

May 18, 1992

TO: Jim Schonaerts
cc: R. J. Grahek
M. M. Marshall
E. C. Martinelli/W.F. Patient
C. Mattia
G. Higby
M. Schulz
H. Waltemate
S. Williams

FROM: Dan Gleghorn

LAPORTE
INDUSTRIAL HEALTH AUDIT

Enclosed is the final report of the Industrial Health Audit conducted in your facility by Herm Waltemate and myself during the period of May 4 through 8, 1992.

I would like to thank you for the hospitality afforded us during our visit to your facility.

Your people being prepared and John Sanders and Tim Lancelin's assistance helped me complete the audit in a timely manner.

The Industrial Health Audit was directed toward programs and records as well as a facility inspection.

You are fortunate to have Steve Williams, Tim Lancelin and John Sanders who are eager to put a complete Industrial Health Strategy into place. They have worked very diligently to coordinate the implementation of your program.

During our audit, we pointed out conditions that violated BFGoodrich or OSHA standards or were inconsistent with good health practices.

The facility was rated with 102 "Satisfactory", 16 "Needs Attention" and 46 "Does Not Apply" items.

NGC 12258

Items To Be Corrected were developed from the Audit Checklist and the Inspection Tour notes. Not all Comments on the Inspection Tour require action by the plant. These documents can serve as references as you develop your abatement plan. The report format is laid out for you to write in your abatement program and indicate the status as complete, in-complete or no action. A progress report giving the status of the items requiring attention is due 60 days after receipt of the report and on a quarterly basis thereafter until completion.

A computer disk in Word Perfect format is included for your use in complying with this request.

The report includes the following:

- I Favorable Observations
- II 1992 Items to be Corrected
- III Industrial Health Program Rating
- IV Hearing Conservation Audit Checklist



Dan Gleghorn

deg
05/18/92
AUDITLAP.92

NGC 12259

LAPORTE
INDUSTRIAL HEALTH AUDIT

May 4 - 8, 1992

I Favorable Observations

1. As mentioned before you are fortunate to have Steve Williams, Tim Lancelin and John Sanders to develop your Industrial Health Strategy.
2. There appears to be very good support for the Industrial Health strategies by both the plant management and employees.
3. John Sanders has developed one of the best medical programs in GVD.
4. You have completed your Job Exposure Surveys and are conducting Personnel Monitoring based on a qualitative assessment of the Surveys.
5. Your Instrument Calibration Programs are very good with outstanding recordkeeping.

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08/12/91
algcih.aud/3

NGC 12260

II 1992 Items To Be Corrected

IH-1992-1 **Hazard Labeling**

- a. The sample cylinders used for quality control by the Laboratory need the labeling upgraded. Proper hazard labeling is a requirement of both OSHA 29 CFR 1910.1200 (f) (5) and the Chemical Hygiene Plan.
- b. Storage tanks and vessels must be clearly marked with their contents and should have the NFPA Diamond to advise emergency responders of the hazards they face. A large number of vessels, i.e. the tanks in the EDC Tank Farm, do not have the proper Labeling since they have been painted.

Please advise me of your program to comply with this item.

Response

Status

_____	Complete
_____	In-Complete
_____	No Action

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08/12/91
algcih.aud/4

NGC 12261

IH-1992-2

Over Exposure Follow-up

You are monitoring to determine if exposures to hazardous chemicals exist above the PEL. You have a specific written plan to deal with the over exposures to VCM. You need a written plan or standard practice to deal with over exposures to other chemical or physical agent, i.e. EDC.

Please advise when this item has been completed. Include a copy of your plan of action.

