

File Unit - 002/002.01-08007.00.01



Series Nbr: 002.01
File Unit Nbr: 08007.00.01
Catalog #: STEA 7158
Accession #: STEA-00033
Category: CORRESPONDENCE
Dates: 1921-1940

Extent	
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Type of Unit	[Type of Unit]FOLDER

Title: DL&W RR--General Superintendents Correspondence--08007: Handling of Torpedoes and Fusees

Add By: RED
Add Date: 9/8/2009 5:03:14 PM
Change By: RED
Change Date: 9/8/2009 5:07:42 PM
Location: 002/002.01-B01-F001

Proc By	
Processed By	Pat McKnight
Processing Date	September 2009

Record Id: 49802

L&W

LABORATORY REPORT

SCRANTON, PA., December 12, 1940.

REPORT OF ANALYSIS NO.

85156

SAMPLE FUSEES

SPEC NO.

SENT IN BY

Mr. J. H. Lerbs:-

Fusees.

Your letter of November 29th re

Tests made on Red and Yellow Fusees
out of stock show same to meet specification, and of
proper color.

I see no reason for complaint given
you as to color, as the yellow is just as pure
yellow as past shipments.

J. J. Laudig.

EBM ✓

J. J. Laudig
WSL

Scranton, Pa., June 21, 1940.

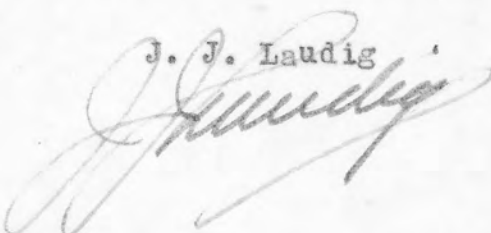
Mr. C. C. Hubbell:-

Mr. Moffatt has approved the use of the A.A.R. Specification for Fusees, and discontinuance of fusees to our Specification 16-C. However, Mr. Moffatt is desirous of 10-minute fusees, both the red and yellow. The A.A.R. Specification permits any time fusee.

Will you therefore specify 10-minute red and yellow fusees when ordering to the A.A.R. Specification.

EBM
IHL

J. J. Laudig



June 19, 1940.

8007:

Mr. J. J. Laudig:

Referring to yours June 7 and 18.

So far as I am concerned I see no reason
for not discontinuing Specification 16-C for fusees
and adopting instead the A.A.R. specification.

obm/k

Scranton, Pa., June 18, 1940.

Mr. E. B. Moffatt:-

On the subject of Fusees, my letter of the 7th and your reply of the 8th.

As per conversation would advise that the purchase of Fusees to the A.A.R. Specification will make no change in the Fusees which we have received. Our standard has been 10-minute fusees for years, and if you approve of the simplification and removal of the old specification, I will have the wording as carried on the stock books of the Stores Department changed and the notation that "10-minute Fusees are desired to this A.A.R. Specification".

✓ 
J. J. Laudig.

June 8, 1940.

8007:

Mr. J. J. Laudig:

I have yours June 7th concerning the specifications for fusees.

Before agreeing to anything regarding this I would like to discuss this matter with you. In any event, I do not want, under any circumstances, to use on the Lackawanna Railroad other than a ten minute fusee.

ebm/k

Scranton, Pa., June 7, 1940.

8007

Mr. E. B. Moffatt:-

We have been using Specification 16-C for Fusees for a number of years. Inasmuch as the A.A.R. have a specification for Fusees, almost identical to ours, and the Fusees will cost no more and possibly less, may I have your approval for discontinuing our 16-C and using the A.A.R. Specification?

J. J. Landig.

Encl.

ASSOCIATION OF AMERICAN RAILROADS
OPERATIONS AND MAINTENANCE DEPARTMENT



BUREAU OF EXPLOSIVES

OFFICE OF CHIEF INSPECTOR
30 VESEY STREET
NEW YORK, N. Y.

FILE NUMBER
7-A

J. M. SYMES, VICE-PRESIDENT
OPERATIONS AND MAINTENANCE DEPARTMENT

W. S. TOPPING, CHIEF INSPECTOR

(Revised) December 9, 1935.

**BUREAU OF EXPLOSIVES' SPECIFICATIONS FOR SAFETY FUSEES, ROAD SIGNALS, HIGHWAY FLARES
AND POLICE EMERGENCY FLARES.**

(Described in this Specification as fusees.)

Construction.—Tube of fusee shall not be less than $\frac{7}{8}$ inch inside diameter.

Tube shall be made of paper of sufficient strength that when filled with composition the finished fusee, placed on supports 6 inches apart, shall withstand a pressure of 80 pounds applied at a point equidistant from the two points of support.

Color of paper shall indicate burning color of fusee. Directions for use of fusee, name of maker, date of manufacture and color of fusee must be plainly and conspicuously printed on tube.

Plug in base of fusee must be securely fastened to tube; neither spike (if present) nor plug must be pulled out by application of a direct pull of 75 pounds.

Head composition shall not completely cover end of fusee and composition shall be protected from moisture by coating of some waterproof substance.

Head of fusee must be protected by a cap not less than $2\frac{1}{2}$ inches long, and so constructed that it is mechanically impossible for inner surface of cap to come in contact with head.

Cap must be positively and securely fastened to body of fusee in such manner that its accidental detachment is impossible.

Striking composition, or scratch, must be entirely and securely protected in such manner that its accidental exposure is impossible.

Burning Qualities.—Fusee shall show brilliant flame and required color.

Fusee shall not chimney in such a manner as to materially obscure flame.

5 minute fusee shall burn not less than 5 minutes nor more than $6\frac{1}{2}$, whether in upright or horizontal position.

10 minute fusee shall burn not less than 10 minutes nor more than 12, whether in upright or horizontal position.

15 minute fusee shall burn not less than 15 minutes nor more than $17\frac{1}{2}$, whether in upright or horizontal position.

20 minute fusee shall burn not less than 20 minutes nor more than 23, whether in upright or horizontal position.

Fusee, after burning 5 seconds in air, shall burn not less than 2 minutes when submerged in water in a vertical position with the head down.

Composition.—The composition of fusee must be such that spontaneous ignition is impossible, even when the moistened fusee is exposed to a temperature of 100° C. for 72 hours consecutively.

The temperature of ignition of the fusee composition must not be below 250° C.

Fusees containing sulphur must not contain more than 2.6% of potassium chlorate, or an equivalent amount of any other chlorate. Fusees containing chlorates in any quantity, must not contain any ammonium salts.

SUGGESTED RULES FOR PROPER USE OF FUSEES.

Remove cap from head of fusee, expose scratch surface on outside of cap by tearing off tape or otherwise. Grasp fusee near base, and rub scratch surface sharply against head until ignition occurs. Do not point fusee towards face or body, nor hold near face while igniting or afterwards.

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY
OFFICE OF CHEMIST AND ENGINEER OF TESTS

SPECIFICATIONS FOR FUSEES

No. 16-C

1 minute

(This specification supersedes specification 16, 116, and all previous specifications covering this material)

1. GENERAL: Two kinds of fusees will be used, namely:—

10 Minute Red Fusees
10 Minute Yellow Fusees.

CONSTRUCTION

2. DIMENSIONS: (a) The shell or tube of the fusees are to be $\frac{7}{8}$ inch inside diameter ($\frac{1}{32}$ in. variation permitted).

(b) The length of tube of fusee containing the combustible material from the top of the wooden plug to the top of the match must be at least ten inches long, and shall be made of a suitable number of plies of paper of desired quality, extra strong texture, as to meet the physical tests given under section 14.

3. PLUGS AND SPIKES: Each fusee shall be fitted with a suitable wooden plug properly glued in place in one end of the tube. The plug shall contain a $\frac{5}{32}$ inch diameter wire spike drawn to a point on the outside end and projecting not less than $1\frac{1}{2}$ inches from the outside end of the plug. The plug and nail shall be so fastened into the tube as to withstand a pulling stress of 75 lbs. without being removed.

4. MATCH: The other end of the fusee shall contain the match which shall be of such composition that it will readily ignite when rubbed with a scratch material, but will not explode. The match material shall not be brittle or powder and drop off, but shall be made of proper material that will adhere firmly to the end of the fusee and properly ignite the same. The peg placed in the center of the match material shall not entirely fill up the hole, causing the fusee to go out after lighting.

5. CAP: The fusee shall be fitted with a close fitting cap at least $2\frac{1}{2}$ inches long to be of similar construction to the shell. The top of the cap shall be fitted with a wooden button with a concave base to prevent contact with the match.

6. SCRATCH: The top of the fusee cap containing the wooden button shall contain the scratch material. This shall be of such composition and in such quantity to readily ignite the match when the match and scratch are rubbed together.

TAPE: The scratch material is to be protected by a piece of strong cloth or tape 1" wide, fastened to the cap with one end covering the scratch and extending down the body of the fusee at least two inches beyond the cap.

8. COVERING: The cap, tape and match will be covered by paper the color of the fusee extending beyond the cap and secured in such a manner as to fasten the cap to the body of the fusee. The fastening is to be in such a manner as to permit the scratch to be readily uncovered by the operator, by pulling on end of tape exposed and by twisting cap to remove same.

9. WATERPROOFING: All fusees must be parafined throughout the tube and cap.

10. CHEMICALS: The shell of the fusee is to be thoroughly filled with a uniform mixture of chemicals of such nature that when properly ignited it will readily burn with a constant flame of such positive color as specified.

11. COMPOSITION: No fusee but those made of potassium perchlorate will be acceptable. The fusee must not contain a mixture of chlorate and sulfur or of a chlorate and ammonium salt.

12. TEMPERATURE OF IGNITION: The temperature of ignition of the powder shall not be less than 250°C. The composition must be such that spontaneous ignition is impossible when the fusee is exposed to a temperature of 100°C. for 48 hours.

13. BURNING TEST: When subjected to burning tests in service, the tube must burn away evenly without forming a chimney at any time sufficient to obscure the flame or render an inefficient signal. The fusee shall burn not less than ten minutes or more than twelve minutes in either a verticle or horizontal position.

(b) The fusee shall be so constructed that it may be placed into water lighted end down within fifteen seconds after lighting and under such treatment the fusee shall continue to burn at least five minutes.

14. STRENGTH TEST: The fusee shall be of such strength that when filled with the composition and caps removed and placed on supports six inches apart they shall withstand a pressure of eighty pounds applied at the center.

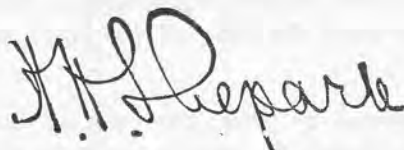
15. MARKING: The shell or tube of the fusee shall be made of paper similar in color to the color of the flame desired. The label or printing on the fusee shall show the name of manufacturer, date of manufacture; and also letters $\frac{7}{16}$ " high at least with the word "RED" or "YELLOW"; also the following directions for use, "Expose scratch surface on top of cap by pulling up on tape". "Remove cap, grasp fusee near base, and rub the scratch surface suddenly against the head until ignition occurs. Do not point fusee toward the face or body, nor hold near face while igniting or afterward. Hold fusee in hand for *about five seconds* after igniting, then drop it spike end down, don't throw."

16. INSPECTION: All fusees to be inspected at destination. On receipt of shipment of fusees, one sample shall be taken from each of five cases, but in no case should less than five fusees be taken as sample, and these are to be sent to the Laboratory for tests.

17. REJECTION: All fusees which do not meet the above specifications in every respect will be rejected, and the manufacturer notified.

18. REHEARING: Samples tested in accordance with this specification, which represent rejected material, shall be preserved for fourteen days from date of test report. In the case of material being rejected, the manufacturer will be notified, and unless shipping instructions are given within the period of fourteen days, the material will be returned to the shipper who must pay freight charges in both directions.

APPROVED



General Superintendent.



Chemist & Engr. of Tests.

Seranton, Pa., May 21, 1926.

March 7, 1940.

Mr. G. D. Kennedy:

I have noted attached.

All I can say is that it certainly
was some bounce.

ebm/k

,fusee thrown from no 20 bouncing from right side of
track to left side.

THIS FORM TO BE USED FOR ORDINARY BULLETIN NOTICES
PLACE ON FILE HOOK AFTER 30 DAYS

BULLETIN ORDER

No. Special
Office of
AT

SUPERINTENDENT

Scranton, Pa., April 5, 1940

ALL EMPLOYEES:

RULE-OF-THE-WEEK for week commencing April 7, 1940

Examination of fusees in caboose cars shows that it is the general practice for crews to place a new supply on top of the available stock, usually stored in a box under the cupola seat, in consequence of which those on the bottom are sometimes two or three years old.

When a new supply of fusees is obtained the old ones must be removed from the container and the new supply placed on the bottom, so that the old fusees will be used first and a more uniform quantity made available.

G. W. MURPHY,

Superintendent

April 2, 1940

Messrs. ~~J. H. Lerts~~
~~C. H. Murphy~~
~~C. D. Kennedy~~
~~F. Glack~~

Superintendents.

Gentlemen:

Research Engineer Laudig reports that in examining fuses in caboose cars he discovered it to be the general practice for crews to place a new supply on top of the available stock, usually stored in a box under the cupola seat, in consequence of which those on the bottom were found to be two or three years old.

In one of your next Safety bulletins, please instruct that when a new supply of fuses is obtained the old ones should be removed from the container and the new supply placed on the bottom, so that the old fuses will be used first and a more uniform quality be made available.

In checking caboose supplies trainmasters will examine the fuses and remove for scrapping such as are found to be more than two years old.

Please acknowledge receipt.

Yours truly,

l-h.

Copies to Mr. J.J.Laudig
Mr. I.H.Lance

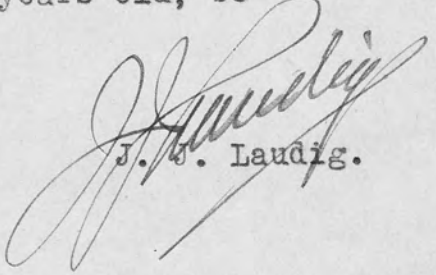
Scranton, Pa., April 1, 1940.

Mr. E. B. Moffatt:-

In examining Fusees in cabooses I noticed it was the general practice for crews to add their new supply of fusees on top of their old supply, usually kept in a box under the cupola seat. Therefore, fusees on the bottom have been found to be two or three years old.

I would recommend that when the superintendents issue their regular Safety Bulletins, they mention to all concerned that when receiving a new supply of fusees, the old fusees should be removed from the container and the new supply be put on the bottom, so that old fusees will be used first, and a more uniform quality be available.

I would further recommend that all fusees, which show by date to be more than 2 years old, be scrapped.


J. G. Laudig.

8
Scranton, Pa., April 3, 1940.

File 1005

Mr. E. B. Moffatt,
General Superintendent,
Scranton, Pa.

Dear Sir:

This will acknowledge receipt of your
joint letter of April 2, no file, relative to supply
of fusees carried in cabooses.

The matter will be handled by us as
outlined.

Yours truly,

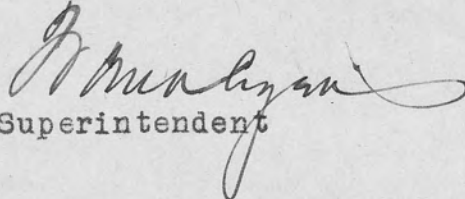
G. W. Murphy
Superintendent. *W*

Binghamton, New York,
April 4th, 1940

Mr. E. B. Moffatt:

This will acknowledge receipt of your joint letter of the 2nd regarding fusees.

I will cover this subject with all concerned in next Safety bulletin, and have instructed Trainmaster that in checking caboose supplies to examine fusees and remove for scrapping such as are found to be more than two years old.


Superintendent

9
Hoboken, N.J., Apr. 4th, 1940

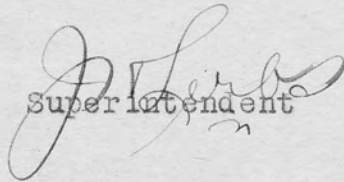
Mr. E. B. Moffatt,

General Superintendent

Dear Sir:

This to acknowledge receipt of your letter
April 2nd regarding fusees. Will handle as outlined.

Yours truly,


Superintendent

JHL:A

Scranton, Pa. March 14, 1940

Mr. E. B. MOFFATT:

Referring to your letter February 22nd, in connection with five minute red fusees without spikes for use of yard crews on Buffalo Terminal.

We have placed this item in our stock at E. Buffalo and have ordered a supply.

I. H. LANCE

8007

August 7, 1939

Mr. J. N. Haines, General Manager,
Lehigh Valley Railroad,
Bethlehem, Pa.

Dear Sir:

Your letter July 14, addressed severally, file 027.31, in regard to Secretary Caviston's Circular Letters Nos. 0-127, 128 and 129 with respect to fusees, bunting signalling flags and blue metal signals for car inspectors.

We have no record of the circular letters on signal flags and metal signals.

However, our fusees (equipped with spike) conform to the provisions of Bureau of Explosives Circular (revised) December 9, 1935, file number 7-A.

Yours truly,

l-h.

Scranton, Pa., Aug. 3, 1939.

File 110

Mr. E.B.Moffatt:

I return herewith letter from General Manager Haines of the Lehigh Valley Railroad Co., dated July 14th, regarding 1920 AAR Recommendations with respect to fusees, bunting signalling flags and blue metal signals for Car Inspectors.

I have no record of the circular letters on Signal Flags and Metal Signals; however, our fusees at the present time are purchased to Specification 16-C, copy of which is attached.

Chas. J. Scudder.

Encl.



THE NEW YORK CENTRAL RAILROAD COMPANY

July 26, 1939. wkw-r
661.

Mr. J. N. Haines, General Manager,
Lehigh Valley Railroad Company,
Bethlehem, Pa.

Dear Sir:

Referring to your letter of July 14th, file
027.31, in regard to renewing the A.A.R. recommenda-
tions of 1920 with respect to fusees, bunting signal-
ling flags and blue metal signals for car inspectors:

We are conforming to the recommendations ex-
cept that the fusees now used are from 5-5/8" to 6-1/4"
long instead of 7" as mentioned in the specifications,
and the fusees now used are not equipped with a plug
and spike.

Yours very truly,

cc-Mr. W. C. Higginbottom, Gen. Mgr., PRR, Philadelphia, Pa.
Mr. C. A. Gill, Gen. Mgr., Rdg. Co. - CNJ, Reading, Pa.
Mr. E. B. Moffatt, Gen. Supt., DL&WRR Co, Scranton, Pa.
Mr. H. D. Barber, Gen. Mgr., Erie RR Co, New York City.
D. B. Fleming.

Entered to P. S. T.
JUL 28 1939

Lehigh Valley Railroad Company

J. N. HAINES
GENERAL MANAGER

BETHLEHEM, PA.

July 14, 1939.
027.31

Mr. W. C. Higginbottom, Gen.Mgr., PRR, Philadelphia, Pa.
Mr. C. A. Gill, Gen.Mgr., Rdg.Co.-CNJ, Reading, Pa.
Mr. E. B. Moffatt, Gen.Supt., DL&W RR Co, Scranton, Pa.
Mr. H. D. Barber, Gen.Mgr., Erie RR Co, New York City.
Mr. D. B. Fleming, V.P. & G.M., NYC RR Co, New York City.

Gentlemen:

Secretary Caviston's Circular Letters Nos. 0-127, 128 and 129, renew the A.A.R. recommendations of 1920 with respect to fusees, bunting signalling flags and blue metal signals for car inspectors.

