | 100 |
| | | benzene | 377 | < 1.0 | 10 * | L.L.F. | 10, A2 |
| | | acetone | 377 | < 1.0 | 1000 | 250 | 750 |
| | | rest as "hexane equivalents" | 377 | < 1.3 | - | 60 ** | - |
| Air intake roof fan | Intake over Vilma Comancho's position | xylene | 365 | < 1.0 | 100 | 100 | 100 |
| | | toluene | 365 | < 1.0 | 200 | 100 | 100 |
| | | benzene | 365 | < 1.0 | 10 | L.L.F. | 10, A2 |
| | | acetone | 365 | < 1.0 | 1000 | 250 | 750 |
| | | rest as "hexane equivalents" | 365 | < 1.0 | - | 60 ** | - |

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GM TRUCK & BUS PLANT
Moraine, Ohio

11-06-86 Dept. 2824

# TABLE

------- in mg/M$^3$ ----------

| NAME/SITE SAMPLED | POSITION/ OPERATION | CONTAMINANT | SAMPLED (MINUTES) | CONCENTRATION DETERMINED | OSHA PEL | NIOSH REL | ACGIH TLV |
|---|---|---|---|---|---|---|---|
| Shirley Nelson #52913 | 615 Assembler, fender skirt attach | Total Particulate | 384 | 0.10 | 15 as nuisance dust | - | 10 as nuisance dust |
| Doloros Young #53015 | 615 Assembler, Wheel house molding; prop shaft label | Total Particulate | 358 | 0.14 | 15 as nuisance dust | - | 10 as nuisance dust |
| | | ------- in ppm ------- | | | | | |
| Jerry Delph #52691 | 758 A.R.O. Air deflector & hood hinge | xylene | 385 | < 1.0 | 100 | 100 | 100 |
| | | toluene | 385 | < 1.0 | 200 | 100 | 100 |
| | | benzene | 385 | < 1.0 | 10 * | L.L.F. | 10, A2 |
| | | acetone | 385 | < 1.0 | 1000 | 250 | 750 |
| | | rest as "hexane equivalents" | 385 | < 1.0 | - | 60 ** | - |

TWA - Time-Weighted Average
TLV - Threshold Limit Value
PEL - Permissible Exposure Limit
REL - Recommended Exposure Limit
ACGIH - American Conference of Governmental Industrial Hygienists
OSHA - Occupational Safety and Health Administration
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A2 = ACGIH suspect carcinogen

GMC Truck + Bus
Assembly Plant
- Moraine

# RECORDS CERTIFICATION

9 pages

I, the undersigned, an employee of the Bureau of Workers' Compensation, do hereby certify that the microfilm images on this reel of microfilm or microfiche are complete and accurate reproductions of the original records of the S+H as accumulated during the regular course of business, and that it is the established procedure of this department to microfilm its records for permanent file and to dispose of the original records after microfilm reproductions have been made.

William D. Kaye
SUPERVISOR, Microfilming Unit

John Frey
Name (Camera Operator)

5-13-87
Date

5-13-87
Date