

THE FEVR FLASH

A PUBLICATION OF THE NEBRASKA RAILROAD MUSEUM

1835 N. SOMERS, FREMONT, NE 68025, MAY, 2013

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BACK ISSUES:

Back issues of the FLASH and links to numerous railroad related sites may be viewed at www.FremontRailroad.com.

BOARD OF DIRECTORS:

(Note: the following is not the official meeting report. Only the approved meeting minutes sent to NRM members is the official report.)

The NRM Board of Directors met at the Clarion Inn in Fremont on May 8, 2013. Present were: Treasurer/Executive Director **Angermund**, **Swetnam** (Secretary), **Blackmore** (Vice-President), **Fachman** (President), **Lafferty**, **Sedlacek**, and **Love**.

Absent: **Blessing**

Guests: **Wes Chrisman**

Treasurer **Angermund** presented her report which was approved.

President **Fachman** reported on his meeting with Steve **Fender**, (FRA, North Central Region). The topic was the remediation of track defects necessary prior to the resumption of revenue train service.

Following up on **Fenders'** request, **Fachman** then called the track owner's office (Mike Williams) to discuss many issues. Mr. **Williams** could not be contacted at the time of the call, but his office staff would pass on the request.

Lafferty (Mechanical Department Supervisor) reported on needed repairs pending on the hi-rail truck.

Guest **Chrisman** said that he and Josh **Kay** would like to see a copy of track repair deficiencies reports. He suggested advertising in the local newspaper for volunteers (later approved). He also suggested repairing a portion of the track as soon as possible and seeking FRA approval to begin abbreviated operation on that portion while repairing the rest.

Blackmore set June 1 at 10:00 AM as the date/time for the first safety meeting.

Sedlacek said the office computer equipment installation is still awaiting installation and the combination door lock has been received (*it has been installed since the meeting*). He also presented a draft executive summary for incorporation into a new business plan.

The target date for resuming **excursion**

operations, at least on a portion of the track, was set to coincide with the John C. Fremont Days celebration July 12-14.

BAD DAYS ON THE RAIL:

The May 24 Washington County Enterprise reported on the **death** May 20 of a trespasser struck by an eastbound intermodal Union Pacific train just east of the Missouri River bridge at Blair, Nebraska. The lack of any documentation on the man and the severity of the accident prevented identification as of the publication date, although authorities believe the individual was not local. (*Editor: the man may have been a **transient** bound for Blair who wanted to cross the river. The US highway 30 bridge there has no pedestrian walkway. The highly elevated track east of the bridge would not provide an easy escape from a train which has a 60 miles per hour speed limit there.*)

NBC news reported May 25 on the **collision** of a BNSF and a Union Pacific train at a diamond rail intersection south of St. Louis, Missouri. The crash brought down a highway overpass along with several vehicles on it. A photo with the article showed a derailed Union Pacific locomotive which quite possibly may have been in end of train service. Two train crew members and seven highway vehicle occupants had minor injuries. (*Editor: this was reported as a before dawn accident and there might a crew **fatigue** factor involved as was the case in the BNSF fatal accident near Red Oak, Iowa on April 17, 2011 which also occurred at about the same time of day.*)

Adding to the work of the National Transportation Safety Board was the **collision** between a CSX train and a garbage truck in Rosedale, MD, just south of Baltimore. The truck driver was seriously injured. Two of the derailed cars containing chemicals eventually caught fire and then **exploded**. Fortunately, the chemicals were not toxic inhalants, but the blast, which damaged nearby buildings, was heard and felt in a wide area. The fire lasted for about 10 hours.

COMING AROUND THE BEND:

The are **three** track conditions that affect the ability of a train to travel over a given track at a particular speed: gauge, alignment, and surface. The higher the speed and the greater the weight, the more important all become and all affect the classification of the track. For high speed rail, the **tolerances** must be in fractions of an inch, while for low speeds the tolerances can be in inches. The specifications can be found in railroad references. The lowest category for revenue service is **Class 1** which

allows 10 mph for freight and 15 mph for passenger and is the category under which FEVR has operated.

A speed related feature which is very often misunderstood is that of **super elevation** which means the difference in elevation between the inside and outside rails on a curve, similar to the banking on an auto race track, and which is meant to counter the effects of cornering.

The difference between an auto and a train cornering lies in the **construction** of the wheel and axles in train service. Unlike in the auto, both the inside and outside wheels on the curve are tied together by a solid axle and the wheels are steel, consisting of a running surface of several inches in width and a flange about one inch high. The running surface is slightly tapered with the smaller diameter on the wheel outside.

Under **perfect** conditions on a level, straight track the tapers on the wheel/axle combinations on the two axle ends result in a self centering effect and neither flange would touch the rail.

In a **curve**, under ideal conditions, the inward vehicle weight transfer due to the super elevation should exactly balance the outward force due to the turning effect and again the flanges would not touch the rails.

In the case of a speed **below** the ideal, the axle set will drop toward the lower inside rail where the larger diameter of the lower wheel will ride on rail and the smaller diameter of the outside wheel will ride on the outside rail. Since the wheels are on the same axle, the inside wheel, which has a **smaller** distance to travel in the turn will attempt to travel further than needed and the outside wheel, which needs to travel **further** in the curve, will actually try to travel less than needed.

The net effect is that the axle carrying truck, which has at least two axles, and can swivel under the railcar, will **"crab"** and the flange of the outside wheel will be forced against the inside of the outside rail, causing excessive "high rail" wear and narrowing of the rail head.

This can be seen in the **curve** south of the US 275 crossing where track was laid for CNW speeds but has had years of FEVR **low** speeds since. Turnouts and curves are major problems in operating high speed passenger and lower speed freight on the same rail.

CHARTERS AND EXCURSIONS:

The start of NRM **excursions** and charters is awaiting the completion of track repairs. Information as available will be posted on the NRM office telephone at 402-727-0615.