Please advise if you are conforming to these recommendations.

Yours truly,

J. N. Haines
General Manager.

Mr. C. A. Gill
Will you please advise
JN 7/17

Mr. Mitchell?
JN 7/19

8 0 0 7.

FUSEES AND TORPEDOES, GENERAL.
SPECIFICATIONS FOR, ETC.,

From October 1, 1921.

To _____

Old correspondence in box No. 236,

8007

January 29, 1935.

Mr. G. J. Ray:

Returning letter from General Manager Mercier of the Southern Pacific in connection with the use of United Railway Signals Company's one piece lead covered torpedoes.

We are using this type of torpedoes exclusively and find them very satisfactory.

2-G

8007
January 9, 1934.

8007:

Mr. R. M. White,
Superintendent, Hoboken.

Dear Sir:

Referring to yours December 28, file B,
relative to failure of yellow fusees to give satisfactory service. Sample of the fusees was furnished Chemist Laudig and I have his report dated January 8, reading:

"Wish to advise that I have investigated Mr. White's complaint on the fusees which he has sent us and on additional samples taken from material on hand at the Storehouse.

I can find no cause for complaint on these fusees from the standpoint of lighting and staying lighted. It is my opinion that fusees have not been handled in accordance with instructions printed on the outside, namely that the fusees should be held for five seconds only before dropping, and I am quite certain that if examination could be made of the fusees which went out and on which complaint was made, it would be evident that the fusees had been held overly long and had burnt off the top completely, permitting the burning material to be removed before the fusees had come to rest.

This may not, however, be the case, but I am judging this from the fact that the

fusees as received from Superintendent White are satisfactory as regards this condition.

Inspection of the fusees, however, disclosed that the waterproofing material used on the outside was not as efficient as it should have been inasmuch as it was possible for moisture to penetrate the covering. I have drawn this to the attention of the manufacturer and present supplies at the Storehouse will be returned and re-waterproofed.

However, I see no connection between this condition and the fusees failing to light. When next in Hoboken I will stop in and discuss this matter with Mr. White or the Trainmaster and possibly secure samples of the fusees which have given difficulty. We will endeavor to make close inspection of fusees on subsequent shipments to assure no difficulty in this regard."

This for your information.

Yours truly,

l-h.

cc to I.H.Lance.

OFFICE OF CHEMIST AND ENGINEER OF TESTS.

Scranton, Pa., January 8, 1934.

E. B. Moffatt, Gen. Supt.
Scranton, Pa.

Dear Sir:

Your letter with regard to complaint made by Supt. White on the quality of yellow fusees we are now receiving.

Wish to advise that I have investigated Mr. White's complaint on the fusees which he has sent us and on additional samples taken from material on hand at the Storehouse.

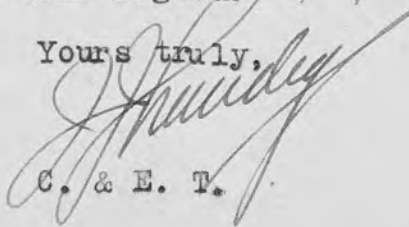
I can find no cause for complaint on these fusees from the standpoint of lighting and staying lighted. It is my opinion that fusees have not been handled in accordance with instructions printed on the outside, namely, that the fusees should be held for five seconds only before dropping, and I am quite certain that if examination could be made of the fusees which went out and on which complaint was made, it would be evident that the fusees had been held overly long and had burnt off the top completely, permitting the burning material to be removed before the fusees had come to rest.

This may not, however, be the case, but I am judging this from the fact that the fusees as received from Superintendent White are satisfactory as regards this condition.

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Yours truly,


C. & E. T.

RECEIVED AT
Scranton Station
Scranton



JAN 2 - 1934

kn j Hob Jan 2nd 34-

E B M-

Desk 6- your wire 29th- re- yellow fusees am sending these to Chemist Laudig to night-

R M W- 3 35 P-

*J. Laudig
note and
advise.*

E B M

1/3

*Present
Saturday*

R.M.White - Hoboken.

Scranton, Pa., December 29, 1933.

File 1:

Your letter 28th, file B, please forward to Chemist Laudig at Scranton yellow fusees not giving satisfactory service. and advise...

E.B.Moffatt,
8.20 AM

c.c. JJJ

DELAWARE, LACKAWANNA & WESTERN RAILROAD
OFFICE OF SUPERINTENDENT,

Hoboken, N. J.

Dec. 28th, 1933.

File B.

Mr. E. B. Moffatt,

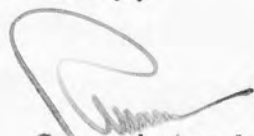
General Superintendent.

Dear Sir:-

We have complaints from flagmen that the yellow fusees, which we are now using, will not stay light. In some instances it has been necessary to light as many as four (4) fusees before they could get one which would burn. They will burn but a short time and then go out.

This is a matter which should receive prompt attention as a serious accident might occur through failure of fusees to burn the proper length of time.

Yours truly,



Superintendent.



OFFICE OF CHEMIST AND ENGINEER OF TESTS
SCRANTON, PA.

8007-

January 14, 1928.

File B-8-1

✓
Mr. W. G. Alexander,
Superintendent,
Buffalo, N.Y.

Dear Sir:

I have received the two fusees sent us as per your letter of January 12th, same having failed in service.

I wish to thank you very much for sending these fusees to me, inasmuch as we have no way of determining the actual performance of the fusees except by criticism from the trainmen who use them.

These can be considered as genuine failures of fusees which it is our desire to keep as low as possible. If you have any further fusees which burn zigzagging part way down the side, kindly have them sent to us. It is frequently the case that fusees will burn this way if the molten material, resulting from the combustion of the fusee, runs down the side and ignites the fusee.

I would be very pleased to have you send me examples of unsatisfactory fusees which you may have as it is our desire to keep a high standard, and as few failures as possible.

Yours very truly

J. H. Landry
C & E T

EBM

8007
Buffalo, N. Y., January 12th 1928.

File 8-544

EBM

Refers to your file 8007
of Nov. 4th and Dec. 20th
last.

WGA 1/12/28

Mr. J. J. Laudig,
Chemist & Engineer of Tests,
Scranton, Pa.

Dear Sir:

I am sending to you under separate cover,
Register No. 57042, two fusees turned in by Conductor
S. L. Cooper, of Extra 1223 East, January 8th.

Conductor Cooper had occasion to use a fusee
on this trip and the one you will observe burned but
three-quarters of an inch, while the other one he
advises he was unable to light.

The fusee which is but partly burned was
not thrown off moving train to track, but was stuck on
side of caboose when it went out. Conductor Cooper
also mentioned previous cases of fusees not burning
uniformly. In other words they burn zigzagging part
way down the side. Trainmaster Kennedy has instructed
him if any more instances of this kind to save such
fusees and bring to his office, and we will arrange
to send them to you.

Yours truly,

(Sgd.) W. G. ALEXANDER

Superintendent.

8007
Buffalo, N. Y., Dec. 21st, 1927.

✓ File S-544

Mr. E. B. Moffatt,
General Superintendent.

Dear Sir:

Mr. Laudig's letter of December 19th received with yours of Dec. 20th, file 8007, reporting on condition of alleged defective fusee sent to Scranton for examination, is returned herewith.

Mr. Laudig sent me a copy of his letter to you and I have instructed all concerned so that if any further difficulty is experienced in connection with these fuses, they will be forwarded to Mr. Laudig for examination.

Yours truly,

W. G. Alexander
Superintendent.

December 20, 1927.

8007: Test of Fusees.

Mr. W. G. Alexander,
Superintendent, Buffalo.

Dear Sir:

Herewith letter from Chemist & Engineer of Tests
Laudig, dated December 19, reporting on condition of alleged
defective fusee sent to Scranton for examination some time
ago. Please return the report when it has served your
purpose.

Yours truly,

1-G

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Scranton, Pa.,
December 19, 1927.
File B-8-1

Mr. E. B. Moffatt,
General Superintendent.

Dear Sir:

Some time ago, Superintendent Alexander sent me a fusee claimed defective while being used by trainman Dier on the Buffalo Division. It was also stated on Mr. Dier's note that the fusee when first lighted threw a very low light, butned one minute and then went out. At the time he was using this fusee to pass a signal from the caboose to the engine in a 64 car train.

Our examination of this fusee showed that it had been burned about two minutes before going out. There was nothing unusual about the condition of this fusee which could be claimed as defective, but it was found that the fusee did not throw the proper amount of light, and did burn rather slowly, although it did burn the accustomed time per inch of length.

This was a case of insufficient mixing of the ingredients composing the fusee and is undoubtedly a rare occurrence. I have taken this matter up with the Standard Railway Fusee Corporation who make our fusees, and we have arranged that the fusees, or the fusee material will receive better mixing and therefore obviate any repetition of this matter. I do not entirely admit that this is the cause of the condition stated by trainman Dier, but it is a possible cause and I have looked over the method of mixing employed by the Standard Railway Fusee Corp., and they agree with me that a longer length of time in mixing would improve the fusee.

I would appreciate having any other fusees found defective on the railroad sent to the laboratory and we will trace down the causes on each failure and thus be able to keep the quality to the highest point possible. This we would be unable to do without having these samples of defective fusees sent to us, inasmuch as our inspection only covers a few fusees from each gross.

I wish to thank you for having sent this
fusee to me.

Yours very truly,

C&ET

8007

November 21, 1927.

8007:

Mr. J. J. Laudig,

Chemist & Engineer of Tests.

Dear Sir:

I have copy of letter from Superintendent Alexander to you, dated November 19, enclosing a defective fusee turned in by trainman E. R. Dier. Please send me report of your investigation.

Yours truly,

1-G

8007
COPY.

find out.
W.G.A.
to the engineer
dev. 11/19/27
Buffalo, N. Y., November 19th, 1927.

File S-544.

Mr. J. J. Laudig,
Chemist and Engineer of Tests,
Scranton, Pa.

Dear Sir:

I enclose herewith defective fusee, with note from Trainman H. R. Dier, stating that this fusee, when first lighted, gave a very low light, burned one munute, then went out; was being used to pass signals from caboose to engine, sixty-four cars in train.

Yours truly,

(Sgd.) W. G. ALEXANDER

Superintendent.

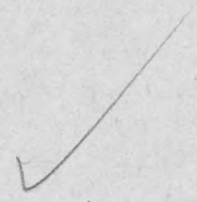
Copy EBM -- Refers to your letter of November 4th, file 8007.

W.G.A. 11/19/27

8007-

Seranton, Pa., November 4, 1927.

8007: Fuses.



Messrs:

R. M. White, Superintendent,	Hoboken.
E. J. Mullaghy,	" Seranton.
W. C. Alexander,	" Buffalo.
F. Cizek,	" Binghamton.
G. W. Murphy,	" Bangor.

Gentlemen:

Referring to your reply to my joint letter October 6, inquiry from Chemist and Engineer of Tests Laudig, as to service given by fuses now being furnished this Company. Mr. Laudig requests that in the event any defective fuses should be found among the supply, the defective fuses be forwarded to him promptly. Please so arrange.

Yours truly,

1-3

c.c. Mr. J.J.Laudig.

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Scranton, Pa.,
November 3, 1927.

File B-8-1

Mr. E. B. Moffatt,
General Superintendent.

Dear Sir:

I have your letter of Oct. 29th, stating that the fusees we are now receiving are satisfactory.

We will make an endeavor to maintain the quality of these fusees at a high standard and hope there will be very little cause for complaint.

I would ask, however, that should any complaint arise, that same be turned over to us immediately to prevent any wide spread issuance of defective material, which we in our inspection may be unable to detect.

Yours very truly,

C & E T

P.S. I am returning your file herewith, as requested.

October 29, 1927

8007:

Mr. J. J. Landig,

Chemist and Engineer of Tests.

Dear Sir:

Referring to your letter October 5, file B-8-1, relative to changed composition in fusees now supplied this Company. I have made inquiry of Superintendents as to use of the new type and enclose herewith their replies showing satisfactory results.

Please return for my file.

Yours truly,

3-h.

Hoboken, N.J.,
October 27th, 1927

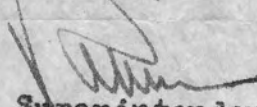
Mr. E. B. Moffatt,
General Superintendent,
Scranton, Pa.

Dear Sir:

Referring to your letter of the 6th, file 8007,
about fusees exploding at the tip when being ignited.

My staff advise that they have had no complaints
lately of stock now being furnished exploding at the tip.

Yours truly,



Superintendent

October 26, 1927.

8007:;

Mr. R. M. White,

Superintendent, Hoboken.

Dear Sir:

Please let me have promptly reply from you to our joint letter, October 6, addressed to Superintendents reading:

"We have the following from Chemist and Engineer of Tests Laudig:

'Some time ago, we had difficulty with fusees exploding at the tip on being ignited and we have made strenuous efforts to have the composition changed to avoid this condition.

Inasmuch as this changed composition has been in service for some time, will you please ascertain from the train masters if this condition is entirely overcome.'

Please advise if you have had any difficulty with fusees recently."

Yours truly,

1-G

Buffalo, N. Y., October 25th, 1927.

Mr. E. B. Moffatt,
General Superintendent.

Dear Sir:

Replying to your letter of October 6th, file 8007, quoting communication received by you from Chemist and Engineer of Tests Laudig, regarding the change in the composition that has been made of fusees, and asking if these fusees are now giving satisfactory service.

I have made a careful investigation of this matter and have not been able to find that we have experienced any trouble of late on account of these fusees exploding at the time of being ignited.

I believe the fusees as now made up are OK. However, it has been noted that it has been necessary for the flagmen, after lighting the fusees, to hold them for a few minutes before dropping them to prevent the fusees from going out, but our men are doing this in all instances.

Yours truly,


Superintendent.

Scranton, October 10, 1927

1052:

Mr. E. B. Moffatt,
General Superintendent.

Dear Sir:

Answering your joint letter October 6th,
file 8007, in which you quote from Chemist Laudig,
concerning reliability of our fusees.

I have talked with a number of our flagmen,
trainmen and conductors and they advise me that for some-
time past they have had no trouble whatever with their
fusees. I have also made personal observation and
have failed to note an instance where fusee did not remain
lighted as long as they were in sight.

Yours truly,

A handwritten signature in dark ink, appearing to read "Attorney", written in a cursive style.

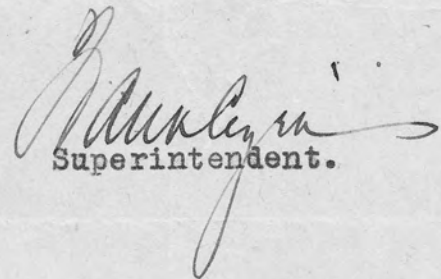
Superintendent.

Binghamton, N. Y.,
October 10, 1927.

Mr. E. B. Moffatt:

Your letter October 6th, file 8007, quoting one from Chemist and Engineer of Tests Laudig regarding difficulty with fusees exploding at the tip on being ignited.

We have experienced no trouble with fusees for some time past.


Superintendent.

Bangor, Pa., Oct. 7, 1927.

Mr. E. B. Moffatt:-

Referring to your letter Oct. 6,
file 8007, quoting communication from Chemist and
Engineer Tests Laudig, concerning trouble with fusees,
wish to advise that we have had only one case a short
time ago where fusee would not light. Outside of this
we have had no trouble.

G. M. Munsell
Superintendent

8007-

Don

October 6, 1927.

8007:

Messrs:

R. M. White, Superintendent,	Hoboken.
H. J. Malloghy,	Scranton.
W. C. Alexander,	Buffalo.
P. Cizek,	Binghamton.
C. W. Murphy,	Bangor.

Gentlemen:

We have the following from Chemist and Engineer
of Tests Lundig:

"Some time ago, we had difficulty with
fuses exploding at the tip on being ignited,
and we have made strenuous efforts to have
the composition changed to avoid this con-
dition.

Inasmuch as this changed composition has
been in service for some time, will you please
ascertain from the train masters if this con-
dition is entirely overcome."

Please advise if you have had any difficulty with
fuses recently.

Yours truly,

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Scranton, Pa.,
October 5, 1927.

File B-8-1

Mr. E. B. Moffatt,
General Superintendent.

Dear Sir:

Some time ago, we had difficulty with fusees exploding at the tip on being ignited, and we have made strenuous efforts to have the composition changed to avoid this condition.

Inasmuch as this changed composition has been in service for some time, will you please ascertain from the train masters if this condition is entirely overcome?

Yours very truly,


C & E T.

8007

8007:
P.I. - July 13, 1927.

Injury to Passenger on Passenger Extra 1021 by
being struck by part of flying torpedo opposite
passenger station at Harrison, N.J. 6:05 A.M.
July 13, 1927.

Papers filed in 8007.

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

OFFICE OF CHEMIST AND ENGINEER OF TESTS

SCRANTON, PA.

J. J. LAUDIG

~~ACTING~~ CHEMIST AND ENGINEER OF TESTS

July 16, 1927.

Mr. E. B. Moffatt,
General Superintendent.

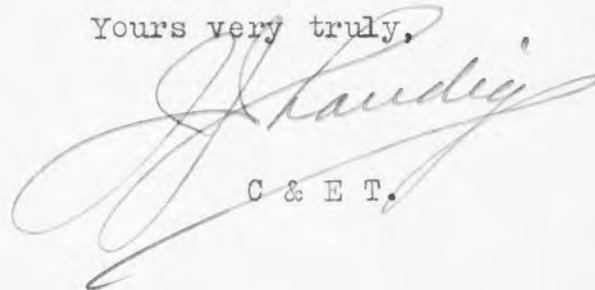
Dear Sir:

I have your letter of July 15th, regarding incident at Harrison, N.J., July 13, 1927, quoting report from Yard Master, Smith, in which he stated that a passenger on the platform was struck by part of a torpedo on explosion.

It is possible for part of the torpedo to fly on explosion, and usually this is only a piece of cardboard in which the torpedo is contained, but on some occasions a piece of the spring clip which holds it on the rail also flies.

We are one of a few roads I understand, who utilize this spring clip torpedo which is acknowledged as superior from the point of view of staying on the rail, but has its disadvantages, in that a piece of metal occasionally flies. For this reason most roads have used lead strap torpedoes which have the advantage of not flying so readily but have the disadvantage of being more easily knocked from the rail.

Yours very truly,



C & E T.

July 15, 1927

P.I: Harrison, N.J. - July 13, 1927 -

Mr. J. J. Laudig,

Chemist and Engineer of Tests.

Dear Sir:

We have the following report from Yardmaster
Smith at Harrison:

"Passenger Extra 1021 struck a torpedo
opposite passenger station platform at Harrison
station at 6.05 a.m. and part of torpedo flew
and struck passenger Douglas C. Gallagher, 231
Warren St., Harrison, N.J. on little finger of
right hand, causing slight cut. This young
man was on platform waiting for train No. 107.

"Passenger Extra 1028, held by Newark
Drawbridge was lost train using track before
arrival of Extra 1021.

"Gallagher got on train No. 107 to go to
work and I advised him to get some antiseptic
on the cut as soon as possible.

"This for your information."

Is it possible for part of torpedo to fly as
reported in this case?

