

MOU EARLY IMPACTS EVALUATION

LOCATION - COMMERCE, CALIFORNIA

DESCRIPTION OF OPERATIONS - Activities at the Yard include; receiving inbound trains, switching cars, loading and unloading intermodal trains, storage of intermodal containers and chassis, building and departing outbound trains, repairing freight cars and intermodal containers/chassis, and servicing locomotives. Facilities within the Yard include; classification tracks, a gate complex for inbound and outbound intermodal truck traffic, intermodal loading and unloading tracks, a locomotive service track, a freight car repair shop, an on site wastewater treatment plant, and various buildings and facilities supporting railroad and contractor operations.

Source Area	Activity Description	Typical Loco. Model*	Option Number	Description of Option	Is the Option Feasible for UPRR? **						Go?	Notes
					Technically	Legally	Operationally	Economically	Safety	Other		
1	Movement into & out of the Yard											
1a	Movement	Road fleet										
			1	Discontinue use of area	-	-	No	No	-	-	NO	must move into & out of yards
			2	Relocate Operation	-	-	?	?	-	-	?	will need to re-evaluate
			3	Dedicate Tier 2 units	Yes	Yes	LT	LT	Yes	-	NO	fleet will naturally turn over in time
			4	Retrofit w/ ICD's	Yes	Yes	Yes	LT	Yes	Yes	LT	will likely occur after LHP units
			5	Manual Shutdown	Yes	Yes	Yes	Yes	Yes	Yes	YES	updated training program is under way
			6	Use LNG units	No	Yes	No	No	No	No	NO	significant serious issues
			7	Use CARB diesel	Yes	Yes	No	-	-	-	NO	CARB fuel not available outside Ca
			8	Use specialty fuels	No	Yes	No	No	-	-	NO	I.e.-biodiesel/lubrizol; quality/supply issues
			9									
			10									
			11									
1b	Movement	Local fleet										
			1	Discontinue use of area	-	-	No	No	-	-	NO	must move into & out of yards
			2	Relocate Operation	-	-	?	?	-	-	?	will need to re-evaluate
			3	Dedicate ULEL switchers	Yes	Yes	LT	LT	Yes	-	NO	fleet will naturally turn over in time
			4	Retrofit w/ ICD's	Yes	Yes	Yes	Yes	Yes	Yes	YES	currently in process
			5	Manual Shutdown	Yes	Yes	Yes	Yes	Yes	Yes	YES	updated training program is under way
			6	Use LNG units	No	Yes	No	No	No	No	NO	significant & serious issues
			7	Use CARB diesel	Yes	Yes	No	-	-	-	NO	CARB fuel to be used in Ca
			8	Use specialty fuels	No	Yes	No	No	-	-	NO	I.e.-biodiesel/lubrizol; quality/supply issues
			9									
			10									
			11									
2	Idling & movement w/in location											
2a	Idling	Road fleet										
			See Source Area 1a for options associated with movement of Road fleet locomotives									
2b	Idling	Local fleet										
			See Source Area 1b for options associated with movement of Local fleet locomotives									
2c	Idling	Mixed fleet										
			See Source Area 1a for options associated with movement of the mixed fleet locomotives									
3	Idling at Svc Trk, Modsearch, Shop & Ready Tracks											
3a	Idling	Mixed fleet										

