IH Audit

December 10, 1992

To: Dave Laubacher
cc: R. Davis
R. Desjardins
R.J. Grahek
G. Higby
L. Larson
M.M. Marshall
E.C. Martinelli/W.F. Patient
C. Mattia
C. Miller

From: Dan Gleghorn

DEER PARK
1992
INDUSTRIAL HEALTH AUDIT

Enclosed is the final report of the Geon Vinyl Division Industrial Health Audit conducted in your facility by Herm Waltemate and me during the period of November 6 and 9 through 12, 1992.

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

Your people being prepared and Bob Desjardins assistance helped me complete the audit in a timely manner. I also appreciate the help provided by Cliff Miller, Larry Henderson and the Shift Supervisors during my work on the job exposure surveys.

You are fortunate to have Bob Desjardins who has been working diligently to formulate and implement your industrial health strategy. Your program is outstanding.

During the audit, we pointed out conditions that violated BEGoodrich or OSHA standards or were inconsistent with good health practices. One of the items discussed with Bob DesJardins was the use of Disposable Dust Masks (respirators). It is my strong recommendation that the use of Disposable Dust Masks, i.e. 3M-8710, be discontinued. There is a misconception, throughout industry, that these masks are exempt from the medical surveillance and fit testing requirements. These masks are NIOSH approved respirators and therefore users are subject to all aspects of OSHA 29 CFR 1910.134, "Respiratory Protection". Bob DesJardins is already working toward eliminating the use of these units.

The facility was rated with 106 "Satisfactory", 11 "Needs Attention" and 51 "Does Not Apply" items.

Items to be corrected were developed from the Audit Checklist and the Inspection Tour notes. These documents can serve as a reference as you develop your abatement plan. The report formate is laid out for you to write in your abatement program and indicate the status as **complete, in-progress** or **no action.** A progress report giving the status of the items requiring attention is due in 60 days and on a quarterly basis thereafter until completion of all items. All items are to be resolved within a one (1) year time frame.

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 Items from Previous Audit
III Items to Be Corrected
IV Industrial Health Program Rating

Dan Gleghorn

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12/10/92
AUDITPDP.92

NGC 13090

DEER PARK
INDUSTRIAL HEALTH AUDIT

November 6 & 9-12, 1992

I Favorable Observations

1. As mentioned before, you are fortunate to have Bob DesJardins to develop and implement your Industrial Health Strategy. The assistance provided him by Cliff Miller, Bob Davis and Lee LaBouf is very important to your program. It is obvious that everyone in your facility supports the strategy.

2. Although you do not have a nurse your Medical Surveillance program is administered well by Bob DesJardins. John Sanders from LaPorte does provide some support on this program.

3. The Hazard Identification and Information Placards placed on containers and at the location of chemicals throughout the facility are an excellent idea. These placards give pertinent information about the hazards and safety precautions concerning the specific chemical at the location.

4. The training programs our outstanding. Bob DesJardins administration of the programs and documentation are some of the best I have seen.

5. The signage of instruction on personal protection and safety equipment purpose and usage, located throughout the facility, are an excellent idea that should be shared with other facilities.

6. The Hazard Labeling of Chemicals in the Lab is in very good condition.

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12/10/92
auditdp.92f/3

II. Items from 1990 IH Audit

IH-1990-1 Raw Materials are not all labeled with hazard information labeled. This is a divisional problem which is being handled now. You will be advised of actions required by your facility. This item will be designated as IH-1992-2.

III. 1992 Items To Be Corrected

IH-1992-1 **For Information Only:** Product specific MSDS were **not** available for each vinyl resin and compound. This is an issue that is being corrected on a divisional level. As you receive Product MSDS you should continue to add them to the MSDS books in addition to updating the books index.

IH-1992-2 OSHA 29 CFR 1910.1200 (f) (5), Hazard Communication, requires that each container of Hazardous Material be labeled. The following items must be corrected:

a. Harco and Air Products PVA at the Solution Deck need to be Hazard Labeled.

b. The Vinyl Reclaim Storage Tank should be labeled the words "Vinyl Chloride".

