PLAINTIFF'S EXHIBIT
AL-1584

THOMAS B. BONNEY
PITTSBURGH OFFICE - 24

MR. H. H. REDDER
PITTSBURGH OFFICE - 20

July 28, 1965

RE: COMPLIANCE WITH NEW YORK STATE INDUSTRIAL CODE - RULE NO. 18

Reference is made to our recent phone conversation concerning the proposed Massena Grinding installation involving the return of Type-N Rotoclone effluents to the working area. It is our feeling that in view of the innocuous nature of the materials being worked and the high collection efficiency of the Type-N Rotoclone, the installation is a safe one. It follows good industrial hygiene practice and will comply with Section 18-12.2 of the captioned. (This states that "The recirculation within a workroom or work space of air discharged by an exhaust system is prohibited unless the air is so cleaned before discharge that its recirculation does not cause dangerous air contaminants in the workroom or work space".)

From previous measurements of similar operations, we can expect that more than 99% of the generated dust is composed of particles about 2 microns in diameter. As a matter of fact, we would expect that at least 60% are above 325 mesh (43 μ). As you know, the Rotoclone "N" will remove about 97% of particles ~~above~~ 2 μ, and do a respectible job on those smaller. Therefore, only a very small fraction of the total dust generated will escape collection.

The materials involved in the grinding operation will be restricted to the aluminum product and the aluminum oxide abrasive. Dusts comprised of these materials have a very low order of toxicity and would be classified as "nuisance dusts". Again, based on previous measurements, we can expect the dust concentrations of the discharge from the washer to be well below the Threshold Limit Values for these materials (15 mg/M^3 or 50 mppcf). Our measurements showed less than 1 mppcf at the Rotoclone exit; we were unable to get a weight concentration because of the extremely low loading.

As you might expect, those particles that escape collection are very small. They will tend to collect on the walls of the exhaust duct. Although the aluminum dust concentration is quite low, there is every possibility that, unless the duct walls are periodically cleaned, the accumulation over months or years could be appreciable. It is our opinion that the explosion hazard presented by such an aluminum dust layer on duct walls is of infinitely greater concern that the discharging of insignificant amounts of toxicologically "inert" dust into the working area. Therefore, we think it consistent with good safety and health practices to eliminate as much ductwork as possible. In view of the efficiency of the scrubber, we feel that recirculation of the air is preferable to discharging it through a duct to the outside.

We would suggest that Massena resubmit their application to the New York State authorities with an appropriate explanation of the reasons behind the proposed recirculation. (Once informed, there is reason to believe that they will concur with our line of reasoning as they did in the past for our Olean and Buffalo Works.) Massena can feel free to use any of the above and, if they wish, state that Alcoa's Industrial Hygiene Division approved the installation, assured them of its safety, and was of the opinion that it complied with the word and intent of the Industrial Code.

We would further suggest that the application be worded so as to leave the door ajar if the state is still not convinced. That is, we should mention that if the information supplied to them is insufficient, we would be pleased to meet with them to discuss the matter and to supply them with such additional data as they require. This should prevent them from giving us a flat "no" answer which they might be unwilling to retract.

Thomas B. Bonney

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