J. E. P.
H. S. B.
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SAFETY REPORT

STANDARD OIL COMPANY
Billings, Montana
Divisional Office
November 2, 1936

Parties contacted: Mr. Hay, Manager
Mr. Burlaga, Office Manager
Mr. Burckert, Superintendent of Construction

The Standard Oil Company of Indiana have been marketing in Montana only sine 1930. Mr. Hay assured me that no storage tanks have been spiked in the state of Montana sinec that date. Previous to 1930 the facilities now operated by Standard were owned and operated by Midwest Refining Company. According to my records the latter firm does not make an Ethyl gasoline. They may have at one time so far as I know. Mr. Hay advised me to contact Mr. H. G. Naylor in Amos Ball's office for information on spiking that might have been carried on prior to 1930 by Midwest Refining Company.

Mr. Burlaga was at one time connected with the Minot, North Dakota Division of Standard. He recalled at least two cases of spiking in that Division but could not give me the details. I will contact the Minot office in the near future and secure definite information on this.

Pump Cleaning

Bulk Station Instructions issued by Standard require any agent wishing a tank cleaned to notify Mr. Hay. Instructions are then issued to the Construction Department and the following procedure followed.

Man that is to enter tank is examined by company doctor if he has not already examined. Mr. Elmer Frizell will do all inside cleaning of tanks in the future.

For each tank that is cleaned Mr. Hay write a personal letter to man that is to do work and attaches a copy of our tank cleaning instructions and a copy of their own which reads as follows:

INSTRUCTIONS TO EMPLOYEES ENTERING
STORAGE TANKS

No employee of this company is to enter a storage tank except by written authority from the manager personally and then oly when equiped with the gas mask outfit which has been furnished for this purpose and that he be throughly examined by a regular licensed physician holding an M. D. Degree.

Below are a few precautions to be taken on this job.

1. Have the manhole cover removed as long before time to enter tank as possible to air out the tank.

2. Never go into a storage tank with less than two men on top of the tank and select men in whom you have complete confidence.

3. Inspect every foot of your rope equipment and also your rubber hose. Fit your mask and try out the blower until you are perfeactly satisfied

4. Be sure your rope ladder is fastened securely on top of the tank. Also be sure to anchor the trunk so that it will not slip off. When ever possible to make the hose reach without straining it, I prefer you keep the trunk on the ground.

5. Have some system of signals arranged with those on top of the tank for emergency cases.

6. In cleaning out tanks, use nothing but a wooden tool for scraping and a stiff broom (not steel) for cleaning.

7. Refrain from doing any pounding and when necessary use only the rubber mallet. In using a wrench of plyers, cover the jaws with a thickness of cloth to prevent a spark in case the tool slips. Do not throw your tools down as they may strike a rivet head and caus a spark.

8. Do not enter a storage tank with matches in your pockets. If your shoes have nails in the bottom, use rubbers or wrap you feet in rags.

9. Tanks should be cleaned during the time of day when daylight can be used for work inside of the tank. Under no circumstances are you to us an electric light inside of the tank.

10. Do not stay in a storage tank over five minutes at any one time. You c not stand the work long under the forced respiration. You must instruct your men on top of the tank that they are not to allow you to stay in the tank over five minutes at any one time.

11. During the cold weather, particularly you must use extreme care in keeping the exhaling air valve open. On several occasions this valve has frozen down which shuts off the escape of foul air you have breathed out and to inhale this air again is very injurious. So as soon as you feel an extra amount of air pressure on the inside of your mask, you are to immediately remove yourself from the tank and thaw out the valve by taking it inside and applying heat to it.

12. Clothing shall be changed and the face and hands shall be throughly washed at lunch time. In the evening the clothing is to be changed and a shower bath must be taken. The clothing shall not be worn longer than one day, after which it must be laundered. Boots must be cleaned daily. In case of accidental saturation of clothing with sludge from the bottom of the tank, clothing shall be changed at once.

13. In must cases of gasoline or naptha tank cleaning, the use of a fibre broom is sufficient to remove all dirt from the sides and bottom. However, if scale exists, scraping may be necessary in which case non-sparking tools of brass or bronze should be used. Steel wire brushes or scrapers are considered very dangerous for this work. For gathering up the accumulated dirt, and ordinary wood shovel of the Fuller's Earth Scoop type is satisfactory, or a type of non-sparking metal is preferred. Any buckets or containers used should like wise be of a type that will not cause sparks, fibre or copper being preferred. The containers filled with cleanings should be removed by means of a rope that no spark may be caused while lifting through the manhole. Under no circumstances should steel chain or steel wire be used as these materials might cause a spark when coming in contact with the tank at any point. In making repairs inside of these tanks it is obvious that extra precaution be taken to avoid sparks from tools and therefore steel chisels

hammers, etc. should not be used.

14 Repairs; Where drilling holes are necessary, the use of a motor drill is customary. This causes extreme heat at the drill point as well as supplying a source of sparks from the motor, both of which may cause fire or explosion. Therefore, no motor drilling should be done unless the tank is filled with water above the drilling point, provided, of course that forced ventilation or steam is not used for clearing the tank of all gases. In case water is not availa le, the safe method is to hand drill the holes, keeping a liberal supply of oil on the dr point. In drilling under water, wooden plugs are necessary as each ho is completed and these plugs should be made prior to starting the worl The necessity of repairs is generally evident insofar as the larger storage tanks are concerned, and is case of leaking seams, rivets, etc. calking is some times necessary. This work can be done best if th tank is full and manhole closed and no vapors present. Various types c cement applied to the seams inside of the tank are some times more efficient in stopping leaks than calking the seams.

I have recommened that a referance be made at the end of above to our instructions which are sent out on separate sheet, and that a referance be made at the end of our instructions to the above. Adoption of the recommend was promised.

The fact that the above instructions are sent out to man that is to enter tank just before he enters it and for each tank that he is to enter, makes them more effective than if they were issued just once as part of general instructions.

Gasoline Pump Repairs

Mr. Ralpha Wright of their construction department does all this work.

All minor repairs are made at service stations.

Major repairs and overhauling are done at main shop in Billings. Pumps as a rule are not allowed to accumulate but are repaired as they come in. Mr. Burckert advised us that approximately 15 pumps had been repaired during the last year at the shop in Billings. At the present time there are seven or eight in shop awaiting repairs. Mr. Burckert advised that Mr. Wright would clean and repair them at odd times and that he would not be working on them long at any one time.

Mr, Wright has been examined. It is estimated that he spents about 15 percent of his time on pump repairs. Most of it is done on driveway.

B. G. Crane

The above instructions copied from standard files and given to me as confidential. Please to governed accordingly. B G Crane