Please advise your time table for correction of these items.

Response

_____
_____
_____
_____
_____
_____

Status

_____ Complete
_____ In-progress
_____ No Action

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IH-1992-3 Although your Respirator Program is very good we found a chlorine escape mask, on the first level,and several half masks, in the Poly Control Room, that need to be properly cleaned or stored.

Response

_____
_____
_____
_____
_____
_____

Status

_____ Complete
_____ In-progress
_____ No Action

IH-1992-4 IH-101 "Ventilation Section" deals with ventilation equipment designed for control of health hazards and requires annual ventilation flow and maintenance checks which are documented. Engineering Standard "ST-411" gives engineering and design standards for ventilation equipment. This item could be added to your maintenance PM system.

Please advise me your method for handling this matter and the time table for initiation.

Response

_____
_____
_____
_____
_____
_____
_____
_____

Status

_____ Complete
_____ In-progress
_____ No Action

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IH-1992-5 Although you have done an excellent job of monitoring for vinyl chloride, lead, dust, tin and noise, a number of other exposures need to be monitored for. They are:

a. Antimony
b. Cadmium
c. Chromium
d. Titanium Dioxide

Please advise your time table for completing this item and when it has been completed.

Response

_____
_____
_____
_____
_____
_____

Status

_____ Complete
_____ In-progress
_____ No Action

IH-1992-6 You need to establish a Cross Check Procedure for analysis of Environmental Monitoring Samples.

Please advise when this procedure has been implemented.

Response

_____
_____
_____
_____
_____
_____

Status

_____ Complete
_____ In-progress
_____ No Action

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IH-1992-7 You must develop a Written Program to comply with IH-204, "Protection of Potable Water Supply" and implement it.

You have your water sources marked as "Water". The systems should be marked "Non-Potable Water" or "Factory Water" in order to minimize the likelihood of human consumption.

Please advise when the program has been written and when it has been implemented.

Response

_____
_____
_____
_____
_____
_____
_____

Status

_____ Complete
_____ In-progress
_____ No Action

IH-1992-8 The ventilation in the Lab Hood has been checked and the hood is labeled correctly. The Hood however needs to be detuned to 100 fpm maximum face velocity.

Response

_____
_____
_____
_____
_____
_____
_____
_____
_____

Status

_____ Complete
_____ In-progress
_____ No Action

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12/10/92
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VI.

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

LOCATION Deer Park DATE 11/6 & 9-12,92

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

A. INDUSTRIAL HEALTH PROGRAM ADMINISTRATION

1. Industrial Health Coordinator

a.	Named	S
b.	Knowledgeable	S
c.	Walk-throughs	S

2. Periodic Industrial Health Program Reports

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

3. Medical Services

a.	Physical Examination	S
b.	Medical Equipment Certification Calibration	DNA
c.	Professional Training	DNA
d.	Illness and Complaint Investigation	S

4. Job Exposure Surveys

a.	Complete	S
b.	New Exposure Review	S
b.	Annual Review and Update	S

5. Chemical Hazard Review and Use

a.	Committee Established (New Chemical Review)	S
b.	MSDS	
	1. Available (Need GVD PVC MSDS's)	NA
	2. Employees Trained in Use	S

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6. **Reply to Industrial Health Audits**

a.	Initial	S
b.	Final Report	S

7. **PEL's and Fetal Toxicity**

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

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

		Number of Samples	% Over PEL	% Over PEL Without Protection
a.	Chromium III** PEL 0.5 ppm			
	Department Number & Name	NA	DNA	DNA
b.	Chromium VI** PEL Not Established - TLV 0.05 mg/m3 Fetal Toxin > 0.05 mg/m3			
	Department Number & Name	NA	DNA	DNA
c.	Lead PEL 50 $\mu g/m^3$ Fetal Toxin if blood lead level <30ug/100gm blood.			
	Department Number & Name	0 (S)	DNA	DNA