Yours truly,

1/CK

DELAWARE, LACKAWANNA & WESTERN RAILROAD COMPANY

OFFICE OF SUPERINTENDENT

Hoboken, N. J., July 14th, 1927

PERSONAL INJURY REPORT D-16479

Mr. E. B. Moffatt, ✓

General Superintendent

Dear Sir:

We have the following report from Yardmaster Smith, Harrison, dated July 13th, 1927:

"Passenger Extra 1021 struck a torpedo opposite passenger station platform at Harrison station at 6.05 A.M. and part of torpedo flew and struck passenger Douglas C. Gallagher, 231 Warren St., Harrison, N. J. on little finger of right hand, causing slight cut. This young man was on platform waiting for Train No. 107.

Passenger Extra 1028, held by Newark Drawbridge was last train using track before arrival of Extra 1021.

Gallagher got on Train No. 107 to go to work and I advised him to get some antiseptic on the cut as soon as possible.

This for your information." ✓

Harrison, N. J., 6.05 A.M., July 13th, 1927.

Yours truly,

R. White
Superintendent

CC-CJS
HAR
CTE

*As Landing if
torpedoes should fly
as this one did*

8007

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

OFFICE OF CHEMIST AND ENGINEER OF TESTS

SCRANTON, PA.

H. J. FORCE

CHEMIST AND ENGINEER OF TESTS

J. J. LABON

ACTING CHEMIST AND ENGINEER OF TESTS

April 30 1927

Mr E.B.Moffatt
Genl Supt.

Dear Sir:

I am sending you herewith copy of report made to Asst. Supt Pierce some time ago regarding failure of fusee.

Regarding another unsatisfactory fusee sent by Mr Pierce which you have forwarded to me, would advise that this is a yellow fusee of Jan issue of which we have had occasional trouble.

In order to better acquaint you with the work we have had with fusees I will go into this question in detail.

The first indication we had of complaint was when Swichman Cunningham reported this condition to Trainmaster Purcell our report having been made to you on August 11th. This same condition was reported once by you personally to me in your office, and once by Supt Pierce.

The fusees are inspected by us on arrival at destination have been of good quality, but we have made some rejections on brittle tips and poor body manufacture, no indication of explosion of the top of the fusee has ever come to our attention in the process of inspection.

The explosion of the head of the fusee was a puzzle to us and the manufacturer inasmuch as it was only occasional. I have had special constructions variations and mixtures used which I thought may show us what is causing this action, the fusee mfr. cooperating with me in every way. Finally we found that an abnormal amount of charcoal in the match mixture gave this effect. After making up fusees with this mixture we secured the same result as has been reported to us ie explosion when scratched. The abnormal amount of charcoal coming from insufficient mixing in manufacture which accounted for the fusees not all acting the same, some being lean in charcoal and some being heavy with charcoal giving it about the property of a fire cracker.

All fusees made after March 10th have been given more

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

OFFICE OF CHEMIST AND ENGINEER OF TESTS

SCRANTON, PA.

H. J. FORCE

CHEMIST AND ENGINEER OF TESTS

J. J. LAUDIG,

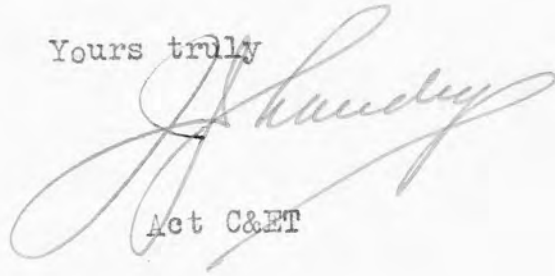
ACTING CHEMIST AND ENGINEER OF TESTS,

care in manufacture and I am sure that they will not have this effect of explosion when scratched.

I think it would be well to call in all the yellow fusees of Jan and Feb. issues of which I am sure there are not many outstanding.

In conclusion will state that we have been working very closely with the Standard Railway Fusee Corp who make our fusees and that they appreciate our efforts to help them solve this difficulty, and that the fusees which we will receive will be satisfactory in all respects.

Yours truly



Act C&ET

+ all material

8007
~~8227~~

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

OFFICE OF CHEMIST AND ENGINEER OF TESTS

SCRANTON, PA.

H. J. FORGE

CHEMIST AND ENGINEER OF TESTS

*Copy as requested by
Mr. Barger, 5/12/27*

April 30 1927

Mr E.B.Moffatt
Genl Supt.

Dear Sir:

I am sending you herewith copy of report made to Asst. Supt Pierce some time ago regarding failure of fusee.

Regarding another unsatisfactory fusee sent by Mr Pierce which you have forwarded to me, would advise that this is a yellow fusee of Jan issue of which we have had occasional trouble.

In order to better acquaint you with the work we have had with fusees I will go into this question in detail.

The first indication we had of complaint was when Swichman Cunningham reported this condition to Trainmaster Purcell our report having been made to you on August 11th. This same condition was reported once by you personally to me in your office, and once by Supt Pierce.

The fusees are inspected by us on arrival at destination have been of good quality, but we have made some rejections on brittle tips and poor body manufacture, no indication of explosion of the top of the fusee has ever come to our attention in the process of inspection.

The explosion of the head of the fusee was a puzzle to us and the manufacturer inasmuch as it was only occasional. I have had special constructions variations and mixtures used which I thought may show us what is causing this action, the fusee mfr. cooperating with me in every way. Finally we found that an abnormal amount of charcoal in the match mixture gave this effect. After making up fusees with this mixture we secured the same result as has been reported to us ie explosion when scratched. The abnormal amount of charcoal coming from insufficient mixing in manufacturer which accounted for the fusees not all acting the same, some being lean in charcoal and some being heavy with charcoal giving it about the property of a fire cracker.

All fusees made after March 10th have been given more

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

OFFICE OF CHEMIST AND ENGINEER OF TESTS

SCRANTON, PA.

H. J. FORCE

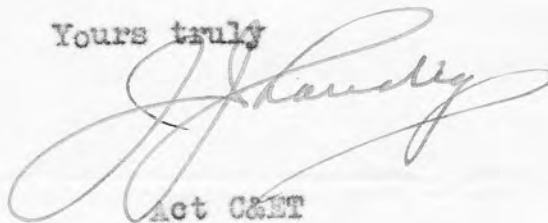
CHEMIST AND ENGINEER OF TESTS

care in manufacture and I am sure that they will not have this effect of explosion when scratched.

X I think it would be well to call in all the yellow fusees of Jan and Feb. issues of which I am sure there are not many outstanding.

In conclusion will state that we have been working very closely with the Standard Railway Fusee Corp who make our fusees and that they appreciate our efforts to help them solve this difficulty, and that the fusees which we will recieve will be satisfactory in all respects.

Yours truly



Act C&ET

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Hoboken, N.J. April 27th, 1927.

Mr. E.B. Moffatt,

General Superintendent.

Dear Sir:-

Under other cover, I am sending you a yellow fusee, that was used by flagman J.P. Murray, with conductor McVey on 1/54, April 19th. This made quite an explosion and it certainly is dangerous.

Our attention has been called to three or four of such cases and I, personally, sent on to the chemist at Scranton, some time ago.

Yours truly,



Asst. Superintendent.



8007
✓
April 29, 1927.

8007:

Mr. J. J. Laudig,

Acting Chemist and Engineer Tests.

Dear Sir:

Herewith letter from Assistant Superintendent
Pierce dated April 27 regarding condition of yellow fusee
used by Flagman J.P. Murray on April 19. Will you please
advise as to condition of the fusee; also advise
whether you have report on the fusee which Mr. Pierce
claims to have sent you direct some time ago.

Yours truly,

l-h.

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY
OFFICE OF CHEMIST AND ENGINEER OF TESTS

SPECIFICATIONS FOR FUSEES
No. 16-C

(This specification supersedes specification 16, 116, and all previous specifications covering this material)

1. GENERAL: Two kinds of fusees will be used, namely:—

10 Minute Red Fusees
10 Minute Yellow Fusees.

CONSTRUCTION

2. DIMENSIONS: (a) The shell or tube of the fusees are to be $\frac{7}{8}$ inch inside diameter ($\frac{1}{32}$ in. variation permitted).

(b) The length of tube of fusee containing the combustible material from the top of the wooden plug to the top of the match must be at least ten inches long, and shall be made of a suitable number of plies of paper of desired quality, extra strong texture, as to meet the physical tests given under section 14.

3. PLUGS AND SPIKES: Each fusee shall be fitted with a suitable wooden plug properly glued in place in one end of the tube. The plug shall contain a $\frac{5}{32}$ inch diameter wire spike drawn to a point on the outside end and projecting not less than $1\frac{1}{2}$ inches from the outside end of the plug. The plug and nail shall be so fastened into the tube as to withstand a pulling stress of 75 lbs. without being removed.

4. MATCH: The other end of the fusee shall contain the match which shall be of such composition that it will readily ignite when rubbed with a scratch material, but will not explode. The match material shall not be brittle or powder and drop off, but shall be made of proper material that will adhere firmly to the end of the fusee and properly ignite the same. The plug placed in the center of the match material shall not entirely fill up the hole, causing the fusee to go out after lighting.

5. CAP: The fusee shall be fitted with a close fitting cap at least 2 inches long to be of similar construction to the shell. The top of the cap shall be fitted with a wooden button with a concave base to prevent contact with the match.

6. SCRATCH: The top of the fusee cap containing the wooden button shall contain the scratch material. This shall be of such composition and in such quantity to readily ignite the match when the match and scratch are rubbed together.

TAPE: The scratch material is to be protected by a piece of strong cloth or tape 1" wide, fastened to the cap with one end covering the scratch and extending down the body of the fusee at least two inches beyond the cap.

8. COVERING: The cap, tape and match will be covered by paper the color of the fusee extending beyond the cap and secured in such a manner as to fasten the cap to the body of the fusee. The fastening is to be in such a manner as to permit the scratch to be readily uncovered by the operator, by pulling on end of tape exposed and by twisting cap to remove same.

9. WATERPROOFING: All fusees must be parafined throughout the tube and cap.

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Scranton, Pa.,
Jan. 22, 1927.

File B-8-1 ✓

Mr. J. J. Pierce,
Asst. Superintendent,
Hoboken, N.J.

Dear Sir:

I have received the samples of defective fusees which blew, and this is the first evidence we have had on occurrences of this kind, inasmuch as the entire body of the fusee was sent us, and this made possible its examination.

This matter has been taken up with the Standard Railway Fusee Corp., and we are endeavoring to obviate a future occurrence.

Will you kindly forward to me any fusees which act in this manner and which are reported to you, as it is our earnest endeavor to prevent the use of defective fusees in any manner, and it is only through the securing of instances as this that we are able to trace the troubles which constantly occur.

Yours very truly,

J. Handley
Act. C & E T

ERB M

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Mr. Moffatt: Please forward to me any more fusees which prove to be defective such as the one received from train master O'Dea in your office on Friday, last. J.J.L.

Dec. 28, 1926.

W.H. O'Dea
To note
EBM
12/29

File B-8-1

Mr. E. W. Purcell, Vice Pres.,
Standard Railway Fusee Corp.,
Boonton, N.J.

Mr. Moffatt
Noted.
Ans. adv. to me
to forward to the
fusee
from
12/30
1/3

Dear Sir:

Confirming conversation with the superintendent of your Boonton plant this morning, would advise that I have left part of a fusee with him which has proved defective in service; several of such having been found in the yellow fusee issue of October, 1926.

These fusees were inspected on receipt and found satisfactory in every respect. The defect is not general and therefore, its detection by inspection could not have been made.

I have discussed the various phases of your manufacture with your superintendent and have followed these through the various steps and have been advised that no change has been made in your practice, methods or materials, nevertheless, I know that you are as anxious to produce the best fusee possible as we are of receiving them, and I would ask that you give this matter your attention, advising me further as to your conclusions in this matter. I will also follow closer the use of these fusees and will cooperate with you to the end that this first occurrence will not become general, before trouble is encountered.

Wishing you a speedy recovery from your illness which prevented my talking with you personally, and thanking you for the courtesies shown me while at your plant, I am

Yours very truly,

J. J. L.
Act. C & E T.

cc: E. B. Moffatt.

Scranton, Pa.
August 11, 1926.

File B-8-1

P.I. Switchman L. Cunningham July 30, 1926.
8007:

Mr. E. B. Moffatt,
General Superintendent.

Dear Sir:

We have a letter from Mr. Purcell, Trainmaster, his file 300, regarding accident to Switchman L. Cunningham, on account of explosion of fusee, at 2.00 am on July 30th, while Drill Engine 56, Foreman John Davitt, Engineer B. Tunney, light, was stopped, taking water at Taylor Tank. Mr. Cunningham, 30 yrs. of age, of 314 Luzerne St., switchman on this engine, started to get off engine to throw switch when a dog which was on the ground started to snap at him and Cunningham got a fusee off engine and started to light same with the idea of protecting himself when fusee flashed, scorching his right cheek and eye.

I had Mr. Cunningham in my office on Monday morning and discussed this matter with him. He claims that one of his eyes bothers him, but from my own examination, I do not notice anything especially wrong. Mr. Cunningham claims that the top part of this fusee exploded, blowing the fusee several feet out of his hand. We have carefully examined the remaining part of the fusee which was delivered to us, and have made analysis of the powder left in the fusee, and we cannot find anything wrong in any respect.

I am of the opinion that when the fusee was manufactured that they probably got in a double match or something was placed around the match which caused the head of the fusee to explode at the time of lighting.

This is the first case of this kind which has been called to my attention in the past fifteen years. The fusee was made by the Standard Railway Fusee Corp. of Boonton, N. J., and many thousand have been used without any trouble along this line. The fusees are constantly tested and inspected and should anything of this kind be detected in our tests, the entire shipment would be rejected.

Yours very truly,

(SGD) H. J. Force.

EMR H J M GIP

C. & E.T.

8007

June 7, 1925.

8007:

Mr. H. J. Force,

Chemist & Engineer of Tests.

Dear Sir:

Your letter June 5 enclosing Specifications for
Fusees.

I have signed the specification and return same
herewith.

Yours truly,

nHS-4

8007

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Scranton, Pa.
June 5, 1926.

File "Pending"

Mr. H. H. Shepard,
General Supt.

Dear Sir:

Please note the attached from Mr. Rine,
with reference to revised specification for fusees.

Will you please approve this specification
as per his request, and return to me, so that we
can arrange to have a supply printed?

Yours very truly,



C & E T

H. H. S.

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

OFFICE OF
VICE-PRESIDENT AND GENERAL MANAGER
90 WEST STREET, NEW YORK

- June 4, 1926.

E. M. RINE
VICE PRESIDENT AND GENERAL MANAGER

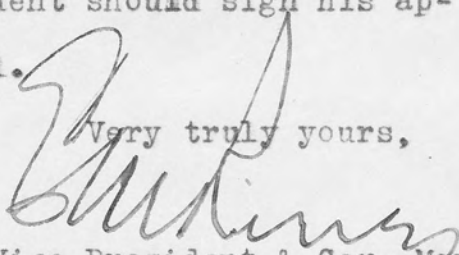
Mr. H. J. Force,

Chemist & Engineer of Tests.

Dear Sir:

Returning enclosures received
with your letter of May 28th
on specifications for fusees.
These revised specifications
are approved. General Super-
intendent should sign his ap-
proval.

Very truly yours,


Vice President & Gen. Mgr.

8007

June 2, 1926.

On Line at Hoboken, NJ.

8007:

Mr. E. M. Rine,

Vice President & General Manager.

Dear Sir:

Your notation of June 1 to me on C. & E. Force's letter to you of May 28, attached.

My advise to Mr. Force was as follows:

"I have read over this specification but do not feel that I am sufficiently informed on the subject to offer any comment. However, I assume it is all right, but I take it you will obtain the approval of the Vice President & General Manager before promulgating the instructions."

There are some points about these specifications which no one but a Chemist could pass upon. On the details as to use in operation I should say that the specifications are O.K.

Respectfully yours,

HHS-4

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

May 22 1926

Mr H.H.Shepard

Gen Supt.

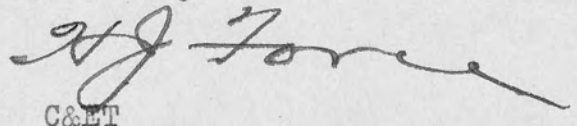
Dear Sir:

I am attaching herewith revised specification covering fusees. There have been several changes in this specification principally to agree with the ARA in ~~minor~~ major points and also to be more explicit. I have submitted this to the manufacturers who have all agreed that the improved specifications is agreeable to them and a big improvement on the other specifications we have been using.

I am also attaching a copy of the old specifications for your guidance.

If you will arrange to approve I will have supply printed.

Yours truly



C&ET

P.S.

The specification also had to be revised account of changing from green to yellow fusees.

H.J.F.

8007

April 1, 1926.

On Line at Hoboken, NJ.

PERSONAL

Mr. Staub:

The flagman on No. 10 last night from Buffalo was supplied with about forty fusees, which he lined up on the end of the "Lake Forest" and used wastefully. Before making a station stop he would throw off a lighted fusee and I noticed in one or two cases the fusee became extinguished upon falling on the track but he did not light another. I understand the man in question only worked on the train as far as Elmira.

The matter should be handled with him to prevent this waste of material.

H.R. Shepard

8007

Purchasing Department

New York City,
December 16th, 1925.

FILE "REK"

Mr. H. H. Shepard:-

I am returning herewith your file
in connection with test of the "Meteor" Torpedo manu-
factured by the Dominion Cartridge Co. of Wilmington.

Yours truly,

C. C. Hubbert

REK.S

8007

December 4, 1925.

8007: Meteor Torpedo - Dupont de Nemours Company.

Mr. C. C. Hubbell,
Purchasing Agent.

Dear Sir:

Referring to yours December 2 file REK
relative to track torpedoes manufactured by the
E.I. Dupont de Nemours Company. I enclose herewith
my file on this subject. Will you please return when
the papers have served your purpose.

Yours truly,

1-C

8007

Purchasing Department

New York City,
December 2nd, 1925.

FILE "REK"

Mr. H. H. Shepard:-

Last March the Dominion Cartridge
Company shipped to you a package of "Meteor" Track
Torpedoes for test.

Will you please advise if test was
made and what the results were.

Yours truly,

W. C. Sullivan

REK.S

1-1-2

8007
November 11, 1925.

8007
8784:

Mr. C. C. Hubbell,
Purchasing Agent.

Dear Sir:

I return herewith a file relative to yellow fusees made by the Standard Railway Fusee Company and rejected by our Chemist Force.

I have talked this matter over with General Storekeeper Lance, who brought me a few samples of these fusees, which I asked Superintendent Mullaght to try out. This has been done and he says that there is no trouble with their ignition, nor in any other way, so far as he is able to discover.

I see no reason why we should not use these fusees.

✓
Yours truly,

HHS-4

Purchasing Department

New York City,
October 28th, 1925.

FILE "CCH"

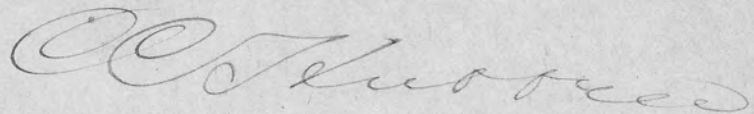
(PERSONAL)

Mr. H. H. Shepard:-

I would like you to see the attached file, particularly Standard Railway Fusee Co's. letter of 26th inst. regarding recent rejection of yellow fusees by our people.

At your convenience I want to ask if you will confer personally with General Storekeeper Lance and give me your joint recommendation as to what should be done in this case.

