C. A. PHILLIPS

CIVIL MAINTENANCE SUPERINTENDENT

TO MEMORANDUM

RECEIVED

JUL 22 1981

INDUSTRIAL HYGIENE

cc: Mr. W. W. Browne
Dr. M. F. Jones
Mr. R. E. Podhora
Mr. R. C. Fleitz

PLAINTIFF'S EXHIBIT AL-155

1977 July 08

RE: COMPLAINT OF E. F. BURKE, 24-004, OF EXPOSURE TO ASBESTOS WHILE WORKING IN FURNACE NO. 9 - CASTING, BUILDING 19

Two (2) masons and one (1) laborer started work on tearing out south wall of furnace on 1977 June 20.

Before starting work, a routine entry permit was set up and furnace was "sniffed" for oxygen.

The laborer's job was to act as an observer and also to shovel the demolished refractory out of the furnace.

The masons wore air hoods ("cool hats") all the time. Apparently part of the time the laborer did not wear an air hood, but only a respirator. (The laborer would only be in the furnace for short periods of time - ± 2-1/2 hrs/8 hr day).

1977 June 29, Wednesday

Burke was assigned to work with masons and was sent to work in the furnace. He asked Cris Gonzalez, Unit Supervisor, what equipment he would need. C. Gonzalez told him he would need a mask (respirator) and gloves. (The mask is a routine precaution for any dusty area.)

1977 July 05, Tuesday

Masons reported to Gonzalez that they noted sparks from the jackhammers (which could be a sign of phosphine gas). Gonzalez called Leroy Wagner for a sniff test, which was also routine. Gonzalez was present during the testing (test negative) and noted some of the material that was being demolished appeared to look like asbestos. As a routine, Gonzalez asked Wagner to test the material and let him know if it contained asbestos. Wagner performed the test and reported to Gonzalez that the material did contain asbestos. Gonzalez then went to the furnace and told the masons and the laborer (Burke) working there that the materia contained asbestos and to use extra precautions. He told them that in addition to air hoods, to use the disposable paper coveralls so as not to take the asbestos dust home with them.

At this time Burke asked, "You mean I've been working in asbestos?" Gonzalez said, "That's what the tests show."

1977 July 06, Wednesday Morning

Burke approached upgraded Unit Supervisor, Victor Reyna, and asked for a note to be placed in his files explaining that he had been exposed to asbestos for four (4) days. (Actually "exposure" time in the furnace would only be ± 2-1/2 hrs/ day at most).

Reyna contacted Civil Maintenance Supervisor, I. T. Gonzalez, about the request of Burke. Gonzalez told Reyna to tell Burke if he had a problem to come see him.

After lunch, Burke and Walter Rosenbrock, Union Representative, came to the office of I. Gonzalez. Burke told I. Gonzalez that he was exposed to asbestos in the furnace and that he wanted an "Accident Report" filled out saying "someone" made an error by sending him to work there and that he wanted "them" "written up" (Incident Report?) because if they (the hourly personnel) commit an unsafe act they get "written up". Burke stated he was going to call O.S.H.A. and bring them in and let them know he had been exposed to an asbestos hazard. Burke said everybody working there knew it was asbestos but him.

I. Gonzalez told Burke that as far as he was concerned, there had been no accident and that he was not writing a report.

I. Gonzalez repeated the sequence of events as he had heard them. Burke stated that sometimes he did not have a "cool hat" (air hood) available to wear when working inside the furnace. (C. Gonzalez states that Burke may not have used an air hood, but that they were available.)

(Apparently Burke had been working in the furnace without a respirator. He says no one told him to wear a respirator. C. Gonzalez said he told him at the start of the job that he needed a respirator and assumed that he understood that if he needed one that he would wear it).

Burke said he wanted a report in his files because if he got sick later he would need to bring his lawyer in and have ALCOA pay for it.

At this point, tempers flared and a number of accusations from both sides were put forth (I. Gonzalez commenting on his amount of lost time already this year, etc., etc.).

