

Cliffside Refiners Limited Partnership Meeting

March 3, 2020 @ 9:00 AM

Attendees:

(Cliffside) Mark M. Brad H. Rodney C.

(Downtown) Emress B. Mark W.

(NOC) David S.

(CRLP) Nick D. Bob L. Kaylyn S. Brad B. Nick H.

Roll Call

➤ Noted

Antitrust applies, multiple companies on the call.

Nick D.-I've received notices for the security program and will be sending to you this week.

Brad H.-Thank you.

Nick D.-Mark Welch did we get the website data uploads figured out?

Mark W.-Yes there seems to be an error with the website, it holds on to temporary files you will possibly need to clear the cache for the files to be the most current.

Nick D.-Plant safety-the PHA review work is done? Documentation was prepared now there is a mass of information that the BLM will work with to build a program and compliance.

Brad B.-The final report will take about 10 days to get that all in place. The evaluation is done and then there are a couple of action items that will require some more work from our engineering team but that will have to be approved first.

Nick D.-Operator training-when and if that will be put on the schedule. I would think that we are probably not ready to reset that but I will leave that open for discussion between CRLP and BLM.

TCEQ work-any update?

David S.-Contract has been awarded and I believe they had a kick-off meeting on this as well.

Nick D.-Did receive information for a proposal of what CRLP would have to do for injection all of those items are dependent on the TCEQ thing. I will get that out to Melissa here soon.

There was question about building ventilation, some repair has ben done on the K compressor building. I'm thinking that that is an ongoing project.

Brad B.-The fans are now repaired, the wiring was changed and Ted is finishing up the MOC this week.

Mark M.-This worked out really well the team did a really nice job on that.

Nick D.-K100 heat signature on cylinder 2. Seems like we are still in trouble there we may need to think about taking an outage to remedy the problem. Would like to get comments from everyone regarding this maybe next week we can discuss an outage time if we decide to do that. We need to think about planned maintenance vs letting it get this far.

Brad B.-K100 high temp is 420 degrees it will shut down at 365 degrees but what we do is we look at the efficiency which takes the pressure ratio and any suction temperature differences, you can see the pretty significant step change after each one of those trips. It was just barely above 80%, on Feb 13th it dropped down to right at 70%, and then now it is consistently running around 55%. This is all indicating damage and I think we need to fix it before it bites us. I would recommend a planned outage for this.

Nick D.-These things don't fix themselves it just gets worse as time goes on. I know the BLM likes to give 30 day notice I kind of look at this as an emergent outage. I would like to think we don't have to comply with 30 day notice. I would think a couple of weeks from now to 4-5 weeks from now we try to plan for a K100 outage, work should take 2 days unless something else is discovered.

Mark M.-Pipeline pressure is 1122.

K100

26th—Brad encouraged me to get the booster compressor in discharge control, I did that the next morning.

Since we have been running the booster in discharge control we have increased the output pressure to 225 and cylinder 2 this morning is at 288 degrees but it is 72 degrees hotter than the other cylinders. The 288 degrees on cylinder 2 is 30-50 degrees cooler than it ran all of last year. Maybe the urgency has passed a little bit, the booster is running 60 degrees cooler than the K100 and I would like to get them closer so that the work is more evenly distributed between the two. If I move that direction I think we will be in better shape.

Nick D.-I think the issue on repair/replacement, something is still going on there I think something is still out of whack and any damage that might have occurred and damaged the parts further. The temperatures in and of themselves sound good but as Brad was eluding to, the efficiency it sounds like there is still something that needs to be addressed.