May 24, 1974

Mr. Thomas J. McGrath
The Society of the Plastics
Industry, Inc.
250 Park Avenue
New York, New York 10017

Dear Mr. McGrath:

As requested in your letter of May 6, 1974, we have completed questionnaires, which are enclosed, for six locations. Five of the locations are polymerization plants; the sixth is a monomer plant. Please forgive the delay in returning these questionnaires to you.

Sincerely yours,

W. J. Wilcox
Manager, Employee Relations

WJW:sc

cc: J. L. Nelson
E. W. Harrington

R&S158593

THE SOCIETY OF THE PLASTICS INDUSTRY, INC.
250 PARK AVENUE • NEW YORK, NEW YORK 10017 • 212/687-2675

F Calumet City (Hom
Av Lake
Long Beach
Henry
Louisville
PTown

May 6, 1974

TO: MEMBERS OF THE VINYL MONOMERS AND PVC PRODUCERS AD HOC COMMITTEE

G ntlemen:

The attached questionnaire is an attempt to gather some data which could be used in a presentation at OSHA hearings on a permanent standard for vinyl chloride monomer.

The basic concept is that there are many polymerization and monomer plants in which there have been no cases of angiosarcoma. We must show that significant numbers of people are involved and that these people have been exposed long enough for the disease to become evident. We must als try to show what degrees of severity of exposure occurred in these operations. We must at least derive the implication that TWA exposure levels were at least 50 ppm and possibly higher.

Sinc we do not know when a permanent standard will issue, we must plan f r the worst and handle this like a "crash" program. Please try to complete this form and return it to SPI offices by May 15, 1974 at the latest.

Cordially,

Thomas J. McGrath

Thomas J. McGrath
Director of Packaging Services

TJM/mm
att.

R&S158594

SPI

THE SOCIETY OF THE PLASTICS INDUSTRY, INC.

250 PARK AVENUE • NEW YORK, NEW YORK 10017 • 212/687-2675

QUESTIONNAIRE ON VINYL CHLORIDE EXPOSURE

PLANT E

Exposure Levels:

1. Odor of vinyl chloride monomer present throughout much of the day.
   From years _____ to _____.

2. Odor of VCM present occasionally during the work day.
   From years 1951 to Present.

3. Odor of VCM a rare event in any work day.
   From years _____ to _____.

4. Have there been process or processing changes introduced which have resulted in an increased escape of VCM.
   List years when these occurred.
   N/A.

5. Have there been process or processing changes introduced which have resulted in a reduction in the escape of VCM.
   List years when these occurred.
   1970, 1973, 1974

Exhaust systems

6. Do you have environmental measurements prior to 1970?
   Yes ✓ No _____. - infrequent measurements
   GC ?

Personnel Exposure Data:

1. When did the plant start to work with VCM?
   Give year 1951.

2. How many employees are working with VCM?
   Give number 354.

3. How many employees are still working for you who once worked with VCM but do not do so now?
   Give number 278.

4. Of the persons identified in 2 and 3 above give the number who have been exposed for the following time intervals.

R&S158595

More than 1 and up to 10 years	~~458~~ 491	
10 and up to 15 years	56	53
15 and up to 20 years	39	36
20 and up to 25 years	18	19
25 years and more	13	14

5. Of the persons identified in 2 and 3 above give the number falling within each latent period given below and considering only employees with more than one years service. A latent period is the time lapse from first exposure to the present date.

