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DOCUMENT DESCRIPTION: Letter to Dr. Winslow from C.E. Samuel with Critique of Proposed Article RE Protection Against Dust Hazards

**GENERAL ELECTRIC
COMPANY**

GENERAL OFFICE
SCHENECTADY, N. Y.

1 River Road
SCHENECTADY, N. Y.
Feb. 27, 1933

Dr. C. E. A. Winslow,
School of Medicine,
Yale University,
New Haven, Conn.

Dear Dr. Winslow:

With reference to the proposed article on "Protection Against Dust Hazards in Air Pressure Abrasive Blasting", I have referred this to two Foundry Superintendents, also to a Foundry Engineer connected with one of the large Insurance Companies and who was formerly an Assistant General Superintendent in one of the General Electric Plants, and have the following comments to make combining opinions:

"In view of the fact that air pressure abrasive blasting is but one of the serious sources of harmful dust encountered in foundry operations, it would seem that a great deal more good might be accomplished, at the present time, if the proposed article was written to cover all the major hazardous exposures in the foundry. No

The draft of the proposed article while titled as "Protection Against Dust Hazards in Air Pressure Abrasive Cleaning" actually covers a number of general items in the last paragraphs.

It is suggested that the article be written under four sub-headings covering exposures in shake-out operations, sand conditioning, castings cleaning and general miscellaneous sources. No



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In reference to the actual text of the article in hand the following points have been noted:

- (1) The amount of dust in a pressure blasting unit depends upon the amount of sand retained on the castings being cleaned, the efficiency of the exhaust equipment and the type of abrasive being used. Whether metallic abrasive or sand is used in blasting, there will be harmful dust and the operation must be completely enclosed and ventilated.
- (2) There is some difference of opinion relative to the rounding of steel grit due to wear. Some parties maintain that the grit becomes rounded and some retains its sharpness for some time. Consequently, I think that the sentence referring to the rounding of grit be deleted.
- ✓ (3) All descriptions of barrels and tables are, of course, general but such statements in regard to sand blast table as "ordinarily 6 or 7 ft. in diameter" would, undoubtedly be criticized. The writer can see no particular reason for including such descriptive matter in the article.
- ✓ (4) In the paragraph headed "Automatically Fed Blasting Rooms", the use of the words "belt conveyors" is questioned. Ordinarily a chain conveyor, or a mono-rail is employed to carry castings through automatic cleaning units.
- (5) The last sentence in the paragraph relative to positive pressure helmets might be misunderstood. Screen shields should be used over glass or composition windows to protect the same from the "fogging", or "scouring" action of flying abrasive.

Some manufacturers recommend an air flow of 2 cu. ft. per minute, therefore it might be well to substitute a range of supply in place of the specific amount, 6 cu. ft. per minute. No

✓ In item "b", paragraph 7, the dusty material which is swept up should be thoroughly wet down before sweeping begins to prevent dust being stirred up which will add to the contamination of the air unless vacuum cleaning is available."

It is also thought that the reference to "Silica"



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dust be deleted, so that the word "Silica" will not appear anywhere in the article.

Yours very truly

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