

From: Kevin Rice <kprice@up.com>
Sent: Monday, October 24, 2022 11:48 AM
To: Newton, Rick <Rick.Newton@jacobs.com>
Cc: Buckley, Maggie <Maggie.Buckley@jacobs.com>; Luke Baatz <lmbaatz@up.com>; Assenza, Adam <adam.assenza@stb.gov>; Zhuang, Hong <Hong.Zhuang@jacobs.com>
Subject: RE: [EXTERNAL] RE: PIRATE Locomotive Operating Assumptions

Rick,

For question #1, the answer is yes.

For questions #2, I briefly spoke with Adam today about a potential change in timing of the construction of the run-around track. Adam was going to circle back with the Jacobs team tomorrow during their regular working call to discuss it and the potential implications to the EA timeline. After I hear back from Adam on this issue, I will be able to definitively answer the question.

Thanks,

Kevin Rice, PE
Sr. Manager M/W Environmental
Union Pacific Railroad
(402) 544-2213

From: Newton, Rick <Rick.Newton@jacobs.com>
Sent: Monday, October 24, 2022 11:52 AM
To: Kevin Rice <kprice@up.com>
Cc: Buckley, Maggie <Maggie.Buckley@jacobs.com>; Luke Baatz <lmbaatz@up.com>; Assenza, Adam <adam.assenza@stb.gov>; Zhuang, Hong <Hong.Zhuang@jacobs.com>
Subject: Re: [EXTERNAL] RE: PIRATE Locomotive Operating Assumptions

*** PROCEED WITH CAUTION - This email was sent from outside the Company ***

Thanks a bunch , sincerely appreciated...

Rick Newton
Jacobs
Rail Operations and Simulations
314.393.2512
Rick. Newton@jacobs.com

On Oct 24, 2022, at 9:05 AM, Kevin Rice <kprice@up.com> wrote:

Rick: I am working on these follow up questions and should have these to you be COB today.

Kevin Rice, PE
Sr. Manager M/W Environmental
Union Pacific Railroad
(402) 544-2213

From: Newton, Rick <Rick.Newton@jacobs.com>
Sent: Thursday, October 20, 2022 9:13 AM
To: Kevin Rice <kprice@up.com>
Cc: Buckley, Maggie <Maggie.Buckley@jacobs.com>; Luke Baatz <lmbaatz@up.com>; Assenza, Adam <adam.assenza@stb.gov>; Zhuang, Hong <Hong.Zhuang@jacobs.com>
Subject: Re: [EXTERNAL] RE: PIRATE Locomotive Operating Assumptions

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Hi Kevin, thanks for your responses, much appreciated. Based on your responses, I have two more quick questions.

1. Just to clarify, With only one loco operating, the second will remain in the consist, correct?
2. Since the industry tracks are not yet known, and no runaround, shoving the inbound cars to the industry from the support yard will be required, so will they have to operate at reduced speed (less than the 20 mph MAS, so likely 10-15 mph), since the conductor/brakeman will have to protect the move without a throttle or brake, OR, will their be a shoving platform/caboose or remote control operation be used, which in theory would allow the shoving train to move at the 20mph MAS? I'm assuming one of the latter, since riding a car for 3+ miles is not ideal...

Thanks!

Rick Newton
Jacobs
Rail Operations and Simulations
314.393.2512
Rick. Newton@jacobs.com

On Oct 20, 2022, at 8:33 AM, Kevin Rice <kprice@up.com> wrote:

Good Morning Maggie,

See responses below in red:

Let me know if you need anything additional.

Kevin Rice, PE
Sr. Manager M/W Environmental
Union Pacific Railroad
(402) 544-2213

From: Buckley, Maggie <Maggie.Buckley@jacobs.com>
Sent: Thursday, October 13, 2022 5:16 PM
To: Kevin Rice <kprice@up.com>; Luke Baatz <lmbaatz@up.com>
Cc: Assenza, Adam <adam.assenza@stb.gov>; Newton, Rick
<Rick.Newton@jacobs.com>; Zhuang, Hong <Hong.Zhuang@jacobs.com>
Subject: PIRATE Locomotive Operating Assumptions

*** PROCEED WITH CAUTION - This email was sent from outside the Company ***

Hi Kevin and Luke,

Thank you for your time yesterday to discuss our assumptions around how trains will operate on PIRATE. We need 2 key pieces of information to better inform our air quality analysis:

1. **Locomotive operating hours per day.** Per yesterday's conversation, the PIRATE crew and locos will only be on-site when servicing PIRATE, an estimated 4-6 hours per day. For what remains of the 12-hour shift, the locos will be used to switch other industries not on the PIRATE. . **The shift will be 8 hours not 12 (see email responses to operational questions 4/14/2022).** Out of the 8 hr shift, 4-6 hours will be for use on PIRATE I/L, the other 2-4 hours will be for switching on other industries (not PIRATE I/L). Locos will be stored overnight on PIRATE but will not be idling. Please confirm this is correct. **This is correct. The only time the power unit would be left idling over night is if the temperature falls below 35 degrees F (rare occurrence), (see email responses to operational questions 4/14/2022).** One other item of note that may not have been clear in previous communications is that there will only be 1 power unit operating at a time. As mentioned previously, there are two GP60's available for use, but only one will be utilized at any given time. The only time that both units would be operating at once is if they are switching out power units, and they would only be operating simultaneously for a short time until the new unit is hooked up to the train. **Then the off-duty unit would then be powered down.**
2. **Locomotive load factor** (% of full power). If UP can provide an average load factor, that would be great. If you cannot, Rick can generate one using the operating assumptions and responses to the questions he listed below. **Operations Director did not know the answer to this, we would have to get our**

locomotive department involved to answer this. If you need us to do that let me know, otherwise it might be faster to have Rick generate the number.

Operating Assumptions/Questions

1. Reversing movement times (out and back /back and forth):
 1. What is a generic time required for minimum stoppage between forward and reverse moves when blocking cars/switching/drilling (at support yard), or runarounds (light engines)? This will allow us to calculate idle time (assume time to include walk and throwing of one switch, and coupling air hoses (if required, see item 2 below)). **The Operations Director indicated there would be numerous starts, stops, forward and reverse movements, and idling to account for activities in spotting and pulling cars. He said overall, when the power unit is working on the PIRATE I/L, it would be moving 25% of the time, and idling 75% of the time.**
 2. Since we do not currently know industry track arrangement, it is assumed there is no drilling/switching at the industry other than assembling all cars based on a generic time to pull or spot 15 or 20 cars at 4-5 different spots (assumed pulling or spotting all cars will take 4-5 moves in a single direction to couple or uncouple at the 4-5 different spots). **This is accurate.**
 3. If there is multi track configuration at an industry, item 1a above will be assumed. **This is accurate.**
2. When all cars are pulled from industry, working track, or support yard to head to next destinations:
 1. How long does it take to pump the air on 30-35 cars, when departing these locations? **10-15 minutes.**
 2. This time will be ignored if a full cut will be run with locomotive independent and automatic air only (no car brakes) or if the air is bottled on set-out train at the working track (then include time to remove hand brakes required to hold cut of cars). **There will be car brakes.**
3. All outbound pulls will be done first and include all cars at the industry (see item 1b), and either stored at support yard or taken directly to working track for pickup by main line train, and all inbound cars will be blocked for industry spot at support yard, then delivered to industry. This would account for one outbound train and one inbound train per day. **This is accurate.**

Thank you,

Maggie Buckley | [Jacobs](#) | Environmental Project Manager (she/her)
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