MOU EARLY IMPACTS EVALUATION

Source Area	Activity Description	Typical Loco. Model*	Option Number	Description of Option	Is the Option Feasible for UPRR? **						Go?	Notes
					Technically	Legally	Operationally	Economically	Safety	Other		
				See Source Area 1a for options associated with movement of Mixed fleet 1 locomotives								
3b	Idling	Shop fleet		See Source Area 1a for options associated with movement of Shop fleet locomotives								
Movement between Svc Trk, Load Test, & Locomotive Shop												
3e	Movement	Shop fleet		See Source Area 1a for options associated with movement of Shop fleet locomotives								
3f	Movement	Shop fleet		See Source Area 1a for options associated with movement of Shop fleet locomotives								
Testing at Svc Trk, Load Test, & Locomotive Shop												
3g	Testing	Test fleet		See Source Area 1a for options associated with movement of Shop fleet locomotives								
			1	Discontinue use of area	-	-	No	No	-	-	NO	must move into & out of yards
			2	Relocate Operation	Yes	Yes	?	?	?	-	?	will need to re-evaluate
			3	Dedicate Tier 2 units	Yes	Yes	No	No	Yes	-	NO	tested fleet varies day to day
			4	Retrofit w/ ICD's	Yes	Yes	Yes	LT	Yes	Yes	LT	will likely occur after LHP units
			5	Manual Shutdown	Yes	Yes	Yes	Yes	Yes	Yes	YES	udpated training program is under way
			6	Use LNG units	No	Yes	No	No	No	No	NO	significant serious issues
			7	Use CARB diesel	Yes	Yes	No	-	-	-	NO	CARB fuel not available outside Ca
			8	Use specialty fuels	No	Yes	No	No	-	-	NO	I.e. -biodiesel/lubrizol; quality/supply issues
			7	Ins exhaust hood/scrub	No	Yes	Yes	No	?	-	NO	proof of concept under way
			9	Modify test proceedure	Yes	No	?	?	-	-	NO	previously completed
			10									
			11									
4 Flat Switching of cars												
4a	Train Building	Local fleet		See Source Area 1a for options associated with movement of Road fleet locomotives								
			1	Discontinue use of area	-	-	No	No	-	-	NO	
			2	Dedicate Tier 2 units	Yes	Yes	No	No	-	-	NO	
			3	Dedicate Tier 2 Retrofit	No	Yes	Yes	No	-	-	No	GETS Kits
			4	Dedicate Green Goats	Yes	Yes	No	Yes	Yes	-	YES	assumes Goats will work
			5	Dedicate GSS's	Yes	Yes	Yes	Yes	Yes	-	YES	
			6	Dedicate CAT Switcher	Yes	Yes	Yes	Yes	Yes	-	YES	
			7	Retrofit w/ ICD's	Yes	Yes	Yes	Yes	-	-	YES	All are/will be retrofitted
			8	Manual Shutdown	Yes	Yes	Yes	Yes	-	-	YES	Extremely critical operation - monitor closely
			9	Use LNG units	No	Yes	No	No	?	No	NO	technical/safety/logistics issues
			10	Use CARB diesel	Yes	Yes	No	-	-	-	NO	CARB fuel to be used in Ca
			11	Use specialty fuels	Yes	Yes	No	-	-	-	NO	I.e. -biodiesel/lubrizol; quality/supply issues
			12									
			13									
5 Movement between Areas of the Yard												
5a	Movement	Road fleet		See Source Area 1a for options associated with movement of Road fleet locomotives								