More than 1 and up to 10 years	334
10 and up to 15 years	106
15 and up to 20 years	74
20 and up to 25 years	48
25 years and more	31

Data From Current Examination Programs

1. Give the number of persons who have been examined since January, 1974. 1,553.

2. Were liver profile studies made?
Yes _____ No _____.

3. Did the studies include at least bilirubin, SGOT, LDH and alkaline phosphatase?
Yes ✓ No _____.

4. How many of those examined showed an abnormality in:

one test	108
two tests	20
three or more tests	—

5. Have you had any cases of angiosarcoma?
Yes _____ No ✓.

6. Was this determination made by your own survey?
Y s ✓ No _____.

R&S158596

7. What per cent of the total exposed population was covered in the survey? 99.

8. Were retired personnel included?
Yes ✓ No _____.

9. Were persons who had left your employ and gone to work elsewhere included?
Yes _____ No ✓.

10. Did you review causes of death of those who died while still employed by you?
Yes ✓ No _____.

11. Did your plant participate in the Tabershaw-Cooper epidemiologic survey?
Yes ✓ No _____.

May 3, 1974

SPI

THE SOCIETY OF THE PLASTICS INDUSTRY, INC.

25 PARK AVENUE • NEW YORK, NEW YORK 1 017 • 212/687-2675

C

Calvert City / Ashtabula
Av Lake
Long Beach
Henry
Louisville
P Town

May 6, 1974

TO: MEMBERS OF THE VINYL MONOMERS AND PVC PRODUCERS AD HOC COMMITTEE

Gentlemen:

The attached questionnaire is an attempt to gather some data which could be used in a presentation at OSHA hearings on a permanent standard for vinyl chloride monomer.

The basic concept is that there are many polymerization and monomer plants in which there have been no cases of angiosarcoma. We must show that significant numbers of people are involved and that these people have been exposed long enough for the disease to become evident. We must also try to show what degrees of severity of exposure occurred in these operations. We must at least derive the implication that TWA exposure levels were at least 50 ppm and possibly higher.

Since we do not know when a permanent standard will issue, we must plan for the worst and handle this like a "crash" program. Please try to complete this form and return it to SPI offices by May 15, 1974 at the latest.

Cordially,

Thomas J. McGrath

Thomas J. McGrath
Director of Packaging Services

TJM/mm
att.

R&S158598

SPI

THE SOCIETY OF THE PLASTICS INDUSTRY, INC.

250 PARK AVENUE • NEW YORK, NEW YORK 10017 • 212/687-2675

Pedrick town
A
Calumet City (Illinois
Av Lake
Long Beach
Henry
Louisville
P Town

May 6, 1974

TO: MEMBERS OF THE VINYL MONOMERS AND PVC PRODUCERS AD HOC COMMITTEE

G ntlemen:

The attached questionnaire is an attempt to gather some data which could be used in a presentation at OSHA hearings on a permanent standard for vinyl chloride monomer.

The basic concept is that there are many polymerization and monomer plants in which there have been no cases of angiosarcoma. We must show that significant numbers of people are involved and that these people have b en exposed long enough for the disease to become evident. We must also try t show what degrees of severity of exposure occurred in these operations. We must at least derive the implication that TWA exposure levels were at least 50 ppm and possibly higher.

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Cordially,

Thomas J. McGrath

Thomas J. McGrath
Director of Packaging Services

TJM/mm
att.

R&S158599

SPI

THE SOCIETY OF THE PLASTICS INDUSTRY, INC.

250 PARK AVENUE • NEW YORK, NEW YORK 10017 • 212/687-2675

QUESTIONNAIRE ON VINYL CHLORIDE EXPOSURE

Exposure Levels:

1. Odor of vinyl chloride monomer present throughout much of the day. — 0 —
   From years _____ to _____.

2. Odor of VCM present occasionally during the work day.
   From years — 0 — to _____.

3. Odor of VCM a rare event in any work day.
   From years 1969 to Present.

4. Have there been process or processing changes introduced which have resulted in an increased escape of VCM.
   List years when these occurred.
   No

5. Have there been process or processing changes introduc d which have resulted in a reduction in the escape of VCM.
   List years when these occurred.
   Yes - 1974

6. Do you have environmental measurements prior to 1970?
   Yes _____ No ✓.

Personnel Exposure Data:

1. When did the plant start to work with VCM?
   Give year 1969.

2. How many employees are working with VCM?
   Give number 165.

3. How many employees are still working for you who once worked with VCM but do not do so now?
   Give number 30.

4. Of the persons identified in 2 and 3 above give the number who have been exposed for the following time intervals.

R&S 158600

More than 1 and up to 10 years 95
10 and up to 15 years
15 and up to 20 years
20 and up to 25 years
25 years and more

5. Of the persons identified in 2 and 3 above give the number falling within each latent period given below and considering only employees with more than one years service. A latent period is the time lapse from first exposure to the present date.

