

REDACTED

September 7, 1966

Dr. Rex H. Wilson
The B.F. Goodrich Company
500 South Main Street
Akron, Ohio 44318

Dear Dr. Wilson:

Received your letter of August 24, asking me to further determine if there were any common factors that have been removed from the contacts of _____ that can explain their improvement, or, in the case of _____ what might have been responsible for their developing as positive cases subsequent to our initial examinations.

I had given this matter a great deal of thought before sending you my letter of August 3, and did not feel at that time that I had any information or opinions that were significantly different from those that we had previously considered in prior meetings and discussions. I think that it is obvious from the records, that _____ have shown improvement because they have all been reassigned to jobs which have removed them entirely from intimate contact with any of our chemicals, and in the case _____ chemicals used in Geon manufacture.

Specifically, from my interpretation of the records, I am still of the opinion that removal from exposure to vinyl acetate and/or tri-chlorethylene has been responsible for their improvement. As you recall from previous meetings, the effects of vinylidene chloride, vinyl acetate and vinyl chloride were discussed. Since vinyl chloride has been used in Louisville since the plant started in 1942, and the first case did not exhibit symptoms until 1958, and that later cases were found in a relatively short period of time, and followed by a number of others, it does not seem likely that vinyl chloride is the culprit. It is true that it may have been possible to have had cases earlier than this that were not diagnosed, however, it does not seem likely, in view of the fact that several of our cases developed within a two-year period and were characterized by such severe disability of the fingers that the subjects were unable to button their shirts or tie their shoes.

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We also came to the conclusion that vinylidene chloride which was an early suspect could not have been responsible, because some of the cases had definitely not been in contact with this material.

In the case of vinyl acetate, all of the subjects had been exposed to this chemical. Its usage was started in 1953, several years before the first case exhibited symptoms and the number of cases were disproportionately distributed in our Plant 2 operation, where the use of this material was large and increasing.

There were a couple of errors in the raw material data which I had sent you previously, and the corrections are as follows. Vinyl acetate and trichloroethylene were used in Building 111, in Plant 1, during the years 1958 through 1964, and these materials were used in Building 121 in Plant 1, during the years 1961 and 1962, in addition to the years 1963 and 1964, which I had previously indicated. This, I think, would further confirm the fact that these materials should be considered prime suspects in these hand cases.

In the cases of _____ Dr. Creech tells me that since all of the X-rays have been sent to you and he did not see the last X-rays, he presently has not made a positive diagnosis in the case of _____. He stated that _____ did not exhibit any lesions in the bone structure of his fingers, but exhibited only blanching symptoms when exposed to low temperatures.

_____ as you recall, had insisted when he was asked if he would participate in the Cincinnati hospital examination, that his trouble was arthritis and that he had trouble for years with his fingers, wrists, elbows, shoulders, knees and ankles. In the case of _____ we all agree that he is a bona-fide case, however, he was not hired until 8/9/52 and did not exhibit symptoms until 8/3/64. I believe he was not diagnosed on the first X-ray simply because his exposure had not been sufficiently long.

All of these latter three are doing work which is not presently bringing them into contact with vinyl acetate or trichloroethylene. It would be interesting to note if the previous X-rays which you have and the X-rays we are now taking will show any improvement in the case of Nokes. I think that there is justification for a more intensive investigation into the effect of vinyl acetate and trichloroethylene in connection with our hand cases. Vinyl acetate usage was started in 1953 and is continuing. Trichloroethylene usage was started in 1956 and is continuing to be used although in smaller quantities than previously and is confined to our Plant 2 operation. We have not used trichloroethylene in Plant 1 since 1964. Both of these materials are used at Niagara Falls and Avon Lake.

Yours very truly,

cc: A. Vittone
W. Baughman
H. McMath

L. G. Crunkleton
Plant Manager

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1. - Sensitive to cold (Both hands and feet.
Blanching of skin (Bergers Disease for
Tingling past 15-20 years)
Redness
Numbness
2. Sensitive to cold (Rt., due to surgery,
muscle repair)
3. - Sensitive to cold (Left index finger, due
to old occ. injury)
4. - Nodule (Rt. thumb, due to
injury from playing
baseball)
5. Deformity (Rt. middle finger, due
to bone fusion)
6. Deformity (Rt., finger, due to old
fracture)
7. - Sensitive to cold - (Due to having hand
frozen, Imm. & Deformity
Immobility (Rt.)
Deformity due to old fracture)
8. Arthritis (Each hand)
Deformity (Rt + Lt. small fingers for years)
9. Immobility (Rt., due to old injury)
Deformity
10. Deformity (Rt., from playing ball)
11. Deformity (Rt., due to old fracture)
12. BFG67733 - Deformity (Rt. small finger due to old injury)

