

Overview of Pipeline Requirements and Issues



EPA Presentation to the
Clean Diesel Fuel Workshop

November 15-16, 2004

Jeff Herzog



What is in this Presentation?

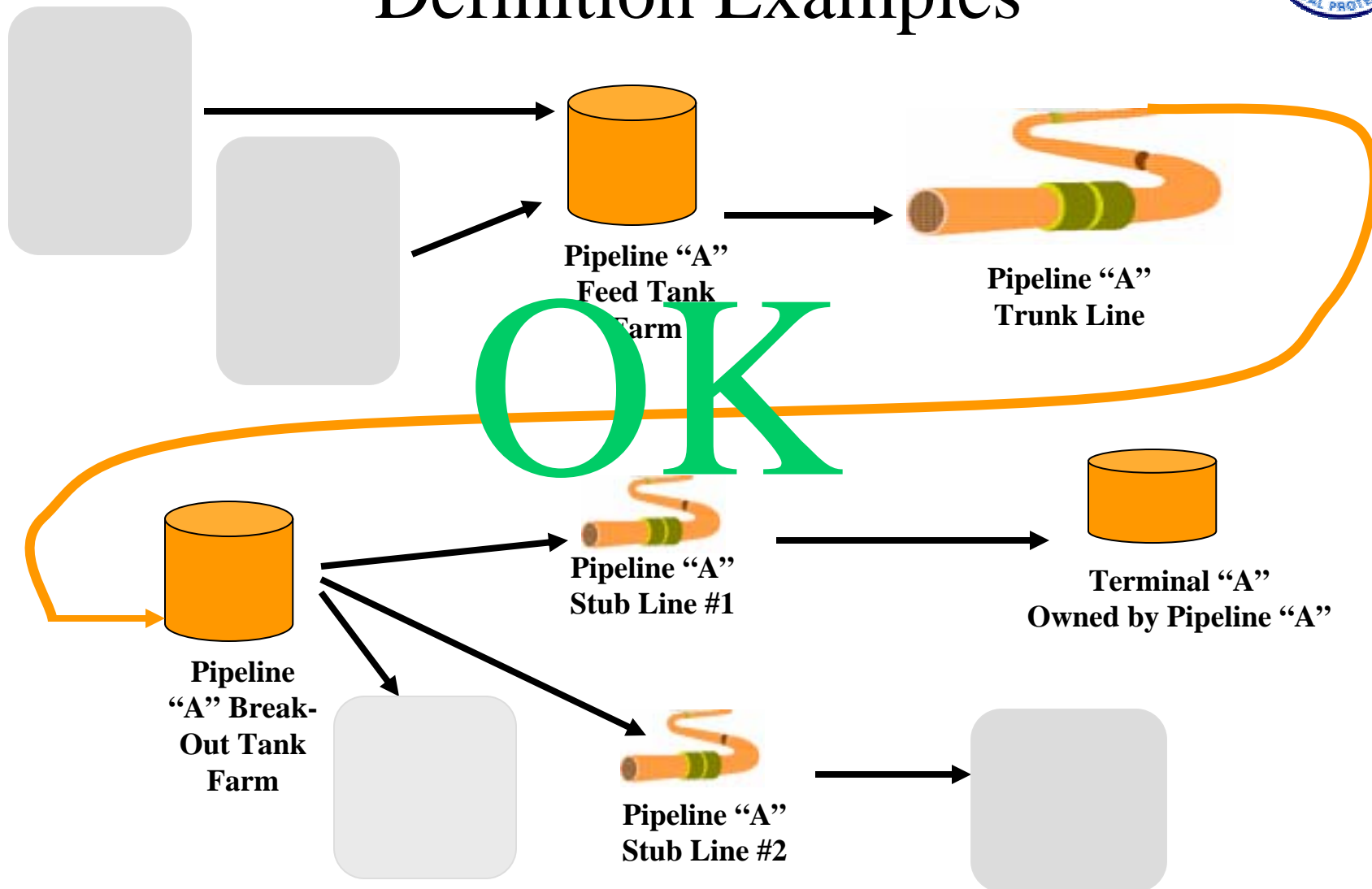
- What designate and track (D&T) means to pipeline operators
- Facility registration examples
- D&T reporting and compliance demonstration
 - Anti-downgrading requirements
- Dye and marker requirements
- Record retention
- Limiting sulfur contamination

