

# BNSF Railway

**STB - Rail Energy Transportation Advisory Committee**

**June 12, 2008**



# Rail Capacity Drivers

**People**



**Locomotives**



**Track and Terminals**



**Equipment**

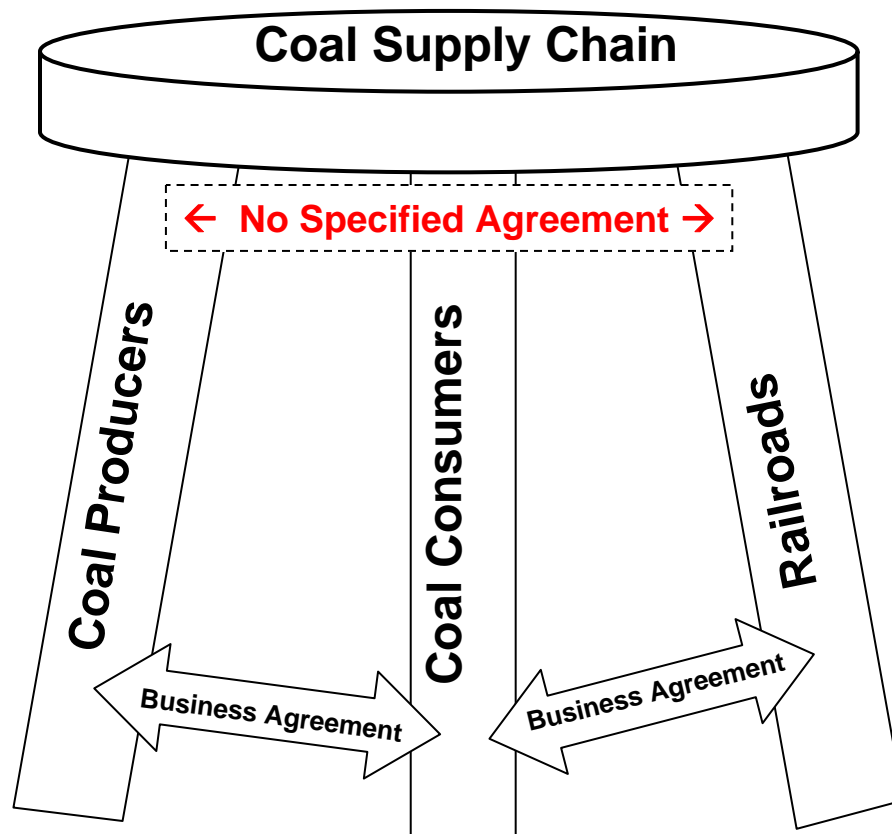


# Planning Process

## Planning Horizons:

- Long-term (CANAC)
- Annual (Nominations)
- Quarterly
  
- Monthly
- Weekly
- Daily: every 4 hours, update 36 hours outlook

# Tri-Party Coordination



- 2 of 3 relationships have formal agreements
- Railroads and Producers coordinate informally
- Need increased transparency across all 3

# Tri-Party Variables of RR Accountability

- Communication with utility and mines regarding
- Facilitate Mine and Utility Loadings Balance
- Systems Integration



- Load / Empty pipeline management & execution
- Tactical communication
  - BNSF
  - Interline / Customer

- Optimize Unit Per Train Opportunities
- Fleet Velocity

- Mine Supply & Utility Demand based Trainset Count Prescriptions
- Capacity Planning

# Mine Slotting Process

- **The Joint Line on which BNSF and UP both serve the southern Powder River Basin mines is operated pursuant to the Joint Line Agreement approved by the ICC**
- **Monthly tonnage demand for each railroad by mine is determined through the PRB forecast process**
- **BNSF and UP management jointly assign order and quantity of loading slots at each mine**
- **BNSF and UP manage the flow of trains onto the Joint Line to attain ETA compliance for specific slots**
- **Both railroads' coal operating groups jointly manage slotting changes to maximize the line's efficiency**
  - **Examples of events causing slotting changes:**
    - Railroad maintenance
    - Inclement weather
    - Mine outages
    - Mechanical problems

# Tri-Party Conditions RR's Manage

## Producers

- Loading systems okay? (Y/N)
- Inventory okay? (Y/N)
- Quality spec ready for plant specific set and sequence enroute? (Y/N)
- Onsite staging capacity available? (Y/N)

