

APPENDIX C:
INDUSTRIAL HYGIENE TRAINING DOCUMENTATION FORM FOR DOW EMPLOYEES

Area/Unit: <u>Inorganic R+D</u>	
Instructor: _____	
Date: <u>1-28-94</u>	Time (Duration): <u>1 hour</u>

Type of Training Conducted	Check (3) all that apply
New Employee Basic Hazard Communication (during NEOP)	
New Employee Area-Specific Hazard Communication	
Transfer Employee Hazard Communication	
New Chemical or Hazard Training	✓
Non-Routine Tasks Training	✓
Unanticipated or Emergency Tasks Training	✓
Annual Health Hazard Training	
Exposure Monitoring Results Training	
Other Training (Describe):	

Brief description of the training:
(i.e., course outline, videos shown, pamphlets distributed, etc.)

Slides on the Vinyl Chloride standard - 29 CFR 1910.1017
were presented. Handling safety for the lab
runs with vinyl chloride were discussed,
and applicable parts of the Lab. Std. were discussed.

The following chemical and physical agents were reviewed:

Agent	Data Sheet Used /Date of Sheet
<u>Vinyl Chloride</u>	<u>CETA 1986</u>

FILED IN THE COMPLIANCE FILE BY: _____

(Name)

ON 1-28-94
(Date)

[illegible]

Revised November 1993

11-2 1-28-94

Name: _____

Date: 1/28/94

Master #: _____

Score: 100 %

VINYL CHLORIDE TRAINING QUIZ

1. Who regulates the handling, manufacture, and shipping of Vinyl Chloride?

OSHA

2. The odor threshold of Vinyl Chloride is 300 ppm and the PEL is 1 ppm.

This means that Vinyl Chloride has Poor warning properties.

3. If you inhale a toxic amount of Vinyl Chloride, it might affect what organs?

1. LIVER 2. NERVOUS SYS 3. KIDNEY

4. How much **LIQUID** Vinyl Chloride can you come into contact with?

NONE

5. When must you monitor for Vinyl Chloride?

1. INITIALLY

2. ✓ AFTER A CHANGE quarterly if above action level
monthly if above PEL

3. ✓ WHEN YOU KNOW THE CONC. IS ABOVE THE PEL

6. Monitoring may be discontinued if 2 consecutive exposure values are less than the Action Level.

7. When must you form a Designated Area? ✓ WHEN VCM WILL BE HANDLED IN AN AREA

8. When must you form a Regulated Area?

9. You must notify OSHA if you establish a REGULATED Area.

10. Respiratory protection is the LAST means of exposure control.

- a. first
- b. second
- c. last

11. If air purifying respirators (half-face cartridge type) are used, you must have CONTINUOUS air monitoring and an ALARM system.

12. NEOPRENE gloves and apron must be used when handling Vinyl Chloride.

CONFIDENTIAL

REDACTED

P&S153972

VINYL CHLORIDE TRAINING QUIZ

Continued

13. Respirator cartridges must be disposed of:
- before the respirator is used for the next process run
 - at the end of the shift they were first used
 - after 30 minutes of use
14. Who (in Dow) can rescue a "downed" or injured worker in a Vinyl Chloride release of any size? SECURITY OR EMERGENCY RESPONSE TEAM
15. Training for all employees involved in vinyl chloride operations must be done INITIALLY and ANNUALLY thereafter.
16. Medical surveillance must be done before the initial assignment, and ANNUALLY after that.
17. A Vinyl Chloride sign or label must have 4 criteria:
- VINYL CHLORIDE
 - EXTREMELY FLAMMABLE GAS
 - UNDER PRESSURE
 - CANCER - SUSPECT AGENT

CONFIDENTIAL

R&S153973

Date: 1-28-94

Score: ~~82~~ 82 %

VINYL CHLORIDE TRAINING QUIZ

1. Who regulates the handling, manufacture, and shipping of Vinyl Chloride?

Osha-Fed.

2. The odor threshold of Vinyl Chloride is 300 ppm and the PEL is 1 ppm. This means that Vinyl Chloride has Poor warning properties.

