Draft Notes of October 26, 2022

Surface Transportation Board

RETAC Meeting

Meeting commenced at 9:10am with opening welcome by **Chairman Martin Oberman**, followed by remarks from **Vice Chairman Michelle Schultz, and Members Patrick Fuchs, Robert Primus, and Karen Hedlund**.

Members in attendance at the meeting were:

Brian Fuller, Southern Co. – Committee Co-chair
Ginger Adamiak, KCS – Committee Co-Chair

Daniel Sabin, IANR – Secretary-Treasurer

Kent Avery, PBF Refining
Angela Caddell, BNSF
Jeff Eliason, CHS
Steve Ewers, Norfolk Southern Railway
Robert Guy, SMART Transportation Union
Laura Heisterkamp, Union Pacific
Mark Huston, Louis Dreyfus Corp.
Lee Johnson, Hess Corporation
Adam Longson, CSX
Ed McKechnie, NOPB
Doug Noem, SD Corn Growers
Phillip Obie II, Santee Power
James Rader, Greenbrier Management
Anthony Reck, Paducah & Louisville Railway
Emily Regis, Arizona Electric Power Coop
Bette Whalen, Lower Colorado River Authority
Matt Zeigler, National Corn Growers Association

STB staff were present:
Kristen Nunnally, RETAC DFO
Ellen Erichsen
Lisa Novins
Jetta Sandin
Michael Small

Opening remarks by Brian Fuller and Election of Railroad Co-Chair Ginger Adamiak

Labor Overview-Robert Guy

Robert Guy expressed Labor's concerns with the labor ratification process and rank and file sentiment with Precision Scheduled Railroading (PSR) and membership up 900 for conductors and yardmen. August 2019 membership was 38,641; August 2021 was 29,317; and August 2022 was 30,099.

In addition, he listed various concerns, including:

Long trains, Equipment in storage, Sidings blocked with stored cars, Fuel controls reducing speed and efficiency, closed yards, shortage of manpower, culture changes needed, pent up employee frustration and anger. He indicated that after backpay is received, employees will be leaving Class I carriers for passenger lines and short lines.

Chairman Oberman added that as of April there was a net increase of 186 crew members after attrition.

Ginger Adamiak read the railroad's prepared statement and discussed service issues.

Brian Fuller provided a shipper statement and added that we need a data-based dialogue between shippers, carriers and STB.

Board member Primus asked for feedback and the need for a working group to solve issues rather than talking about problems.

Tony Reck discussed the issues of coal mines and loading terminals shut down and supplier's inability to forecast volumes.

Ed McKechnie commented on the history of the group, no representation from the coal mining industry, specific conversations needed regarding actual data, with producers, carriers and consumers all involved, need for broad conversations on all issues.

Brian Fuller said that he and Ginger will discuss a better process, and suppliers need to be part of the discussions.

Lee Johnson added that better communication is essential.

Board member Fuchs asked if there was good data available, what was actual demand vs. forecast, and what proactive action is needed.

Industry Segment Updates

Oil Industry Segment Update

Lee Johnson of Hess Corporation presented the Oil Industry Segment Update

Oil Industry Segment Market Environment

- Global crude oil production exceeded consumption during 3Q 2022 with inventory building
- US remains #1 crude oil producer; production is down 4.9% from pre-pandemic level
- Average monthly WTI down 28.6% from June high; up 47.9% from 2019
- US refinery input has returned to pre-pandemic levels
- US production equals 74.1% of refinery input; Canada is largest import source
- Crude oil exports exceeding imports by 10.3%
- Land rig count has recovered to 4.5% above pre-pandemic levels
- ND crude oil production is down 24.6% from pre-pandemic levels
- ND CBR rail market share down to 6%; approximately one train per day
- US and Canadian CBR is down 63.8%, US down 66.7%, Canada to US down 60% from 2019
- Bakken CBR represents 90% of US volume; there is some CBR growth in the Rockies
- The west coast receives 74.5% and the east coast 24.4% of Bakken CBR

Chairman Oberman asked if there are refineries that should be reopened. Kent Avery responded that refinery margins require a ten-year window of demand and that refineries see a lot of headwinds with an administration that wants to put them out of business. Lee Johnson added that financing of refineries is very difficult with the threats of shutting down the oil industry.

Both imports and exports of crude oil are increasing.