More than 1 and up to 10 years 95
10 and up to 15 years
15 and up to 20 years
20 and up to 25 years
25 years and more

Data From Current Examination Programs

1. Give the number of persons who have been examined sinc January, 1974. 245.

2. Were liver profile studies made?
Yes ✓ No _____.

3. Did the studies include at least bilirubin, SGOT, LDH and alkaline phosphatase?
Yes ✓ No _____.

4. How many of those examined showed an abnormality in:
one test 93
two tests 17
three or more tests —

5. Have you had any cases of angiosarcoma?
Yes _____ No ✓.

6. Was this determination made by your own survey?
Yes ✓ No _____.

R&SI58601

7. What per cent of the total exposed population was covered in the survey? 99%.

8. Were retired personnel included?
Yes _____ No ✓.

9. Were persons who had left your employ and gone to work elsewhere included?
Yes _____ No ✓.

10. Did you review causes of death of those who died while still employed by you?
Yes ✓ No _____.

11. Did your plant participate in the Tabershaw-Cooper epidemiologic survey?
Yes _____ No ✓.

May 3, 1974

R&S158602

SPI

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250 PARK AVENUE • NEW YORK, NEW YORK 10017 • 212/687-2675

QUESTIONNAIRE ON VINYL CHLORIDE EXPOSURE

Exposure Levels:

1. Odor of vinyl chloride monomer present throughout much of the day.
   From years ____— to _____.

2. Odor of VCM present occasionally during the work day.
   From years 1960 to 1969.

3. Odor of VCM a rare event in any work day.
   From years 1970 to PRESENT.

4. Have there been process or processing changes introduced which have resulted in an increased escape of VCM.
   List years when these occurred.
   NO.

5. Have there been process or processing changes introduced which have resulted in a reduction in the escape of VCM.
   List years when these occurred.
   1960 TO PRESENT - gradual changes in Process to reduce escape of VCM

6. Do you have environmental measurements prior to 1970?
   Yes _____ No ✓.

Personnel Exposure Data:

1. When did the plant start to work with VCM?
   Give year 1960.

2. How many employees are working with VCM?
   Give number 84.

3. How many employees are still working for you who once worked with VCM but do not do so now?
   Give number 0.

4. Of the persons identified in 2 and 3 above give the number who have been exposed for the following time intervals.

R&S158603

More than 1 and up to 10 years ✓ 84
10 and up to 15 years _____
15 and up to 20 years _____
20 and up to 25 years _____
25 years and more _____

5. Of the persons identified in 2 and 3 above give the number falling within each latent period given below and considering only employees with more than one years service. A latent period is the time lapse from first exposure to the present date.

More than 1 and up to 10 years ✓ 84
10 and up to 15 years _____
15 and up to 20 years _____
20 and up to 25 years _____
25 years and more _____

Data From Current Examination Programs

1. Give the number of persons who have been examined sinc January, 1974. 149.

2. Were liver profile studies made?
Yes ✓ No _____.

3. Did the studies include at least bilirubin, SGOT, LDH and alkaline phosphatase?
Yes ✓ No _____.

4. How many of those examined showed an abnormality in:
one test 30
two tests 4
three or more tests —

5. Have you had any cases of angiosarcoma?
Yes _____ No ✓.

6. Was this determination made by your own survey?
Yes ✓ No _____.

R&S158604

7. What per cent of the total exposed population was covered in the survey? ~~100%~~ .9901

8. Were retired personnel included?
Yes _____ No ✓_____.

9. Were persons who had left your employ and gone to work elsewhere included?
Yes _____ No ✓_____.

10. Did you review causes of death of those who died while still employed by you?
Yes ✓_____ No _____.

11. Did your plant participate in the Tabershaw-Cooper epidemiologic survey?
Yes ✓_____ No _____.

May 3, 1974

SPI

THE SOCIETY OF THE PLASTICS INDUSTRY, INC.