3. If you inhale a toxic amount of Vinyl Chloride, it might affect what organs?

1. Liver 2. Kidney 3. Heart 4. Brain

4. How much **LIQUID** Vinyl Chloride can you come into contact with?

None

- 5. When must you monitor for Vinyl Chloride?**

1. When Changes are made to system

2. Installs monthly above Pel

3. Annually Quarterly above A.L.

6. Monitoring may be discontinued if 2 consecutive exposure values are less than the Action Level.

Stored used handles located

- When must you form a Designated Area? *exposure potential at release level*

- 8 When must you form a Regulated Area? *exposone potential above the action*

9. You must notify OSHA if you establish a Regulatory Area. - Pelj / 11/1/14

10. Respiratory protection is the last means of exposure control.

- a. first
- b. second
- c. last

11. If air purifying respirators (half-face cartridge type) are used, you must have continuous air monitoring and an Alarm system.

12. Neoprene gloves and apron must be used when handling Vinyl Chloride.

REDACINED

CONFIDENTIAL

H&S 1539/4

VINYL CHLORIDE TRAINING QUIZ

Continued

13. Respirator cartridges must be disposed of:
- ~~before the respirator is used for the next process run~~
 - at the end of the shift they were first used
 - after 30 minutes of use

- 5 14. Who (in Dow) can rescue a "downed" or injured worker in a Vinyl Chloride release of any size? Trained Personnel Dow Emergency Response

15. Training for all employees involved in vinyl chloride operations must be done Initially and Annually thereafter.

16. Medical surveillance must be done before the initial assignment, and annually after that. if people exposed above Action Level

17. A Vinyl Chloride sign or label must have 4 criteria:

- Vinyl Chloride
- Extremely Flammable Gas
- ~~High~~ Pressure, Contents
- Cancer-Suspect Agent

CONFIDENTIAL

R&S 153975

Name: _____

Date: 1/28/94

Master #: 056476

Score: 90 95 %

VINYL CHLORIDE TRAINING QUIZ

1. Who regulates the handling, manufacture, and shipping of Vinyl Chloride?

Government / OSHA

2. The odor threshold of Vinyl Chloride is 300 ppm and the PEL is 1 ppm.

This means that Vinyl Chloride has poor warning properties.

3. If you inhale a toxic amount of Vinyl Chloride, it might affect what organs?

1. lung 2. liver 3. Kidney

4. How much **LIQUID** Vinyl Chloride can you come into contact with?

None

5. When must you monitor for Vinyl Chloride?

1. Initial

2. Monthly for Regulated above PEL

3. Quarterly for Designated above action level

6. Monitoring may be discontinued if 2 consecutive exposure values are less than the Action Level.

7. When must you form a Designated Area? For Storage Above PEL

8. When must you form a Regulated Area? Above PEL

9. You must notify OSHA if you establish a Regulated Area.

10. Respiratory protection is the _____ means of exposure control.

a. first

b. second

c. last

11. If air purifying respirators (half-face cartridge type) are used, you must have Continuous air monitoring and an Emergency system.

12. Neoprene gloves and apron must be used when handling Vinyl Chloride.

CONFIDENTIAL

REDACTED

R&S153976

VINYL CHLORIDE TRAINING QUIZ

Continued

13. Respirator cartridges must be disposed of:
- before the respirator is used for the next process run
 - ☒ at the end of the shift they were first used
 - after 30 minutes of use
14. Who (in Dow) can rescue a "downed" or injured worker in a Vinyl Chloride release of any size? Safety / Emergency Response
15. Training for all employees involved in vinyl chloride operations must be done initial and Annually thereafter.
16. Medical surveillance must be done before the initial assignment, and Annually after that.
17. A Vinyl Chloride sign or label must have 4 criteria:

- Vinyl Chloride
- Flammable
- Under Pressure
- CANCER Suspect Agent

CONFIDENTIAL

R&S153977

Name: _____

Date: 1-28-93

Master #: _____

Score: 81 %

VINYL CHLORIDE TRAINING QUIZ

1. Who regulates the handling, manufacture, and shipping of Vinyl Chloride?

OSHA

2. The odor threshold of Vinyl Chloride is 300 ppm and the PEL is 1 ppm.

This means that Vinyl Chloride has not good warning properties.

