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Carey F. McCord



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Silicosis in the Foundry

By Carey P. McCord.

P.4 (a) "Lime may be cited as an example from which immediate or early chemical action may be expected." What does this mean?

P.5 (a) and throughout the text. The author refers to silica, meaning quartz.

(b) He refers to the toxic action of silica which is not a precise statement.

(c) The relative danger from coal, etc. is about 5 compared with silica at 100. This is not based on scientific evidence.

(d) The last mentioned substances referring to coal, iron, etc. produce scar tissue. This is not in accord with the previous statement. There is a gross inconsistency here.

(e) There is no scientific evidence for such a statement. The concentration, time, as well as the percentage of quartz play an important part.

P.6. (a) To be exact 2 microns ^{does not} form the upper limit of important size.

(b) This may or may not be true. How about asbestos and quartz mixtures? They produce fibrosis readily even though the amount of quartz is quite small.

Page 7. (a) According to this statement silicosis does not exist without observable mottling. This is not true.

P.8 (a) According to McCord silica influences the growth of the tubercle organism. This is not the generally accepted explanation for the production of tuberculosis in silicotics.

(b) Silicosis is a progressive disease, the rate of progression of which is increased by the presence of infection, but I do not think there is anything to indicate that 75 per cent of persons with silicosis acquire tuberculosis and promptly die. The bald statement to the effect





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that silicosis is apt to progress in a pamphlet such as the one at hand is certainly a more damaging statement than any which we made in our sandblasting report. This also applies to other statements made at this point in McCord's paper such as the statements on Page 8 (c). Originating in a report put out by the Founders Association this statement (8 c) is terribly damaging.

P.9. (a) The statements at this point are very damaging, far more than anything which was quoted in our report.

p. 10 (a) This statement is somewhat inconsistent with the statement on page 8 (b).

P.10 (b) These statements are very damaging to the factory owner, and may be the cause of suits brought by the families of workers.

P.10 (c) To anyone who understands the ~~limit~~ ^{repetition} of silicosis this statement is without scientific foundation. An effort should be made to correct this statement in the literature so as to prevent its repetition.

P.12 (a). This is an exceedingly high estimate of cost of the average silicosis case.

P.12 and 13 (b) This is not a solution of the problem at hand. If the dust problem is solved ^{repetition} ~~reduction~~ of workers should not be necessary. If the dust problem is not controlled such a technique would serve to create many cases of silicosis in the foundry. I have been informed by persons deeply interested in the foundry problem that rotation is not possible for skilled foundry workers and certainly it would not be possible if foundry workers were given a pre-employment examination since there is not a sufficient number of such persons available. This so-called solution would also have the effect of causing a let down in the dust preventive measures which ordinarily would be used in a good plant.





P.13 (c) Consult previous criticism.

(d) If persons previously employed at abrasive casting cleaning in excess of six months were not accepted in this type of employment, then a man who served at such occupation for six months would be forever enjoined from reengaging in such tasks. If this were done it would soon be impossible to employ anyone of any value at sandblasting.

P.14 (a) There is no scientific background for this statement.

(b) and 15 (b) Settled dust is, comparatively speaking, a relatively unimportant factor in aerial contamination.

P.14. In general. This is a highly impractical scheme when one attempts to apply it to gray iron molders. Such skilled persons can not be rotated in this fashion.

P.15 (b) The statement concerning 1400 cubic inches of particulate matter appears to be erroneous.

P.16 (a) At the present time no one who has had experience in industrial plants would maintain that face masks are 90 per cent effective in actual use. Theoretically this may be so but in practice it is doubtful if they are half this effective. It seems undesirable to allow a man to work at a dusty occupation and use a protective device which really in practice hardly protects.

P.16 (b) Those persons who have had practice in industry with the use of respiratory protective equipment understand how difficult it is to get the workmen to use a single type of mask or respirator with any intelligence. To suggest the inter-use of various types of masks together with periods of no-mask utilization is to court trouble in dusty atmospheres.

P.16 (c) A preference is expressed for steel or synthetic abrasives and





on page 19 (c) substitution of other methods of blasting cleaning for sand
is are itemized.

P.18 (a) and 19 (a) These statements seem to be somewhat
inconsistent. The Barre bulletin of the Public Health Service certainly
believes statement 19 (a).

P.19 (b) Such a procedure is fraught with danger and may be disastrous.

P.21 (a) It is clear from this statement that in Ohio the worker is
deprived of his rights in obtaining redress for silicosis either by compen-
sation or common law appeal. Certainly if this is a correct statement the
Ohio law will not long stand on the books. The technique of escaping
distressing litigation in this case is neither fair nor humanitarian.

P.22 (a) This is not in harmony with the procedure now being drawn
up for the state of Pennsylvania where specific occupational diseases are
to be listed.

P.24 (a) Does not this compensate the worker for his first true sign
of silicosis? It does not compensate the workers for the advanced silicosis
which may possibly come later according to Dr. McCord. It is hard to see
then how this is unfair to the employer or insurance company.

P.26 (a) This certainly is a preposterous arrangement.

P.28 (a) and 29 (a) This is unfair since it allows loopholes for
the escape from compensation.

P.31 (a) It is not by any means certain that considerable silicosis
does not occur in foundry work exclusive of sandblasting.

P.31 (b) The substitution of steel for sand which earlier was so
distasteful to the foundry people is now a matter of record in their own
publication.

P.37 (a) The result of these studies can not be compared with





other American studies particularly those done by the United States government, since a dark field technique was used in making the dust counts. For this reason there is no basis of comparison for these studies done by the Metropolitan Life Insurance Company.

P.43 (a) This statement says that the report of the sandblasting committee would expose the foundry industry to serious and unjust penalties. It is the belief of the writer that the present report exposes the foundry industry to far worse penalties than the original report of the sandblasting committee of the National Safety Council.