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13. - Nodules (etiology unknown)
Immobility (Rt. & Lt. small fingers)
Deformity

14. - Immobility (Lt. thumb due to injured
Deformity nerve + deterioration of muscle)

15. - Arthritis
Deformity (Rt. small finger due to old injury)

16. Deformity (Lt. small finger due to laceration
when a child)

17. - Nodules (fingers rt. hand, etiology unknown)

18. - Deformity (Rt. ring finger from playing baseball)

19. - Deformity (Hands frozen; approx. Trauma
amputation of Rt. index finger.
Injury to Rt. middle finger)

20. - Tingling (One finger, rt. hand, cause
Numbness unknown)

21. Deformity (Left small finger due to old fracture)

22. Deformity (Rt. old fracture playing ball)

23. Deformity - (Left middle + Rt. ring fingers
due to injury playing baseball)

24. Immobility - (Rt. thumb due to old acc.
Deformity injury)

25. Nodules (Rt. & Lt. hands due
Deformity to arthritis)

Deformity - Rt. small finger due to injury

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Sensitive to cold, Rt.
 Hardening of skin
 Thinning of skin
 Immobility (Due to old
 Deformity occ. injury)

28.

Immobility (Rt., due to
 Deformity bowling)

29.

Deformity (Rt. thumb, playing baseball)

C

Nodules (Rt + Lt. small fingers. Etiology
 Unknown)

31.

Immobility (Rt. index finger due to bone
 Deformity fellon & trauma 1944)

32.

- Immobility - (Due to old acc. injury,
 fracture)

Nodules (Lt., injured working at
 another plant)

34.

Nodules - (Palm Rt. hand
 Numbness - (Rt. ring & middle fingers,
 Deformity All due to old injury)

35.

Hardening of skin (Palm Rt + Lt. hand 10 yrs
 Thinning " " "
 Deformity (Rt. small fingers, due to
 old injury)

36.

- Deformity (Rt. small fingers, due to
 old fracture)

37.

Hardening of skin (Around nails both hands past
 2-3 years, etiology unknown)
 Nodule (Rt. index finger due to I.B.)
 Deformity (Rt. index + small fingers due to
 old traumatic injury)

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30. Deformity - (Lt. index + middle finger due to old injury)
39. Deformity - (Lt. Middle finger due to old occ. injury)
40. Immobility - (Lt. index + middle finger due to injury from a saw)
41. Deformity - Deformities of most fingers. Injured 2 boxing, 2 basketball & baseball - (Rt middle & ring fingers distal I.P. joint from boxing)
42. - Deformity: Lt ring finger old injury (18 yrs), split finger through bone
43. Sensitive to Cold, All 4 fingers on 5th hand for past year. Etiology unknown.
44. - Deformity - Fract Lt. Index Playing Ball.
45. - Deformity Rt. middle ~~and Lt. middle~~ due to Arthritis - Arthritis Rt. Middle & Lt. index.
46. - Nodules R & L hand due to Gout - Dry - also
47. - Sensitive to cold & numbness Rt Ring finger and Rt. Thumb due to old injury
48. - Blanching of skin & Numbness of hands states Condition was much worse about 3 years ago when he was cleaning Pkys but Condition still present in mild form occasionally now.
49. - Arthritis? Some pain occasionally Rt. Ring finger when weather cold or damp -

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50

Arthritis? Both hands are sore when he first get up but soreness leaves in a little while

51

- Deformity of hands. About 16 years ago joints of fingers became swollen and sore (both knees also). Had soreness around edges of nail beds. Since then nails have become smaller and distal ends of all fingers shortened except ring fingers. Condition lasted in the acute stage of soreness + swelling approximately 3 years.

52

- Sensitive to Cold. Blanching of Skin - Hands become painful + several fingers on each hand turn white in extreme cold. About 3 years duration.

53

Arthritis, Immobility + Deformity of both hands due to arthritis past 5 or 6 years.