Yours truly,



CCH.S

8007
September 16, 1925.

8007:

Mr. C. C. Hubbell,
Purchasing Agent.

Dear Sir:

Referring to your letter September 4 file REK relative to fuses furnished by the Standard Railway Fuse Company at Boonton. In connection with grade of fuses furnished by the Standard Company we are advised by Mr. Force:

"Replying to your letter of September 8, together with letter of Mr. Hubbell would advise that all fuses are inspected and tested at the Laboratory and that we are thus able to eliminate a large number of unsatisfactory fuses. The fuses as far as tests were concerned are O.K. The trouble is due to improper manufacture of the head of the fuse and this only occurs occasionally. If this was a very frequent occurrence there would be no trouble in making a rejection. However, it is this occasional fuse that is giving the trouble.

Inasmuch as this is only the fault of manufacture and they are unable to make a correction the only thing is for Mr. Hubbell to stop buying these fuses.

In my judgment as long as Mr. Hubbell buys these fuses we are going to have trouble and I recommend as I have done previously that we procure our requirements of fuses elsewhere."

Yours truly,

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

SCRANTON PA. Sept 8 1925

Mr H.H.Shepard

Gen eral Supt.

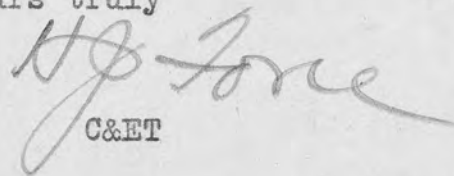
Dear Sir;

Replying to your letter of Sept 5th together with letter of Mr Hubbell would advise that all fusees are inspected and tested at the Laboratory and that we are thus able to ~~eliminate~~ a large number of unsatisfactory fusees. The fusees as far as tests were concerned are OK. The trouble is due to improper manufacture of the head of the fusee and this only occures occassionally, if this was a very frequent occurence there would be no trouble in making a rejection. However it is this occassional fusee that is giving the trouble.

Inasmuch as this is only the fault of manufacture and they are unable to make a correction the only thing if for Mr Hubbell to stop buying these fusees.

In my judgement as long as Mr Hubbell buys these fusees we are going to have trouble and I recommend as I have done previously that we procure our requirements of fusees elsewhere.

Yours truly


C&ET

CJS

September 5, 1925.

8007:

Mr. H. J. Force,
Chemist, Scranton.

Dear Sir:-

Referring to your letter of August 28, file B-8-1, note enclosure from Purchasing Agent Hubbell relative to fusees furnished by the Standard Railway Fusee Company at Boonton. Have you anything further to say on this subject?

Yours truly,

1-W

2007
September 8, 1925.

8007: Union Pacific System.
21921:

Mr. H. A. Rowe,

Claims Attorney.

Dear Sir:

Referring to your letter September 1 with copy of communication from General Claim Agent Peterson of the Union Pacific System relative to use of torpedoes by this Company in connection with accidents on their line.

General Storekeeper Lance advises during the year 1924, we ordered from the Central Railway Signal Company a total of 1675 gross torpedoes and so far this year have ordered 1050 gross.

We assume they will not ask an employee of our Company to go to the Coast or to Omaha to testify in the case but that a deposition will answer the purpose. In this event suggest that our Chemist Mr. Force can make suitable affidavits that will answer their purpose.

Yours truly,

Purchasing Department

New York City,
September 4th, 1925.

FILE "REK"

Mr. H. H. Shepard:-

Returning your file herewith relative to fusees as made by the Standard Railway Fusee Co. at Boonton, N. J.

It has been my understanding that all the trouble we have had with the Standard peoples' fusees was adjusted, and as the fusees complained of in Mr. Church's letter of August 8th to Mr. White were made in February, it may be that present shipments are better quality.

It is my understanding that all fusees before being issued were tested by Chemist Force, and if this is the case if there was any trouble it should not have originated on the line.

Yours truly,

C. C. Hubbert

REK.S

g. h. j.

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

MOTIVE POWER AND EQUIPMENT DEPARTMENT

SCRANTON, PA. Sept. 4, 1925. File 204/110

C. J. SCUDDER
SUPERINTENDENT M. P. & E.

Mr. H.H. Shepard,
General Superintendent.

Dear Sir:-

I am herewith returning enclosures that accompanied yours of Sept. 3rd, file 8007 and 21921, regarding the Union Pacific desiring a representative of this Company to act as an expert witness in a case they have which involves the degree of satisfaction that is being secured from torpedos used by this Railroad.

I am perfectly willing to have Mr. Force act as a witness for the Union Pacific if you feel he would best answer the purpose, but it seems to us that a Trainmaster or some official who is constantly on line of road, and is thoroughly familiar with the use of torpedoes, would make a more suitable witness.

Yours truly,

Encl

Chas J. Scudder

C O P Y
CLAIMS DEPARTMENT

September 1, 1925.

Mr. H. H. Shepard,
General Superintendent
Scranton, Penna.

Dear Sir:

I am sending you herewith copy of a letter from S. J. Peterson, General Claim Agent of the Union Pacific System, in which he asks as to the type of torpedo used by this Company, the quantities purchased, etc. In addition, Mr. Peterson would like the name, title and address of some of the officers of this Company who could testify for the defendant in litigation ensuing from the use of the Central Railway Signal Company's torpedo.

Will you be good enough to furnish me the necessary information to respond to Mr. Peterson? I should like to accommodate him so far as the witnesses are concerned as he has been helpful to us in the past.

Yours truly,

(s)H.A.Rowe

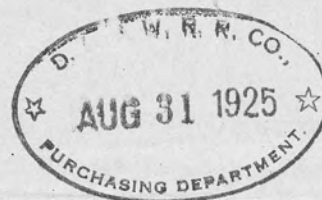
HAR:L

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Scranton, Pa.
August 28, 1925.

File B-8-1

Mr. H.H. Shepard,
General Superintendent.



Dear Sir:

Referring to the attached letter from Mr. White, wish to advise that this was a yellow fusee and not a green fusee, same being made in February.

The failure of this fusee appeared to be in the method of manufacture, as the only failures we are having are in fusees made by the Standard Railway Fusee Corp., of Boonton, N.J., and if our people are going to keep on buying these fusees, I have nothing else to suggest.

Yours very truly,

H. Force

C & E T

CCH
W. H. S.
8-29

C O P Y

UNION PACIFIC SYSTEM
UNION PACIFIC RAILROAD COMPANY.

1416 Dodge Street
Omaha, Neb.
August 21, 1925.
File 887.

Subject: Elmer L. McCaslin v. Union Pacific Railroad Company, in the Circuit Court of Jackson County, Missouri, account P. I. Elmer L. McCaslin, Fireman, Glasco, Kansas, February 25, 1924, Train No. 165, Engine No. 435.

Mr. H. A. Rowe
Claims Attorney
Delaware, Lackawanna and Western Railroad Co.
New York City, New York.

Dear Sir:

This suit is brought to recover for alleged loss of sight in right eye, it being claimed that while McCaslin was sitting on the fireman's seat box, and not leaning out of cab window, he was struck by some portion of a torpedo exploded by his engine, a piece of tin about half the size of an ordinary thumb nail, piercing the right eye lid and eye ball.

In plaintiff's petition, in which suit is brought to recover damages in the sum of \$25,000.00, by attorneys Walsh and Aylward, it is alleged that the defendant negligently and carelessly caused, allowed and permitted a certain type of torpedo to be used upon said track, and which defendant, its agents, servants and vice principals knew, or by the exercise of ordinary care should have known was not generally and usually safe for such use and that when the same was caused to be exploded and to be discharged pieces and fragments thereof would be caused to break and fly therefrom and plaintiff and other employes were in danger thereof of being struck and injured thereby, and that the torpedo used was liable to and usually did crack, break, and throw off metal pieces and fragments thereof with great force and violence. It is further alleged that the defendant negligently and carelessly caused, allowed and permitted said type, design, and construction of torpedo to be used upon its said line of railroad when they knew, or by the exercise of ordinary care and caution should have known, that this particular type, design and construction of torpedo was dangerous and unsafe for such use, and that said type, design and construction of torpedo was not generally used in the railroad business because the same was not reasonably safe therefor, and that on the contrary a type, design and construction of torpedo was generally used which was not constructed or composed in any of its parts of tin or metal which would break, chip or fly therefrom, and so forth.

You will note from these allegations that the entire case was built on a theory that we used a type of torpedo that was not in general use by other railroads. However, our investigation disclosed that the torpedos we were using at the time the accident occurred viz. Feb.

ruary 25, 1924, and had been using several years prior to that date, was known as the 10-D wedge type fibre top torpedo and was fastened to the rail by straps of spring steel.

These torpedos were manufactured by the Central Railway Signal Company. We are advised by Mr. F. A. Buckley, Vice President and Sales Manager, that during the year of 1924 the Central Railway Signal Company manufactured and sold three million torpedos of this type which were used by the railroads in 1924. A large percentage of these were used by the Union Pacific Railroad Company and your road, among others, purchased a large part of the type mentioned heretofore.

We would appreciate it very much if you would advise your experience with this class of torpedo and if you have had any personal injuries resulting in a similar manner as that we have had in this case.

In addition to the information and request above I would like to have you advise the names, titles and addresses of any officers of your company who would be in a position to testify for the defendant in this litigation, relative to the general use of this type of torpedo, and their opinion as to whether or not it was a reliable, dependable and safe torpedo to be used.

Thanking you in advance for this information, and assuring you of our willingness to reciprocate at any time, I am

Yours truly,

(Sgd) S. J. Peterson

Scranton, Pa., September 4, 1925.

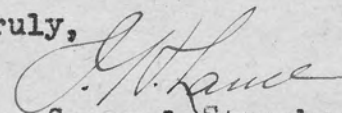
Mr. H. H. Shepard,
General Superintendent.

Dear Sir:

Your letter 3rd instant, files 8007 and 21921, regarding action brought against the Union Pacific System by one of their employes injured by piece of an exploding torpedo.

During the year 1924 we ordered from the Central Railway Signal Company a total of 1675 gross torpedoes. So far this year we have ordered from them 1050 gross torpedoes.

Yours truly,


General Storekeeper.

B:LS

September 3, 1925.

8007:
21921:

✓ Mr. C. J. Scudder,
Superintendent MP&E.
Mr. I. H. Lance,
General Storekeeper.

Gentlemen:-

Herewith copy of letter from Claims Attorney Rowe, relative to action brought against the Union Pacific System by one of their employees injured by piece of an exploding torpedo.

I have in mind that we suggest Chemist Force to testify in the case if desired by the Union Pacific Company. Please advise if agreeable to you. Mr. Lance will also please advise as to quantity purchased of this type of torpedo.

Yours truly,

1-W

8007
21921

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

CLAIMS DEPARTMENT

90 WEST STREET, NEW YORK CITY

H. A. ROWE
CLAIMS ATTORNEY

September 1, 1925.

Mr. H. H. Shepard
General Superintendent
Scranton, Penna.

Dear Sir:

I am sending you herewith copy of a letter from S. J. Peterson, General Claim Agent of the Union Pacific System, in which he asks as to the type of torpedo used by this Company, the quantities purchased, etc. In addition, Mr. Peterson would like the name, title and address of some of the officers of this Company who could testify for the defendant in litigation ensuing from the use of the Central Railway Signal Company's torpedo.

Will you be good enough to furnish me the necessary information to respond to Mr. Peterson? I should like to accommodate him so far as the witnesses are concerned as he has been helpful to us in the past.

Yours truly,

H. A. Rowe

HAR:L

8007

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Scranton, Pa.
August 25, 1925.

File ~~EX881~~

P.I. Peter Campanello - Aug. 20, 1925.

Mr. H.H. Shepard,
General Superintendent.

Dear Sir:

Replying to yours of August 24th, with reference to the torpedos, wish to advise that this is our regular standard torpedo and we have never known them to fly before. They have now been in use for several years and this is the first complaint that has ever been received, and we have no reason to believe that there was anything unusual about this torpedo.

Yours very truly,


C & E T

August 21, 1925.

I.I. Peter Campanello - August 20, 1925.

Mr. H. J. Force,

Chemist & Engineer of Tests.

Dear Sir:

We have telegram from Superintendent White, dated August 20 reading:

"5.25 A.M. at Little Falls, Peter Campanello, employed as laborer at New York Transfer, while waiting at station for train 476 was struck by portion of torpedo exploded by train 454 and severely cut over right eye. He boarded No. 476 was given first aid treatment by Conductor C.B. Keineran that train, who sent Campanello to St. Josephs Hospital at Paterson where it was found necessary to put three stitches in gash after which he proceeded to work."

Will you please advise what kind of torpedo was used in this case and if anything unusual about it.

Yours truly,

1-G

copy: R.M.W. If you have not furnished Mr. Force with the information, can you send me sample of torpedo used by the train crew in this case.

H.H.S.

TELEGRAM BE BRIEF

js j- Hob Aug 20th 25-

RECEIVED AT
LACKAWANNA STATION
SCRANTON PA.

AUG 20 1925

H H S- C J S- 525 A.M. at Little Falls Peter
Campanello employed as laborer at New York Transfer-
while waiting at station for train 476- was struck
by portion of torpedo exploded by train 454 and
severely cut over right eye- he boarded No 476
was given 1st aid treatment by Condr G B McKeinerane
that train who sent Campanello to St Josephs Hospital
at Paterson where it was found necc'y to put three stiches
in gash after which he proceeded to work.
J M D- E M R- H A R- C J S- G G R- C T K.

R M W-

10.35 A.

B
Air Force
What kind of
a torpedo

C O P Y

CLAIMS DEPARTMENT

September 1, 1925.

Mr. H. H. Shepard,
General Superintendent
Scranton, Penna.

Dear Sir:

I am sending you herewith copy of a letter from S. J. Peterson, General Claim Agent of the Union Pacific System, in which he asks as to the type of torpedo used by this Company, the quantities purchased, etc. In addition, Mr. Peterson would like the name, title and address of some of the officers of this Company who could testify for the defendant in litigation ensuing from the use of the Central Railway Signal Company's torpedo.

Will you be good enough to furnish me the necessary information to respond to Mr. Peterson? I should like to accommodate him so far as the witnesses are concerned as he has been helpful to us in the past.

Yours truly,

(s)H.A.Rowe

HAR:L

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Hoboken, N.J., Aug. 8, 1925.

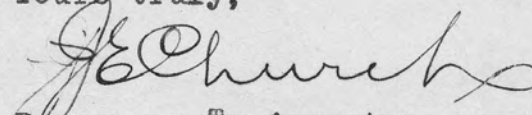
Mr. R.M. White,
Superintendent.

Dear Sir:

I am enclosing green fusee made in
February, 1925 which when it was lighted by flagman
on 364, August 4th failed to burn.

This is one of several that this
flagman has had trouble with.

Yours truly,


Passenger Trainmaster

8007
July 22, 1925.

8007: Quality of Fusees.

Mr. A. E. Staub,
Superintendent, Buffalo.

Dear Sir:-

Referring to your letter of May 25 regarding quality of fusees which were furnished by the Standard Railway Fusee Corporation of Boonton, N.J.

A representative of this Company came to Scranton on the 16th instant and after conferring with our Chemist, we returned 12 gross of these fusees, which were unsatisfactory, to be replaced with new fusees.

This for your information.

Yours truly,

1-W

Purchasing Department.

New York City,
July 21, 1925

File "LVW"

Mr. I. H. Dance:-

We recently received complaints from Messrs. Shepard and Scudder regarding Fusees furnished by the Standard Railway Fusee Corporation of Boonton, N. J.

Mr. Purcell, representative of this company went to Scranton on the 16th and saw Mr. Force who advised him that the fusees we have on hand are satisfactory with the exception of twelve gross of Yellow Fusees which were shipped January last.

These people are agreeable to accepting the return of this twelve gross that are unsatisfactory and will replace them immediately with new ones.

Will you please arrange to have the unsatisfactory fusees shipped to these people at Boonton, N.J., covering the transaction by requisition?

Yours truly,

LVW:EE

Mr. H. H. Shepard:

See your letter of May 29th, file 8007.

CCH

Mr. C. J. Scudder:

See your letter of May 29th, file 110.

CCH

8007

July 14, 1925.

8007.

Mr. R. M. White,
Superintendent, Hoboken.

Dear Sir:-

Referring to your letter of July 13, enclosing communication from Conductor H.J.Bair in regard to defective fuses being furnished.

Please have Bair call on our Chemist Force at Scranton with one of the yellow fuses he complains of, or arrange to ship a sample to Chemist Force at Scranton, and advise.

Yours truly,

1-W

CC-Mr.H.J.Force:-Correspondence enclosed herewith.
Please advise what you ascertain.

H.H.S.

8007

May 29, 1925.

8007:

Mr. C. C. Hubbell,

Purchasing Agent.

Dear Sir:

We recently had some trouble with fusees on the Buffalo Division and referred the matter to C. & E. F. Force. For your information I am quoting below his letter on the subject of May 28, which is self explanatory:

"I have examined these fusees and find that they have a defective match which merely burnt up for a few seconds and then went out. In view of the fact that we have had more or less trouble with the fusees as furnished by the Standard Ry. Fusee Corp., of Boonton, N.J. it would be my recommendation that we discontinue the use of these fusees.

We are getting part of our supply from the Central Railway Signal Corp., and to date after being used for some months, have not had any complaints, and it would seem that the proper thing to do would be to use the Central Ry., Signal Corp., fusee entirely."

Yours truly,

HHS-4

8007

THE DELAWARE. LACKAWANNA AND WESTERN RAILROAD COMPANY

Scranton, Pa.
May 28, 1925.

File B-8-1

Mr. H. H. Shepard,
General Superintendent.

Dear Sir:

Replying to yours of May 26th, I am returning herewith letter from Supt. Staub., with reference to two fusees which have gone out in service.

I have examined these fusees and find that they have a defective match which merely burnt up for a few seconds and then went out. In view of the fact that we have had more or less trouble with the fusees as furnished by the Standard Rwy. Fusee Corp., of Boonton, N.J., it would be my recommendation that we discontinue the use of these fusees.

We are getting part of our supply from the Central Railway Signal Corp., and to date, after being used for some months, have not had any complaints, and it would seem that the proper thing to do would be to use the Central Rwy. Signal Corp. fusee entirely.

Yours very truly,

H. J. Force
C & E T

CC, C.J. Scudder.

May 26, 1925.

8007:

Mr. H. J. Force,

Chemist & Engineer of Tests.

Dear Sir:

Herewith letter from Superintendent Staub,
dated May 25, regarding trouble with fuses on Buffalo
Division. The fuses referred to are being sent you
under separate cover today. Will you please investigate
and let me have report.

Yours truly,

1-G

Buffalo, N.Y., May 25, 1925.

Mr. H. H. Shepard,

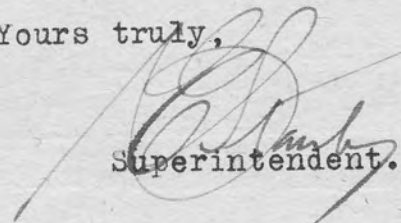
General Superintendent.

Dear Sir:

I have sent you under Register No. 21186, a red fusee turned over to Trainmaster Sullivan by Flagman E. Jones, of train No. 10, May 22nd. Flagman Jones stated he lighted this fusee at Corning and it went out in his hand and that he has frequently had trouble of similar nature with the present supply of red fusees.

