PLAINTIFF'S EXHIBIT
DOW-994

DOW CHEMICAL U.S.A.

TEXAS DIVISION
FREEPORT, TEXAS 77541

August 2, 1973

Gordon Miller
Russellville, Arkansas Plant

ENVIRONMENTAL HEALTH PROBLEMS AT THE CELL MANUFACTURING AND GRAPHITE PLANTS

During my short two day trip to your plant, I had the opportunity to make a brief tour of the operations. During that time I made some brief notes on the main environmental health problems, as I saw them. They are:

1. Noise
2. Coal tar pitch (volatiles and dust)
3. Silica dust
4. Asbestos

Noise problems are fairly localized and are inherant in certain operations and with certain equipment. Some employees do spend significant amounts of time in and around areas where the sound levels are 90 dbA or higher. Therefore, these people and areas are covered by Federal noise regulations, copies of which are attached to this letter. You will note that audiometric testing of hearing is required annually for those even infrequently exposed to 90 dbA and above. The booklet should provide most of the answers to the questions you have on noise. I would suggest that you have a comprehensive noise survey made to get you off of the ground, and that afterwards you purchase a sound level meter and take over from there. With a plant the size of the Russellville operations you should have no problems handling the majority of your own noise problems, once you get off the ground.

Coal tar pitch volatiles are a recognized hazard to health and it appears that you are on the track to defining the extent of worker exposure. However, the carbonaceous dusts

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generated in the "green carbon" part of the Graphite Operation have been thought by many to be a health hazard both from inhalation and skin exposure, over a long period of time. This problem (dust) must also be considered. I would like to talk more about specifics, but I wasn't there long enough to really take a good look at what's going on in enough detail. I just want to re-emphasize that dusts from green carbons, petroleum coke, and coal tar pitch should also be looked at in addition to the volatiles of coal tar pitch.

Silica containing dusts are generated by sandblasting and grinding operations in the Cell Manufacturing section of the plant. This potential problem should be surveyed.

Sandblasting in particular is covered by the Occupational Safety and Health Act of 1970. I am attaching a copy of the appropriate section.

The use of asbestos has been surveyed and the subject covered under a separate report.

In summary, supervision of the Russellville Plant seems to be aware of particular environmental health problems peculiar to their operations and are taking steps to bring problem areas under control.

Regards,

BS "Buck" Horvath

B. S. "Buck" Horvath
Industrial Hygiene

bbs

Attach

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wearing the continuous gas samplers for the next several months to assure the limit of 0.2 mg/m^3 of benzene solubles is not being exceeded.

2. Asbestos fibers are carcinogenic. Asbestos is being used to make a thixotropic mixture of derakane for sealing cells. A separate, vented room, is being built to contain all mixing equipment. A research program is being carried out by Chlor-Alkali Research to replace asbestos. Personnel air sampling will be conducted to assure the limit of 5 fibers, longer than 5 micrometers, per cubic centimeter of air is not exceeded.

3. Dust is a problem in several parts of the plant. Two large dust collectors have greatly alleviated the problems in the sagger loading and unloading area, and the graphite sawing area. Personnel breathing samples will be taken to define the extent of the problem. Until dust problems are shown to have been eliminated, personnel should continue to wear dust respirators if there is any question on dust levels.

Lee, the testing program effort to cover these three problem areas has been intensified and will be completed within the next three months. Periodic sampling then will be conducted at least every six months.

Gordon R. Miller

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Attachments

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