Later in the afternoon (Wednesday) Burke left the job (at the furnace) and went to see Union Representative, Mel Meanor, and others in Bldg. 13E. C. Gonzalez went looking for him and told him to go back to the job. As he was leaving Bldg. 13E, Mr. Meanor told Burke to take his case up with Mr. Rosenbrock.

At about 6:00 P.M., 1977 July 06, R. A. Alexander called me at the plant saying Bobby Sowders had called him at home saying we were exposing people to asbestos in the casting building. Being unaware of the previous problems, I went directly to the casting building and Furnace No. 9.

Two (2) masons were working inside the furnace and were wearing air hoods and disposable coveralls. The laborer, who was acting as an observer, had on the disposable coveralls also. He said he would have on an air hood when he went inside to shovel the refractory.

On Thursday, 1977 July 07, tests were conducted by the Industrial Hygiene Department that determined that the exposure level to asbestos in the furnace was not being exceeded in any of the conditions.

C. A. PHILLIPS

CAP/cmp

FROM R. E. PODHORA

INDUSTRIAL HYGIENE

TO DR. M. F. JONES

MEDICAL DEPARTMENT

RECEIVED
JUL 22 1981
INDUSTRIAL HYGIENE

cc: Mr. I. T. Gonzalez

CONFIDENTIAL

1977 July 08

RE: ASBESTOS INCIDENT - INGOT CASTING FURNACE #9, BLDG. 19 - SEQUENCE OF EVENTS

This is to document the events involving the captioned.

On 1977 July 05 about 1:45 P.M., Mr. Cris Gonzalez, Mason Supervisor, called to request a test for phosphine since the masons were working in DV 38 brick. Mr. Leroy F. Wagner, Industrial Hygiene Technician, was dispatched to the work site at Furnace #9. He arrived at 2:10 P.M. and completed testing for phosphine using Drager detector tubes. No phosphine was detected. (See Investigation Report attached). While at the site, Mr. Cris Gonzalez asked Mr. Wagner to test a piece of insulation to determine if asbestos was present. Mr. Wagner inspected a specimen slide and determined that the sample contained asbestos.

On 1977 July 06 about 3:00 P.M., Mr. Israel Gonzalez, Civil Maintenance Supervisor and Civil Engineer, called me regarding the asbestos insulation and for information on O.S.H.A. regulations. Messrs. Israel Gonzalez and Cris Gonzalez and I discussed the Casting Furnace #9 brick dismantling from about 3:30 P.M. to 3:45 P.M. These were the pertinent points established:

1. This was the first time a furnace side wall was being dismantled for major repair.

2. The Furnace #9 Drawing #_____ showed side wall insulation, but was not identified as asbestos (per I. Gonzalez).

3. Cris Gonzalez requested test for phosphine gas 1977 July 05. L. F. Wagner of the Industrial Hygiene Department tested for phosphine and detected none.

4. Mr. Cris Gonzalez requested that a sample of the side wall insulation be tested for asbestos content.

5. Mr. L. F. Wagner tested insulation sample and determined that it contained asbestos.

6. Mr. Burke, Clock No. 24-004, Laborer, requested an "Accident Report" be written after it was learned that the insulation contained asbestos.

7. Mr. Cris Gonzalez reported that while working inside the furnace, cool hats with breathing air and cooling vortexes were used; and respirators for asbestos were provided.

ALCOA

SF-4563 (REV 11-68)

On 1977 July 07 personal samplers were outfitted on:

Mr. Juan Gonzalez, 24-100, Laborer - Filter #2
Mr. Juan Salazar, 24-026, Mason - Filter #1

Mr. Juan Gonzalez was outfitted with the cool hat, gloves, and disposable coveralls and used the vacuum cleaner to clean the dust. The filter was changed to improve vacuuming performance. The personal sampler operated from 8:42 A.M. to 8:55 A.M. during the time he was vacuuming the dust. Mr. Juan Salazar, 24-026, Mason, operated the jackhammer and his sampling period was 9:07 A.M. to 9:56 A.M. (49 minutes).

After the sampling, Mr. Wagner prepared the slides for the two samples and began counting and tabulating the asbestos count.