3. If you inhale a toxic amount of Vinyl Chloride, it might affect what organs?

1. kidneys 2. liver 3. lungs

4. How much LIQUID Vinyl Chloride can you come into contact with?

none

5. When must you monitor for Vinyl Chloride?

1. when some is present initially

2. when there is danger of exposure Quarterly if above Action Level

3. when there is a potential for release Monthly if above the PEL

6. Monitoring may be discontinued if 2 consecutive exposure values are less than the Action Level.

7. When must you form a Designated Area? when you set up for an experiment/Storage

8. When must you form a Regulated Area? when you have a regulated material/Above the PEL

9. You must notify OSHA if you establish a Regulated Area.

10. Respiratory protection is the last means of exposure control.

a. first

b. second

c. last

11. If air purifying respirators (half-face cartridge type) are used, you must have continuous air monitoring and an alarming system.

12. Neoprene gloves and apron must be used when handling Vinyl Chloride.

REDACTED

CONFIDENTIAL

R&S153978

VINYL CHLORIDE TRAINING QUIZ

Continued

13. Respirator cartridges must be disposed of:
- before the respirator is used for the next process run
 - (b) at the end of the shift they were first used
 - after 30 minutes of use
14. Who (in Dow) can rescue a "downed" or injured worker in a Vinyl Chloride release of any size? Security / Dow Emergency Response
15. Training for all employees involved in vinyl chloride operations must be done initially and annually thereafter.
16. Medical surveillance must be done before the initial assignment, and yearly after that.
17. A Vinyl Chloride sign or label must have 4 criteria:

- Is Cancer suspect agent
- flammable
- under pressure
- vinyl chloride

CONFIDENTIAL

R&S 153979

Name: _____

Date: 1-28-94

Master #: _____

Score: 92 %

VINYL CHLORIDE TRAINING QUIZ

1. Who regulates the handling, manufacture, and shipping of Vinyl Chloride?

OSHA

2. The odor threshold of Vinyl Chloride is 300 ppm and the PEL is 1.8 ppm.

This means that Vinyl Chloride has poor warning properties.

3. If you inhale a toxic amount of Vinyl Chloride, it might affect what organs?

1. nervous system 2. liver 3. kidney lungs

4. How much LIQUID Vinyl Chloride can you come into contact with?

none

5. When must you monitor for Vinyl Chloride?

1. initially
2. monthly quarterly if above action level (OAL)
after if above PEL
3. when making any changes

6. Monitoring may be discontinued if 2 consecutive exposure values are less than the Action Level.

- also is → 7. When must you form a Designated Area? stored, used
Above action level

8. When must you form a Regulated Area?

Above PEL

9. You must notify OSHA if you establish a regulated Area.

10. Respiratory protection is the Last means of exposure control.

a. first

b. second

c. last

11. If air purifying respirators (half-face cartridge type) are used, you must have continuous air monitoring and an alarm system.

12. neoprene gloves and apron must be used when handling Vinyl Chloride.

CONFIDENTIAL

FRS153980

REDACTED

VINYL CHLORIDE TRAINING QUIZ

Continued

13. Respirator cartridges must be disposed of:
- before the respirator is used for the next process run
 - ☒ at the end of the shift they were first used
 - after 30 minutes of use
14. Who (in Dow) can rescue a "downed" or injured worker in a Vinyl Chloride release of any size? emergency response personnel with supplied air respirators
15. Training for all employees involved in vinyl chloride operations must be done initially and annually thereafter.
16. Medical surveillance must be done before the initial assignment, and annually after that.
17. A Vinyl Chloride sign or label must have 4 criteria:
- Contains Vinyl Chloride
 - Flammable gas
 - Under pressure
 - Cancer suspect agent.

CONFIDENTIAL

R&S 153981

Name: _____

Date: 11/28/94

Master # _____

Score: 89 %

VINYL CHLORIDE TRAINING QUIZ

- ✓ 1. Who regulates the handling, manufacture, and shipping of Vinyl Chloride?

OSHA

2. The odor threshold of Vinyl Chloride is 300 ppm and the PEL is 50 ppm.

This means that Vinyl Chloride has low warning properties.

3. If you inhale a toxic amount of Vinyl Chloride, it might affect what organs?

1. Lung 2. liver 3. central nervous system ^{kidney}

4. How much LIQUID Vinyl Chloride can you come into contact with?

0

5. When must you monitor for Vinyl Chloride?

Initially

1. after Release

continuously above

2. after 2 tries, at exposure level

Monthly above

3. not in a hood

After any changes

6. Monitoring may be discontinued if 2 consecutive exposure values are less than the Action Level.

7. When must you form a Designated Area? if Regulated, stored, used

8. When must you form a Regulated Area? no hood Above PEL

9. You must notify OSHA if you establish a Regulated Area.

10. Respiratory protection is the last means of exposure control.

a. first

b. second

c. last

11. If air purifying respirators (half-face cartridge type) are used, you must have continuous hood air monitoring and an alarm system.