What D&T Means to Pipeline Operators



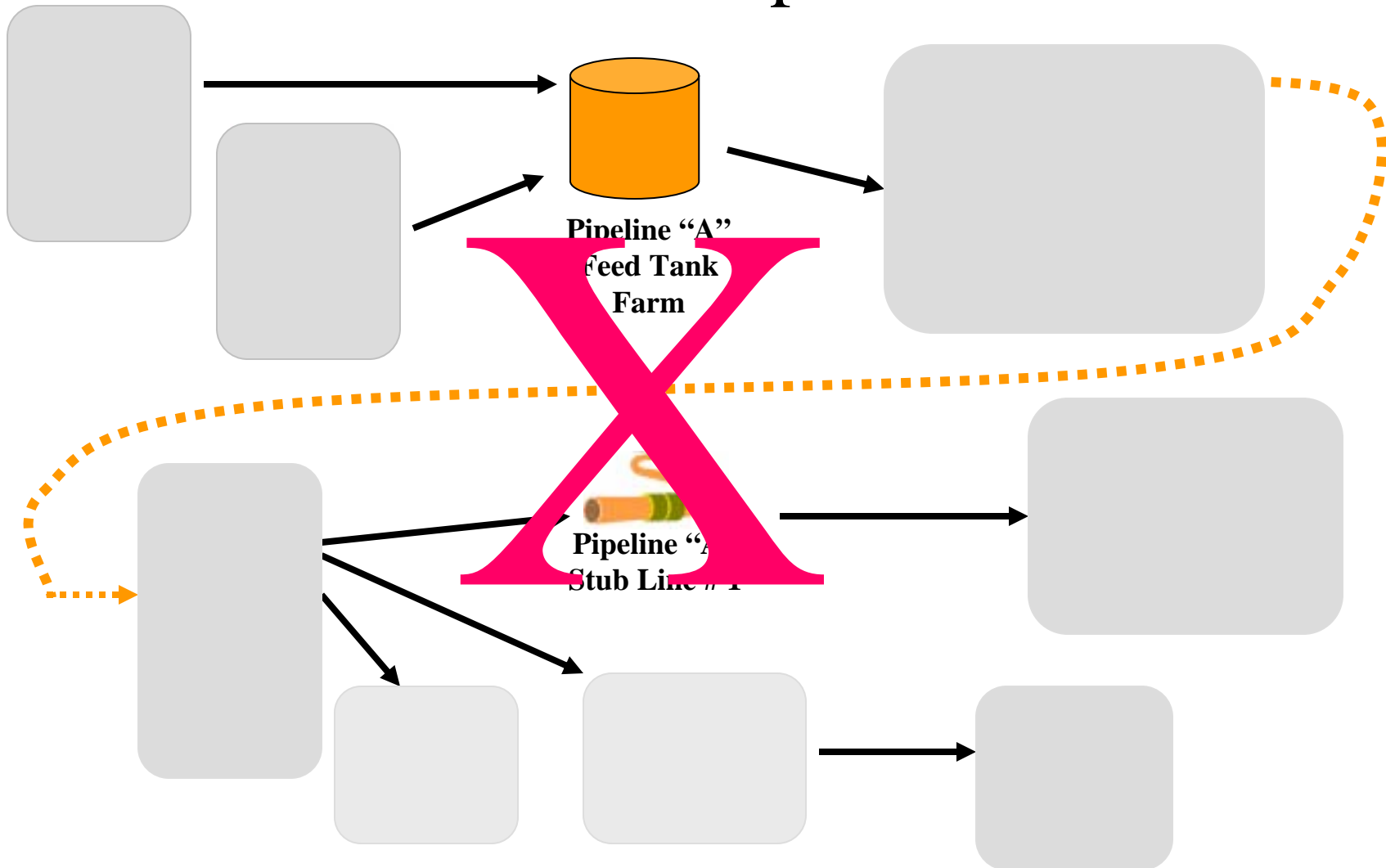
- Industry-wide accounting program up to point where fuel leaves terminal & is dyed/taxed/marked
- In lieu of maintaining the refinery gate dye requirement for non-highway diesel fuel, D&T allows us to prevent inappropriate shifting of 500 ppm NRLM into the Hwy pool during the Hwy program's temporary compliance option
- Allows fungibility of like fuels up to point where fuel leaves terminal
 - 15 ppm Hwy & 15 ppm NRLM
 - 500 ppm Hwy & 500 ppm NRLM
 - >500 ppm NRLM and heating oil

