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Interoffice Memorandum

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PLAINTIFF'S EXHIBIT

SH-2328

FROM: P.J. SNYDER, SENIOR INDUSTRIAL HYGIENIST, HEALTH & SAFETY
DEER PARK MANUFACTURING COMPLEX

TO: C. BATTS, PURCHASING
DEER PARK MANUFACTURING COMPLEX

SUBJECT: SELECTION OF SANDBLASTING GRIT

Material used for sandblasting may contain two types of components which are of health significance, crystalline silica and certain toxic metals. When these materials are present, there is a likelihood of airborne exposure to these materials in excess of their particular permissible exposure limits (see below). Grit not containing such components is typically classified as a nuisance dust with a permissible exposure limit of 10 mg/m³.

<u>METALS</u>	<u>EXPOSURE LIMIT</u> (mg/m ³)
Chromium Metal	0.5
Copper	1.0
Inorganic Lead	0.15
Nickel	1.0
Vanadium	0.05

The exposure limit for silica dust is based upon the % silica present in the airborne dust. A direct correlation between the silica composition of the grit and the % silica in the airborne dust cannot be made without field analysis, however, it is reasonable to assume a close correlation. The following permissible limits for silica dust are provided to illustrate the effect that % silica has on the exposure limit.

<u>% SILICA</u>	<u>TOTAL DUST</u> <u>LIMIT (mg/m³)</u>
0	10.0
0.5	8.5
1.0	7.5
5.0	3.7
10.0	2.3
50.0	0.6

Additional reductions in the permissible limit associated with silica have been proposed.

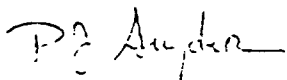
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Although all sandblasting operations require respiratory protection, the requirements for training, air sampling, medical surveillance as well as the potential for downwind exposure can be affected by the grit composition. It is important that grit, including those labeled as "silica free", be of such a composition that exposure to any component would routinely not exceed the applicable permissible limits. While a direct correlation between % composition and exposure levels cannot be made without extensive field analysis, the following specifications are provided as a guideline to minimize the potential for exposure levels exceeding the applicable exposure limit.

	<u>SPEC*(%)</u>
Crystalline silica	less than 1
Inorganic lead as Pb	0.1
Nickel as Ni	0.1
Chromium as Cr	0.1
Cadmium as Cd	0.01
Beryllium as Be	0.1
Arsenic as As	0.01

Materials with greater than 1% crystalline silica are to be treated as silica grit. Materials not meeting the metal specifications are not to be used without prior consultation with Industrial Hygiene.

Thank you.



P.J. Snyder

PJS/md

cc: B.T. Waggoner
ECB Satellite
PJS Chron

* As measured from a representative bulk sample of the grit supplied.

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