** These chemicals have been included in the Plant's monitoring schedule but have not been monitored yet.

	Number of Samples	% Over PEL	% Over PEL Without Protection
d. Vinyl Chloride PEL 1 ppm Fetal Toxin <1 ppm			
Department Number & Name	113(S)	1(S)	0(S)
e. Antimony** PEL 500 $\mu g/m^3$			
Department Number & Name	0 (NA)	DNA	DNA
f. Cadmium** 0.2 mg/m^3			
Department Number & Name	0 (NA)	DNA	DNA
g. Titanium Dioxide** 5 mg/m^3 Respirable Dust 10 mg/m^3 Total Dust			
Department Number & Name	0 (NA)	DNA	DNA
h. Tin** 2 mg/m^3			
Department Number & Name	7 (S)	0 (S)	0 (S)
i. Dust** 15 ppm Total Dust 5 ppm Respirable Fraction			
Department Number & Name	5 (NA)	0 (S)	0 (S)

** These chemicals have been included in the Plants monitoring schedule but have not been monitored yet.

A plan has been written to address all Over Exposures without personal protection. S

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B. INDUSTRIAL HEALTH PROCEDURES

1. Respiratory Procedure

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

2. Asbestos Handling and Disposal

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

3. Industrial Health Exposure Evaluation and Monitoring

a. Strategies

1.	OSHA Compliance	S
2.	Exposure Evaluation	S
3.	Special Requests	S

b.	Sample Procedures	S
c.	Analytical Procedures/Cross Check Program	NA
d.	Employee Notification, Interview & Documentation (Excellent program)	S

4. Radiation

a.	Hazards Identified and Labeled	S
b.	License Requirements	S
c.	Records	S
d.	Dosimetry Program	S
e.	Periodic Leak Checks	S
f.	Radiation Protection Officer	S

5.	**Ventilation for Health Hazard Control**	
a.	Periodic Flow or Maintenance Checks	NA
b.	Laboratory Hoods	
	1. Yearly Flow Checked	S
	2. Rating or Flow-Rate Posted	NA
c.	Modifications Reviewed	S
d.	New Systems Reviewed	S
6.	**Leak Detection**	
a.	Written	S
b.	Area Monitoring Response	S
c.	Leak Repair Control	S
7.	**I.H. Equipment Calibration**	
a.	Audiodosimeters	
	1. Daily Field Calibration	S
	2. Laboratory Calibration	S
b.	Sound Level Meters	
	1. Daily Field Calibration	S
	2. Laboratory Calibration/Three Years	S
c.	Acoustic Field Calibrators Every Three Years	DNA
d.	Radiation Detection Device - Annually	DNA
e.	Area Monitoring Devices (Self calibrates)	S
f.	Personnel Monitoring Pumps	S
8.	**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
9.	**Bloodborne Pathogen**	
a.	Written Exposure Control Plan	S
b.	List of Job Covered by the Plan	S
c.	Training	S
d.	Immunization	S

10. **Potable Water Safety**

a.	Written Policy	S
b.	Water Systems Identification	S
c.	Cross Connection Avoidance (All systems are tagged)	S

C. **Hearing Conservation and Noise Control**

1. All jobs with an eight hour TWA exposure of 85 dBA (50% dose), have been identified. — S

2. Noise hazardous (BFG > 85 dBA) areas have been posted. — S

3. A formal list is available at the plant specifically designating hazardous and non-hazardous noise exposure jobs. — S

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).

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

Number of Samples	% Over 50% Without Hearing Protection	% Over 100%
Hearing Protection Action Level 50% Engineering Control PEL 100%		
Department Number & Name		
113 (S)	6 (S)	13 (NA)

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). NOTE: Details of this effort must be documented. S

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 25 dB 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

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

D. Check List Totals

Satisfactory	**106**
Needs Attention	**11**
Does Not Apply	**51**