Common Carrier Pipeline Facility Definition Examples



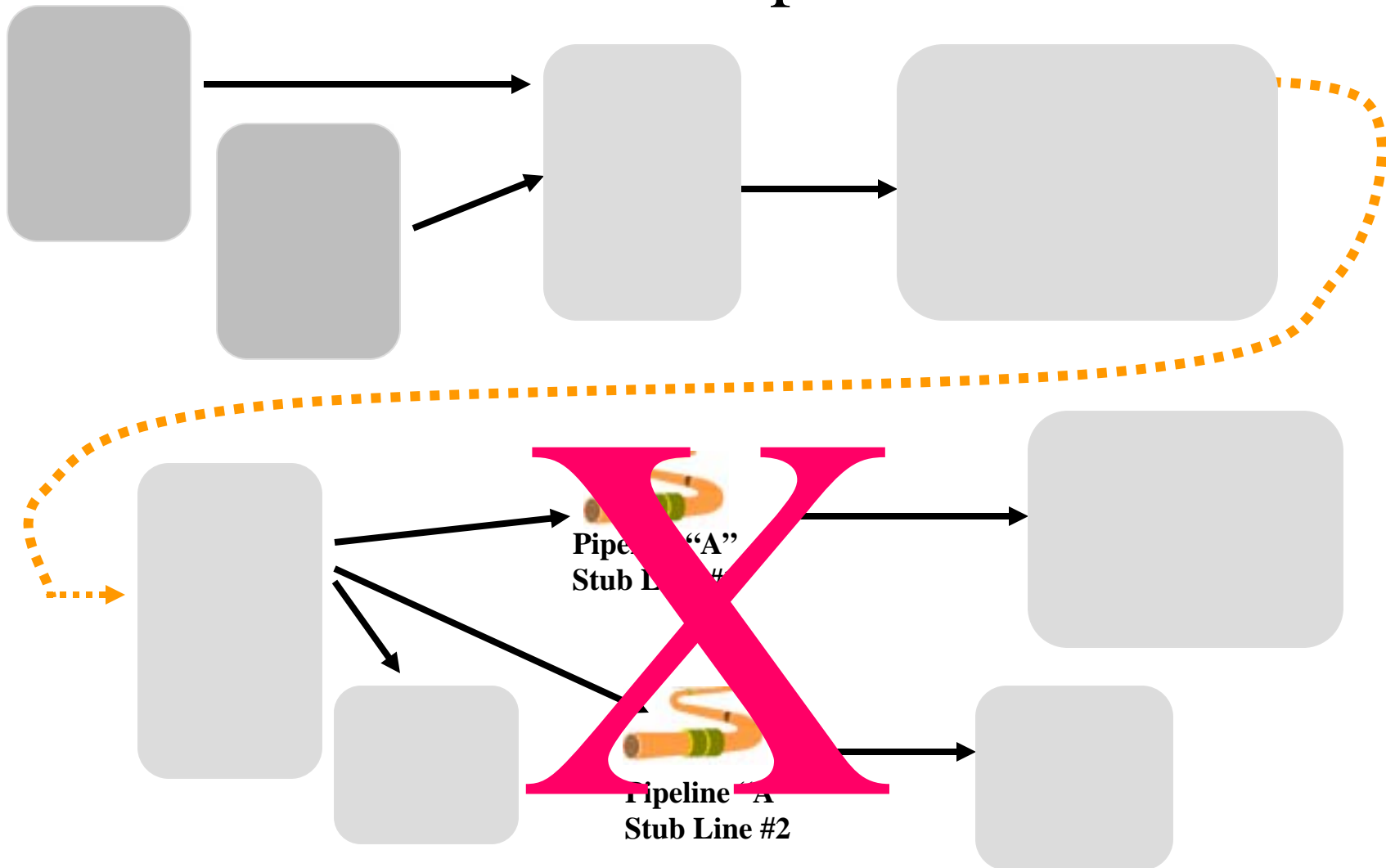
Contiguous individual facilities may be aggregated into a single facility.