MOU EARLY IMPACTS EVALUATION

Source Area	Activity Description	Typical Loco. Model*	Option Number	Description of Option	Is the Option Feasible for UPRR? **						Go?	Notes
					Technically	Legally	Operationally	Economically	Safety	Other		
5b	Movement	Local fleet		See Source Area 1b for options associated with movement of Local fleet locomotives								
6	Idling of Yard Equipment (shag tractors/hostlers, cranes, auto transports/haul-away carriers, etc.)											
6a	Idling	Hostlers	1	Discontinue use of area	-	-	No	No	-	-	NO	must move boxes in & around yards
			2	Relocate Operation	-	-	?	?	-	-	?	will need to re-evaluate
			3	Replace Exist Equipment	Yes	Yes	LT	LT	Yes	-	LT	fleet will naturally turn over in time
			4	Retrofit w/ ICD's	Yes	Yes	Yes	Yes	Yes	Yes	YES	currently in process
			5	Manual Shutdown	Yes	Yes	Yes	Yes	Yes	Yes	YES	udpated training program is under way
			6	Use LNG units	Yes	Yes	LT	LT	-	-	LT	will need to re-evaluate
			7	Use CARB diesel	Yes	Yes	Yes	?	-	-	?	will need to re-evaluate
			8	Use specialty fuels	Yes	Yes	Yes	?	-	-	NO	will need to evaluate
			9	Retrofit with DPF's	Yes	Yes	Yes	LT	Yes	-	LT	will need to evaluate
			10									
			11									
			12									
6b	Idling	Cranes		See Source Area 6a for options associated with movement of cranes and packers								
6c	Idling	Transports		See Source Area 6a for options associated with movement of cranes and packers								
			1	Discontinue use of area	-	-	No	No	-	-	NO	must move boxes in & around yards
			2	Relocate Operation	-	-	?	?	-	-	?	will need to evaluate
			3	Replace Exist Equipment	Yes	Yes	No	No	Yes	-	NO	fleet is owned by haulaway carriers
			4	Retrofit w/ ICD's	Yes	Yes	No	No	Yes	-	NO	fleet is owned by haulaway carriers
			5	Manual Shutdown	Yes	Yes	?	Yes	Yes	Yes	?	fleet is owned by haulaway carriers
			6	Use LNG units	Yes	Yes	No	No	-	-	No	fleet is owned by haulaway carriers
			7	Use CARB diesel	Yes	Yes	No	No	-	-	No	fleet is owned by haulaway carriers
			8	Use specialty fuels	Yes	Yes	No	No	-	-	No	fleet is owned by haulaway carriers
			9	Retrofit with DPF's	Yes	Yes	No	No	-	-	No	fleet is owned by haulaway carriers
			10									
			11									
7	Movement of Yard Equipment (shag tractors/hostlers, cranes, auto transports, etc.)											
7a	Movement	Hostlers	1	Discontinue use of area	-	-	No	No	-	-	NO	must move boxes in & around yards
			2	Relocate Operation	-	-	?	?	-	-	?	will need to re-evaluate
			3	Replace Exist Equipment	Yes	Yes	LT	LT	Yes	-	LT	fleet will naturally turn over in time
			4	Retrofit w/ ICD's	Yes	Yes	Yes	Yes	Yes	Yes	YES	currently in process
			5	Manual Shutdown	Yes	Yes	Yes	Yes	Yes	Yes	YES	udpated training program is under way
			6	Use LNG units	Yes	Yes	LT	LT	-	-	LT	will need to re-evaluate
			7	Use CARB diesel	Yes	Yes	Yes	?	-	-	?	will need to re-evaluate
			8	Use specialty fuels	Yes	Yes	Yes	?	-	-	NO	will need to evaluate
			9	Retrofit with DPF's	Yes	Yes	Yes	LT	Yes	-	LT	will need to evaluate
			10									
			11									
			12									
7b	Movement	Cranes		See Source Area 6a for options associated with movement of cranes and packers								

MOU EARLY IMPACTS EVALUATION

Source Area	Activity Description	Typical Loco. Model*	Option Number	Description of Option	Is the Option Feasible for UPRR? **						Go?	Notes
					Technically	Legally	Operationally	Economically	Safety	Other		
See Source Area 7a for options associated with movement of cranes and packers												
7c	Movement	Transports										
			1	Discontinue use of area	-	-	No	No	-	-	NO	must move boxes in & around yards
			2	Relocate Operation	-	-	?	?	-	-	?	will need to evaluate
			3	Replace Exist Equipment	Yes	Yes	No	No	Yes	-	NO	fleet is owned by haulaway carriers
			4	Retrofit w/ ICD's	Yes	Yes	No	No	Yes	-	NO	fleet is owned by haulaway carriers
			5	Manual Shutdown	Yes	Yes	?	Yes	Yes	Yes	?	fleet is owned by haulaway carriers
			6	Use LNG units	Yes	Yes	No	No	-	-	No	fleet is owned by haulaway carriers
			7	Use CARB diesel	Yes	Yes	No	No	-	-	No	fleet is owned by haulaway carriers
			8	Use specialty fuels	Yes	Yes	No	No	-	-	No	fleet is owned by haulaway carriers
			9	Retrofit with DPF's	Yes	Yes	No	No	-	-	No	fleet is owned by haulaway carriers
			10									
			11									
8	Other											
8a												
8b												
8c												
8d												

*** Typical Locomotive Models (fleet descriptions)**

The **Road** fleet is comprised of high horsepower locomotives that pull large numbers of cars long distances between terminals/major yards.

The **Local** fleet is comprised of lower horsepower locomotives that deliver fewer cars (possilby up to 40) shorter distances between industry and terminals/major yards, (

The **Mixed fleet** is comprised of both Road and Local fleets.

Tested fleet is comprised of both Road and Local fleets.

** When evaluating the feasibility of an option, answers entered above indicate the following;

Yes, it appears to be feasible given current technology

No, it does not appear to be feasible at this time

? means that thte option may be possible, yet needs more thorough evaluation

LT **Long Term option** that may be feasible in the future, yet is not part of this 'Early Impacts' analysis.

All feasibility criteria must be answered 'Yes' for the option to be labeled "Yes' in the 'Go?' Column.