Response

Status

_____ Complete
_____ In-Complete
_____ No Action

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08/12/91
algcih.aud/5

NGC 12262

Noise Control

Although you have a Corrective Action Team in place to deal with noise problems in the facility, a serious problem has been created by the removal of fire proofing from process equipment. I have a concern that single device hearing protection, i.e. Ear-Plugs or Muffs alone, can adequately reduce the noise exposure to BFG or OSHA permissible limits. This is especially true if the sound level exceeds 100 dBA. As a minimum 7 dB must be deducted from the manufactures NRR rating, of the hearing protector, to determine its effective NRR (Noise Reduction Rating). A program must be implemented to lower noise levels in your facility including the areas where fire proofing removal has increased the noise levels.

Please submit a time table which indicates when this item will be completed and advise when the item is complete.

Response

Status

_____	Complete
_____	In-Complete
_____	No Action

IH-1992-4 MSDS

The MSDS Book in the Control Room did not have a
Chemical List in the VCM Section.

Please advise when this item has been corrected.

Response

Status

_____	Complete
_____	In-Complete
_____	No Action

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08/12/91
algcih.aud/7

NGC 12264

IH-1992-5

Sound Level Meter

I reviewed numerous calibration records for equipment in your facility and find them some of the best in GVD. A review of your monitoring equipment calibration records, however, indicated a need to have the Sound Level Meter factory calibrated. IH-101 "Equipment Calibration" requires Factory Calibration every three years.

Please advise that this item has been completed.

Response

Status

_____	Complete
_____	In-Complete
_____	No Action

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08/12/91
algcih.aud/8

NGC 12265

IH-1992-6

Job Survey Follow-up

Although you have completed your Job Exposure Surveys a procedure must be implemented to update the survey as new materials are introduced to the plant. This is a requirement of IH-101 "Exposure Inventory".

Please advise when this item has been completed. Include a copy of your plan of action.

Response

Status

_____ Complete
_____ In-Complete
_____ No Action

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08/12/91
algcih.aud/9

NGC 12266

III.

GEON VINYL DIVISION
SPECIALTY POLYMERS & CHEMICALS DIVISION
INDUSTRIAL HEALTH AUDIT
CHECKLIST

LOCATION LaPorte

DATE 05/04-08/92

S = Satisfactory
NA = Needs Attention
DNA = Does Not Apply

A. INDUSTRIAL HEALTH PROGRAM ADMINISTRATION

1. Industrial Health Coordinator

a. Named	<u>S</u>
b. Knowledgeable	<u>S</u>
c. Walk-throughs	<u>S</u>

2. Periodic Industrial Health Program Reports

a. Timely	<u>S</u>
b. Content	<u>S</u>
c. Quarterly Reports	<u>S</u>
d. Year-end Report	<u>S</u>
e. Goals for Next Year	<u>S</u>

3. Medical Services

a. Physical Examination	<u>S</u>
b. Medical Equipment Certification/ Calibration	<u>S</u>
c. Professional Training	<u>S</u>
d. Illness and Complaint Investigation	<u>S</u>

4. Job Exposure Surveys

a. Complete	<u>S</u>
b. New Exposure Review	<u>NA</u>
b. Annual Review and Update	<u>DNA</u>

5. Chemical Hazard Review and Use

a. Committee Established	<u>S</u>
b. MSDS	
1. Available	<u>S</u>
2. Employees Trained in Use	<u>S</u>