Common Carrier Pipeline Facility Definition Examples (continued)



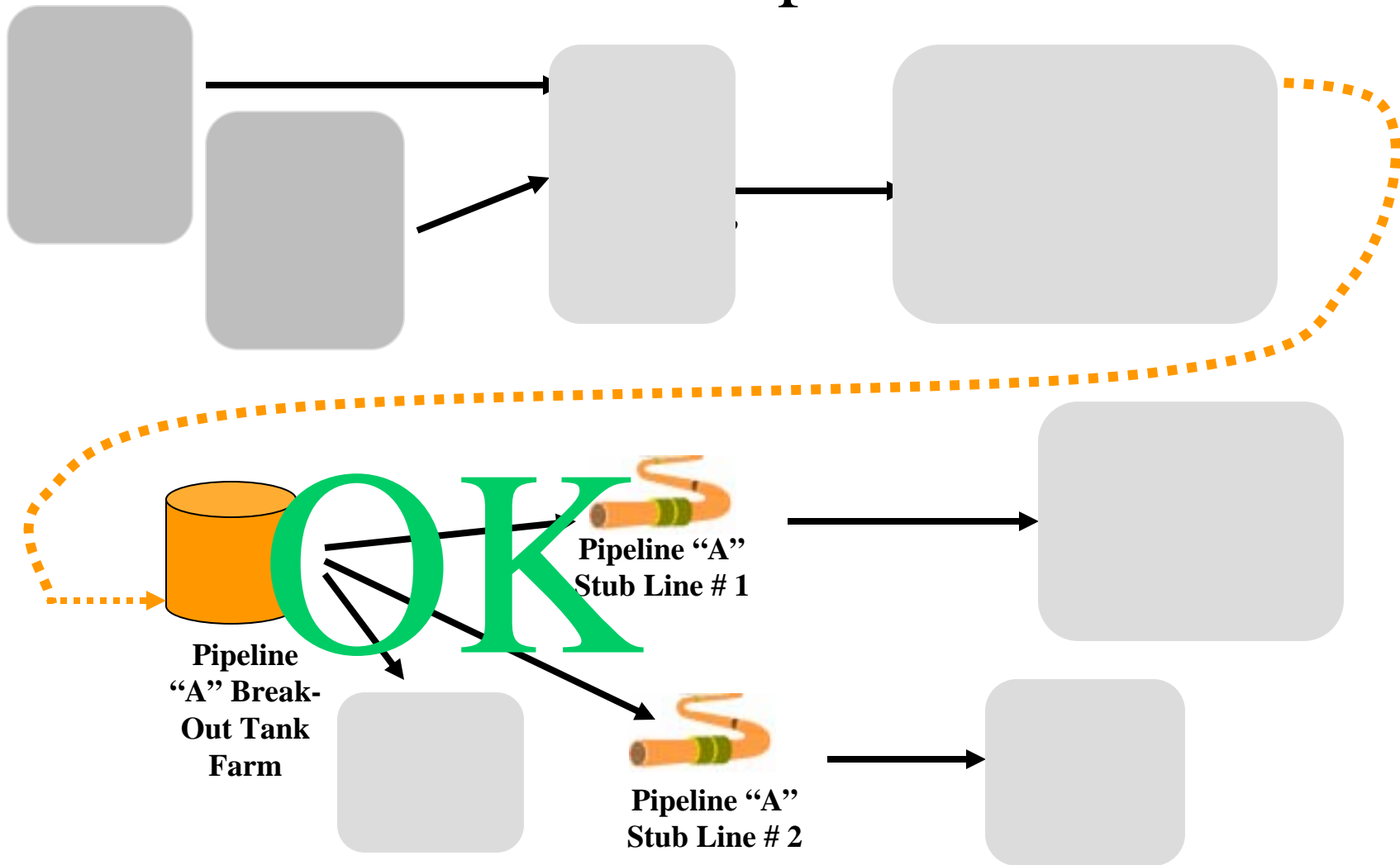
Only contiguous facilities may be aggregated.