12. Neoprene gloves and apron must be used when handling Vinyl Chloride.

REDACTED

CONFIDENTIAL

R&S153982

VINYL CHLORIDE TRAINING QUIZ

Continued

13. Respirator cartridges must be disposed of:
- before the respirator is used for the next process run
 - (b) at the end of the shift they were first used
 - after 30 minutes of use
14. Who (in Dow) can rescue a "downed" or injured worker in a Vinyl Chloride release of any size? security with supplied air regular or respirator
15. ~~Training for all employees involved in vinyl chloride operations must be done~~ initially and annually thereafter.
16. Medical surveillance must be done before the initial assignment, and annually after that.
17. A Vinyl Chloride sign or label must have 4 criteria:

- Vinyl Chloride
- fine (extreme hazard)
- Pressure
- Cancer Cause
Cancer suspect

CONFIDENTIAL

R&S 153983

Name: _____

Date: Jan 28, 1994

Master #: _____

Score: 95 %

VINYL CHLORIDE TRAINING QUIZ

- ✓ 1. Who regulates the handling, manufacture, and shipping of Vinyl Chloride?

OSHA

- ✓ 2. The odor threshold of Vinyl Chloride is > 300 ppm and the PEL is 1 ppm.
This means that Vinyl Chloride has poor warning properties.

3. If you inhale a toxic amount of Vinyl Chloride, it might affect what organs?

1. Liver 2. Kidneys 3. CNS, lung

4. How much LIQUID Vinyl Chloride can you come into contact with?

none

5. When must you monitor for Vinyl Chloride?

1. Initial monitoring

2. Quarterly for exposures above .5 ppm
Monthly if above PEL.

y 3. continuously if above 5 ppm

6. Monitoring may be discontinued if 2 consecutive exposure values are less than the Action Level.

7. When must you form a Designated Area? when you use, store or handle, Vinyl Chloride

8. When must you form a Regulated Area? when the concentration is greater than 5 ppm

9. You must notify OSHA if you establish a Regulated Area.

10. Respiratory protection is the last means of exposure control.

a. first

b. second

c. last

11. If air purifying respirators (half-face cartridge type) are used, you must have continuous air monitoring and an alarm system.

12. neoprene gloves and apron must be used when handling Vinyl Chloride.

REDACTED

CONFIDENTIAL

R&S153984

VINYL CHLORIDE TRAINING QUIZ

Continued

13. Respirator cartridges must be disposed of:
- before the respirator is used for the next process run
 - ☒ at the end of the shift they were first used
 - after 30 minutes of use
- ✓ 14. Who (in Dow) can rescue a "downed" or injured worker in a Vinyl Chloride release of any size? Industrial Security Dow Emergency Response Team
15. Training for all employees involved in vinyl chloride operations must be done initially and annually thereafter.
16. Medical surveillance must be done before the initial assignment, and annually after that.
17. A Vinyl Chloride sign or label must have 4 criteria:
- contains Vinyl Chloride
 - extremely flammable gas
 - under pressure
 - cancer-suspect agent

CONFIDENTIAL

R&S153985

Name: _____

Date: 1-28-94

Master #: _____

Score: 8591 %

VINYL CHLORIDE TRAINING QUIZ

1. Who regulates the handling, manufacture, and shipping of Vinyl Chloride?

OSHA

2. The odor threshold of Vinyl Chloride is 300 ppm and the PEL is 1 ppm.

This means that Vinyl Chloride has poor warning properties.

3. If you inhale a toxic amount of Vinyl Chloride, it might affect what organs?

1. lungs 2. liver 3. kidney

4. How much LIQUID Vinyl Chloride can you come into contact with?

none

5. When must you monitor for Vinyl Chloride?

1. During work around process. Quarterly if above .5%

2. Initially before work begins.

3. Monthly if above 1 ppm

6. Monitoring may be discontinued if 2 consecutive exposure values are less than the Action Level.

7. When must you form a Designated Area? When using, stored, used, handled, reacted VCM & exposure possible

8. When must you form a Regulated Area? When determined that exposure will occur above PEL

9. You must notify OSHA if you establish a regulated Area.

10. Respiratory protection is the C means of exposure control.

a. first

b. second

c. last

11. If air purifying respirators (half-face cartridge type) are used, you must have continuous air monitoring and an alarm system.