Board member Primus asked why there is an increase in imports. Lee Johnson responded that heavier crude oil is required for non-gasoline products, and that there is also an uptick in rig counts in the Permian Basin but down in North Dakota. He also added that Oklahoma brown sand has replaced northern white fracking sand and moves mostly by truck.

Board member Hedlund asked if there are any old wells reopening. Lee Johnson responded that it was dependent on leases. He also added that restrictions on flaring in North Dakota reduces productivity with more gas than the market can use. He further added that there are not enough natural gas pipelines to move the gas to available markets, and further investment is not available with the restrictions on flaring.

Ethanol/Biofuels Segment Update

Mark Huston from Louis Dreyfus Company provided the Ethanol/Biofuels Segment Update:

US Corn Supply and Demand: 2022/23 Carryout Forecast Lowest Since 2012/13 on the Back of Reduced Production Prospects

US Corn Supply and Demand charts for years 2019-2022:

	2019	2020	2021 USDA	2022 Outlook
Total Supply	15,883	16,055	16,333	15,322
Total Use	13,964	14,821	14,956	14,150
Carry Out	1,919	1,235	1,377	1,172

In millions of bushels

Yield per acre: 2019-167.5; 2020-171.4; 2021 Est.-176.7; 2022 outlook-171.9.

2021 use was increased with more ethanol grind and exports.

2021/22 carryout was finalized at 1,377 million bushels, which was higher than the market expected

Latest production estimate from USDA indicates production second lowest of the past five years, only ahead of 2019 with yield now sub-172 bushels per acre.

2021/22 stocks-to-use expected to increase but remain on the lower end of the past 20 years. Ending stocks-to-use us up over end carryover for last year by about 425 million bushels. Yellow corn farmgate pricing is at about $8.00 per bushel.

Quite a few uncertainties still ahead for 2022/23: final yield, Ukraine corridor and implications for exports, and further reductions to demand at current prices.

Export sales off to a slow start.

US Ethanol Production vs. Milling Margin

Ethanol gross margins peaked in October 2021. Interior margins went from $1.00/gallon to breaking even, net of variables. Today we are at $.40 net. Eastern corn belt is higher than the western corn belt.

In-Transit Inventory vs. Rail Performance

Dwell time in terminals and train speeds influence the ethanol inventory on wheel adjustments, which requires more cars to handle the same volume levels. The four-week rolling average in transit ethanol inventory continued to increase. Dwell time has fluctuated with major spikes, but train speeds have been mostly stable. In-transit inventory at 750 million gallons is equivalent to 24,000 rail cars. There are 35,000 cars in ethanol service and the in-transit inventory was the equivalent of 25-26 thousand loaded tank cars. April and May were not good, but there was some improvement in August and September.

The average UP release date to train departure was one day in March 2021. Today UP's average release to train departure is 5 days, with a 12-day departure being noted in the data file. The average BNSF release to train departure was one day in April 2021. Today BNSF's average release to train departure is three days, with a six-day departure noted in the data file.

Angela Caddell from BNSF pointed out that unit grain trains are loaded in a few hours, but ethanol unit trains are loaded in days with more limited daily production at an ethanol plant than a grain elevator.

Board member Primus asked what happened between October 2021 and September 2022. The response from BNSF and UP was that there were large exports of grain and oilseeds competing with ethanol.

<u>Monthly Biodiesel Production</u>

Renewable diesel is gaining on biodiesel. Renewable production is expected to ramp up with renewable replacing biodiesel. Glycerin is a biproduct of renewable diesel.

<u>Renewable Diesel</u>

Bio and Renewal Diesel Feedstocks are soybean oil, yellow grease, corn oil, canola oil, tallow, white grease and poultry.

<u>Summary of Biofuels</u>

- Ethanol exports through July were at 870 million gallons. Estimate a 1.3 to 1.5-billion-gallon export total.
- Ethanol margins are supportive of the business with the eastern corn belt experiencing the highest margins.
- Biodiesel margins are supportive of run rates at near capacity. The biodiesel bi-product glycerin has seen record high prices.
- Renewable diesel will see an additional 1 billion gallons of capacity come on-line (>100% increase) over the next couple years. Projected buildout over next five years to a total of 5.0 billion gallons. California and Washington are the only two states with implemented programs to date. Oregon will most likely be next.
- Lease car supply is very tight and getting very expensive. The Federal mandate on DOT 111 tank cars approaching in May 2023. Some producers are scrambling to find compliant tank cars.
- Rail service has improved since winter/springtime period. Competing commodities are starting to challenge rail capabilities. Release to departure times have significantly increased over the past several months.
- Forty-year low water levels on the Mississippi River system are creating major disruptions to marine navigation. Water levels are sub-nine feet in some areas with water levels dropping daily. Forecasts have no significant weather events to improve the current situation. Angela Caddell

from BNSF and Laura Heisterkamp from UP noted that most of the export grain flows are over the Pacific Northwest. Higher volumes to the center Gulf are capacity driven. Barge unloading capacity on the river is much greater than the rail unloading facilities' capacity.
- Chairman Oberman asked about the current market situation for ethanol. Mark Huston responded that demand has slowed down, but not shut down production much.