Common Carrier Pipeline Facility Definition Examples (continued)



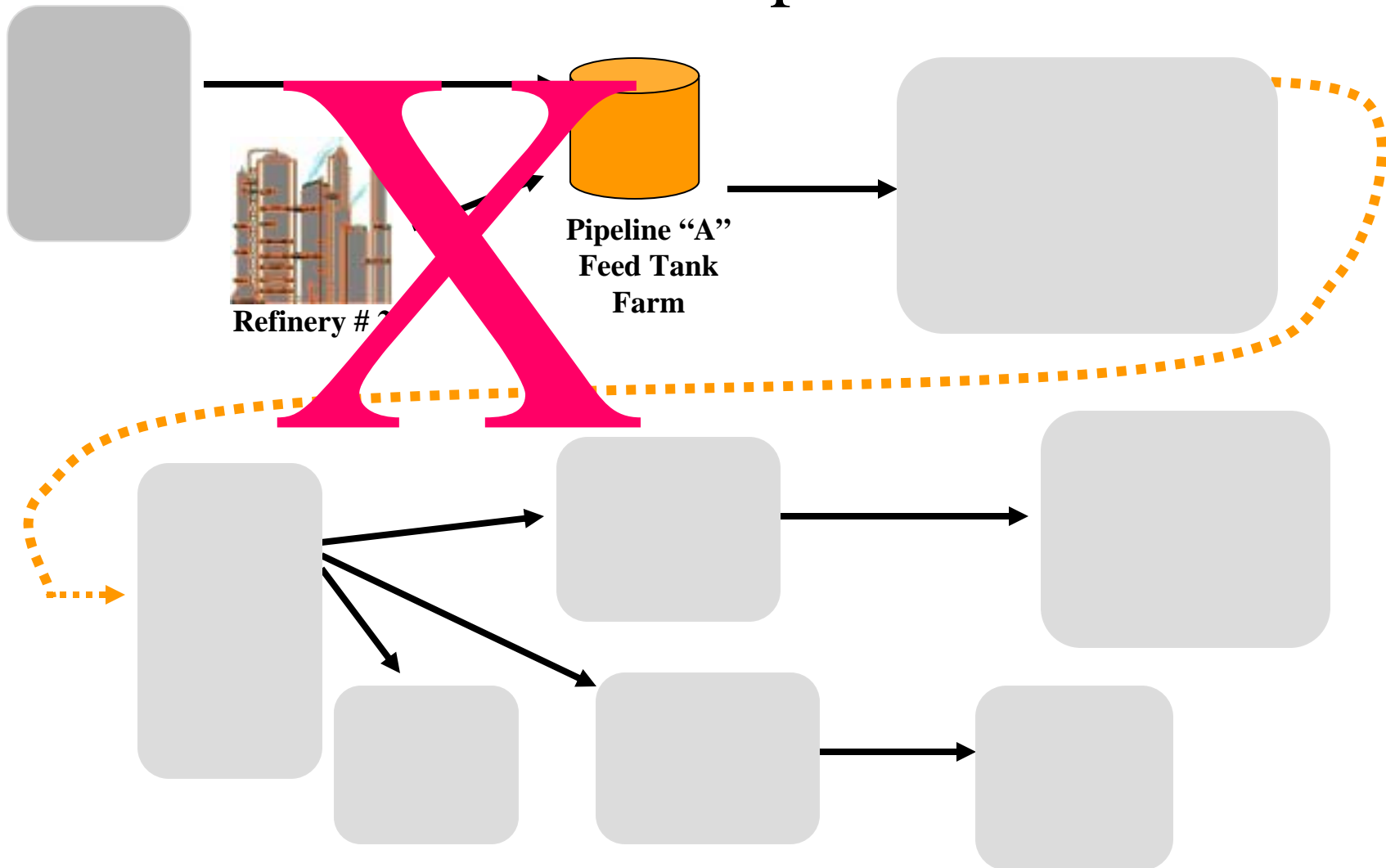
Only contiguous facilities may be aggregated.

