The Shell Petroleum Development Company of Nigeria Limited
Engineering Control Procedures SPDC

MINUTES OF CORPORATE CHANGE MANAGEMENT PANEL MEETING

Date: 22/4/2021	Venue: Online (MS Teams) Time: 10:00AM – 12:00PM

Attendance

CCMP members:

Raimi Olabanji – Eng Mgr/Chairman
Dawodu Mike – Mech.
Adoga Inalegwu - Process
Asilonu, Collins – Civil
Saka, Olufunke – Electrical
Sambasivam Srinivas – Process Safety
Oseahon Edmund – MRTA
Ezeifedi Humphrey - MCI
Ntemuse Johnson – PACO
Olatunji Ayoola – Pipelines

CCMP Secretary:

Sangoyinka, Habib

Change Originators / Sponsor

Ajilore Linda, Akinro Babatunde, Otobo Didi, Onyejekwe Chimuanya, Umaru Jimmai, Adedeji Jesuloluwa, Olowu Adesegun, Obi Emmanuel, Taylor Paul, Ikpeazu Kelechi, Akpofure, Akinjagunla Oluwashina, Dafiadje Oghenovo

1		**Proposal for Consideration:**	
1.1		MOC 103716 : Removal of offshore PCV (100 PCV 100) and temporary disconnection of HH and LL instrumentation (100 PZS 104A/B)	
1.2		Change Request No.: MOC 103716	Presenters – Linda
1.2.1		ISSUES RAISED / DISCUSSED	
1.2.1a	Background	CCMP Approval is sought to make the following changes on FYNAG flowline: 1. Replace its Offshore PCV -100 PCV 100 with a Spool piece 2. Temporarily disconnect the HH and LL Pressure instrumentation (100 PZS 104A and 100 PZS 104B) from the Process to keep Shutdown valve 100 XZV 104 always open pending the installation of new HH and LL instrumentation downstream the SDV **Background:** FYNAG Project is aimed at producing NAG (Non associated gas) from Well 153 In Forcados node for gas conditioning (Water and Hydrocarbon dew pointing) before export to ELPS network. Gas production from the well is achieved via pressure let down of the NAG from the well head by a pneumatically powered stand-alone PCV (Pressure control valve) installed on a 6-inch (fully rated) Duplex stainless steel flowline through which the gas flow onwards Northbank CPF for further processing. There are also HH and LL pressure safeguarding instrumentation and Shutdown valves on the flowline (See Attached PEFS). Currently, the instrument air consumption by the PCV is higher than the supply leading to frequent loss of instrument air. All temporary measures put in place to maintain the valve at a fixed opening have proved abortive leading to continuous closing of the PCV and well trips. In addition, the design pressure of the HH and LL pressure safeguarding instrumentation on the flowline is below the well CITHP. This implies there is a risk of instrumentation blow out or LOPC in the event the Shutdown valve close. Hence, to address these issues and achieve stable and safe production, it is proposed to: 1. Replace the Offshore PCV -100 PCV 100 with a Spool piece 2. Temporarily disconnect the HH and LL Pressure instrumentation offshore to keep Shutdown valve 100 XZV 104 always open pending the installation of new HH and LL instrumentation downstream the SDV	Info.

		Reason for Change To achieve safe and stable production of NAG to meet SPDC's obligation to DOMGAS customers	
1.2.1b	Alternative Considered	Do Nothing	Info.
1.2.1c	Gains	1. Stop production deferment and payment of fine 2. Protection of NAG well down hole sand control equipments by preventing frequent well trip	Info.
1.2.1d	Validity period	Temporary	Info.
1.2.1e	CCMP steers	1. Design for a permanent solution with support from the process safety team 2. Review the DSR carried out with the Process Safety TA.	
1.3		CCMP MANDATE: Approved pending the implementation of steers 2	

N.B: Background and Gains sections of the MoM are obtained from the stated MoCs on FSR