12. Nesprene gloves and apron must be used when handling Vinyl Chloride.

REDACTED

CONFIDENTIAL

R&S 153986

VINYL CHLORIDE TRAINING QUIZ

Continued

13. Respirator cartridges must be disposed of:
- a. before the respirator is used for the next process run
 - (b) at the end of the shift they were first used
 - c. after 30 minutes of use
14. Who (in Dow) can rescue a "downed" or injured worker in a Vinyl Chloride release of any size? emergency response team.
15. Training for all employees involved in vinyl chloride operations must be done initially and annually thereafter.
16. Medical surveillance must be done before the initial assignment, and annually after that.
17. A Vinyl Chloride sign or label must have 4 criteria:

1. Vinyl Chloride
2. Extremely Flammable Gas
3. Under Pressure
4. Cancer - Suspect Agent

CONFIDENTIAL

R&S153987

Name: _____

Date: January 28, 94

Master #: _____

Score: 91 %

VINYL CHLORIDE TRAINING QUIZ

1. Who regulates the handling, manufacture, and shipping of Vinyl Chloride?

OSHA

2. The odor threshold of Vinyl Chloride is 300 ppm and the PEL is 1 ppm.

This means that Vinyl Chloride has poor warning properties.

3. If you inhale a toxic amount of Vinyl Chloride, it might affect what organs?

1. Liver 2. Kidney 3. Nervous System

4. How much LIQUID Vinyl Chloride can you come into contact with?

NONE

5. When must you monitor for Vinyl Chloride?

INITIALLY
QUARTERLY > ACTION LEVEL (.5 ppm)
MONTHLY > PEL (1 ppm)

1. Upon startup of a process using VCM

2. IF risk of exposure exists

3. _____

6. Monitoring may be discontinued if 2 consecutive exposure values are less than the Action Level.

7. When must you form a Designated Area? When potential for exposure exists

8. When must you form a Regulated Area? Exposure above action limit has been measured

9. You must notify OSHA if you establish a Regulated Area. ^{stored, used, handled, reacted}

10. Respiratory protection is the last means of exposure control.

a. first

b. second

c. last

11. If air purifying respirators (half-face cartridge type) are used, you must have continuous air monitoring and an alarm system.

12. Nitrile gloves and apron must be used when handling Vinyl Chloride.

CONFIDENTIAL

R&S 153988

REDACTED

VINYL CHLORIDE TRAINING QUIZ

Continued

13. Respirator cartridges must be disposed of:
- before the respirator is used for the next process run
 - ☒ at the end of the shift they were first used
 - after 30 minutes of use
14. Who (in Dow) can rescue a "downed" or injured worker in a Vinyl Chloride release of any size? Safety Department (Emergency Response Team)
15. Training for all employees involved in vinyl chloride operations must be done Initially and annually thereafter.
16. Medical surveillance must be done before the initial assignment, and annually after that. (if people exposed > action level).
17. A Vinyl Chloride sign or label must have 4 criteria:

- Vinyl Chloride
- Extremely Flammable Gas
- Under Pressure
- Cancer Suspect Agent

CONFIDENTIAL

R&S153989

Name: _____

Date: 1/28/94

Master #: _____

Score: 88 91 %

VINYL CHLORIDE TRAINING QUIZ

1. Who regulates the handling, manufacture, and shipping of Vinyl Chloride?
OSHA
2. The odor threshold of Vinyl Chloride is 300 ppm and the PEL is 1 ppm.
This means that Vinyl Chloride has poor warning properties.
3. If you inhale a toxic amount of Vinyl Chloride, it might affect what organs?
brain, kidney
1. central nervous system 2. liver 3. lungs
4. How much LIQUID Vinyl Chloride can you come into contact with?
none
5. When must you monitor for Vinyl Chloride? Initially
When POTENTIALLY HAZARDOUS OPERATIONS
1. POTENTIALLY HAZARDOUS OPERATION (by OSHA DEF'N) ARE PERFORMED
Quarterly if above action level
If CONCENTRATIONS IN WORK ARE UNKNOWN
2. EXPOSURE LIMITS ARE SET
Monthly if above PEL
3. IN CASE OF CHANGE TO PROCESS
If MONITORING SHOWS EXPOSURE > ACTION LEVEL
6. Monitoring may be discontinued if 2 consecutive exposure values are less than the Action Level.
7. When must you form a Designated Area? When vinyl is stored, used, handled, etc.
8. When must you form a Regulated Area? When vinyl concentrations exceed PEL.
9. You must notify OSHA if you establish a Regulated Area.
10. Respiratory protection is the last means of exposure control.
 - a. first
 - b. second
 - c. last
11. If air purifying respirators (half-face cartridge type) are used, you must have continuous air monitoring and an alarm system.
12. Neoprene gloves and apron must be used when handling Vinyl Chloride.