Common Carrier Pipeline Facility Definition Examples (continued)



Contiguous facilities may be aggregated.

Common Carrier Pipeline Facility Definition Examples (continued)



If a facility handles designated fuels from more than one refiner, it may not be aggregated with a refinery.

D&T Reporting and Compliance Demonstration



- Reports required quarterly for each facility through 2010
 - Annual reporting thereafter
 - Volume of each designated fuel received and delivered to each other facility in distribution chain
- No reports required re compliance with Highway ULSD anti-downgrading requirements, though must keep records
- Compliance determined on annual basis, except:
 - If aggregated facility includes a terminal, then the entire facility must be treated as a terminal, and compliance would be on quarterly rather than annual basis (through 2010)
- Volume balance requirements
 - Highway diesel volume did not go up
 - Heating oil did not go down

Compliance with the Highway Diesel Anti-Downgrading Requirements



- Only applies to downgrade of #2 15 ppm Hwy to 500 ppm Hwy. No restriction on downgrading of:
 - 15 ppm Hwy to NRLM or heating oil (HO)
 - 15 ppm NR
- Option 1: Simplest
 - Demonstrate that volume of #2 15 ppm did not go down by more than 20%
- Option 2: Excludes downgrades to NRLM and HO
 - Demonstrate that volume of 500 ppm Hwy did not go up by more than 20% of 15 ppm volume received
- Options 3 & 4: Similar to Option 2, but with allowances for kerosene blending
 - Discussed in next panel on terminals

Dye and Marker Requirements



- New D&T requirements end the EPA refinery gate red dye requirement on June 1, 2006 for # 2 non-highway diesel fuel
- New SY-124 fuel marker requirements to distinguish:
 - heating oil from high sulfur NRLM (2007-2010)
 - 500 ppm LM from 500 ppm NR fuel (2010-2102)
 - heating oil from 500 ppm downstream flexibility fuel (2010-2014 for NRLM and 2014 & later for LM)
- No fuel marker requirements inside NE/MA Area and AK
 - No high-sulfur NRLM allowed (small refiner, credit fuel, or downstream flex fuel) except for segregated small refiner fuel in AK
 - Up to point where heating oil and HS NRLM leaves terminal (and the marker is added to heating oil) they are fungible
- Visible trace of red dye required in any fuel which is also required to contain the fuel marker
 - Help identify potential instances of jet fuel marker contamination

What if EPA has Questions?

(i.e. Record Retention)



- If EPA finds a discrepancy in the reported hand-offs of fuel volumes between distributors, we may contact the subject parties to determine if there has been a recordkeeping or reporting error.
- May also initiate an investigation if there is a problem with a facilities volume balance reports or if there are other reasons to suspect noncompliance
- May request additional records to determine whether an enforcement action is warranted, such as:
 - Batch records regarding transfers of designated fuels detailing: the date of the transfer, the physical facilities (unaggregated) that participated in the transfer
 - Records must be retained for 5 years

Limiting Sulfur Contamination



- Limiting sulfur contamination is substantial new challenge to the distribution system, necessitating costly changes such as:
 - Addition of storage tanks to handle two grades of highway diesel and high sulfur heating oil as well as 500 ppm NRLM
 - Elimination of dead legs in the pipelines and terminal
 - Reconfiguration of tank farm manifolds
 - Replacement of leaking valves
 - Adjustment of interface handling practices
- Additional procedural changes
 - Adjust product sequencing and batch sizes
 - Additional sulfur testing
 - Prevent injection of sumps into ULSD batches
 - Other?



Questions?

Jeff Herzog

National Fuel and Emissions Laboratory

Ann Arbor, MI

Herzog.jeff@epa.gov

734 214-4227