From:
 Hunter, Tom

 To:
 Tieszen, Sheldon R

 Sent:
 5/31/2010 5:17:02 PM

Subject: Re: Flow

Sheldon

Please invite your analysts back at the labs to join in the call at $200 \mathrm{pm}$ houston Tom

---- Original Message ----

From: Tieszen, Sheldon R

To: SCHU <SCHU@hq.doe.gov>; Hunter, Tom

Cc: Majumdar, Arun <Arun.Majumdar@hq.doe.gov>; Poneman, Daniel <Daniel.Poneman@hq.doe.gov>;
George Cooper <gcooper@berkeley.edu>; Holdren, John (John_P._Holdren@ostp.eop.gov)
<John_P._Holdren@ostp.eop.gov>; Hunter, Tom; Hurst, Kathleen T; jean.chu@stanford.edu
<jean.chu@stanford.edu>; 'Marcia K McNutt' <mcnutt@usgs.gov>; Ray Merewether
<Ray_Merewether@seektech.com>; Richaard Garwin <RLG2@us.ibm.com>; OConnor, Rod
<Rod.OConnor@hq.doe.gov>; Slocum, Alexander <slocum42@gmail.com>; O'Sullivan, Donald Q.
(LANL); Perfect, Scott A (Lawrence Livermore National Laboratory) <perfect1@llnl.gov>;
jack.bullman@nasa.gov <jack.bullman@nasa.gov>

Sent: Mon May 31 10:16:59 2010

Subject: RE: Flow

Sec. Chu,

The Houston team is meeting with the Trevor Hill, the BP flow analyst in 15 minutes to begin going over the data. We will take your questions into that meeting.

Thank you,

Sheldon Tieszen

----Original Message----

From: SCHU [mailto:SCHU@hq.doe.gov] Sent: Monday, May 31, 2010 9:50 AM To: Hunter, Tom; Tieszen, Sheldon R

Cc: Majumdar, Arun; Poneman, Daniel; George Cooper; Holdren, John (John P. Holdren@ostp.eop.gov); Hunter, Tom; Hurst, Kathleen T; jean.chu@stanford.edu; 'Marcia

K McNutt; Ray Merewether; Richaard Garwin; OConnor, Rod; Slocum, Alexander

Subject: RE: Flow

Sheldon,

Any news on the analysis from yesterday?

I discusses with Tom Hunter yesterday afternoon the importance of doing a completely independent analysis of the top kill data. The BP scenarios are reasonable, but I see a number of other scenarios. While it will not influence the strategy going forward, it is necessary for the communications to the American public the likely state of the BOP and well, and the risks going forward.

The bottom line is whether we agree with BP the most likely scenario is their scenario 3. If so, we need to communicate this to the public. I see a number of other scenarios that may be consistent with the observations.

I am looking at the flow records, but in the "lapsed time" record, the data starts at 300 minutes. What were the pressures at the choke line and lower BOP before flow began. After flow stepped down from 27 bpm to zero, the pressure on the choke line went up, while the pressure on the lower BOP went down...?

There were approximately one minute delay from the time the flow rate was stopped to the choke line pressure equilibrating. There was another one minute delay from the choke line pressure coming to equilibrium to the lower BOP coming to equilibrium. Are these delays consistent with possible flows from the potentially three sources: the seal assembly just below the BOP,

reverse flow in through the rupture disk, and or flow from the drill pipe 3000 ft below the mud line?

Steve

Steven Chu Department of Energy

----Original Message----

From: Hunter, Tom [mailto:tohunte@sandia.gov] Sent: Sunday, May 30, 2010 8:19 PM

To: SCHU Subject: Flow

Sheldon and team had already done an hour plus with bp on scenario 3 with an interesting result. He will send a summary

Tom