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MEDICAL DEPT.

OCCUPATIONAL HEALTH STUDIES GROUP
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March 16, 1977

Clifford A. Johnson, M.D.
Medical Director
Goodyear Tire and Rubber Company
1144 E. Market Street
Akron, Ohio 44316

Dear Dr. Johnson:

This letter is to convey to you a finding related to the special study of dermatitis at the Goodyear Gadsden, Alabama plant. Based on preliminary statistical analyses and a brief visit to the Gadsden plant on Friday morning, January 14, 1977, additional statistical analysis were performed. These were motivated by the suggestion from earlier analyses that jobs where dry materials were handled seemed to be associated with higher risks of developing dermatitis. After a casual walk through of these areas, but without any environmental sampling, it seemed clear to me that the pigment blender operator worked in a situation where exposures to known dermatitis sensitizing agents could be extreme. This is based on my own personal observation of the workplace and not supported by industrial hygiene sampling.

The subsequent analyses are appended and are specific for occupational titles rather than groupings of these titles, for example by the type of raw material or stock handled as reported in the first analyses. These calculations of incidence of dermatitis over the four year period 1971-1975 further point to the pigment blending operator job as possibly extremely hazardous in the risk of developing dermatitis. The rate of 108.3 visits to the dispensary with dermatitis complaints out of 100 workers per year at the pigment blending operation is:

- First, an extrapolation from 13 visits from among 12 worker-years of experience on the job. These visits could have been among 24 different workers, each working one half year, during the four year period, for example.

- Second, three times higher than the rate for any other job in the plant. Granted that only three workers per year are required to man this job, but the rate implies that each of these is almost certain to develop a dermatitis problem that forces him to the dispensary for treatment.

GY11-026063

- Third, highly suggestive that one or more of the accelerators or antioxidants blended at this location is causing much of the dermatitis at Gadsden. Correlative patch testing work and environmental sampling will follow this finding.

- Fourth, not adjusted for age, race or sex and may not be as extreme as it appears. It is unlikely however that adjustment could explain such a large rate.

It seems prudent to carefully assess the pigment blending operation in regards to both control measures, e.g., ventilation at the weighing scale was partially clogged and apparently inadequate due to the great amount of dry material deposited around, and the work practices of the individuals working this job. Poor handling of these materials on the job and inadequate personal hygiene could greatly increase the risk of developing a dermatitis problem on any job, but especially this one.

I feel that this preliminary evidence is sufficient to warrant an immediate thorough study of the pigment blending operation with the intent of improving ventilation, handling requirements of these materials, handling practices of workers on this job, and thorough personal hygiene practice of any worker in this job. This should include consideration of the clothing provided for this operator and frequent washing while on the job and a good shower after each work shift. *

The complete report is in its final stages of revision and describes many findings on this dermatitis problem at Gadsden. The attention to the pigment blending operation deserves immediate attention, however.

Sincerely,

M. J. Symons

Michael J. Symons
Associate Professor

MJS/mjt

cc: Louis Beliczky

Attachment

GY11-026065

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AVERAGE INCIDENCE RATE BY OCCUPATIONAL TITLE

Occupational Title (OT)[1]	Number of Cases[2]	Workforce Required by the OT[3]	Average Incidence Rate[4]	Occupational Title (OT)[1]	Number of Cases[2]	Workforce Required by the OT[3]	Average Incidence Rate[4]
1	19	220	8.6	31	5	64	7.8
2	15	48	31.3	32	33	468	7.1
3	13	12	108.3	33	29	564	5.1
4	1	28	3.6	34	36	432	8.3
5	5	80	6.3	35	6	60	10.0
6	1	32	3.1	36	2	72	2.8
7	4	120	3.3	37	7	48	14.6
8	5	52	9.6	38	1	40	2.5
9	14	172	8.1	39	14	176	8.0
10	8	84	9.5	40	55	964	5.7
11	2	12	16.7	41	9	168	5.4
12	2	76	2.6	42	24	620	3.9
13	3	28	10.7	43	2	108	1.9
14	8	124	6.5	44	2	12	16.7
15	4	44	9.1	45	27	476	5.7
16	20	352	5.7	46	9	184	4.9
17	22	380	5.8	47	3	36	8.3
18	5	100	5.0	48	5	48	10.4
19	8	140	5.7	49	2	32	6.3
20	0	56	-	50	0	8	-
21	0	12	-	51	6	104	5.8
22	5	112	4.5	52	20	248	8.1
23	2	48	4.2	53	2	60	3.3
24	22	296	7.4	54	13	124	10.5
25	3	52	5.8	55	4	32	12.5
26	21	288	7.3	56	6	32	18.8
27	91	1664	5.5	57	36	392	9.2
28	11	268	4.1	58	33	452	7.3
29	8	168	4.8	59	32	184	17.4
30	10	328	3.0				

1. Occupational Title (OT) number; for a description of each see attached Appendix 5.
2. Number of Visits to the Dispensary for New Cases of Dermatitis during the four year study period.
3. Number of workers required by the OT each year multiplied by the four year study length. This is computed by multiplying the Manning Table requirement by four years and is the number of worker-years of experience in the specified OT.
4. Average (over four years) Incidence Rate of New Case Dermatitis Visits to the Dispensary; computed by dividing required workforce into the number cases; expressed as a percentage.