PLAINTIFF'S
EXHIBIT
BRK-45

December 8, 1947

Louis Satille, Assistant Superintendent
National Tube Company
Lorain, Ohio

Dear Mr. Satille:

Copy of a survey report submitted to me by DeWitt Hoffman, Safety Advisor in the Division of Safety and Hygiene, is herewith attached for your information and guidance.

Compliance with the suggestions made in this report will, undoubtedly, prove of value to both the company and its employees.

If this Division can be of any further service to you in promoting SAFETY in your plants, do not hesitate to call on us.

Very truly yours,

JAMES M. FLUKER,
SUPERINTENDENT.

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DIVISION OF SAFETY AND HYGIENE
DECEMBER 8, 1947

James H. Fluker, Superintendent
Division of Safety and Hygiene
Columbus, Ohio

In re: National Tube Company
Lorain, Ohio

On December 1, 1947, a visit was made to the above named company to check a report of a mystery blast that wrecked the benzol plant of this company.

Contact was made with Louis Satille, Assistant Superintent, W. O. Blakey, Superintendent of the coke plant and Geo. H. Reilly, Safety Director.

The company manufactures by - product-coke in the plant in question. According to an Associated Press dispatch dated November 29, a powerful explosion occurred in the benzol plant of this company in which 17 employees were injured, none seriously. The blast rocked the plant shortly before noon on Friday and was forceful enough to hurl half-ton chunks of cast iron gas pipe as far as 400 feet.

According to company officials, this report was grossly exaggerated. Only three persons reported to the company hospital and they were dismissed immediately. No lost time resulted. The company reported that there may have been a few persons who had had dust blown in their eyes. Also, according to company officials, the explosion was minor in character and could scarcely be distinguished from other noises that occur periodically in the plant.

However, the explosion broke a main carrying gas at the rate of sixty million cubic feet per day which ignited and caused quite a fire until this portion of the plant could be by-passed. Only a few windows were observed to have been broken in the neighborhood of the blast. Because construction was going on at the time of this visit, it was considered dangerous to get close enough to the final cooler to make a minute inspection of it. This explosion could have been very serious and an opportunity should be afforded to make a thorough study of the conditions surrounding it so that such blasts may be prevented in this, as well as other, plants throughout the State. Of course, such an investigation would require the time of busy company officials but such cooperation would prove of inestimable value.

One of the steps in purification of gas is the passing of it through a final cooler in which the gas flows upward and counter to light oil which removes some of the constituents of the coke oven gas. COke oven gas is made in this plant at the rate of 60,000,000 cubic feet per day. The final cooler is approximately 40' x 16' in height and diameter, respectively. Because of construction work being done, the final cooler was taken off the line about two weeks ago. The gate valves, passing gas to and from the final cooler, were closed. The tank was steamed for a period of time, probably 24 hours; appropriate tests were made to see that no inflammable materials remained in the tank and the tank was cleaned. The final cooler was then left off the line with the valves closed.

How a spark could get into this tank to ignite it, is a mystery. It is probable that there could have been enough leakage through the valves to cause a mixture of gas and air in the cooler which would be within the explosive limit. It was learned that one of the employees of an outside construction firm lit a gas welding torch within a short distance of this cooler and in about 30 seconds, the explosion occurred. This action violated one of the company's regulations as the company policy is to have appropriate atmospheric tests made and a board consisting of three company officials authorize the presence of any flame.

Company officials stated that as a result of this explosion they plan to take the following steps:

1. Tighten down on the enforcement of regulations relative to outside employees having an open flame in the benzol plant; and

2. Fill tanks such as this after cooler with an inert gas so as to prevent explosions.

For the purpose of this report, therefore, the above two practices are made as recommendations. 46.

Respectfully submitted,