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08/12/91
algcih.aud/10

NGC 12267

6. Reply to Industrial Health Audits

a.	Initial	<u>S</u>
b.	Final Report	<u>S</u>

7. PEL's and Fetal Toxicity

	Written Program	Medical Surveillance	Training
a. Hazard Communication	<u>S</u>	<u>DNA</u>	<u>S</u>
b. Acrylonitrile	<u>DNA</u>	<u>DNA</u>	<u>DNA</u>
c. Benzene	<u>DNA</u>	<u>DNA</u>	<u>DNA</u>
d. Carbon Tetrachloride	<u>DNA</u>	<u>DNA</u>	<u>DNA</u>
e. Chromium VI	<u>DNA</u>	<u>DNA</u>	<u>DNA</u>
f. Chloroform	<u>DNA</u>	<u>DNA</u>	<u>DNA</u>
g. Dimethyl Acetamide	<u>DNA</u>	<u>DNA</u>	<u>DNA</u>
h. Ethylene Thiourea	<u>DNA</u>	<u>DNA</u>	<u>DNA</u>
i. Lead	<u>DNA</u>	<u>DNA</u>	<u>DNA</u>
j. Mercury (Vapors)	<u>DNA</u>	<u>DNA</u>	<u>DNA</u>
k. Methyl Ethyl Ketone	<u>DNA</u>	<u>DNA</u>	<u>DNA</u>
l. Vinyl Chloride	<u>S</u>	<u>S</u>	<u>S</u>
m. Ethylene Dichloride	<u>NA</u>	<u>S</u>	<u>S</u>
n. Perchloroethylene	<u>DNA</u>	<u>DNA</u>	<u>DNA</u>

8. Monitoring for OSHA PEL's and Reproductive/Developmental Toxicity
by Area From (month/year) 1/1/91 to Present

	Number of <u>Samples</u>	% Over <u>PEL</u>	% Over PEL Without <u>Protection</u>
a. Benzene OSHA PEL 1.0 ppm, BFG PEL 1.0 ppm			
<u>Department Number & Name</u>			
1. <u>50</u>	<u>4</u>	<u>0</u>	
2. <u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	

* Written Plan to Address Over Exposures DNA

b. Chloroform OSHA PEL 2.0 ppm, BFG PEL 2.0 ppm

<u>Department Number & Name</u>			
1. <u>50</u>	<u>4</u>	<u>0</u>	
2. <u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	

* Written Plan to Address Over Exposures DNA

- c. Ethylene Dichloride OSHA PEL 1.0 ppm (contested)

Department Number & Name

	<u>Number of Samples</u>	<u>% Over PEL</u>	<u>% Over PEL Without Protection</u>
1.	<u>155</u>	<u>9.6</u>	<u>7.7</u>
2.	<u> </u>	<u> </u>	<u> </u>
3.	<u> </u>	<u> </u>	<u> </u>
4.	<u> </u>	<u> </u>	<u> </u>

* Written Plan to Address Over Exposures NA

- d. Perchloroethylene OSHA PEL 25.0 ppm,

Department Number & Name

	<u>Number of Samples</u>	<u>% Over PEL</u>	<u>% Over PEL Without Protection</u>
1.	<u>NA</u>	<u>DNA</u>	<u>DNA</u>
2.	<u> </u>	<u> </u>	<u> </u>
3.	<u> </u>	<u> </u>	<u> </u>
4.	<u> </u>	<u> </u>	<u> </u>

* Written Plan to Address Over Exposures DNA

- e. Vinyl Chloride PEL 1 ppm

Department Number & Name

	<u>Number of Samples</u>	<u>% Over PEL</u>	<u>% Over PEL Without Protection</u>
1.	<u> </u>	<u> </u>	<u> </u>
2.	<u> </u>	<u> </u>	<u> </u>
3.	<u> </u>	<u> </u>	<u> </u>
4.	<u> </u>	<u> </u>	<u> </u>

* Written Plan to Address Over Exposures NA

- f. Carbon Tetrachloride 2 ppm

Department Number & Name

	<u>Number of Samples</u>	<u>% Over PEL</u>	<u>% Over PEL Without Protection</u>
1.	<u>DNA</u>	<u>DNA</u>	<u>DNA</u>
2.	<u> </u>	<u> </u>	<u> </u>
3.	<u> </u>	<u> </u>	<u> </u>
4.	<u> </u>	<u> </u>	<u> </u>

* Written Plan to Address Over Exposures DNA

9. Monitoring for OSHA Noise PEL
by Area From (month/year) 1/1/91 to Present

<u>Number of Samples</u>	<u>% Over 50% Without Hearing Protection</u>	<u>% Over 100%</u>
----------------------------------	--	----------------------------