<u>Railcar Segment Update</u>

<u>James Rader from Greenbrier Management Services</u> provided the Railcar Industry Segment Report

<u>Freight Car Activity</u>

Rail Trends in Energy:

- An increase in coal demand results in short term demand for coal cars. Coal cars in storage are decreasing with 30K cars in storage. Most coal movement is export, except 90% of UP coal is domestic.
- Renewable energy is having an impact on covered hoppers. The North American market has high utilization.
- Tank car energy loadings are declining, which includes crude oil, natural gas, and natural gasoline. Crude oil and ethanol cars in storage are declining sharply.
- Major shop constraints mean plan ahead
  - Labor recruitment and retention shops are having difficulty rehiring post-Covid and wages are skyrocketing.
  - Federal and industry training hour requirements for tank car work have increased the complexity of shops to maintain required certifications of shop-floor personnel.
  - Material shortages with long lead times on many components. Suppliers are unable to provide estimated delivery times.
  - Higher costs with unpredictable fuel costs are making pricing difficult and railroads are imposing higher switching costs.

<u>Tank Cars Impacted by Compliance Date</u>:

Based on 2nd Quarter 2022 numbers, the number of tank cars that require replacement to DOT-117J, or retrofitted to DOT-117R, or removed from flammable liquid service by service date:

- 2023 Ethanol Class 111 & Non-Jacketed CPC-1232-7,458 cars. Ethanol transported in jacketed CPC-1232 tank cars are not authorized after 5/1/2025.
- 2025 Crude Oil, Ethanol Jacketed CPC-1232-1,391 cars.
- 2025 Other Flammable Liquids-33,697 cars. In the U.S., flammable liquids in Packing Groups II and III transported in Class 111 tank cars are not authorized after 5/1/2029.

42,616 tank cars require replacement, retrofitting, or removal from flammable liquid service in the North American fleet based on commodity movements in Q-2 2022.

Railroad inefficiencies are impacting production and repair shops. Delays getting cars into and out of repair shops is increasing dwell time. Border crossing congestion with reroutes, misrouted cars means additional costs.

<u>Utilities Segment Update</u>

Bette Whalen of the Lower Colorado River Authority presented the Utilities report:

Inventory Updates

Coal stockpiles continue to fall amid tight coal market conditions. The percentage of utilities with days of inventory of 30 days or less has not improved year-to-date.

On time performance survey January to June 2022 reviewed

- Utility survey data collected August 2019 to June 2022 in 6-month periods.
- 45 plants reported shipper perspective railroad performance data.
- 100% reported their company had to modify operations due to railroad service issues (was 64% last survey).
- 87% reported rail service worse than it was in 2021 and/or last three years (was 60% last survey).
- Railroads serving plants reported: BNSF, UP, NS, Multi-RR and short line movements.
- Six coal supply regions – mine sources reported: SPRB, NPRB, Rockies, ILB, NAPP, CAPP.

In what way have your operations been impacted by railroad service issues?

- No issues 0%
- Railroad service has been deteriorating for several months 68%
- Coal inventory stockpiles reduced below target levels 87%
- Coal unit curtailment efforts were necessary to conserve inventory 82%
- Rail car maintenance was impacted due to loss of time 37%
- Force Majeure declared 0%
- Restricted from adding more train sets by the railroads 86%
- Train sets had to be parked as mandated by the railroads 75%
- Additional trains or leases were necessary to make up 12%
- Other 28%

Have railroad service issues caused an increase in costs for your Company?

- Yes: 87.5% No: 12.5%
- Less than $100K 0%
- $100K-$1M 23.08%
- $1M-$5M 15.38%
- $5M-$10M 7.69%
- $10M-15M 7.69%
- $15M-$20M 7.69%
- Over $20M 38.46%

What kind of railroad service issues have you experienced?

