



**57th ALL-OHIO SAFETY AND HEALTH
CONGRESS & EXHIBIT**
CLEVELAND CONVENTION CENTER
APRIL 7, 8, 9, 1987

March 10, 1987

PLAINTIFF'S
EXHIBIT
BRK-88

Richard F. Celeste
Governor

The Industrial Commission
of Ohio

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Chairman

Emory Huguely
Vice Chairman

Robert L. McAllister
Member

John V. McCarthy
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Raymond A. Connor
Member

Division of
Safety and Hygiene
246 N. High St.
Columbus, Ohio 43215

John A. Pompel
Superintendent

Lou Gergely
Assistant Superintendent

Lawrence J. Whalen
Congress Manager

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 drowsiness, 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

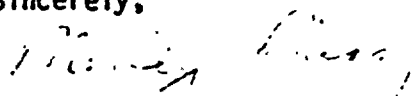
Cy: Marilyn Priddy/Rhonda Kistler-Central Office/cis

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 evaluation of the engine test area as discussed during our last visit.

Sincerely,


MARILYN PRIDDY
Certified Industrial Hygienist

Atch
Strip Chart
MP:cls



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P.O. Box 1291
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December 9, 1986

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 drowsy, 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/cl5

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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 Gillian 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

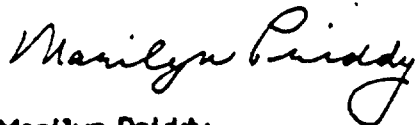
occur with enough frequency and result in solvent concentrations high enough to cause any health problems.

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 physician 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
Certified Industrial Hygienist

Attachments: Data Tables

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 toluene benzene acetone rest as "hex- ane equivalents"	356 356 356 356 356	< 1.0 < 1.0 < 1.0 < 1.0 1.0	100 200 10 * 1000 -	100 100 L.L.F. 250 60 **	100 100 10, A2 750 -
Steve Caudill #53080	615 Assembler Windschild 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 toluene benzene acetone rest as "hex- ane equivalents"	410 410 410 410 410	< 1.0 < 1.0 < 0.03 < 1.0 < 1.0	100 200 10 * 1000 -	100 100 L.L.F. 250 60 **	100 100 10, A2 750 -

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
mg/M³ - 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 to employees or employee representatives upon request. We recommend that employees in the areas sampled be provided with a copy of air sampling data.

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

TABLE

11-06-86 Dept. 2824

--- 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	xylylene	195	< 1.0	100	100	100
		toluene	(first part of shift only)	< 1.0	200	100	100
		benzene		< 0.02	10 *	L.L.F.	10, A2
		acetone		< 1.0	1000	250	750
		rest as "hex- ane equivalents"		< 1.0	-	60 **	-
Vilma Camancho #52773	615 Assembler, front bumper air deflector	xylylene	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 "hex- ane equivalents"	377	< 1.3	-	60 **	-
Air intake roof fan	Intake over Vilma Camancho's position	xylylene	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 "hex- ane equivalents"	365	< 1.0	-	60 **	-

TWA - Time-weighted Average
TLV - Threshold Limit Value
PEL - Permissible Exposure Limit
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ACGIH - American Conference of Governmental Industrial Hygienists
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N.D. - None Detected
(STEL) - Short-Term Exposure Limit
N.A.S. - No Applicable Standard
L.L.F. = Less than
L.L.F. = Lowest limit feasible

** = Reduced PPE required for
A2 = ACGIH suspect carcinogen

TABLE

11-06-86 Dept. 2824

----- 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 Particu- late	384	0.10	15 as nut- sance dust	-	10 as nut- sance dust
Doloros Young #53015	615 Assembler, wheel house molding; prop shaft label	Total Particu- late	358	0.14	15 as nut- sance dust	-	10 as nut- sance dust
Jerry Delph #52691	758 A.R.O. Air deflector & hood hinge	xylene toluene benzene acetone rest as "hex- ane equivalents"	385 385 385 385 385	< 1.0 < 1.0 < 1.0 < 1.0 < 1.0	100 200 10 * 1000 -	100 100 L.L.F. 250 60 **	100 100 10, A2 750 -

TWA - Time-weighted Average
TLV - Threshold Limit Value
PEL - Permissible Exposure Limit
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OSHA - Occupational Safety and Health Administration
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ppm M^3 - 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
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* = reduction pending
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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 SH 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. Hays
SUPERVISOR, Microfilming Unit

John Frey
Name (Camera Operator)

5-13-87
Date

5-13-87
Date