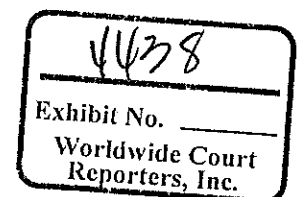


From: Ruehle, Steven A
Sent: Mon Feb 08 14:56:15 2010
To: Cramond, Neil; Jackson, Curtis W (HSSE)
Subject: Process Safety Plan - SPU View.ppt
Importance: Normal
Attachments: Process Safety Plan - SPU View.ppt

<<...>>

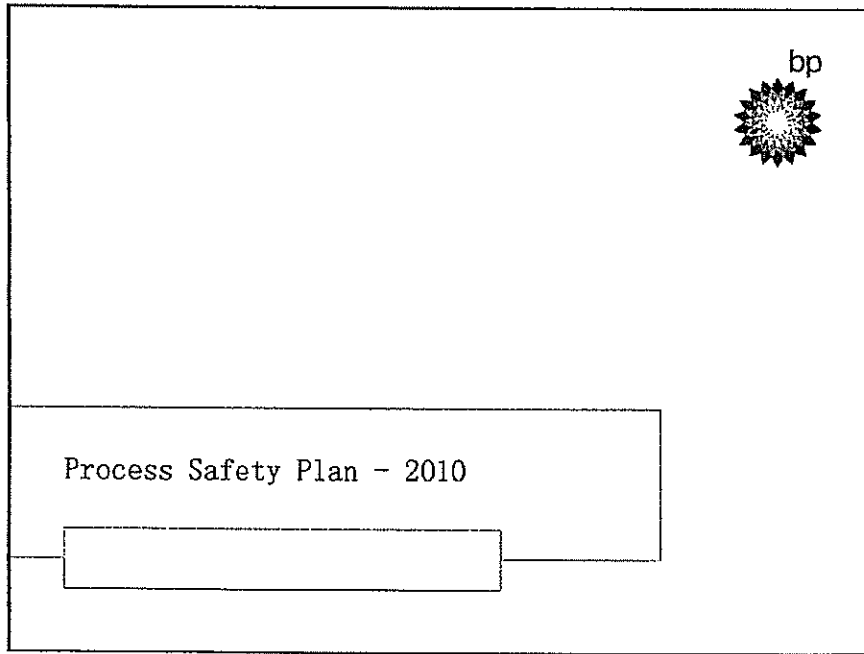
This is a draft high level 2010 process safety plan. This has not yet been widely reviewed with the organization. Please comment as needed.

Curtis, what is the timing for finalization and approval of 2010 safety plans?