During the documentation of these events, Mr. Ray Skinner, O.S.H.A. Compliance Officer, called me to report the results of tests conducted in May, 1977 at the Chlor-Alkali plant. After that conversation, I asked Mr. Skinner to interpret the notification of exposure. His reply was,

> "If the concentration exceeds the ceiling of 10 fibers or the eight hour time weighted average of two fibers, then you must notify the individual even if they are wearing respirators."

I then discussed the progress to this point with Dr. Jones. This was about 11:35 A.M. I then called L. F. Wagner to see if he had finished counting; he had not finished yet.

After lunch I stopped by Israel Gonzalez's office to bring him up-to-date. Since he was not in, I left a note to have him call. After 1:00 P.M. I called Mr. I. Gonzalez's office again. Charlene answered and offered to page for him. We made contact about 1:25 P.M. and then Cris and Israel came to my office to discuss the details for further documentation. The discussion started about 1:40 P.M.; by this time Mr. Wagner had completed his counting. Messrs. Israel and Cris Gonzalez and I discussed the sequence of events and documented these:

1. First started on #9 Furnace June 13. (L. F. Wagner did confined space entry test—report available if required.)

2. Worked on door jam area and cut one hole in wall about 12" in diameter just to the insulation to determine thickness of bricks.

3. No work during week of June 20.

4. Started working on walls June 27. Must have gotten to insulation same day.

5. Mr. E. F. Burke, 24-004, returned from "Red Card" 1977 June 27.

6. Mr. Burke started work in #9 Furnace the afternoon of June 29 (recalled by Cris Gonzalez - said he moves his men around as needed).

7. Reports (time) indicate Mr. Burke worked in #9 Furnace on June 30, July 1, and July 5.

8. Mr. Cris Gonzalez reported that when Mr. Burke asked, "What do I need?", he replied, "mask and gloves".

9. On 1977 July 05, L. F. Wagner determined that insulation contained asbestos. He (Wagner) called Mr. Cris Gonzalez about 2:30 P.M. 1977 July 05 and notified him about the asbestos in the insulation ("quite a bit").

10. Mr. Cris Gonzalez then went out to #9 Furnace, stopped the crew (two masons and one laborer), called them out and instructed them that it was confirmed that the insulation contained asbestos.

    (a) Cool hats used from the beginning now must be used; respirators to be worn if cool hat not used.

    (b) clean-up - using vacuum cleaner

    (c) Deposit dust in plastic bags for proper disposal.

    (d) explained health hazards of asbestos

    (e) instructed proper procedures to be used

    (f) got cooling fan operating 1977 July 06

11. By this time (about 2:00 P.M.) 1977 July 07, Mr. Wagner completed the calculations and we discussed and evaluated these results:

FILTER #	NAME	CLOCK #	SOC. SEC. #	JOB	SAMPLE TIME	RESULTS
1	Juan Salazar	24-026	449-72-5992	Mason	49 Min	2.2 Fibers/cc
2	Juan Gonzalez	24-100	452-90-4710	Laborer	13 Min	2.42 Fibers/cc

12. We discussed the duration of work actually inside the furnace. It was concluded that the laborer was actually working about 15 minutes out of every two (2) hours, or estimating for the benefit of the doubt, about two (2) hours per eight (8) hour shift. The masons were estimated at five (5) hours per eight (8) hour shift.

Therefore, the eight (8) hour time weighted average is

$$\frac{2.42 \text{ fibers/cc} \times \frac{2 \times 60}{13}}{\frac{8 \times 60}{13}} = \frac{2.42}{4} = 0.605 \text{ TWA}$$

$$\frac{2.22 \times \frac{5 \text{ Hr} \times 60 \text{ Min}}{49 \text{ Min}}}{\frac{8 \times 60}{49}} = 1.4 \text{ Fibers/cc}$$

Conclusion

On the basis of these test results, neither the ceiling nor the eight (8) hour time weighted average (10 and 2 fibers/cc, respectively) were exceeded. Therefore, since the exposure levels were below the threshold limits, the personnel were not overexposed to asbestos.

R. E. Podhora

R. E. PODHORA

REP/cmp

Attachment