I suggest that you have Chemist Force look into the matter.

Yours truly,


Superintendent.

3:H

P.S. Also a second red fusee (the one with black tape still attached to cover) was turned in by same flagman from Train No. 9, May 24th. Flagman reported lighting this fusee at Bath and that it also went out while still in his hand.

AES.

8007

May 9, 1925.

8007:
12555:

Messrs:

R. M. White, Superintendent,	Hoboken.
H. J. Mullaghy,	" Scranton.
A. E. Staub,	" Buffalo.
Frank Cisek,	" Binghamton.
H. E. Griffith,	" Bangor.

Gentlemen:

We are in receipt of the following from Agent Westervelt of the Pullman Company at Hoboken:

"Some two or three years ago we reported the matter of train crews placing torpedoes and fuses in lockers of Pullman cars and instructions were issued, forbidding the practice and it was for the most part stopped, but recently they seem to be drifting back to their old habits, as we are frequently finding this equipment in our cars. Some of them are found in the electric lockers, they are removed from cars and turned over to the Railroad when found. I know you are not aware of this and that you will desire to renew instructions to train crews.

I might add that, aside from the probable loss of this equipment in cars leaving this territory and not returning, there is always an element of danger in allowing these articles to be tucked away in remote corners of our lockers, and particularly dangerous in electric switch-board lockers."

Please instruct that under no circumstances shall our train crews place torpedoes or fuses in pullman car lockers.

Yours truly,

May 9, 1925.

8007:
12555:

Mr. B. L. Westervelt,
Agent, Pullman Company,
Hoboken, N.J.

Dear Sir:

We have your letter May 8 relative to torpedoes and fuses found in lockers of pullman cars. We have instructed Superintendents that this practice must be discontinued. Would like you to furnish me any individual cases that come to your attention, in order that we may locate responsibility.

Yours truly,

1-G

THE PULLMAN COMPANY

Hoboken, N.J., May 8, 1925.

Subject:- Torpedoes and fuses found in lockers of Pullman cars.

Mr. H. H. Shepard,
Gen'l Superintendent, DL&WRRCO.,
Scranton, Pa.


Dear Sir,-

Some two or three years ago we reported the matter of train crews placing torpedoes and fuses in lockers of Pullman cars and instructions were issued, forbidding the practice and it was for the most part stopped, but recently they seem to be drifting back to their old habits, as we are frequently finding this equipment in our cars. Some of them are found in the electric lockers, they are removed from cars and turned over to the Railroad when found. I know you are not aware of this and that you will desire to renew instructions to train crews.

I might add that, aside from the probable loss of this equipment in cars leaving this territory and not returning, there is always an element of danger in allowing these articles to be tucked away in remote corners of our lockers, and particularly dangerous in electric switchboard lockers.

Your kind attention to this matter will be appreciated.

Yours truly,


AGENT

BLW/E
cc-LWB

8007

THE DELAWARE. LACKAWANNA AND WESTERN RAILROAD COMPANY

Scranton, Pa.
May 6, 1925.

Mr. H. H. Shepard,
General Superintendent.

Dear Sir:

Replying to yours of May 5th, with reference to torpedoes manufactured by the E.I. Dupont De Nemours Company, wish to advise that we have tested many thousand torpedoes and we do not have any record of the metal base from our present torpedo flying or injuring anyone. As far as the sound or detonation is concerned, this may vary under certain conditions or location in which the torpedo is used, but in any event our present torpedoes are loud and strong.

On the other hand, the brass wire construction is not satisfactory from a general operating standpoint, and if placed in service sooner or later complaints would be received with reference to the brass wire used on these torpedoes, and under the conditions, regardless of what reports your train masters or superintendents may render, we cannot recommend this torpedo at the present time.

yours very truly,

H. F. Jones
C & E T

May 5, 1925.

8007:

Mr. H. J. Force,
Chemist & Engineer of Tests.

Dear Sir:

Referring to yours April 17. We delivered to Superintendent Mullaghy remainder of the samples of torpedoes manufactured by the E.I. Dupont de Nemours Company, to be given field test. For your information I quote reply from Superintendent Mullaghy, dated May 2 reading:

"Replying to your letter April 20, file 8007, with reference to testing of sample torpedoes manufactured by the E.I. Dupont de Nemours & Company in which you quote letter from Chemist Force.

These torpedoes have been tested together with the torpedoes we are now using by all three of the trainmasters.

Report from each of them does not agree with Mr. Force's conclusion.

It was found by the trainmasters that the detonation was considerably louder than those we are now using. It was also found that instead of flying as do the steel clips which hold our present torpedoes to the rail, the brass wire which holds the sample torpedoes to the rail was found in each case to remain on the rail and not flying. This in itself is considerable of an advantage as steel clips flying through the air are liable to cause injury."

Have you anything further to say in the matter?

Yours truly,

Scranton, Pa. May 2, 1925

1052:

Mr. H. H. Shepard,

General Superintendent.

Dear Sir:

Replying to your letter April 20th, file 8007, with reference to testing of sample torpedoes manufactured by the E. I. Dupont de Nemours & Company in which you quote letter from Chemist Force.

These torpedoes have been tested together with the torpedoes we are now using by all three of the trainmasters.

Report from each of them does not agree with Mr. Force's conclusion.

It was found by the trainmasters that the detonation was considerably louder than those we are now using. It was also found that instead of flying as do the steel clips which hold our present torpedoes to the rail, the brass wire which hold the sample torpedoes to the rail was found in each case to remain on the rail and not flying. This in itself is considerable of an advantage as steel clips flying through the air are liable to cause injury.

Yours truly,



Superintendent.

THE DELAWARE. LACKAWANNA AND WESTERN RAILROAD COMPANY

Scranton, Pa.

April 27, 1925.

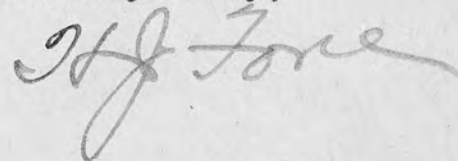
File B-8-1

Mr. H. H. Shepard,
General Superintendent.

Dear Sir:

Replying to yours of April 24th,
file 8007, with reference to a fusee made by the
Standard Railway Fusee Corporation which was de-
fective in service. We have received this fusee
and an examination shows it was probably defective
in the head. We have had similar complaints and
are now receiving, I believe, most of our fusees
from the Central Railway Signal Company. Of course,
in a general way, a fusee may occasionally be found
to be defective but if you think that this is occurring
more than it should, I would suggest that the matter
be referred to Mr. Hubbell, and that the purchase of the
fusee from the Standard Railway Fusee Corp., be dis-
continued.

Yours very truly,



CC. C.J. Scudder.

C & E T

Buffalo, N.Y., April 23, 1925.

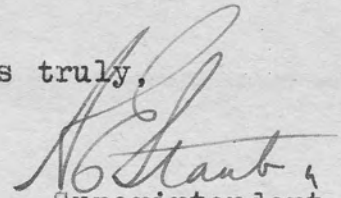
Mr. H. H. Shepard,

General Superintendent.

Dear Sir:

Am sending you on No. 6 today under register No. 64073 Standard Railway Fusee Corporation red fusee, found defective by Conductor B. L. Bennett of No. 15, April 22nd. Fusee was lighted in regular way, burned O.K. for a few seconds and then went off before burned out.

Yours truly,


Superintendent.

3:H

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Operators are required to write all telegrams in INK or with INDELIBLE PENCIL. (See Rules 261, 262, 263, 264 and 268, Transportation Department.)

Office Rec'd from	Sent by	Rec'd by	Time Rec'd	TELEGRAM	Office Sent to	Sent by	Rec'd by	Time Sent
				TIME FILED				

DO NOT USE TELEGRAPH WHEN MAIL WILL ANSWER THE PURPOSE.**BE BRIEF.***From*

192

*To**Mr W L Alexander J M.*

*This fusee lighted in regular way
burned good for a few seconds & then
went out before being thrown off*

*Ad
Wylh 1/22*

*B L Bennett
NO 13*

April 24, 1925.

8007:

Mr. H. J. Force,

Chemist & Engineer of Tests.

Dear Sir:

We enclose letter from Superintendent Staub,
April 23, together with memorandum from Conductor B.L.
Bennett on No. 15, April 22, relative to fusee not burning
properly. This fusee is sent you today by train mail.
Shall be glad to know result of your investigation.

Yours truly,

1-G

c.c. AES

8007

April 20, 1925.

8007: Torpedo manufactured by Dupont Company

Mr. H. J. Mullaghy,

Superintendent, Scranton.

Dear Sir:-

We delivered your office today small supply of sample torpedoes manufactured by the E.I. Dupont de Nemours & Company. Please make actual test and let me have your opinion on this type of torpedo.

Chemist Force has made laboratory test and I quote his opinion for your information:

"We have made a careful test of these torpedoes and cannot see that they are as good as those we are now using. We do not think they will stand abuses in service, neither do we think that the brass wire clip is as good as the steel band which is now being used. We are unable to detect any special odor from these torpedoes when they are being exploded, neither is the detonation as loud as those we are now using."

Yours truly,

1-W

THE DELAWARE. LACKAWANNA AND WESTERN RAILROAD COMPANY

Scranton, Pa.
April 17, 1925.

Mr. H. H. Shepard,
General Superintendent.

Dear Sir:

I am returning herewith correspondence relative to torpedoes manufactured by the E. I. Dupont de Nemours & Company.

// We have made a careful test of these torpedoes and cannot see that they are as good as those we are now using. We do not think they will stand abuses in service neither do we think that the brass wire clip is as good as the steel band which is now being used. We are unable to detect any special odor from these torpedoes when they are being exploded, neither is the detonation as loud as those we are now using.

// I certainly think it would be a mistake for us to change to these torpedoes at the present time.

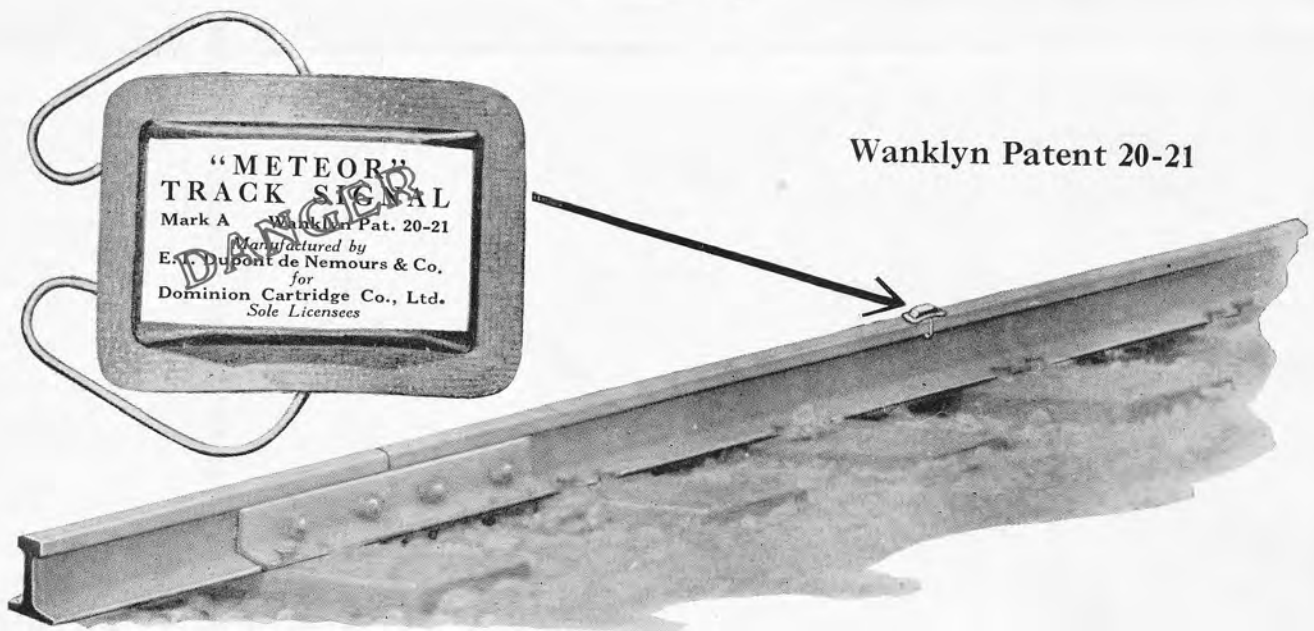
Yours very truly,

H. F. Jones
C & E T

cc: C. J. Scudder.

671 / 5701 *el*

"METEOR" TRACK SIGNAL WILL POSITIVELY PROTECT YOUR TRAINS



Wanklyn Patent 20-21

Easily and quickly applied to Rail.
Positive, immovable grip.
No dangerous flying debris.
Water and Weather proof.

"Loud Detonation."
"Arresting Flash."
"Distinctive Smell."

"Surest and best rear end train protection ever offered"

(Endorsement of Railway Official)

MR. RAILROAD MAN:

Please listen to these important facts which we are sure you will appreciate:

For years and years wonderful improvements have developed in railway equipment, rolling stock, appliances, tracks, etc.; in fact we find progress in everything connected with the running of railroads, with the one and only exception—the "*Track Torpedoes*." The improved Track Torpedo, known as "Meteor" Track Signal Mark A is the invention of F. L. Wanklyn and has been submitted to the most drastic and exhaustive tests under all weather and service conditions by the railways in Canada, the Board of Railway Commissioners for Canada, by Chief Inspector of the Explosive Division, Department of Mines, Dominion of Canada, and has been universally approved and pronounced the best signal of its type which has ever been offered to the railroads for the protection of passengers and property. The "Meteor" has been used in Canada for over two years and is now the standard on the Canadian Pacific Railway and Canadian National systems, and also on all other Canadian Railways, and by reason of the special features of the "Meteor" and the protection given, it has displaced all others and is now the only type of Torpedo manufactured throughout the Dominion and used from the Atlantic to the Pacific on over 40,000 miles of railroad.

Since the general adoption of the "Meteor" in Canada the results obtained by the positive protection it ensures have been remarkable; statistics show that the number of rear end collisions have been very materially reduced from what they were prior to its introduction.

The "Meteor" is universally approved by all operating officials and employees responsible for the running of trains, and is declared by them to be the surest and best rear end protection ever offered. Some of the United States Railways, fully realizing and appreciating the importance of the maximum protection possible, have tested the "Meteor" and have emphatically confirmed its merits and greater margin of protection offered.

The "Meteor" Track Signal meets in every respect the requirements of the most recent rigid Track Signal Torpedo Standard Specifications prepared by Colonel Dunn, Chief of the Bureau of Explosives, U.S.A., at Washington, for the American Railroad Association, and adopted by them.

The final results by using the "Meteor" will mean a very great saving because not only will reduced quantities be used, but because there will be fewer rear end collisions, therefore a minimum loss of life and property.

1. The "Meteor" appeals to three senses, Hearing, Seeing, Smelling, and thereby makes assurance trebly sure.
2. The "Meteor" contains double the detonating charge as compared with some of those previously issued.
3. The "Meteor" is provided with a hermetically sealed and waterproof case, as compared with cases which are not reliable in wet weather and which frequently render the Torpedo useless.
4. The "Meteor" is fitted with a hard bronze wire rail clip which holds it firmly in place on the rail to deliver the signal under any and all conditions, as compared with other unreliable fastenings which have been displaced and proved to be uncertain in snow, high water, or greasy rail conditions.
5. The "Meteor" contains a flash element which is entirely absent in all other types.
6. The "Meteor" on explosion emits a peculiar pungent smell.
7. The "Meteor" projects no flying debris on explosion likely to cause personal injury, there being no metal parts whatsoever in its make-up other than the bronze wire rail clip which adheres to the rail upon explosion.

For these and other reasons the "Meteor" is the most efficient and reliable Track Torpedo that has ever been offered on the market, and fully justifies the

additional first cost which is a fractional consideration if compared with the greater security obtained by its use and the very large saving made in the long run. It is not good railroading to trifle with safety.

The "Meteor" is now made in the United States by E. I. DuPont de Nemours & Co., Wilmington, Del., and sold and distributed by the Dominion Cartridge Company Limited, Sole Licensees, Head Office, DuPont Building, Wilmington, Del.

July 30th, 1924.

Dominion Cartridge Company, Ltd.

Sole Licensees and Distributors

UNITED STATES OFFICE:
Care E. I. DUPONT DE NEMOURS & CO.
WILMINGTON, DEL.

CANADIAN OFFICE:
3rd FLOOR CANADA CEMENT CO. BLDG.
Phillips Square, MONTREAL, QUE.



April 11, 1925.

8007: Torpedo manufactured by the Dupont Company

Mr. H. J. Force,

Chemist, Scranton.

Dear Sir:-

Referring to your letter of February 13, file

D-60-1.

I enclose correspondence in regard to new type of torpedo manufactured by the E.I. Dupont de Nemours & Company. Would like you to test and let me have report.

Yours truly,

1-W

8007

Scranton, Pa., March 24th, 1925.

File 1052:

Mr. A. E. Staub, Jr.,
Superintendent, Buffalo.

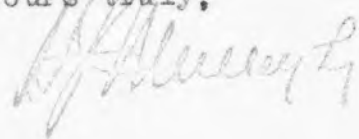
Dear Sir:

Replying to your letter March 17th, file S-606, with reference to mishandling of two red fusees which were forwarded by railroad mail March 10th to General Superintendent Mr. Shepard.

Investigation with Baggage-master Gillespie who was in charge of the car from Binghamton on night in question, shows that there were a couple of red fusees in the mail box, that there were no marks of identification on them and that he gave them no further thought, being under the impression that they were left there by one of the train crew who had been out with the flag. At the present time, he advises, there is one red fusee in his car but he does not know whether or not it is one of the original two that he saw in the mail box on the night of March 10th.

He is not in position to throw any further light on the subject.

Yours truly,



cc: HHS

Superintendent.

COPY

8007

Buffalo, N.Y., March 17, 1925.

File S-606.

Mr. H. J. Mullaghy,
Superintendent,
Scranton, Pa.

✓

Dear Sir:

On March 10th I forwarded to the General Superintendent with Railroad mail, two red fusees, which were part of a supply recently drawn from the Stores Department, which a flagman reported as not up to standard.

The General Superintendent under date March 13th advised fusees not received. Upon investigation with the Buffalo Division train baggageman he advised me as follows:

"On March 10th after loading at Buffalo I found two (2) fusees on floor of Baggage Car, could not account for where they came from but as they were not marked or tied together could not give them any particular destination.

"Mr. Gillispie, my relief at Binghamton, saw them on top of desk where I placed them, but cannot say what became of them."

Contrary to the Train Baggage man's statement, the fusees were properly marked on leaving my office. They were tied together and a railroad envelope wrapped around them and the envelope was stamp marked in three places with the General Superintendent's address. The fire ends of these fusees were wrapped with newspaper protection and the pointed ends protruded unprotected. The mail man at our Baggage Room advises they were tied up in the package of Railroad mail for Scranton.

At any rate, please investigate with the Scranton Division train baggageman to know what disposition was made of same and advise the General Superintendent in connection with his letter of March 13th, file 8007 to me.

Yours truly,

3:H ✓
cy-HHS GPhelps.

(Sgd.) A. E. STAU
Superintendent.

8007

March 13, 1925.

8007:

Mr. A. E. Staub,

Superintendent, Buffalo.