250 PARK AVENUE • NEW YORK, NEW YORK 10017 • 212/687-2675

B

Calvert City (Ky.
 Av Lake
Long Beach
Henry
Louisville
PTown

May 6, 1974

TO: MEMBERS OF THE VINYL MONOMERS AND PVC PRODUCERS AD HOC COMMITTEE

Gentlemen:

The attached questionnaire is an attempt to gather some data which could b used in a presentation at OSHA hearings on a permanent standard for vinyl chloride monomer.

The basic concept is that there are many polymerization and monomer plants in which there have been no cases of angiosarcoma. We must show that significant numbers of people are involved and that these people have been exposed long enough for the disease to become evident. We must also try to show what degrees of severity of exposure occurred in these operations. We must at least derive the implication that TWA exposure levels w re at least 50 ppm and possibly higher.

Since we do not know when a permanent standard will issue, we must plan for the worst and handle this like a "crash" program. Please try to complete this form and return it to SPI offices by May 15, 1974 at the latest.

Cordially,

Thomas J. McGrath

Thomas J. McGrath
Director of Packaging Services

TJM/mm
att.

R&S158606

SPI

THE SOCIETY OF THE PLASTICS INDUSTRY, INC.

250 PARK AVENUE • NEW YORK, NEW YORK 10017 • 212/687-2675

QUESTIONNAIRE ON VINYL CHLORIDE EXPOSURE

Exposure Levels:

1. Odor of vinyl chloride monomer present throughout much of the day.
   From years 1942 to 1943.

2. Odor of VCM present occasionally during the work day.
   From years 1944 to 1971.

3. Odor of VCM a rare event in any work day.
   From years 1972 to Present.

4. Have there been process or processing changes introduced which have resulted in an increased escape of VCM.
   List years when these occurred.
   1960, 1968.

5. Have there been process or processing changes introduced which have resulted in a reduction in the escape of VCM.
   List years when these occurred.
   Augment Change Thereafter years

6. Do you have environmental measurements prior to 1970?
   Yes ✓ No _____.

Personnel Exposure Data:

1. When did the plant start to work with VCM?
   Give year 1942.

2. How many employees are working with VCM?
   Give number 270 192

3. How many employees are still working for you who once worked with VCM but do not do so now?
   Give number 25 50

4. Of the persons identified in 2 and 3 above give the number who have been exposed for the following time intervals.

R&S158607

More than 1 and up to 10 years	106
10 and up to 15 years	23
15 and up to 20 years	33
20 and up to 25 years	35
25 years and more	29

5. Of the persons identified in 2 and 3 above give the number falling within each latent period given below and considering only employees with more than one years service. A lat nt period is the time lapse from first exposure to the pres nt date.

More than 1 and up to 10 years	106
10 and up to 15 years	23
15 and up to 20 years	35
20 and up to 25 years	35
25 years and more	29

Data From Current Examination Programs

1. Give the number of persons who have been examined since January, 1974. 1183.

2. Were liver profile studies made?
Yes ✓ 116 No 1067.

3. Did the studies include at least bilirubin, SGOT, LDH and alkaline phosphatase?
Yes ✓ No _____.

4. How many of those examined showed an abnormality in:
one test ~~260~~ - 314
two tests ~~59~~ = 41
three or more tests — = 10

5. Have you had any cases of angiosarcoma?
Yes ✓ No _____.

6. Was this determination made by your own survey?
Yes ✓ No _____.
ALSO, CDC

R&S158608

7. What per cent of the total exposed population was covered in the survey? 99/100%

8. Were retired personnel included?
Yes ✓ No _____.

9. Were persons who had left your employ and gone to work elsewhere included?
Yes ✓ No _____. to some extent

10. Did you review causes of death of those who died while still employed by you?
Yes ✓ No _____.

11. Did your plant participate in the Tabershaw-Cooper epidemiologit survey?
Yes ✓ No _____.

May 3, 1974

THE SOCIETY OF THE PLASTICS INDUSTRY, INC.