- Longer transit times
- Lack of railroad crews causing delays
- Delayed train pick ups
- Trains being doubled in transit
- Lack of locomotive power
- Poor communication
- Missed car switches
- Increased charges by the railroads

Another chart showed how does average monthly service compare with plant forecast?

(See chart included in Utility Update materials for the meeting)

<u>Key takeaways and asks</u>

- Utility forecasting for coal deliveries involves a great deal of planning
- Forecasts typically allow for some flexibility in deliveries
- Utility stockpiles afford some cushion to allow for coal deliveries and burn forecasts/actuals
- Coal deliveries are trending 20-30% below monthly nominations which is concerning for low stockpiles and coal conservation and unit curtailment
- Ask: better communication from railroads in meeting shipper forecasts and missed permits; updates on crew availability

<u>Ed McKechnie</u> provided the rail performance update:

Narrative with prepared slides

Overall rail traffic trends:

- In the first 40 weeks of 2022, total U.S. rail carloads were up 0.1% over the same period in 2021 and up 7.9% from the same period in 2020
- Chart showing change in rail traffic Jan-September 2022 vs same period 2021.
  Coal up 3.5%
  Crushed stone, gravel up 9%
  Chemicals up 3.1%
  Food products up 7.8%
  Motor vehicles and parts up 1.7%
  Grain mill products up 2%
  Primary forest products up 14.4%
  Waste & nonferrous scrap up 1.1%
  Iron & steel scrap down 0.1%
  Farm products excluding grain down 6.6%
  Lumber & wood products down 2.3%
  Coke down 2.7%
  Nonmetallic minerals down 3.2%
  Stone, clay and glass products down 3.8%
  Pulp and paper products down 5.6%
  Metallic ores down 11.8%

Primary metal products down 9.8%
Carloads n.e.c. down 16.1%
Grain down 4.6%
Petroleum and petroleum products down 10.4%
Total carloads up 9,791 0.1%
Total carloads excluding coal down 77,256 1.2%

- Intermodal through week 40 excluding CN, CP and GMXT down 5% over same period 2021, up 4.9% over same period 2020

- Chart showing Rail carloads of coal (in millions):

  2007-7.5
  2008-7.7
  2009-6.8
  2010-7.1
  2011-7.1
  2012-6.2
  2013-6.0
  2014-6.1
  2015-5.3
  2016-4.2
  2017-4.5
  2018-4.4
  2019-4.0
  2020-3.0
  2021-3.3

- Coal YTD week 40 2022 up 3.6% vs. same period 2021, up 15% vs. same period 2020
- Chart showing US railroad carloads of coal vs. US electricity from coal

			Pct. Share US Electricity Generation				
	2000	2005	2010	2015	2020	2022 through July	
Coal	52%	50%	45%	33%	22%	20%	
Natural Gas	16%	19%	24%	33%	38%	38%	
Nuclear	20%	19%	20%	20%	19%	18%	
Renewables	2%	2%	4%	7%	13%	16%	
Hydro	7%	7%	6%	6%	6%	7%	
Other	3%	4%	1%	1%	1%	1%	

- Chart showing Natural Gas Prices less than $3 per million BTU in 2017 up to $8.90 in 2022
- Coal exports YTD July 2022 up 1.4% over same period 2021, up 24.4% over same period 2020
- Future challenges remain: “Our utilities team forecasts that 48GW of coal-fired capacity will be retired over the next 5 years, up 6% from our analysis a year ago. This represents 23% of current coal capacity in the US and a new peak in our 10 years of conducting this analysis.” Wolfe Research September 2022.

- Chart showing WTI oil prices at about $30 per barrel in early 2016 and exceeding $110 in 2022.
- Chart showing US Crude Oil production about 9 million barrels per day in 2016 and about 11.8 billion barrels per day YTD 2022.
- Chart showing flat crude oil shipments by rail (CBR) from 2016 through 2022.
- Chart showing US ethanol shipments by rail under 24 million barrels in 2016 and slightly less in YTD 2022.
- Chart showing gains in freight rail employment. Total employment up 5.2% since January 2022, Train and Engine employment up 7.4% since January 2022.
- Chart showing average speed of coal unit trains in 2022 by reporting railroads highest in August-September and lowest in May-June.
- Chart showing Collective Bargaining update by craft union.

Summary of Written Public Comments

None reported.

The meeting concluded at 12:58pm.

Respectfully submitted,

Daniel R. Sabin (IANR), Secretary and Treasurer for RETAC