REDACTED

CONFIDENTIAL

F&S153990

VINYL CHLORIDE TRAINING QUIZ

Continued

- ✓13. Respirator cartridges must be disposed of:
- a. before the respirator is used for the next process run
 - ✓b. at the end of the shift they were first used
 - c. after 30 minutes of use
- ✓14. Who (in Dow) can rescue a "downed" or injured worker in a Vinyl Chloride release of any size? INDUSTRIAL SECURITY EMERGENCY RESPONSE TEAM
- ✓15. Training for all employees involved in vinyl chloride operations must be done initially and annually thereafter.
- ✓16. Medical surveillance must be done before the initial assignment, and annually after that. if exposed above action level
17. A Vinyl Chloride sign or label must have 4 criteria:

✓1. VINYL CHLORIDE

✓2. EXTREMELY FLAMMABLE GAS

✓3. UNDER PRESSURE

✓4. CANCER SUSPECT AGENT

CONFIDENTIAL

R&S153991

Name: _____

Date: 1/28/94

Master #: _____

Score: 95 %

VINYL CHLORIDE TRAINING QUIZ

1. Who regulates the handling, manufacture, and shipping of Vinyl Chloride?

OSHA

2. The odor threshold of Vinyl Chloride is 300 ppm and the PEL is 1 ppm.

This means that Vinyl Chloride has poor warning properties.

3. If you inhale a toxic amount of Vinyl Chloride, it might affect what organs?

1. Lungs 2. Liver 3. Kidneys

4. How much LIQUID Vinyl Chloride can you come into contact with?

none

5. When must you monitor for Vinyl Chloride?

INITIALLY

1. while working with it

2. Quarterly ABOVE ACTION LEVEL

3. MONTHLY ABOVE PEL

6. Monitoring may be discontinued if 2 consecutive exposure values are less than the Action Level.

7. When must you form a Designated Area? however you use it

8. When must you form a Regulated Area? PEL > 1 ppm

9. You must notify OSHA if you establish a regulated Area.

10. Respiratory protection is the last means of exposure control.

a. first

b. second

c. last

11. If air purifying respirators (half-face cartridge type) are used, you must have constant air monitoring and an emergency system.

12. Neoprene gloves and apron must be used when handling Vinyl Chloride.

REDACTED

CONFIDENTIAL

R&S 153992

VINYL CHLORIDE TRAINING QUIZ

Continued

13. Respirator cartridges must be disposed of:
- before the respirator is used for the next process run
 - b at the end of the shift they were first used
 - after 30 minutes of use
14. Who (in Dow) can rescue a "downed" or injured worker in a Vinyl Chloride release of any size? Emergency Response Team
15. Training for all employees involved in vinyl chloride operations must be done initially and annually thereafter.
16. Medical surveillance must be done before the initial assignment, and annually after that.
17. A Vinyl Chloride sign or label must have 4 criteria:
1. Vinyl Chloride
 2. Flammable gas
 3. Under Pressure
 4. Suspected Carcinogen

CONFIDENTIAL

R&S153993

Name:

Date:

1-28-94

Master #:

Score:

88.5%

VINYL CHLORIDE TRAINING QUIZ

1. Who regulates the handling, manufacture, and shipping of Vinyl Chloride?

OSHA

2. The odor threshold of Vinyl Chloride is 300 ppm and the PEL is 1 ppm.
This means that Vinyl Chloride has poor warning properties...
3. If you inhale a toxic amount of Vinyl Chloride, it might affect what organs?

1. Liver 2. Kidneys 3. Lungs

4. How much **LIQUID** Vinyl Chloride can you come into contact with?

0

5. When must you monitor for Vinyl Chloride?

1. at start up

2. when using Air purifying Resp.