Dear Sir:

We have your letter February 10, file S-606, concerning defective fusees used by Flagman H. E. Baker on Nos. 11 and 12. We have not yet received the fusee which you claim to have sent under separate cover.

Yours truly,

1-C

Buffalo, NY, March 10th, 1925.

File S-606.

Mr. H. H. Shepard,

General Superintendent.

Dear Sir:-

The following from Trainmaster Sullivan,

March 9th:

"I am sending you, under separate cover, today, two red fusees handed me by flagman H. E. Baker, on trains Nos. 11 and 12, which are a part of a consignment he recently drew from the Stores Dept., and which he claims are not up to the standard.

"On a recent trip, he threw off five of these fusees and only two of them remained lighted. You undoubtedly will wish to have these fusees tested."

The fusees in question are being sent to you under separate cover.

Yours truly,

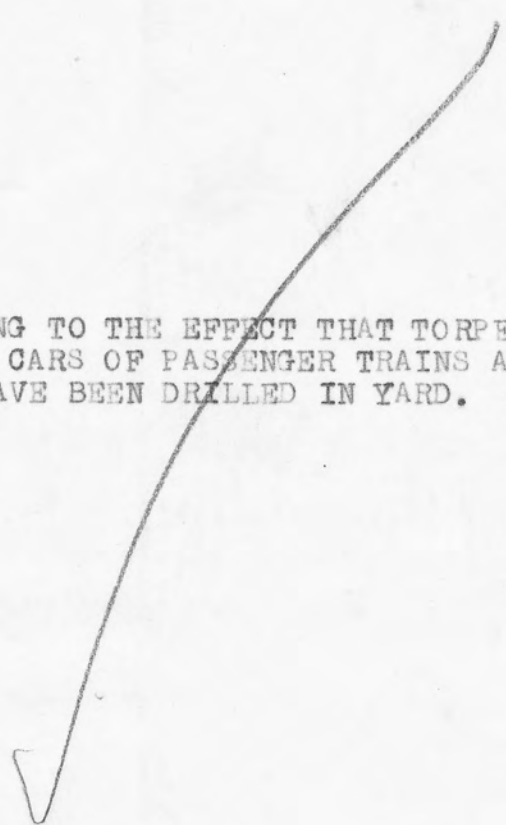
H. B. Staub
Superintendent.

R.

8007

8228
R.F.
✓8007

CORRESPONDENCE RELATING TO THE EFFECT THAT TORPEDOES ARE LEFT
ON TAIL GATES ON REAR CARS OF PASSENGER TRAINS AND ARE FOUND
FASTENED AFTER CARS HAVE BEEN DRILLED IN YARD. SEE 8228.



8007

February 16, 1925.

8007: Torpedo Manufactured by the DuPont Company.

Mr. E. H. Rine,
Vice President & General Manager.

Dear Sir:

Replying to your letter February 11 and returning enclosure from the Dominion Cartridge Company, Wilmington, Del., relative to torpedo manufactured by the DuPont Company. Chemist and Engineer of Tests Force submits the following report:

"I am returning herewith correspondence from Vice President and General Manager, Mr. Rine, together with correspondence from the Dominion Cartridge Company, Ltd., of Wilmington, Del., and same has been carefully noted.

The torpedo we are now using has been in use for several years and is entirely satisfactory, and was adopted after considerable experiments and tests with various torpedoes, and my feeling is that we should not change at this time.

The one made by the Dominion people claims to have more or less of a flash. If the engineer does not hear our present torpedo, it is not likely he will see any flash. Also they claim of the torpedo admitting a peculiar odor. This is of no account in my judgment, as it would not have time to reach the engineer on account of the speed of the locomotive, and as far as I can see is of no value whatever. Neither do I think that the brass clip they make is as good as the steel clip we are now using, for if a torpedo of this kind should be applied to a rail which is quite badly worn, I do not believe it would hold.

We had some trouble on this account at one time and very largely for this reason we adopted the clip on the present torpedo we are using, and as stated above, I do not feel that we should make any change at this time."

It seems to me, however, that the proper way to determine whether there is any advantage in the new type of torpedoes was to try them out. I note the Meteor people are

-2-

agreeable to sending us some samples for test purposes and I would suggest that we ask them to do so.

Yours truly,

1-G

Scranton, Pa.
Feb. 13, 1925.

File D-60-1

8007: Torpedo manufactured by the DuPont Company.

Mr. H. H. Shepard, ✓
General Superintendent.

Dear Sir:

I am returning herewith correspondence from Vice President and General Manager, Mr. Rine, together with correspondence from the Dominion Cartridge Co., Ltd., of Wilmington, Del., and same has been carefully noted.

The torpedo we are now using has been in use for several years and is entirely satisfactory, and was adopted after considerable experiments and tests with various torpedoes, and my feeling is that we should not change at this time.

The one made by the Dominion people claims to have more or less of a flash. If the engineer does not hear our present torpedo, it is not likely he will see any flash. Also, they claim of the torpedo admitting a peculiar odor. This is of no account in my judgement, as it would not have time to reach the engineer on account of the speed of the locomotive, and as far as I can see is of no value whatever. Neither do I think that the brass clip they make is as good as the steel clip we are now using, for if a torpedo of this kind should be applied to a rail which is quite badly worn, I do not believe it would hold.

We had some trouble on this account at one time, and very largely for this reason we adopted the clip on the present torpedo we are using, and as stated above, I do not feel that we should make any change at this time.

Yours very truly,

H. H. Jones
C & E T

cc: C. J. Scudder.

8007

February 12, 1925.

8007: Torpedo manufactured by the DuPont Company.

Mr. H. J. Force,

Chemist & Engineer of Tests.

Dear Sir:

Herewith letter from the Vice President and General Manager, February 11 with communication from the Dominion Cartridge Company, Ltd., Wilmington, Del., relative to new type of torpedo manufactured by the E.I. DuPont De Nemours Company. Have you seen this new torpedo and what is your opinion of it?

Yours truly,

1-G

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

OFFICE OF
VICE-PRESIDENT AND GENERAL MANAGER
90 WEST STREET, NEW YORK

E. M. RINE
VICE-PRESIDENT AND GENERAL MANAGER

February 11th, 1925.

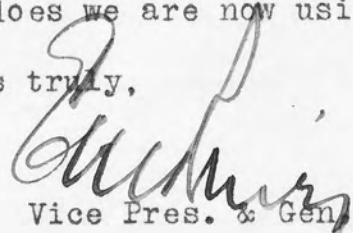
Mr. H. H. Shepard,
General Superintendent.

Dear Sir:-

I am enclosing herewith correspondence referred to me by the Purchasing Agent, with reference to new type of torpedo manufactured by the duPont people.

Will you not please confer with Mr. Force and let me have your recommendations thereon? Their price is considerably higher than what we ~~now~~ pay for the torpedoes we are now using.

Yours truly,


Vice Pres. & Genl Mgr.

8007

January 28, 1925.

Mr. P. Cizek,

Superintendent, Binghamton.

Dear Sir:

Replying to yours of January 23, relative five defective fuses:

Chemist Force advises me that he has already notified our Purchasing Department that these fuses of the Standard Railway Fuse Corporation of Boonton, N.J., were not satisfactory and orders are now being placed with another manufacturer.

Any fuses which you discover to be unsatisfactory in the service should be sent to Mr. Force at the Scranton Laboratory for examination.

Yours truly,

(s) H.H. Shepard

HD1264

Copy Mr. R.M. White
Mr. H.J. Mullaghy
Mr. A.E. Staub
Mr. H.E. Griffith

Scranton, Pa.
January 26, 1925

File B-8 -1

Mr. H. H. Shepard,
General Superintendent.

Dear Sir:

I have yours of January 24th, file 8228:8007, with reference to five red fusees not lighting, due as you state, to improper manufacture.

At the present time we are not accepting any red fusees of this make, which is the Standard Railway Fusee Corp., of Boonton, N.J. I have written to our people advising them that these fusees were not satisfactory, and it is my understanding that they are now placing orders with another manufacturer, with the view of obtaining a fusee which will be more satisfactory in service. Any fusees which you may discover which are not satisfactory in service, I wish you would have them sent to the Laboratory for examination.

Yours very truly,

H. J. Fone
C & E T

P.S. Am returning herewith your letter from Supt. Cizek.

cc: C.J. Scudder.

Safety Item #525

8228
8007

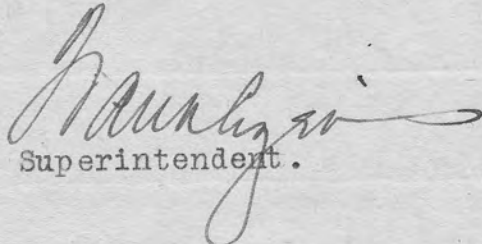
Binghamton, New York,
January 23rd, 1925.

Mr. H. H. Shepard:

S&U Division Safety Item #525 reads as follows:

"FUSEES: Trainmaster Murphy reported 1/19/25 that trainman D. Jessey called his attention to fact that on January 9th when flagging against #919 he ran across five red fusees he could not light due to paper wrapping extending above top of fusee, it being necessary to cut paper wrapper down in order to strike fusee with cap."

You will no doubt desire to take up with the manufacturers with view of having these fusees given closer inspection in order to prevent such defective fusees being furnished.


Superintendent.

January 24, 1925.

8228:

8007:

Mr. H. J. Force,

C. & E.T., Scranton.

Dear Sir:

I am enclosing herewith letter from Superintendent Cizek, in regard to Safety Item 525, relating to the condition of fuses, trainman Jessey reporting where he had come across five red fuses he could not light due to paper wrapping extending above top of fuse, making it necessary to cut the paper wrapping down in order to strike fuse with cap.

Why are fuses of this character approved for service?

Yours truly,

HHS-4

8007

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

OFFICE OF GENERAL SUPERINTENDENT

SCRANTON, PA.

January 23, 1925.

H. H. SHEPARD
GENERAL SUPERINTENDENT

Mr. H. J. Force,

C. & E.T., Scranton.

Dear Sir:

I have your advice of January 22, that the yellow fuses which you recently approved are the same make as the ones recently reported as unsatisfactory on account of the color being too nearly red.

I cannot understand why, under the circumstances, you should have approved them.

Yours truly,

HHS-4

Scranton, Pa.

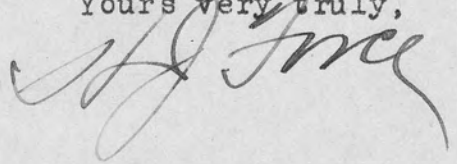
January 22, 1925

Mr. H. H. Shepard,
General Superintendent.

Dear Sir:

Replying to yours of Jan. 21st
regarding yellow fusees, wish to advise that the
fusees covered by this report are the same make
as the ones we recently found unsatisfactory, viz:
Standard Rwy. Fusee Corp., of Boonton, N.J. I under-
stand, however, that future shipments will come from
the Central Signal Company.

Yours very truly,

A handwritten signature in dark ink, appearing to read "C. E. T.", written in a cursive style.

C & E T

8007

January 21, 1925.

On Line at Buffalo, N.Y.

Mr. H. J. Forcee,

C.& E.T., Scranton.

Dear Sir:

Purchasing Agent Hubbell has transmitted to me your report to Superintendent M.P. & E. Seudder of January 17 of your analysis of yellow fusees, which you state now meet our requirements.

Are the fusees in question of the same make as the ones we recently found unsatisfactory?

Yours truly,

HHS-4

Purchasing Department

New York City,
January 19th, 1925.

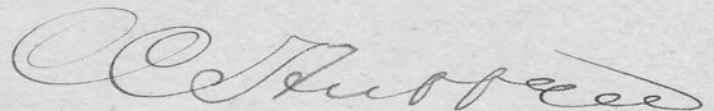
FILE "CCH"

Mr. H. H. Shepard:-

You advised me a few days ago by 'phone
that yellow fusees which we had been getting were not
satisfactory.

Please note attached Report of Analysis
from Chemist Force under date of 17th inst., indicating
that yellow fusees are apparently now O.K.

Yours truly,



CCH.S

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY
LABORATORY

H. J. FORCE,
CHEMIST AND ENGINEER OF TESTS

SCRANTON, PA. Jan. 17, 1925. 192

REPORT OF ANALYSIS NO. 55315
TEST REQUEST NO.
REQ. NO. see below
SPEC. NO.
SAMPLE Fusees
SENT IN BY I.H.Lance & W.E.phillips
USED FOR general
MANUFACTURER Standard Rwy. F.Corp.



Mr. C.J. Scudder,

Supt. M P & E.

Dear Sir:

Herewith find results of our inspection
at the plant of the Std. Rwy. Fusee Corp:

Order	Amount	Kind	Shipped To.	Results.
GS 306	62 gross	Yellow	I.H.Lance	Accepted ✓
"	9 "	Red	"	Rejected ✓
GS 492	100 "	Yellow	"	Accepted ✓
"	100 "	Red	"	Rejected ✓
GH 158	20 "	Yellow	W.E.Phillips	Accepted ✓
GH 84	20 "	Yellow	"	Accepted. ✓

Note: The above red fusees have been rejected on
account of chimneying, and the burning test was not
satisfactory. The yellow fusees meet our requirements.

Yours truly,

H. J. Force
C & E T

CID JHL WEP CCH

Scranton, Pa., January 20, 1925.

File 110

Mr. C.C. Hubbell,
Purchasing Agent,
New York, N.Y.



Dear Sir:-

Referring to yours of January 14th,
file "CCH", regarding fusees.

Chemist & Engineer of Tests Force
advises that he has just returned from Boonton
where he made inspection of yellow and red fusees
and he can see no signs of red tint in the yellow
fusees and same were accepted. The red fusees
which he inspected did not burn satisfactorily
and were rejected.

It is noted that you have con-
tracted with the Central Railway Signal Company
for both yellow and red fusees, and I will so
inform Mr. Force and instruct him to let us have a
report on fusees made by this concern.

Yours truly,

Chas J. Sudder

Supt. Motive Power & Equipment.

CC-Mr. H.J. Force

H.J.F.

① Please note

Cut 1/21

Purchasing Department

8007
New York City,
January 14th, 1925.

FILE "CCH"

Mr. C. J. Snader:-

General Superintendent Shepard called me up to-day and advises that certain yellow fusees which we have gotten recently are not satisfactory. He stated that Mr. H. J. Force had told him that some satisfactory fusees could be gotten from some concern in Boston.

I assume he means the Central Railway Signal Co., and for your information beg to say that we have recently placed a contract with these people for both yellow and red fusees and orders have already been placed for some, and which I assume will be satisfactory.

Will you please investigate and advise.

Yours truly,

CCH.S

CC to H.H.S. - As per 'phone to-day.

CCH

8007

Scranton, Pa. Dec. 23, 1924

Mr. C. C. Hubbell,
Purchasing Agent

Dear Sir:-

You will note by Mr. Force's report of analysis No. 55145 that he has condemned 206 gross red fusees on four different orders for shipment to Scranton and East Buffalo.

On account of the condemnation of such an unusually large number of fusees, we will have to make use of some of the condemned fusees, which matter I have discussed with Mr. Shepard, until you get some fusees to us that passes Mr. Force's analysis. Mr. Force advised me this morning that he has been trying to get these people to give us fusees properly manufactured but he is unable to do anything with them and, if this is the case, I believe we should discontinue buying from them.

Please hurry twenty (20) gross of red fusees to Storekeeper Doherty at East Buffalo and one hundred (100) gross to me at Scranton to replace the condemned fusees, which will be covered by requisitions in the regular way, bearings numbers G-B 215 and G-S 540. Please do not hold up obtaining these fusees for the requisitions. As soon as replacement shipments have been received, I will report to you the number of condemned fusees on hand so that they can be

C.C.H...#2

returned to the manufacturers. Pending receipt of the replacement shipments we will, as stated, have to use these condemned fusees.

Yours truly,



Handwritten signature of J. H. Scudder, General Storekeeper.

GENERAL STOREKEEPER

IHL/D

Copy to-Mr. E. M. Rine
Mr. H. H. Shepard ✓
Mr. C. J. Scudder

8007

June 26, 1924.

8007: Specifications for torpedoes.

Mr. E. M. Rine,

Vice President & General Manager.

Dear Sir:

Replying to your memorandum June 18 and returning circular from Secretary Caviston of the American Railway Association, specifications for track torpedoes.

Chemist and Engineer of Tests Force has gone over these specifications and find that they are similar to our specifications with the exception that the A.R.A. wording is a little more explicit. Mr. Force states that when supply of his present specification is exhausted he will replace them in accordance with the A.R.A. Standard.

Respectfully yours,

1-G

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY
OFFICE OF GENERAL SUPERINTENDENT

SCRANTON, PA.

June 23, 1924.

H. H. SHEPARD
GENERAL SUPERINTENDENT

8007: Torpedoes.

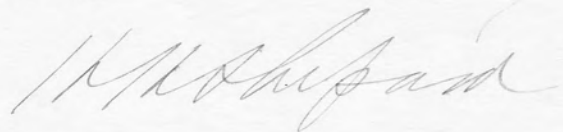
Mr. H. J. Force,

Chemist & Engineer of Tests.

Dear Sir:

Please return A.R.A. Specifications for torpedoes
sent you with my letter June 19, your reply of the 21st.

Yours truly,



1-G

June 23, 1924.

8007: Torpedoes.

Mr. H. J. Force,

Chemist & Engineer of Tests.

Dear Sir:

Please return A.R.A. Specifications for torpedoes
sent you with my letter June 19, your reply of the 21st.

Yours truly,

1-G

Scranton, Pa.
June 21, 1924.

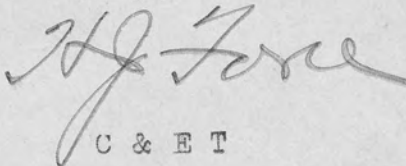
File C-14

Mr. H. H. Shepard,
General Superintendent.

Dear Sir:

Replying to your letter of June 19th,
file 8784, regarding specifications for torpedoes,
wish to advise that I have gone over this specification
and find that our specification is in accordance with same,
with the exception that this specification is a little more
explicit. Inasmuch as the changes are not very important,
I do not think it necessary to revise our specifications.
However, when our supply is exhausted, we will revise same
in accordance with the A.R.A. Standard.

Yours truly,


C & E T

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

OFFICE OF
VICE-PRESIDENT AND GENERAL MANAGER
90 WEST STREET, NEW YORK

E. M. RINE
VICE-PRESIDENT AND GENERAL MANAGER

June 18th, 1924.

H. H. Shepard:

I am enclosing herewith copy of circular issued by Secretary Caviston of the American Railway Association, Division I, Operating, under date of June 10th, specifications for track torpedoes.

How does this compare with what we are using and have you any changes to suggest?

E.M.Rine

June 19, 1924.

8784: Specifications for torpedoes.

Mr. H. J. Force,

Chemist & Engineer of Tests.

Dear Sir:

Herewith memorandum from the Vice President and General Manager, June 18, with copy of circular from the American Railway Association regarding specifications for track torpedoes.

Have you anything to suggest?

Yours truly,

1-G

Copy for

8007

C O P Y

June 3, 1924.

On Line at Buffalo, N.Y.

12171:

Mr. R. M. White,

Superintendent, Hoboken.

Dear Sir:

Your letter of May 29, file 4.41 relating to Item 21 of M. & E. Division Fire Board Minutes, recommending the construction of a fire proof vault for storing fusees and torpedoes at Hoboken.