Hearing Protection Action Level 50%
Engineering Control PEL 100%

Department Number & Name

1.	<u>105</u>	<u>0</u>	<u>0</u>
2.	<u> </u>	<u> </u>	<u> </u>
3.	<u> </u>	<u> </u>	<u> </u>
4.	<u> </u>	<u> </u>	<u> </u>

* Written Plan to Address Over exposures S

B. INDUSTRIAL HEALTH PROCEDURES

1. Respiratory Procedure

a. Written	<u>S</u>
b. Selected per Hazard	<u>S</u>
c. Training	<u>S</u>
d. Fit Testing	<u>S</u>
e. Medical Examination	<u>S</u>
f. Cleaning	<u>S</u>
g. Storage	<u>S</u>
h. Inspection	<u>S</u>
i. Approvals	<u>S</u>
j. Usage	<u>S</u>

2. Asbestos Handling and Disposal

a. Sources Identified	<u>DNA</u>
b. Monitoring	<u>DNA</u>
c. Medical Examination	<u>DNA</u>
d. demolition and Removal	<u>DNA</u>
e. Protective Clothing	<u>DNA</u>
f. Written	<u>DNA</u>

3. Industrial Health Exposure Evaluation and Monitoring

a. Strategies

- | | |
|------------------------|----------|
| 1. OSHA Compliance | <u>S</u> |
| 2. Exposure Evaluation | <u>S</u> |
| 3. Special Requests | <u>S</u> |

- | | |
|---|----------|
| b. Sample Procedures | <u>S</u> |
| c. Analytical Procedures/Cross Check Program | <u>S</u> |
| d. Employee Notification, Interview & Documentation | <u>S</u> |

4. Hearing Conservation and Noise Control

(Use Hearing Conservation Audit Checklist)

Total Satisfactory	<u>24</u>
Total Needs Attention	<u>2</u>
Total Does Not Apply	<u>0</u>

5. Radiation

- | | |
|-----------------------------------|----------|
| a. Hazards Identified and Labeled | <u>S</u> |
| b. License Requirements | <u>S</u> |
| c. Records | <u>S</u> |
| d. Dosimetry Program | <u>S</u> |
| e. Periodic Leak Checks | <u>S</u> |
| f. Radiation Protection Officer | <u>S</u> |

6. Ventilation for Health Hazard Control

- | | |
|---|---------------|
| a. Periodic Flow or Maintenance Checks | <u>NA</u> |
| b. Laboratory Hoods | <u> </u> |
| 1. Yearly Flow Checked (Every 6 Months) | <u>S</u> |
| 2. Rating or Flow-Rate Posted | <u>S</u> |
| c. Modifications Reviewed | <u>S</u> |
| d. New Systems Reviewed | <u>S</u> |

7. Leak Detection

- | | |
|-----------------------------|----------|
| a. Written | <u>S</u> |
| b. Area Monitoring Response | <u>S</u> |
| c. Leak Repair Control | <u>S</u> |

8. I.H. Equipment Calibration

a. Audiodosimeters

- | | |
|----------------------------|----------|
| 1. Daily Field Calibration | <u>S</u> |
| 2. Laboratory Calibration | <u>S</u> |

b. Sound Level Meters

- | | |
|---------------------------------------|-----------|
| 1. Daily Field Calibration | <u>NA</u> |
| 2. Laboratory Calibration/Three Years | <u>NA</u> |

c. Acoustic Field Calibrators Every Three Years NA

d. Radiation Detection Device - Annually S

e. Area Monitoring Devices S

f. Personnel Monitoring Pumps DNA

9. Laboratory Safety

a. Chemical Hygiene Plan (in use) S

b. Chemical Hygiene Officer Named S

c. Lab Hoods Adequate for Hazard S

d. Personnel Protective Clothing and Equipment S

10. Totals	Satisfactory	<u>102</u>
	Needs Attention	<u>16</u>
	Does Not Apply	<u>46</u>

IV.