250 PARK AVENUE • NEW YORK, NEW YORK 10017 • 212/687-2675

Henry — E

Calumet City (Hamm
Av Lake
Long Beach
Henry
Louisville
P Town

May 6, 1974

TO: MEMBERS OF THE VINYL MONOMERS AND PVC PRODUCERS AD HOC COMMITTEE

Gentlemen:

Th attached questionnaire is an attempt to gather some data which could be used in a presentation at OSHA hearings on a permanent standard for vinyl chloride monomer.

The basic concept is that there are many polymerization and monomer plants in which there have been no cases of angiosarcoma. We must show that significant numbers of people are involved and that these people have been exposed long enough for the disease to become evident. We must als try to show what degrees of severity of exposure occurred in these operations. We must at least derive the implication that TWA exposure levels were at least 50 ppm and possibly higher.

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Cordially,

Thomas J. McGrath

Thomas J. McGrath
Director of Packaging Services

TJM/mm
att.

R&S158610

SPI

THE SOCIETY OF THE PLASTICS INDUSTRY, INC.

250 PARK AVENUE • NEW YORK, NEW YORK 10017 • 212/687-2675

QUESTIONNAIRE ON VINYL CHLORIDE EXPOSURE

Exposure Levels:

1. Odor of vinyl chloride monomer present throughout much of the day.
   From years — to —.

2. Odor of VCM present occasionally during the work day.
   From years 1961 to 1973.

3. Odor of VCM a rare event in any work day.
   From years 1974 to —.

4. Have there been process or processing changes introduced which have resulted in an increased escape of VCM.
   List years when these occurred.
   —.

5. Have there been process or processing changes introduced which have resulted in a reduction in the escape of VCM.
   List years when these occurred.
   1973.

6. Do you have environmental measurements prior to 1970?
   Yes ____ No ✓. - explosimeter Tests since 1966

Personnel Exposure Data:

1. When did the plant start to work with VCM?
   Give year 1961.

2. How many employees are working with VCM?
   Give number 100.

3. How many employees are still working for you who once worked with VCM but do not do so now?
   Give number 15.

4. Of the persons identified in 2 and 3 above give the number who have been exposed for the following time intervals.

R&S158611

More than 1 and up to 10 years 115
10 and up to 15 years
15 and up to 20 years
20 and up to 25 years
25 years and more

5. Of the persons identified in 2 and 3 above give the number falling within each latent period given below and considering only employees with more than one years service. A latent period is the time lapse from first exposure to the present date.

More than 1 and up to 10 years 115
10 and up to 15 years
15 and up to 20 years
20 and up to 25 years
25 years and more

Data From Current Examination Programs

1. Give the number of persons who have been examined since January, 1974. 301.

2. Were liver profile studies made?
Yes ✓ No ____.

3. Did the studies include at least bilirubin, SGOT, LDH and alkaline phosphatase?
Yes ✓ No ____.

4. How many of those examined showed an abnormality in:
one test 7
two tests —
three or more tests —

5. Have you had any cases of angiosarcoma?
Yes ____ No ✓.

6. Was this determination made by your own survey?
Yes ✓ No —.

R&S158612

7. What per cent of the total exposed population was cover d in the survey? 99.

8. Were retired personnel included?
Yes ✓ No _____.

9. Were persons who had left your employ and gone to work elsewhere included?
Yes _____ No ✓.

10. Did you review causes of death of those who died while still employed by you?
Yes ✓ No _____.

11. Did your plant participate in the Tabershaw-Cooper epidemiologic survey?
Yes ✓ No _____.

May 3, 1974

SPI

THE SOCIETY OF THE PLASTICS INDUSTRY, INC.