Please drop this matter until we advise you in regard thereto.

Yours truly,

H.H. Shepard.

HHS-4

8007

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

OFFICE OF CHIEF ENGINEER

HOBOKEN, N. J.

May 31st, 1924.

G. J. RAY
CHIEF ENGINEER

FILE NO. _____

Mr. H. H. Shepard,

General Superintendent.

Dear Sir:-

In regard to your letter of the 12th, concerning delays to extra 1133 on April 17th, because of Foreman using fusees.

We have looked into the case and while the Foreman in question has been cautioned to be careful in the use of fusees, it is very evident that he was using extreme care to prevent being stuck on account of his gasoline car not working properly.

Yours truly,



Chief Engineer.

RN

8007

May 12, 1924.

8044:
delay X-1133, April 17, two miles east of Elmira,
account red fusee on track.

Mr. G. J. Ray:

Attached papers.

Do you feel that these fusees were
properly and justifiably used?

H.H.S.

Misc:

Scranton, Pa., May 5, 1924.

H.H. Shepard,
Gen'l Supt.

Referring to Supt. Mullaghy's message of April 18th., relative to Condr. Haggerty on 2/54, Ex. 1133 April 17th., reporting delay of five minutes two miles east of Elmira, account of red fusee on track.

Sergt. Larison interviewed Condr. Haggerty who advises he found red fusee on track two miles east of Elmira and that it was left there by section men from Lowman. Haggerty advises that crew on yard engine saw section men throw it off their speeder.

Engineer Hartle stated he ran into three between Elmira and Lowman Crossing causing him several minutes delay and later saw section men on platform at Lowman.

CC-EMR
HJM
AES

J. V. Murphy
Chief Special Agent.

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Operators are required to write all telegrams in INK or with INDELIBLE PENCIL. (See Rules 261, 262, 263, 264 and 268, Transportation Department.)

Office Rec'd from	Sent by	Rec'd by	Time Rec'd	TELEGRAM	Office Sent to	Sent by	Rec'd by	Time Sent
				TIME FILED				

DO NOT USE TELEGRAPH WHEN MAIL WILL ANSWER THE PURPOSE.**BE BRIEF.**

From Scranton, April 18, 1924. 192

To HHS. ✓
FHS.

Condr. Haggerty of 2/54, Extra 1133,
April 17, Engr. J. Hartle, left Elmira 5.45 P.M.
reports 5 minutes delay 2 miles east of Elmira by
red fusee.

Last train No. 28, same being on time. 1924
This for your information.

H.J. Mullaghy, Supp.

8007

February 26, 1924.

21300:

8007:

Mr. J. H. Thornton,

Stationer, New York.

Dear Sir:-

We return herewith proof of book Form T-54-A, covered by your order B&P 4039-A, dated December 29, placed with the Baughman Stationery Company, Richmond, Va. We have made one correction on the second page. In Paragraph 2D, word should be "Moved" instead of "removed". With this correction, the blank is O.K. to print.

Yours truly,

1-W

8007:
December 21, 1923.

8007: Red Fusees.

Mr. A. E. Staub,

Superintendent.

Dear Sir:

Referring to yours December 19, no file,
in regard to two red fusees failing to light for
Conductor S. H. Allen. Chemist Force has examined
these fusees and submits the following report:

"Replying to yours of December 19,
with reference to two fusees wish to
advise that one of these fusees is very
greasy and dirty and I would not expect
it to light under these conditions. The
other fusee has also not been given proper
protection. There is a possibility that some
of these fusees have been very badly handled,
and perhaps some of the scratchers have been
torn off. I am of the opinion, however,
that if more care was taken in handling these
fusees, we would get better results."

Yours truly,

1-G

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

OFFICE OF CHEMIST AND ENGINEER OF TESTS

SCRANTON, PA.

H. J. FORCE
CHEMIST AND ENGINEER OF TESTS

December 20, 1923

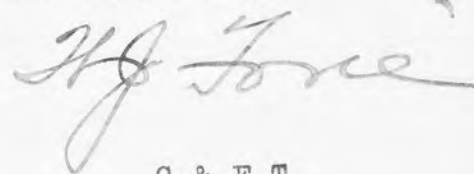
Mr. H. H. Shepard,

Gen. Supt.

Dear Sir:

Replying to yours of December 19th, with reference to two fusees wish to advise that one of these fusees is very greasy and dirty, and I would not expect it to light under these conditions. The other fusee has also not been given the proper protection. There is a possibility that some of these fusees have been very badly handled, and perhaps some of the scratchers have been torn off. I am of the opinion, however, that if more care was taken in handling these fusees, we would get better results.

Yours very truly,



C & E T

1-TIY

December 19, 1923.

8007:

Mr. H. J. Force,

Chemist & Engineer of Tests.

Dear Sir:

Referring to enclosure from Superintendent Staub, please let me have result of your test of the two red fusees turned in by Conductor S. H. Allen on Buffalo Division.

Yours truly,

1-G

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Buffalo, N.Y., December 18, 1923.

Mr. H. H. Shepard,

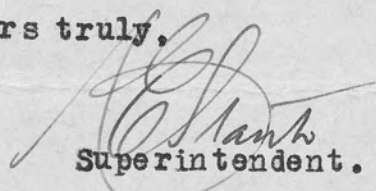
General Superintendent.

Dear Sir:

I have sent to Chemist Force on Train No. 6 today, two red fusees which failed to light for conductor S. H. Allen.

Conductor Allen also states that he has recently found a number of these fusees which would not light.

Yours truly,


Superintendent.

3:H

cy-HJF.

8007.

July 10, 1922.

8007: Specifications track torpedoes.

Mr. K. M. Kine,

Vice President & General Manager.

Dear Sir:

Replying to your letter June 26 and returning inquiry from Operating Division of the American Railway Association as to necessity for sanding bottom or base of torpedoes.

Have canvassed the situation with Superintendents, Trainmasters, Chemist Force and trainmen. It is the consensus of opinion that it is not necessary to sand the base of torpedoes. The torpedoes used by D.L. & W. are secured to track by a metal clamp, not sanded, and are giving satisfactory service.

Yours truly,

1-G

8007.
Bangor, Pa.,

July 8, 1922.

8007. Specifications for track torpedoes.

Mr. H. H. Shepard:-

Referring to your letter June 27, file number and subject as above.

Would state that we have discussed this matter with a number of our conductors and trainmen who report no single instance of failure of torpedoes account being pushed from rail by wheels of equipment.

It would appear from the type of torpedo with which we have been furnished that its construction is such as to bind it very securely to the rail and we cannot see any reason, or neccessity, of sanding the top or the bottom.

J. B. Gypsett
Superintendent

T. DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Binghamton, New York,

July 3rd, 1922.

Mr. H. H. Shepard:

Your joint letter of June 27th, file 8007, enclosing copy of circular inquiry from the American Railway Association relative to specifications for track torpedoes.

We have consulted some of our oldest flagmen in this matter and they see no necessity for sanding torpedoes and feel that if torpedo is put on rail properly with the clamp it is equipped with there should be no question of it sticking to rail. I quite agree with this, as I do not see how a torpedo can slide off rail if it is clamped on securely and properly, and the sanding of torpedoes should be unnecessary.

Franklin
Superintendent.

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

OFFICE OF CHEMIST AND ENGINEER OF TESTS

SCRANTON, PA.

June 28th, 1922.

H. J. FORCE
CHEMIST AND ENGINEER OF TESTS

Subject: Specifications for Track Torpedoes.

Mr. H. H. Shepard,
General Superintendent.

Dear Sir:

Replying to your circular letter of the 27th instant, in regard to specifications for Track Torpedoes, with special reference to sanding of same, beg to advise that we have not had sand placed on our torpedoes, either top or bottom, for some time, and have heard no complaints as to failures. It is my opinion that sanding is unnecessary.

Yours truly,

H. J. Force

8007

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Scranton, Pa., June 30, 1922.

File 1052.

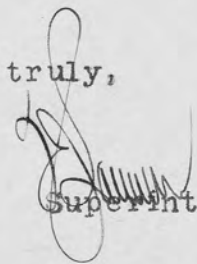
Mr. H. H. Shepard,
General Superintendent.

Dear Sir:-

Replying to your letter of the 27th instant, file 8007, Specifications for track torpedoes, and returning copy of circular inquiry from the American Railway Association relative to specifications for track torpedoes, Would advise that I have taken this matter up with our trainmasters and in our opinion, we do not think it necessary to sand bottom or base, or in fact, any part of the torpedoe. The torpedoes that we use are fastened to the ball of the rail with spring strips, which clamp the ball of rail tightly, the torpedoe being wedge shape.

I do not know of an instance where these torpedoes have been pushed from the rails by wheels of equipment coming in contact with them.

Yours truly,


Superintendent.

C O P Y

REPLY TO CIRCULAR LETTER DATED JUNE 23, 1922.

AMERICAN RAILWAY ASSOCIATION

OPERATING DIVISION

To be returned to J. C. Caviston, Secretary, 30 Vesey Street,
New York City.

R

1. Is it desirable to have the bottom or base of track torpedo sanded?
2. Is it desirable to have the bottom and top of torpedo sanded?
3. Has your experience indicated that torpedoes without the base sanded are frequently or easily pushed from the rail by wheels of equipment?

(Official)

(Title)

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

OFFICE OF SUPERINTENDENT

Hoboken, N.J., June 30th, 1922.

File 4144

Mr. H. E. Shepard,

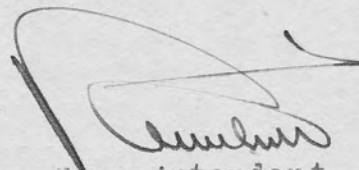
General Superintendent.

Dear Sir:

Your letter of June 27th, File 8007, specifications for track torpedoes.

I have talked this matter over with Assistant Superintendent Pierce, trainmasters and others and it is the concensus of opinion that the top and bottom of the torpedo should not be sanded as we have never experienced any difficulty with the present type. We did, however, have some trouble several years ago on account of the steel band not being large enough to go around the head of the rail but this has been corrected and no further trouble experienced.

Yours truly,


Superintendent.

8007.

June 27, 1922.

8007: Specifications for track torpedoes

RECAP:

+A. E. White, Superintendent,	Notoken.
+F. J. Lawrence,	" Scranton.
A. E. Staub,	" Buffalo. <i>Hoans,</i>
+Frank Cizek,	" Binghamton.
+H. E. Griffith,	" Bangor.

Continued:

I enclose copy of circular inquiry from the American Railway Association relative to specifications for track torpedoes. Question has arisen as to the necessity for sanding the bottom or base of the torpedo. The Committee of the A.R.A. would like the benefit of the Operating man as to this point as outlined a copy of reply blank attached. Please let me have your expression of opinion from you.

Yours truly,

1-0

X C.C.H.J.F. What do you say.

8007
THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

OFFICE OF
VICE-PRESIDENT AND GENERAL MANAGER
90 WEST STREET, NEW YORK

E. M. RINE
VICE-PRESIDENT AND GENERAL MANAGER

June 26th, 1922

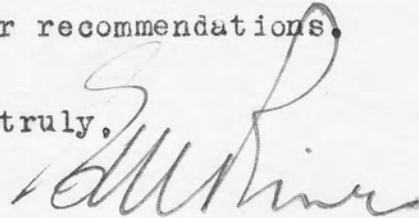
Mr. H. H. Shepard,
General Superintendent.

Dear Sir:

Note the attached from Secretary Caviston, dated
June 23rd, on Specifications for Track Torpedoes.

Please let me have your recommendations.

Yours truly,



Vice Pres. & Gen. Mgr.

8007
July 1, 1922.

8007:

Mr. F. J. Lawrence,
Superintendent.

Dear Sir:

Referring to your letter June 9, file 1052,
reported failure of red fusees in hands of Trainmasters
Mullaghy and U'Dea making test night of the 8th inst.
These fusees were forwarded to Chemist Force and I enclose
his letter June 30 commenting thereon. Instructions are
plainly printed on each fusee as to length of time to be
held before throwing.

Yours truly,

1-G

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Scranton, Pa. June 9, 1922

1052:

Mr. H. H. Shepard,
General Superintendent.

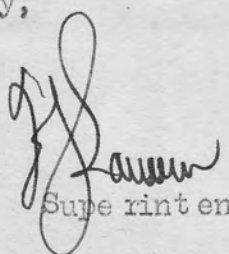
Dear Sir:

I am handing you herewith five red fusees, which failed to perform service for which they are intended.

Trainmasters Mullaghy and O'Dea in making test last night took from Scranton ten fusees. A part of these fusees went out when stuck in ground and another part went out when they were thrown on the ground. They secured these from stock in Crew Dispatcher's office, Scranton Yard.

I consider them inferior in quality.

Yours truly,


Superintendent

H. H. Jones
Trainmaster
Chas. Adams

H. H. Shepard
ag

These fusees
Mc
J. J. Lamm

8007.

February 16, 1922.

8007: Defective fusees

Mr. I. H. Lance,

General Storekeeper.

Dear Sir:-

Referring to your letter February 8, file 53765, with respect to returning to the Standard Railway Fusee Corporation at Boonton, N. J. defective fusees furnished for our use:

Chemist and Engineer of Tests Force suggests that all fusees which we have condemned should be returned to the Standard Railway Fusee Corporation for replacement and that all red fusees marked December 1921 be taken out of service and returned for replacement. Examination shows that the trouble we recently experienced was with the fusees made in December last.

Will you arrange?

Yours truly,

1-j.

THE DELAWARE, LACKAWANNA & WESTERN RAILROAD COMPANY

OFFICE OF CHEMIST AND ENGINEER OF TESTS

SCRANTON, PA.

February 14, 1922.

H. J. FORCE

CHEMIST AND ENGINEER OF TESTS

File B-8

Subject: Condition Fusees - Standard Rwy. Fusee Corp.

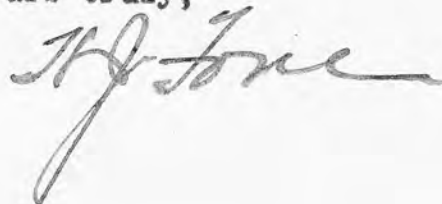
Mr. H. H. Shepard,
General Superintendent.

Dear Sir:

Replying to your letter of the 13th inst.,
file 8007, in regard to attached letter from Mr. Lance rel-
ative to fusees received from the Standard Railway Fusee Corp.

All fusee which we have condemned should be
returned to the Standard Rwy. Fusee Corp. for replacement.
Would also suggest that all red fusees which you have in service
marked December 1921 be taken out of service and returned to
these people for proper replacement, as we find that it is the
fusee made in December that are giving trouble.

Yours truly,



encl-

8007
THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

OFFICE OF GENERAL STOREKEEPER
SCRANTON, PA.

I. H. LANCE
GENERAL STOREKEEPER

File No. 53765

February 8, 1922

Mr. H. H. Shepard:

I return Mr. Force's letter 4th inst., file B-8, sent me with yours same date, file 8007, referring to mine 1st inst., relative to quality of fusees procured from the Standard Railway Corp., at Boonton, N. J.

Mr. Force's letter simply states the facts in the case. If there are any fusees in service that you wish returned to the Standard Railway Fusee Corp. at Boonton, N. J., and will have such fusees turned over to us, we will be very glad to return them for replacement.

B/A

I. H. Lance

8007
THE DELAWARE, LACKAWANNA & WESTERN RAILROAD COMPANY

OFFICE OF CHEMIST AND ENGINEER OF TESTS

SCRANTON, PA.

February 4th, 1922.

H. J. FORCE

CHEMIST AND ENGINEER OF TESTS

File B-8

1-1

Subject: Condition fusees - Standard Rwy. Fusee Corp.

Mr. H. H. Shepard,
General Superintendent.

Dear Sir:

Returning herewith Mr. Lance's letter of January 28th to you, in regard to fusees received from the Standard Rwy. Fusee Corp. of Boonton, N.J.

During the later part of November we received samples of a shipment of fusees furnished by the Standard Railway Fusee Corp. When these arrived they were of course new to us, but as far as laboratory tests were concerned they appeared to be satisfactory, but we immediately conferred with Mr. Lance and advised him that these should not be released for three or four weeks, until we had time to study them further, as defects often develop in new fusees. One condition which often develops is that match (or igniting material) becomes dried and falls off, and for this reason we did not want to have them placed in service until we were sure of them. Mr. Lance advised that they were entirely out of these and that if they met the ordinary laboratory tests they would have to be put in service. I also called your Chief Clerk, Mr. Barger, to see why these were purchased without an extended investigation.

Other shipments which arrived later were found to be bad, and upon investigating I find at least one box of red fusees which had been rejected by us were placed in service at Hoboken. I am advised that they were completely out of them and had to use this box. You will note that most of the fusees which are returned are red ones.

As stated in my letter of January 28th to you, I made an inspection of this company's plant and outlined a series of tests to them, which leads ~~in~~ me to believe that the fusees which they furnish in the future will be entirely satisfactory.

When a new fusee is to be used on our road, I think that a gross should be ordered and held at the laboratory for careful investigation before placing in service.

I do not mean to say, however, that this will prevent the factory from making mistakes, but it will give us time to study the fusees after they have aged.

Yours truly,

H. L. Jones

encl-

8007.

February 13, 1922.

8007: Fusees:

Mr. H. J. Force,

Chemist & Engineer of Tests.

Dear Sir:

Referring to yours February 4, file B-8,
concerning condition of fusees received from the Standard
Railway Corporation at Boonton, N.J. Note next attached
from General Storekeeper Lance and advise if you feel we
should now return to the Standard Railway Corporation supply
of fusees now on hand and request that they replace them
with a better grade fusee.

Yours truly,

1-G

8007.

February 4, 1922.

8007:

Mr. I. H. Lance,
General Storekeeper.

Dear Sir:

Referring to yours of February 1, relative to
quality of fusees procured from the Standard Railway Corp.,
at Boonton, N. J.

Your communication was referred to Chemist Force
and I attach his letter of February 4, file B-8, in reply
thereto.

Please return the enclosure when it has served
your purpose.

Yours truly,

1-L.

8007.
THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

OFFICE OF GENERAL STOREKEEPER

SCRANTON, PA.

February 1, 1922

I. H. LANCE
GENERAL STOREKEEPER

MR. H. H. SHEPARD:

Yours of Jan. 30th to Superintendents, File 8227,

Subject: Fusees purchased from the Standard Railway Fusee Corporation (not the Standard Railway Signal Company).

I note in last part of Mr. Force's letter to you, he suggests that shipments of fusees from which we have had failures be returned to the Standard Railway Fusee Corp. This is an impossibility as these fusees are scattered all over the system and no one knows where they are. We do not send out any fusees which Mr. Force condemns and the ones that were sent out are those that he accepted.

IHL/D

I. H. LANCE

✓

8007

February 7, 1922.

8007:

Mr. H. J. Force,

Chemist & Engineer of Tests.

Dear Sir:-

Under separate cover we are sending you another defective fusee turned in by Superintendent Staub from Buffalo Division.

Yours truly,

1-j.

8007

Buffalo, N.Y., February 6th, 1922.

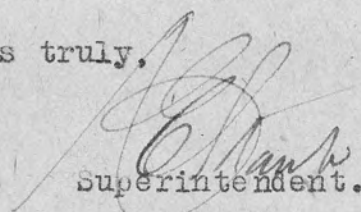
Mr. H. H. Shepard,
General Supt.