GEON VINYL DIVISION
SPECIALTY POLYMERS & CHEMICALS DIVISION
HEARING CONSERVATION
AUDIT CHECKLIST

LOCATION Laprote DATE 05/04-08/92

S - Satisfactory
NA - Needs Attention
DNA - Does Not Apply

1. All jobs with an eight hour TWA exposure of 85 dBA (50% dose), have been identified. S
2. Noise hazardous (BFG > 85dBA) areas have been posted. S
3. A formal list is available at the plant specifically designating hazardous and non-hazardous noise exposure jobs. NA
4. Records are available showing monitoring results for those jobs that were monitored. S
NOTE: A copy of monitoring result must be entered into the Medical Surveillance System in Bath. The plant must retain its records for at least two years (OSHA).
5. When employees working on noise hazardous jobs are monitored, they are informed of the monitoring results (OSHA). S
6. Engineering and/or maintenance efforts are being directed at reducing noise in those areas/jobs with an eight hour TWA of 90 dBA or greater (100% dose) (OSHA). NA
NOTE: Details of this effort must be documented.
7. Hearing protection worn in all noise hazardous areas. S
8. Hearing protectors in use are capable of reducing employee noise exposures to below 85 dBA (NOTE: "NRR" or attenuation factor on hearing protector package. Consult with Industrial Health in Cleveland if more information is needed). S

9. Employees are provided a choice of two or more different types/varieties of hearing protection (OSHA). S
10. Personnel working at noise hazardous jobs receive annual training which includes at least the following information (OSHA).
- a. The effect of noise on hearing. S
 - b. The purpose of hearing protectors, the advantage and attenuation of various types, and instructions on selection, fitting, use, and care. S
 - c. The purpose of audiometric testing and an explanation of the test procedures. S
11. Care is exercised to insure a proper initial fit and correct use of all hearing protectors (OSHA). S
NOTE: With inset-type hearing protectors (ear plugs), it is important that the ear canal be clear and free of impacted wax. The ears should be examined for impacted wax before plugs are fitted. If impacted wax is found, it should be removed by a nurse or physician. Any employees complaining of an ear problem should be referred to medical personnel for examination.
12. Audiometric examinations are provided for:
- a. All new hires (pre-employment). S
 - b. Transfers to noise hazardous jobs. S
 - c. Employees working on noise hazardous jobs (annually). S
- NOTE: Details for conducting proper audiometric exams are provided in BFG's OHP Manual, Section 5.05.
13. Audiograms are permanently retained for each employee. S
14. Employees with audiograms showing a standard threshold shift (STS) are notified of this fact in writing within 21 days (OSHA). S
NOTE: Employees showing a STS are to be retested within 30 days.

15. Employees exhibiting a STS are refitted with hearing protection and retrained in its use (OSHA). S
NOTE: Hearing protectors with greater attenuation may be needed.
16. Employees showing shifts in their hearing are provided follow-up counseling based on the BFG quarterly Audio Action Report and Section 5.0-5 of the OHP manual. S
17. Cases with a confirmed average 25dB shift from the original baseline in the frequencies 2000, 3000, and 4000 Hz, either ear, are recorded on the OSHA 200 Log. S
- 18.* The audiometer in use satisfies requirements of the ANSI standard 3.6-1969. S
- 19.* An acoustical or biological calibration is performed daily on the audiometer before use. S
NOTE: Results of these tests must be kept on record for at least one year.
- 20.* An acoustic check is performed on the audiometer annually, S
NOTE: Audiometer must meet requirements of ANSI S3.6-1969.
- 21.* An exhaustive calibration of the audiometer is performed at least every two years by the manufacturer or his approved agent. S
NOTE: (#18, #19, #20) Results of all checks and calibrations must be kept on record.
22. A copy of the OSHA noise standard is posted in the workplace or is available to employees. S
23. Questionnaire answered by:
- Name: John Sanders
- Title: Medical/Safety Technician
- Plant: LaPorte

*Numbers 18, 19, 20, 21 - Where an outside audiometric testing service is employed, it must be established that these requirements are satisfied.