3. when there's a release
Quarterly - above Action Limit Monthly above PEL

6. Monitoring may be discontinued if 2 consecutive exposure values are less than the Action Level.

7. When must you form a Designated Area? when working with

8. When must you form a Regulated Area? when above PEL

9. You must notify OSHA if you establish a Regulated Area.

10. Respiratory protection is the last means of exposure control.

a. first

b. second

c. last

11. If air purifying respirators (half-face cartridge type) are used, you must have continuous air monitoring and an evacuation system.

12. Respirator gloves and apron must be used when handling Vinyl Chloride.

REDACTED

CONFIDENTIAL

F&S153994

VINYL CHLORIDE TRAINING QUIZ

Continued

13. Respirator cartridges must be disposed of:
- before the respirator is used for the next process run
 - at the end of the shift they were first used
 - after 30 minutes of use
14. Who (in Dow) can rescue a "downed" or injured worker in a Vinyl Chloride release of any size? Someone w/ Supplied Air - Down Emergency Response
15. Training for all employees involved in vinyl chloride operations must be done Initially and Annually thereafter.
16. Medical surveillance must be done before the initial assignment, and Annually after that.
17. A Vinyl Chloride sign or label must have 4 criteria:
- Vinyl chloride
 - Extremely flammable GAS
 - under pressure
 - Cancer suspect

CONFIDENTIAL

R&S 153935

Area/Unit: <u>Inorganic RAD</u>	
Instructor: _____	
Date: <u>6/29/93</u>	Time (Duration): _____

Type of Training Conducted	Check (✓) all that apply
New Employee Area-Specific Hazard Communication	
Transfer Employee Hazard Communication	
New Chemical or Hazard Training	
Non-Routine Tasks Training	
Unanticipated or Emergency Tasks Training	
Annual Health Hazard Training	✓
Exposure Monitoring Results Training	
Other Training (Describe):	

Review of MSDS sheets for key stream.

Agent	Data Sheet Used /Date of Sheet
Vinyl Chloride	5/1/93
HCl	5/1/93
20% NaOH	10/25/90
Aq HCl	6/18/90
PDC	5/14/91

Filed in: Send documentation
I.H. Compliance
Date: 8/23/93

REDIRECTED

H&S 153996

APPENDIX D (continued)

[illegible]

Revised April 1991

REDACTED

R&S 153997

APPENDIX C:
INDUSTRIAL HYGIENE TRAINING DOCUMENTATION FORM FOR DOW EMPLOYEES

Area/Unit: <u>Inorganic R&D</u>	
Instructor: <u>i</u>	
Date: <u>6/29/93</u>	Time (Duration): <u>1</u>

Type of Training Conducted	Check (✓) all that apply
New Employee Basic Hazard Communication (during NEOP)	
New Employee Area-Specific Hazard Communication	
Transfer Employee Hazard Communication	
New Chemical or Hazard Training	
Non-Routine Tasks Training	
Unanticipated or Emergency Tasks Training	
Annual Health Hazard Training	✓
Exposure Monitoring Results Training	
Other Training (Describe):	

Brief description of the training:
(i.e., course outline, videos shown, pamphlets distributed, etc.)

Review of MSDS sheets for key stresses

The following chemical and physical agents were reviewed:

Agent	Data Sheet Used /Date of Sheet
<u>Vinyl Chloride</u>	<u>5/1/93</u>
<u>HCl</u>	<u>5/1/93</u>
<u>20% NaOH</u>	<u>10/25/90</u>
<u>AgHCl</u>	<u>6/18/90</u>
<u>PDC</u>	<u>5/14/91</u>

NOTE: Attach additional pages as necessary. List attendees on reverse side. Send documentation to Industrial Hygiene Services, B-101, for the 75 yr. retention period.

Filed in
I.H. Compliance
Date: 8/23/93

CONFIDENTIAL

REDACTED

R&S153998

APPENDIX C (continued)

Attendee's Name (Signature)	Master Number	Date
<u>5</u>		6/29/93
		6/29/93
		6/29/93
		6/29/93
		6/29/93
		6/29/93
		6/29/93
		6/29/93
		6-29-93
		6/29/93
		6/29/93
		6/29/93
		6/29/93
		7/13/93

REDACTED

CONFIDENTIAL