2		**Proposal for Consideration:**	
2.1		K2S: MOC 103534 : Monoflange installation on drain valve 11-BV-035, K2S Bulkline	
2.2		Change Request No.: MOC 103534	Presenter – Jesuloluwa
2.2.1		ISSUES RAISED / DISCUSSED	
2.2.1a	Background	CCMP approval is sought for: 1. Installation of temporary sampling point on a drain valve (11-BV-035) of the 20" K2S bulkline for corrosion monitoring. The line is a carbon steel piping. There is an installed corrosion inhibitor (KI-3940) at 95% availability. At present, the sampling point on the line (downstream the slug catcher) is not a suitable location to monitor the effectiveness of the chemical being injected on the bulkline. Previous condensate laboratory test results have returned with 0% water content, which is theoretically impossible. It has become pertinent to ascertain if the line is indeed free of water and requires minimal (or no) corrosion inhibitor injection. The intent is to commence daily sampling on the line to monitor the effectiveness of the corrosion inhibitor and optimize on the injection rate. **Reason for change** 1. Current sampling point is not suitable to collect accurate fluid flow sample and evaluate required parameters. 2. Current corrosion injection rates could be excessive, leading to high OPEX.	Info.
2.2.1b	Alternative Considered	Do Nothing	Info.
2.2.1c	Gains	1. Cost savings on use of corrosion inhibitor (KI-3940). A $ 57k annual savings is projected on 20% reduction in corrosion inhibitor injection rate.	Info.
2.2.1d	Validity period	Temporary	Info.
2.2.1e	CCMP steers	1. Consider the risk of generation of electrostatic charges during installation 2. Update the SOP and Asbuilt data based on the change request	Jesuloluwa
2.3		CCMP MANDATE: Approved	

3		**Proposal for Consideration:**	
3.1		Tunu FS: MOC 100915:Tunu FS/CPF Alarm Rationalization (Setpoint, Priority Change and Suppression)	
3.2		Change Request No.: MOC 100915	Presenter – Jimmai
3.2.1		ISSUES RAISED / DISCUSSED	
3.2.1a	Background	The main aim of this MoC request is to seek CCMP approval to implement the following alarm changes on the TUNU CENTRAL PROCESSING FACILITY DCS system in line with DEP 32.80.10.14: This change will enhance the effective operation of the facility. 1. See below the assign correct alarm priority on some identified alarm tags: Also Note the Total No of Alarms for Priority Change is 4269. The breakdown is as follows: A. Total No of Alarms for Priority Change 4269	Info.

		B. Critical to Advisory/Disable/Log/Warning 1342 C. Warning to Critical/Disable/Log/Target 2134 D. Advisory to Critical/Log 223 E. Log to Critical/Standard 258 F. Not Enabled to Critical/Standard/Target 113 G. High/IGN_PV/Fault to Log/Advisory 199 Therefore, Total Alarms for Priority Change = 4269 2. Create Dynamic Suppression Logic at TUNU CENTRAL PROCESSING FACILITY 3. Create Static Suppression Logic at TUNU CENTRAL PROCESSING FACILITY 4. Create and implement Setpoint Change as agreed in the alarm rationalization. The above changes were identified during the alarm rationalization exercise review with all stakeholders. **Background:** The DCS system continuously monitors all equipment and devices via transmitters and other sensing devices. This helps to track faults and changes that occur in equipment as alarms. These alarms are generated as long as there are changes that fall outside the operating range of the equipment. During a plant trip, ESD or equipment failure, these alarms are also generated. However, these feedback alarms that are generated as a result of the trip or ESD, usually result in an increase in the alarm rate per hour and the number of standing alarms per shift per day. This of course, would not require immediate operator's action. Nevertheless, an ideal situation should be that whenever we have a shutdown or trip, only the feedback alarm for the purpose or reason trip should be displayed, while all other follow-up feedback alarms from the impacted process and running equipment should be inhibited until the cause of the situation is resolved and process normalized. On this note, personnel are not exposed to unwanted audible alarms which could lead to poor console management. It is important to note also that when an alarm is assigned to the correct priorities, it saves a lot of time and gives the operator a good frame of mind to attend to important things than wasting time on unnecessary alarms. A good alarm management and operating envelope will necessarily lead to good adherence and process safety compliance. **Reason for change** * To reduce unwanted and unnecessary high alarms flooding the DCS system thus increasing the alarm count rate per hour. When this is achieved, operations personnel are not exposed to any process safety incident caused by unnecessary high alarms. * When an alarm is assigned to the correct priorities, it saves a lot of time and gives the operator a good right frame of mind to attend to important things than wasting time on unnecessary alarms. * A good alarm management and operating envelope will necessarily lead to good adherence and process safety compliance.	
3.2.1b	Alternative Considered	Do Nothing	Info.
3.2.1c	Gains	* To reduce unwanted and unnecessary high alarms flooding the DCS system thus increasing the alarm count rate per hour. When this is achieved, operations personnel are not exposed to any process safety incident caused by unnecessary high alarms. * When an alarm is assigned to the correct priorities, it saves a lot of time and gives the operator a good right frame of mind to attend to important things than wasting time on unnecessary alarms. * A good alarm management and operating envelope will necessarily lead to good adherence and process safety compliance.	Info.
3.2.1d	Validity period	Permanent	Info.
3.2.1e	CCMP steers	None	
3.3		CCMP MANDATE: Approved	

N.B: Background and Gains sections of the MoM are obtained from the stated MoCs on FSR