CONFIDENTIAL

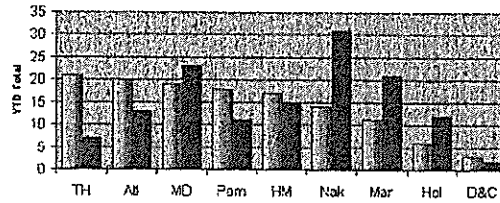
BP-HZN-2179MDL01090374



Process Safety Incidents - Asset 2009 vs. 2008

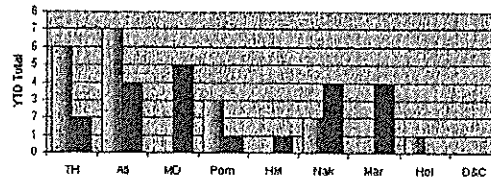


Asset Total H+ Process Safety Incidents 2009 vs 2008
2008 2009



110 H Incidents 2008
114 H Incidents 2009

Asset G+ Process Safety Incidents 2009 vs. 2008
2008 2009

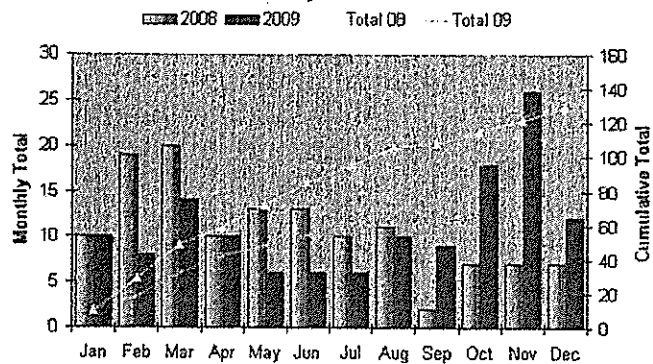


19 G+ Incidents 2008
21 G+ Incidents 2009

Process Safety Incidents - GoM



GoM Process Safety Incidents 2008 vs 2009

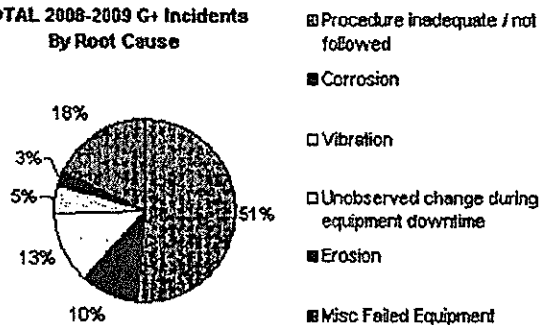


Risk Cat	A - D	E	F	G	H
Safety	3* Fatalities	1 to 2 Fatalities	DAFWC	Recordable	1st Aid
Equip Damage	> 100 m\$	5m to 100m\$	500k to 5m\$	50k to 100k\$	< 50k\$
LPGC (Gas)	> 200 mscf	20 to 200 mscf	2 to 20 mscf	0.2 to 2 mscf	< 0.2 mscf
LPGC (Flammable)	> 100 BBL	10 to 100 BBL	1 to 10 BBL	0.1 to 1.0 BBL	< 0.1 BBL
LPGC (Combustible)	> 1000 BBL	100 to 1000 BBL	1 to 100 BBL	0.1 to 1.0 BBL	< 0.1 BBL

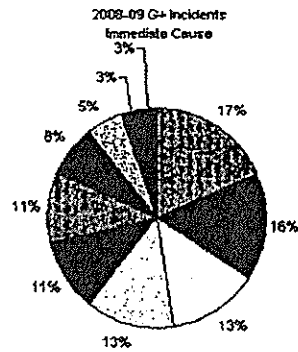
Process Safety G+ Incidents
2008 - 2009



**TOTAL 2008-2009 G+ Incidents
By Root Cause**



Process Safety G+ Incidents 2008 - 2009

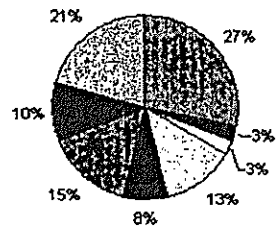


- improper repair or installation
- corrosion / erosion
- vibration
- misc. equip failure (pump, PSV, controller, soft goods)
- inadequate procedure / deviation from procedure
- incorrect torquing
- valve open / not plugged
- unexpected materials in system
- lack of focus / communication
- isolation not verified

Process Safety G+ Incidents
2008 - 2009



TOTAL 2008-2009 G+ Incidents
By Asset



- Atlantis
- Holstein
- Horn Mountain
- Mad Dog
- Marlin
- Na Kika
- Pompano
- Thunder Horse

Process Safety Plan - 2010



What are the Objectives:

- Improve offshore personnel major hazard awareness
- Close Atlantis operating envelope excursion investigation S&O audit finding

Who needs to be involved:

- Process Safety Engineers Asset IM Engineer, Process Engineer, offshore Operations Engineer, and HSSE Advisor are needed to plan, deliver, and sustain deliverables.
- Target audience includes: OIM, Ops/Maint TL, Lead Techs, etc

How to Achieve the Objectives

- Prioritize process units based on risk (risk registers, incident causes, process excursion history, etc)
- Develop focused bowtie barrier diagrams informed with incident & excursion learnings, hazard hunt findings, etc
- Short, small, focused offshore meetings with target audience to discuss barrier strength and their role with maintaining the barriers.
- Identify deficient barriers and fix them to minimize risk of process safety related incidents
- Technician participation in 2010 OE hazard awareness course

When will this happen?

- Complete planning and scheduling in 1Q 2010
- Begin offshore engagement with pilot assets in 2Q 2010 then expand to other assets per plan developed in 1Q

How do we measure success?

- Reduction in number and severity of process safety incidents in 2010 vs. 2009 (goal yet to be determined)
- Year end 2010 process safety culture survey