



**Industrial Steel Treating Co.**

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Mr. Mike Kovalchick  
Air Quality Division  
Jackson District Office  
301 East Louis Glick Highway  
Jackson, Michigan 49201-1556

March 23, 2018

Re: Response to Notice of Violation dated March 5, 2018

Dear Mike,

This correspondence is in response to your Notice of Violation (NOV) dated March 5, 2018 which was received in our office March 8, 2018 and cited violations for two ammonia tanks and some exhaust stacks observed during your unannounced inspection of our facility on February 28, 2018.

1. According to your observations during the inspection, you determined that the two ammonia tanks used for carbonitriding at our facility did not have permits to install and were in violation of Rule 201. This is a change from observations and determinations made by the two prior Air Quality Division inspectors that have inspected our facility. They have agreed that these two tanks were exempt under Rule 285(2)(l)(iv) which covers "Atmosphere generators used in connection with metal heat treating processes". The carbonitriding process we use is one of the atmosphere processes that protects or reacts with metal during heat-treating in an endothermic environment using ammonia gas. Gases used in the various other heat treating atmospheres include oxygen, natural gas, ammonia, N<sub>2</sub>, H<sub>2</sub> or a combination of other commercially available gases to achieve the desired results including hardening, reduced wear to surface and other product requirements. We believe that these types of processes have been listed in the exemptions for a number of years because of the minimal expected emissions. In our process, the ammonia is cracked in the furnace environment to free the atomic nitrogen which then reacts with the iron on the surface of the part being nitrided. The resulting hydrogen released from this reaction combusts in the furnace during the process and is further combusted in the flare for the furnace as it is vented through the stack. It should be noted that "atmosphere generators" used in heat treating are not the same as "atmospheric generators" as described in your inspection staff report. Atmospheric generators are typically used to generate water from the atmosphere under varying conditions.

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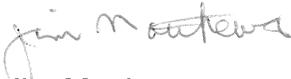
AIR QUALITY DIVISION

From our discussions with various companies and vendors associated with the heat-treating industry, it appears that these atmosphere generation processes are being handled differently in different Air Quality Districts and by different inspectors which has been our experience. Some of these processes including the ammonia tanks are considered exempt and others are permitted. Some are also exempted under Rule 290 because of the minimal expected emissions, which we believe we could also apply in our case. However in order to expeditiously resolve this situation, we plan to submit permit applications for both of our ammonia tanks by April 30, 2018. We own one of the tanks and the other is owned by our supplier, however they are both routinely serviced and inspected by our vendor as well as our staff and we believe they will fully comply with all permit requirements. We also agree that the smaller tank can be covered under a general permit but that siting of the other tank will not allow the use of this type of permit, although the location of the process and the stack from the furnace that uses this gas would probably comply with siting requirements, we will still apply for a normal Permit to Install for the larger tank.

2. The exhaust stack violation was based on your observation that some of the stacks from the belt line heat treat process and other processes had rain caps and therefore were not discharging "unobstructed vertically upwards" as required in the permit. This was based on rain caps being added to some stacks inadvertently over the years by maintenance staff and vendors not aware of permit requirements and confusion with some general ventilation stacks not covered under this permit that are allowed to have rain caps. To resolve this violation, we are inventorying all of the 38 stacks in the Belt Line flexible group (FG-BELTLINES) and the 52 stacks in the Batch Pusher flexible group (FG-BATCHPUSHER) to make sure they all comply with the special conditions of Permit 394-07A. We have already contacted a vendor to assist us with this inventory. They have been directed to remove all of the rain caps on permitted stacks when encountered and add "no loss" rain caps if needed so that all of the stacks will comply with permit requirements. This project is planned to be completed by April 30, 2018 and we will notify your office to confirm its conclusion.

Should you have any questions or comments on the information presented above, please feel free to contact me at 517.780.9032 or [jwmatthews@indsstl.com](mailto:jwmatthews@indsstl.com).

Sincerely yours,



Jim Matthews  
Facilities Manager  
Industrial Steel Treating Company