54

- Deformity Left Middle finger due to old injury

55

Deformity + Immobility Rt. ring finger due to fracture resulting from auto. accident

56

Deformity at small finger fractures, once as a child, second while in army

57

- Left index + middle fingers got white + numb during Cold weather 10-11 years ago when he was cleaning pipes. Card. Checked up I.M.O. said pinched nerve. (I did not mark on questionnaire)

58

- Nail Changes due to cleaning of cuticles too much, was so advised by dermatologist

59

- Deformity due to fracture of rt. thumb as child

60

- Deformity left small finger resulting from injury as a child.

61

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Thickened area base each index finger radial side duration approx 3 yrs. Etiology unknown

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62. Numbness, slight, tip rt. index finger, off + on ^{for} approx. 6 months, etiology unknown
63. Deformity rt. middle finger resulting from fracture due to playing baseball
64. - Sensitive to cold due to ~~ff~~ having ~~fingers~~ ^{fingers} frozen.
65. Tingling lt. middle finger due to old injury
Deformity rt. thumb due to fracture
Nodule M.P. joint rt. index finger - etiology unknown
- ~~66. -~~
66. - Nodule - Left ring finger - Present several years etiology unknown
67. - Arthritis rt middle finger
- Nodule - rt. ring finger from play trauma
Deformity - Traumatic amputation end rt. index finger 24 yrs ago.
68. Deformity Right Index finger due to laceration when he was about 7 years old.
70. Left Index Finger Sensitive (mild) to Cold. Frost bite while in service.
71. - Finger nail changes Thumb + Index fingers Left hand. Being treated for fungus infection.
72. - States fingers blanched in cold weather around '59-'60, Cleared up. (Didn't mark it)
73. - Tingling of fingers off + on duration + etiology unknown

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- ✓ 74 - : Deformity of Rt. middle finger due to fracture as a child.
- ✓ 75. - Deformity of Left Index finger due to football injury.
- ✓ 76. - Birth Deformity - Left Ring finger at M.P. Joint.
- ✓ 77. - Nodules from Arthritis - Left index and middle fingers distal I.P. joint. " " " Right thumb @ distal joint
- ✓ 78. - Nodules at base of Right Index finger due to old injury.
- ✓ 79. - Arthritis both hands (since 5 or 6 years ago)
- ✓ 80. - Right Index finger - pain & swelling of joint (off + on)
No known injury at any time.
- ✓ 81. - Jaws Def. + Cold. Lt Index + middle finger (BONETELLER) did not mark on investigations
- ✓ 82. - Deformity left ring finger due to old injury - Some numbness of fingers off + on due to nerves (as told him by J. M.D., (didn't put down)
- ✓ 83. - Sensitive to cold, Left Index finger + Rt middle finger injured by Shrapnel
Immobility of hand. During Korean War.
- ✓ 84. - Nodules + Deformity of Both Hands. About 3 years ago while working in E.O.C. nodules (gelman) appeared. Saw Dr Kleinert. Appears to have Constricting "dimple" by M.P. areas of ring fingers.
- ✓ 85. - Numbness Distal L.P. joint Right middle finger. About 3 weeks duration. Etiology unknown.

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86. - Immobility - Rt. fingers except rt. ring finger extension, due to injury involving tendons
87. - Nodules - aa. ring + small fingers, recently, etiology unknown
88. - Nodule - rt. hand due to service connected injury.
89. - Immobility - Lt. index due to lac severing tendons
Deformity - Lt. Thumb fracture old acc. injury - rt. middle + ring fingers old injury playing baseball
90. Deformity - Rt. thumb due to old injury
91. - Fingernail changes due to fungus contracted in Navy.
92. - Deformity rt. middle finger due to old fracture
93. - Deformity - Lt. thumb + rt. ring finger + rt. thumb due to old injury
94. - Immobility rt. middle finger due to lac. of tendon.
95. Deformity rt. sm. finger due to old injury
96. - Deformity rt. index finger due to burn as infant
97. Nodules - fingers, due to arthritis
98. Fingernail Changes - Nails thicker, short duration, etiology unknown.
Tingling + numbness of rt. index + thumb due to gun shot wound of hand.

9. - Nodule Lt. hand due to fracture, occ. injury
10. - - Gardening & thickening of skin of hands due to tropical jungle in service.
Deformity Lt. Small finger due to old laceration & healing of same.
11. - Rt. middle, ring + small fingers sensitive to cold & tingle due to frost bite when in Germany.
12. Deformity rt. hand due to old injury

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