250 PARK AVENUE • NEW YORK, NEW YORK 10017 • 212/687-2675

Calvert + Calumet

Calumet City (Illinois
Av Lake
Long Beach
Henry
Louisville
PTown

May 6, 1974

TO: MEMBERS OF THE VINYL MONOMERS AND PVC PRODUCERS AD HOC COMMITTEE

Gentlemen:

The attached questionnaire is an attempt to gather some data which could be used in a presentation at OSHA hearings on a permanent standard for vinyl chloride monomer.

The basic concept is that there are many polymerization and monomer plants in which there have been no cases of angiosarcoma. We must show that significant numbers of people are involved and that these people have been exposed long enough for the disease to become evident. We must als try to show what degrees of severity of exposure occurred in these operations. We must at least derive the implication that TWA exposure levels were at least 50 ppm and possibly higher.

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Cordially,

Thomas J. McGrath

Thomas J. McGrath
Director of Packaging Services

TJM/mm
att.

R&S158614

SPI

THE SOCIETY OF E PLASTICS INDUSTRY, INC.

25 PARK AVENUE • NEW YORK, NEW YORK 10017 • 212/687-2675

QUESTIONNAIRE ON VINYL CHLORIDE EXPOSURE

Exposure Levels:

1. Odor of vinyl chloride monomer present throughout much of the day. From years 1953 to 1963. - Cold runs

2. Odor of VCM present occasionally during the work day. From years 1963 to 1963.

3. Odor of VCM a rare event in any work day. From years 1963 to Present.

4. Have there been process or processing changes introduc d which have resulted in an increased escape of VCM. List years when these occurred.
   No.

5. Have there been process or processing changes introduced which have resulted in a reduction in the escape of VCM. List years when these occurred.
   1963, 1971, 1973.

6. Do you have environmental measurements prior to 1970? Yes 2 No ✓.

Personnel Exposure Data:

1. When did the plant start to work with VCM? Give year 1953.

2. How many employees are working with VCM? Give number 140.

3. How many employees are still working for you who once worked with VCM but do not do so now? Give number 60.

4. Of the persons identified in 2 and 3 above give the number who have been exposed for the following time intervals.

R&S158615

More than 1 and up to 10 years 125
10 and up to 15 years 50
15 and up to 20 years 15
20 and up to 25 years
25 years and more

5. Of the persons identified in 2 and 3 above give the number falling within each latent period given below and considering only employees with more than one years service. A latent period is the time lapse from first exposure to the present date.

More than 1 and up to 10 years 50
10 and up to 15 years 125
15 and up to 20 years 15
20 and up to 25 years
25 years and more

Data From Current Examination Programs

1. Give the number of persons who have been examined since January, 1974. 589.

2. Were liver profile studies made?
Yes ✓ No _____.

3. Did the studies include at least bilirubin, SGOT, LDH and alkaline phosphatase?
Yes ✓ No _____.

4. How many of those examined showed an abnormality in:
one test 117
two tests 3
three or more tests 4

5. Have you had any cases of angiosarcoma?
Yes _____ No ✓.

6. Was this determination made by your own survey?
Y s ✓ No _____.

R&SI58616

7. What per cent of the total exposed population was covered in the survey? ~~100%~~ 99%

8. Were retired personnel included?
Yes ✓ No ________.

9. Were persons who had left your employ and gone to work elsewhere included?
Yes ________ No ✓.

10. Did you review causes of death of those who died while still employed by you?
Yes ✓ No ________.

11. Did your plant participate in the Tabershaw-Cooper epidemiologic survey?
Yes ✓ No ________.

May 3, 1974

Since 1965 – fm EDC & vinyl chloride
1st Pulled out to
2nd total abv.

R&S158617