Dear Sir,

Referring to previous correspondence
in regard to defective fusees.

I am sending to you today, under
register cover No. 35190, another defective fusee.

Yours truly,


Superintendent.

8007.

February 23, 1922.

8007:

Mr. H. J. Force,

Chemist and Engineer of Tests.

Dear Sir:

Under separate cover, we are sending you defective fusee, sent in by Superintendent Staub from Buffalo. This is under register 35208.

Yours truly,

l-v.

Buffalo, N.Y., February 21st, 1922.

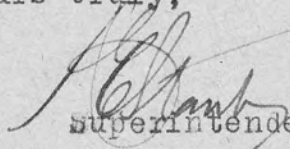
Mr. H. H. Shepard,
General Supt.

Dear Sir,

Referring to previous correspondence
in regard to defective fusees.

I am sending to you today, under
register No. 35208, another defective fusee.

Yours truly,


superintendent.

8007

February 21, 1922.

8007:

Mr. H. J. Force,

Chemist and Engineer of Tests.

Dear Sir:

Under separate cover, we send you defective fusee referred to in letter from Superintendent Lawrence, dated February 20, attached.

This was turned in by Conductor Secor of Trains 44-45.

Yours truly,

l-v.

8007.

February 2, 1922.

✓
8007: Condition of fusees -

Mr. H. J. Force,

Chemist & Engineer of Tests.

Dear Sir:-

Referring to your letter January 28, copy to Messrs. Manchester and Hubbell, relative to fusees of the Standard Railway Signal Company, Boonton:

Note next attached from General Storekeeper Lance advising that correct name of the corporation is Standard Railway Fusee Corporation and also that he is not sending out any fusees, accept those that your department has accepted.

Please advise further.

Yours truly,

1-j.

5007.

January 30, 1922.

6227: Fuses purchased from Standard Railway Signal Company.

Messrs:

H. H. White, Superintendent,	Hoboken.
F. J. Lawrence,	" Scranton.
A. E. Staub,	" Buffalo.
Frank Cizek,	" Binghamton.
H. E. Griffith,	" Bangor.

Gentlemen:

We have recently had some failures with fuses furnished by the Standard Railway Signal Company, Boonton, N.J. Chemist and Engineer of Tests Force interviewed the manufacturers and I quote his report for your information.

"I have made an inspection of the plant of the Standard Railway Signal Company at Boonton, N.J. and find that they have a plant far better equipped for the manufacture of high grade fuses than any other plant I have inspected.

I have outlined a series of tests for them to make on their raw materials, which will make it certain that no material will be employed in the manufacture of our fuses which will prove defective after manufacture. This will insure us against receiving shipments of fuses which are defective in manufacture, due to poor raw materials, and which are often placed in service on account of shortage.

Am certain that the trouble recently experienced with the fuses received from this company will not occur again, and this will insure us of the receipt of fuses of high quality.

Would suggest that shipments of fuses from which we have had failures be returned to the Standard Railway Signal Company, as I have been advised by them that they will gladly replace them without cost with first class material."

Have in hand with the Stores Dept. question of returning the defective fuses.

Yours truly,

-2-

C.G.
I.H.L.

Mr. Hubbell has a copy of this report and will no doubt instruct with respect to return of the fusees which have not been giving satisfactory service.

H.H.S .

THE DELAWARE, LACKAWANNA & WESTERN RAILROAD COMPANY

OFFICE OF CHEMIST AND ENGINEER OF TESTS

SCRANTON, PA. January 28th, 1922.

H. J. FORCE
CHEMIST AND ENGINEER OF TESTS

Subject: Fusees - Standard Railway Signal Co., Boonton, N.J.

Mr. H. H. Shepard,
General Superintendent.

Dear Sir:

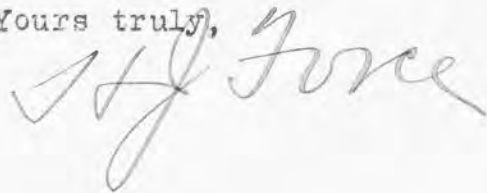
I have made an inspection of the plant of the Standard Railway Signal Company at Boonton, N.J., and find that they have a plant far better equipped for the manufacture of high grade fusees than anyother plant I have inspected.

I have outlined a series of tests for them to make on their raw materials, which will make it certain that no material will be employed in the manufacture of our fusees which will prove defective after manufacture. This will insure us against receiving shipments of fusees which are defective in manufacture, due to poor raw materials, and which are often placed in service on account of shortage.

Am certain that the trouble recently experienced with the fusees received from this company will not occur again, and this will insure us of the receipt of fusees of high quality.

Would suggest that shipments of fusees from which we have had failures be returned to the Standard Railway Signal Company, as I have been advised by them that they will gladly replace them without cost with first class material.

Yours truly,



cc-Mr. Manchester
Mr. Hubbell.

8007.

January 14, 1922.

8027: Inferior grade of fusees from Standard Railway Fusee Corporation, Boonton.

Mr. C. C. Hubbell,

Purchasing Agent.

Dear Sir:-

I enclose herewith correspondence from Supt. Staub and Chemist Force, in regard to defective fusees furnished from our Stores Department. Understand these fusees are manufactured by the Standard Railway Fusee Corporation, Boonton, and were distributed for use without having been passed upon by our chemist.

We cannot afford to take any chances with defective fusees and should have at once ample supply up to standard of those formerly furnished by the Wahl Company, the defective stock to be returned or otherwise disposed of.

Will you please advise?

Yours truly,

1-j.

Copy: Mr. E. M. Rine,
Mr. H. J. Force.

8007

January 20, 1922.

8007:

Mr. H. J. Force,

Chemist and Engineer of Tests.

Dear Sir:

We are sending you today, three additional defective fuses from Superintendent Steub, Buffalo.

Yours truly,

l-v.

CC-IHL:

8007

8227

Buffalo, N.Y., January 21st, 1922.

Mr. H. H. Shepard,
General Supt.

Dear Sir,

Referring to previous correspondence regarding defective fusees.

On January 19th I sent you under register #55164 three more defective fusees,

Yours truly,

[Signature]
Superintendent.

Ans Mr Jurel
1/22

THE DELAWARE, LACKAWANNA & WESTERN RAILROAD COMPANY

OFFICE OF CHEMIST AND ENGINEER OF TESTS

SCRANTON, PA.

January 13th, 1922.

H. J. FORCE

CHEMIST AND ENGINEER OF TESTS

Mr. Frank Cizek,
Superintendent,
Binghamton, N.Y.

Dear Sir:

Replying to your letter of the 10th instant, wherein you advise that you can not understand why a fusee would fail to burn if it is held too long before dropping, would say that probably a more detailed explanation of this great trouble with lighting fusees will clear the matter for you.

You will notice that all fusees have a crimped end on which is placed the match (or igniting material); this material being very similar to that of a common double tipped match is not readily extinguished. This ~~crimped~~ tip extends under the crimped end of the fusee. A chemically treated piece of wood is usually inserted for two purposes; first, to pack the ignition material, which is placed in the fusee in a paste form, and secondly, to hold the match intact until fusee is on the ground.

The colored burning material of the fusee does not possess the properties of the tip of the fusee, inasmuch as it boils and melts when burning and if this molten material is knocked off the fusee it will not continue to burn.

The idea then is to light the fusee and hold it for 5 seconds (or as per directions given on side of the fusee, i.e. until one can count 10) and drop the fusee before the crimped end is burned off, thus holding the igniting material on the fusee until the fusee has reached the ground.

If you will experiment with the lighting of a few fusees you will find that they will invariably go out if held for several minutes before throwing; whereas none of the fusees will go out if they are only held until one counts ten, - even tho they be thrown against a building with considerable force. For this reason the fusee companies have placed the directions on side of all fusees.

Yours truly,

cc-HHS

Please note above.

Binghamton, New York,
January 10th, 1922.

Mr. H. J. Force:

I do not quite understand from your letter of the 9th how you figure that the reason the green fusee, which I sent you some days ago, went out was that it was held too long in the hands of flagman. As I understand, the rule for dropping fusee at a certain time is so that it will not be dropped before the powder properly ignites, but after this is done it does not seem to me there is any difference as to how long flagman holds it, for it should burn just as well while being held in a man's hand as it would laying on the track or sticking in a tie, and the fact that the fusee I sent you failed to continue to burn after reaching the powder would indicate it was defective.



Superintendent.

CC - HHS ✓

8007.
THE DELAWARE, LACKAWANNA & WESTERN RAILROAD COMPANY

OFFICE OF CHEMIST AND ENGINEER OF TESTS

SCRANTON, PA.

January 9th, 1922.

H. J. FORCE

CHEMIST AND ENGINEER OF TESTS

Mr. Frank Cizek,
Superintendent,
Binghamton, N.Y.

Dear Sir:

Referring to your letter of December 31st,
in regard to green fusee which you picked up in Binghamton
Yard, and which you claim is defective.

We have carefully examined this fusees and
find that fusee had been held too long before dropping; and,
if this is done even the best made fusee will be extinguished.

The length of time for holding fusee is
printed on the side of each and every fusee and if these
instructions are not complied with failure will often result.

Yours truly,

cc-Mr. H. H. Shepard:

I note the copy of the above referred to
letter was sent to you by Mr. Cizek. As long as the
Trainmen continue to hold these fusee too long before drop-
ping the, just so long may we expect such failures as this.

H.J.F.

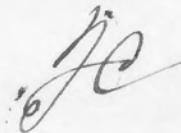
8007

Binghamton, New York,

December 31st, 1921.

Mr. H. J. Force:

I am sending you today a green fusee that I picked up in Binghamton Yard, which you will note went out after it was lighted and after it had burnt into powder. This is evidently a defective fusee and I am sending it to you for analysis.



Superintendent.

CC - HHS ✓

8007.

January 19, 1922.

8007: Defective fuses.

Mr. H. J. Force,

Chemist and Engineer of Tests.

Dear Sir:

We are sending you by train mail today, another defective fuse forwarded to this office by Superintendent Staub.

Yours truly,

l-v.

CC-IHL

Buffalo, N.Y., January 18th, 1922.

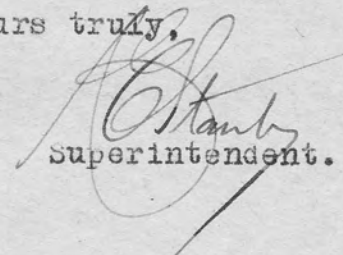
Mr. H. H. Shepard,
General Supt.

Dear Sir,

Referring to previous correspondence
regarding defective fusees.

I have today forwarded to you under
register No. 28197 another defective fusee.

Yours truly,


Superintendent.

L

8007

November 10, 1921.

8007:

Messrs:

R. M. White, Superintendent,	Hoboken.
F. J. Lawrence,	Scranton.
A. E. Staub,	Buffalo.
Frank Cizek,	Binghamton.
H. E. Griffith,	Bangor.

Gentlemen:

We are sending you under separate cover supply of illustrated posters issued by the Central Railway Signal Company, as to proper method of using fuses. Please have copy posted in each of your caboose cars on your Division.

Supply as follows:

N. & E. Division	- 60.
Scranton	" - 175.
Buffalo	" - 75.
S. & U.	" - 50.
B. & P.	" - 12.

Acknowledge.

Yours truly,

November 9th, 1921.

CABOOSES ON ROAD BY DIVISIONS:

Buffalo 51.

S. & U. 35.

B. & P. 7.

M. & E. 42.

Sern. 149.

Total: 284.

75
50
12
60
175

372



F. A. BUCKLEY,
MANAGER OF SALES

CENTRAL RAILWAY SIGNAL COMPANY

MANUFACTURERS

RAILROAD FUSEES AND TORPEDOES

DIAMOND BANK BUILDING

PITTSBURGH, PA.

November 1st, 1921.

C/

Mr. H. H. Shepard, General Supt.,
The D. L. & W. Railroad Co.,
Scranton, Pa.

Dear Sir:-

We beg to acknowledge your letter of the 25th ult., File 8007, in reference to illustrated posters covering the proper use of Fusees, and requesting 425 copies of same. We take great pleasure in forwarding to you by express prepaid the copies desired.

Yours very truly,

Manager of Sales.

FAB*AKS

8007.

October 25, 1921.

8007:

Mr. F. A. Buckley,

Manager of Sales, Central Railway Signal Co.,

Diamond Bank Bldg., Pittsburgh, Pa.

Dear Sir:

Referring to your letter October 15:

If you care to furnish us with 425 copies of your illustrated instructions for use of your fusees, we shall be very glad, indeed, to have them, and will place copy in each of our caboose cars.

We thank you for your kindness and co-operation in this matter.

Yours truly,

l-v.

CC-IHL:

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

OFFICE OF GENERAL SUPERINTENDENT

SCRANTON, PA.

October 22, 1921.

H. H. SHEPARD
GENERAL SUPERINTENDENT

8007:

Mr. E. M. Rine,

Vice President & General Manager.

Dear Sir:

The Central Railway Signal Company, who furnish us with fusees, offer to provide, gratis, sufficient number of the enclosed illustrated instructions, indicating proper method of using fusees for place in all of our caboose cars.

If you see no objection, will obtain supply and have placed in cabooses accordingly.

Yours respectfully,

1-1.

H. H. Shepard

8007.

October 22, 1921.

8007:

Mr. E. M. Rine,

Vice President & General Manager.

Dear Sir:

The Central Railway Signal Company, who furnish us with fusees, offer to provide, gratis, sufficient number of the enclosed illustrated instructions, indicating proper method of using fusees for place in all of our cabooses cars.

If you see no objection, will obtain supply and have placed in cabooses accordingly.

Yours respectfully,

1-1.



F. A. BUCKLEY
MANAGER OF SALES

CENTRAL RAILWAY SIGNAL COMPANY
MANUFACTURERS
RAILROAD FUSEES AND TORPEDOES
DIAMOND BANK BUILDING
PITTSBURGH, PA.

October
Fifteenth
1921.

Mr. H. H. Shepard, Gen. Supt.,
Delaware, Lackawanna & Western R.R. Co.,
Scranton, Pa.

Dear Sir:

We beg to acknowledge your letter of the 13th inst., in reference to posters issued by this Company covering instructions for the proper handling of fusees, and we take pleasure in sending you six copies, and will be very glad to furnish you additional copies, if required, without cost.

A great many of the railroads have advised us they consider the poster a very effective method of calling the attention of trainmen to the proper method of lighting and dropping fusees, and this poster was put in cabooses and wherever trainmen register or congregate.

Yours very truly,

F. A. Buckley
Manager of Sales.

FAB/B

8007

October 13, 1921.

8007:

Mr. F. A. Buckley,
Manager Sales - Central Railway Signal Co.,
Diamond Bank Bldg., Pittsburgh, Pa.

Dear Sir:

We have your letter October 10, addressed to
Chemist Force, enclosing sample of your instructions for
handling fusees.

Will you please send me six additional copies,
and oblige

Yours truly,

1-1.

THE DELAWARE, LACKAWANNA & WESTERN RAILROAD COMPANY

OFFICE OF CHEMIST AND ENGINEER OF TESTS

SCRANTON, PA.

October 11th, 1921.

H. J. FORCE
CHEMIST AND ENGINEER OF TESTS

File B-8

Subject: Condition of Fusees.

Mr. H. H. Shepard,
General Superintendent.

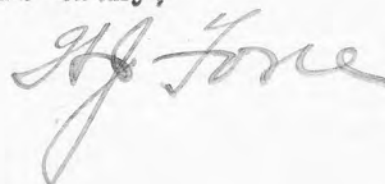
Dear Sir:

Please be referred to our past correspondence, your file 8007, in regard to complaint in regard to condition of fusees.

Attached hereto I am sending you a letter just received by me from the Central Railway Signal Company in reference to this question. I believe that it would be a good plan for us to secure a quantity of circulars like the attached and post them in each and every caboose, and also at various points in the yards.

If this meets with your approval, and you will advise me just how many are required, I shall be glad to have them furnished.

Yours truly,



1-1
encl-



CENTRAL RAILWAY SIGNAL COMPANY

MANUFACTURERS

RAILROAD FUSEES AND TORPEDOES

DIAMOND BANK BUILDING

PITTSBURGH, PA.

F. A. BUCKLEY
MANAGER OF SALES

October
Tenth
1921.

Mr. H. J. Force,
Chemist & Engineer of Tests,
Delaware, Lackawanna & Western R.R.Co.,
Scranton, Pa.

Dear Sir:

We beg to refer to your letter of Sept. 27th, File B-8, in reference to difficulty in lighting fusees owing to lack of ignition material. We considered this complaint a very important one and deemed it advisable to have our Mr. Clark investigate the matter and to take it up with you direct. Mr. Clark visited your laboratory Oct. 3rd, and in your absence discussed the matter with Mr. Landig, and we are attaching hereto copy of Mr. Clark's report, which explains the reason for the priming being in defective condition.

We have always exercised particular care in the priming operation at our factory as it is most important that each fusee should be in this respect perfect and our inspection is very thorough. Therefore, from investigation made by Mr. Clark it would be reasonable to suppose that the fusee which trainman reported as being difficult to ignite became defective due to improper handling.

We have been most anxious to cooperate with the railroads by instructing trainmen in the proper method of using fusees, and in this connection beg to attach copy of illustrated poster which was submitted to your purchasing department some time ago. A great many roads have equipped their cabooses and places where trainmen register with results that are very gratifying, and if your road would care to have a supply, we would be pleased to furnish same without cost.

We trust that Mr. Clark's report will prove satisfactory to you. However, if there is any further information which you care to have we would be pleased to hear from you.

Yours very truly,

F. A. Buckley
Manager of Sales.

FAB:B
Encls.



CENTRAL RAILWAY SIGNAL COMPANY

MANUFACTURERS

RAILROAD FUSEES AND TORPEDOES

DIAMOND BANK BUILDING

PITTSBURGH, PA.

October
Fourth
1921.

Mr. F. A. Buckley, Manager of Sales,
Central Railway Signal Co.,
Pittsburgh, Pa.

Dear Sir:

I visited the laboratory of the Delaware, Lackawanna & Western R.R. at Scranton, Oct. 3rd, and in the absence of Mr. Force, my conference was with Mr. Landig.

Mr. Landig produced the defective fusee, and an examination of it showed conclusively that the priming had been broken off so that very little of it appeared above the surface. Mr. Landig succeeded in igniting the fusee after several attempts, with a piece of phosphorus coated paper taken from the side of a safety match box. It is doubtful, however, whether this signal could have been lighted by the use of the regulation coated button.

The priming is broken from the fusees generally by one of two methods. First, by the removal of the cap and placing the fusee back in the container without the protection of the cap. Second, by striking a violent blow against the priming with the cap button in an effort to ignite the fusee.

In the first case, it is obvious that the priming needs the protection of the cap, which with its concave surface and cushion of soft paper may be depended upon always to protect the priming.

In the second case, where a violent blow is struck in an effort to light the fusee, the edge in the wooden button is liable to strike the priming, thus causing it to break.

It appears that the Lackawanna Road has never used our poster illustrating the proper method of using fusees and Mr. Landig stated that to his knowledge a copy of the poster had never been received at the laboratory. I would suggest that you forward to Mr. Force a copy of the poster, and if it meets with his approval, I feel quite certain that he will find a way to have a copy placed officially in every caboose, rest room and places where the men gather.

Yours very truly,
(Signed) R. M. Clark,
Manager Service Dept.