## Empty Flow

- Service interruptions
- Mechanical set-outs
- Route maintenance
- Mine tons available
- Mine staging capacity
- RR staging capacity
- Train size matches available plant size

## Loaded Flow

- Service interruptions
- Mechanical set-outs
- Route maintenance
- Trains ahead at plant
- Same plant trains ahead enroute
- Shared route trains ahead enroute
- Destination staging capacity

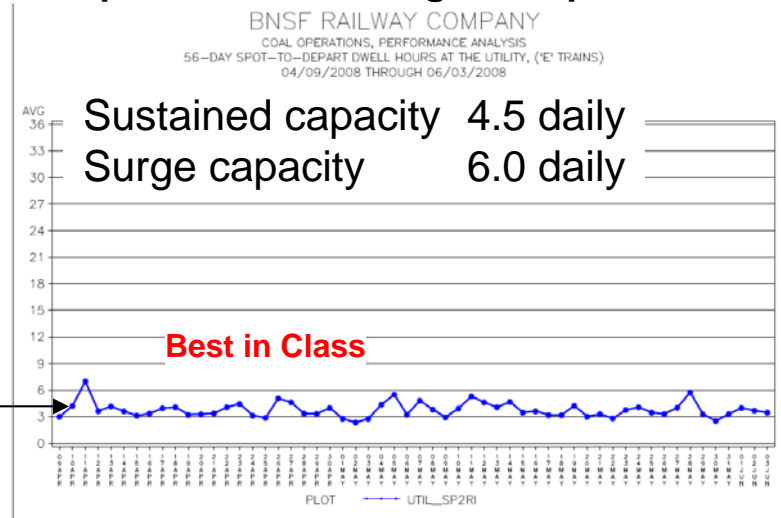
## Consumers

- Does unload rate match enroute pace? (Y/N)
  - Unloading systems okay? (Y/N)
  - Does pile have capacity? (Y/N)
- Does pile need specific quality spec arrival sequence? (Y/N)
- Is onsite staging capacity available? (Y/N)

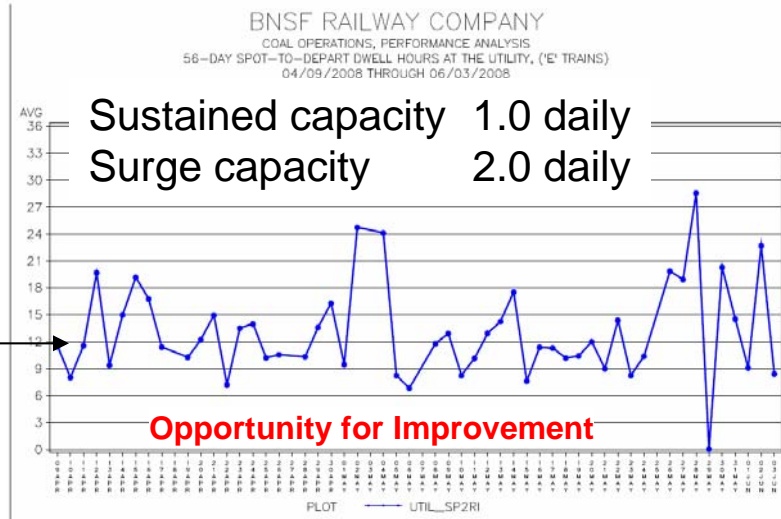
# Unloading Best Practices – Investment and Management Matter

- **Infrastructure investment and management of unloading operations**
  - **Key lever of supply chain**
  - **Vary widely across locations**
  - **Determine capacities**
    - **Sustainable**
    - **Surge**
  - **Add variability to the cycle**

**Sample Train Unloading Hrs: Spot to Release**



1-2 hr per train variability



6-9 hr per train variability





# Process Assessment

## **Works Well:**

- **Daily operating adjustments**
- **Mine and RR maintenance planning**

## **Opportunities for Improvement:**

- **Longer mine balance timelines**
- **More sharing of stockpile levels**
- **Unloading outage communication**
- **Transparency of mine producer issues**
- **Sharing of best unloading practices**
- **Enhanced unload investments and management**

