

UNITED STATES STEEL CORPORATION

TO K. M. Morse
Director
Industrial Hygiene

DATE October 21, 1965

FROM W. H. Baumann
District Industrial
Hygiene Engineer
Central District

SUBJECT Industrial Hygiene Report
Submitted by Indiana Labor
Department

PLAINTIFF'S EXHIBIT

USX-1079

Pursuant to our recent telephone conversation on subject report, I have prepared some comments pertinent to the unresolved recommendations submitted by the State.

In your meeting with Mr. Spitz, you may wish to discuss the items where air sampling should be performed. These data can be used as the basis for instituting control where indicated.

It would appear that any answer to their report by Mr. Spitz should include proposed air study by us at specific operations cited by State. Contingent on our findings, compliance should or should not be taken.


W. H. Baumann

WHB:nrm

1. Compliance

6 and 19. Compliance - Bids have been submitted and reviewed. Ventilation criteria and design on two of the three bids conform to recommended practice as specified in Industrial Ventilation Manual prepared by ACGIH.

20. This recommendation is associated with an operation of minor health significance. However, we shall endeavor to find a substitute material that contains no benzene.

2, 3, and 4. These operations involve mobile equipment. Efforts to contain the men within a contaminant free environment necessitates automation of the operation which will enable them to remain within their enclosure. An alternate on the Larry Car which is being studied involves installation of a high pressure water scrubber. This equipment would be installed on the Larry Car. The details have not been established. However, it is my understanding that such installations are being used in European Mills primarily for control of smoke emission from ovens. The Pusher and Quench Car are not as amenable to control. However, whereas the Larry Car operator may be exposed to significant levels of polycyclic aromatic, operators on other equipment do not appear to be exposed to as high levels. Frankly, I believe the operations associated with coke production should be investigated to evaluate their hazard potential.

The State people have never alluded to potentially harmful exposures to the by products generated in the production of coke from coal. They have mentioned smoke and carbon monoxide in their visual inspection of these operations.

5. Compliance

7. Drum Feeders - Being replaced on schedule.

Coke Screening - No plans are being considered for elimination of this operation. In fact, modern blast furnaces (Duquesne #6 B.F.) practice involves screening of coke in stock house. Dust determinations should be made in this area to evaluate dustiness relating to coke screening. If results are significantly high, screens should be enclosed and exhausted. In fact, this operation should be correlated with total air-borne dust in the stock houses. We have discussed those areas and possible means of suppressing air-borne dust. Coke screening represents only one source of multiple sources of dust production in this area.

8. This recommendation is closely allied to #7. However, the State has recommended the use of respirators. Inasmuch as this is a relatively continuous eight-hour exposure, the use of respirators is rather impractical. If dust levels are consistently high, dust control should be incorporated into the operations.

9. This recommendation has not been resolved. Pug mills offer limited application because of the inherent water problem encountered in the cold seasons. AJ-M Verticone may have application in this operation. However, the equipment including the water lines may have to be heated and insulated. I believe this dust condition could be curbed provided that the responsible people could get together.

10, 11 and 12. The CO contamination problem should be studied. A threefold approach should be undertaken:

1. Determine sources of carbon monoxide.
2. Evaluate existing ventilation.
3. Study the CO blood levels of the men over a period of time.

Following an analysis of these data, the problem should be examined to determine whether engineering measures should be taken to reduce CO levels. Inasmuch as these facilities have a limited future, any investment involving ventilation should be scrutinized based on this.

18. Compliance

26. Compliance

13. Rafter samples have been taken in the upper structure, pit side, #5 O.H. and submitted to Pittsburgh for free silica analysis. The dust cloud created in dumping slag into the truck is quickly dissipated by thermal updrafts. Tractor operator can be possibly protected against heat and dust using a commercial "white cap". Other employees in this area are not exposed for prolonged periods to concentrated dust.

This recommendation like others shows a lack of judgment on the part of the inspectors. Moreover, the problem has not been defined in terms of evaluating employee exposure.

14. There is little that can be done from a practical and economic standpoint to alleviate dust at this operation. The source of dust emission is difficult to enclose using present handling equipment and practices. This entire facility would have to be revised to control dust production. Furthermore, no one is exposed other than the craneman and his exposure is extremely variable depending on weather factors. We can readily evaluate his exposure and take steps to alleviate it if results indicate a significant health hazard.

15. Compliance

16. Compliance

17. Carbon monoxide and dust exposures should be evaluated before any measures are recommended for control.

21. Compliance

22. Plans are underway to evaluate the fume and gas contamination at these operations. These operations are intermittent and sampling must be scheduled.

27. A spray painting facility has been proposed where all spray painting will be done. I have recommended that ASA Code Z-3 1964 be employed for design criteria.

28. Compliance

24. Compliance

25. Compliance