AGBADA AGG TURBINE ENGINE CHANGE-OUT (30K Inspection).

S/N	TASKS LIST.	Action Party	Sep-14 29	30	Oct-14 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	REMARKS
	PRE-SHUTDOWN ACTIVITIES																																			
1	Cocoon removal and inspection of new solar engine and installation kit	PMAG/Solar																																		
2	Raise transport request (80tons crane/Lowbed) to transport Engine from Solar to AGBADA AGG	PMAG																																		
3	Deliver engine to site- AGBADA AGG	Logistics /PMAG																																		
4	Mobilise crane and truck to site - AGBADA AGG	Logistics /NEMS																																		
5	Site preparation, planning and sorting out of tools for the job	NEMS /Asset																																		
6	Unit shutdown - allow unit to cool down for 24hrs	Asset																																		
	SHUTDOWN ACTIVITIES																																			
7	Recertification of encosure overhead gantry	NEMS																																		
8	De-energize unit and disconnect all electrical systems, Gas fuel system and fire gas system	Asset																																		
	Detachment of Turbine engine air inlet and exhaust duct bellow from the engine	Solar																																		
13	Detachment interconnect coupling shaft PT and G/box.	Solar																																		
14	Erect structural fixtures /beams and lifting hoists for engine removal/load testing	Solar/NEMS																																		
15	Engine Removal from the package.	Solar																																		
17	Transfering of FWD and AFT accessories parts from old engine to new engine, and moving new engine into package	Solar																																		
	Removal of trolley beam assy.	Solar																																		
18	Installation of new Accessory Gearbox and detached start and lube system.	Solar																																		
20	Engine alignment PT to Gear box.	Solar																																		
21	Reconnection of all instrumentations.	Solar																																		
22	Installation of Air inlet and Exhaust expansion ducts.	Solar																																		
	Installation of couplings and interconnect shaft PT to Gear box.	Solar																																		
24	Instalation of enclosure doors and all removed panels. Including pipings.	Solar																																		
25	Lube oil tank refill with new oil.	Solar																																		
27	Engine test crank and detergent wash.	Solar																																		
28	Site clean up and handover of unit	All																																		
	Package systems commisioning and engine start-up.	Solar																																		

LEGEND

Activity Plan
Completed activity
Shutdown period

K. Ogedegbe

AWI FOR PMEL
30/09/2014.

WORK SCHEDULE

A. REMOVAL OF 3-NOS IP DEFECT (ILLEGAL BUNKERING FITTINGS) POINTS ON 12" X 6.9KM AGBADA 1 TO AGBADA AGG

S/N		DURATION	DAY														
			15-Sep	16-Sep	17-Sep	26-Sep	27-Sep	28-Sep	29-Sep	30-Sep	1-Oct	2-Oct	3-Oct	4-Oct	5-Oct	6-Oct	7-Oct	8-Oct	9-Oct
1	Survey of RoW starting from Agbada 1 - Agbada AGG	0	Completed																
2	Mobilisation & rig-up of flushing equipment in Agbada AGG	4																	
3	Rig-up of flushing equipment in Agbada 1 Booster plant	1																	
4	Hook-up & flooding of gasline	1																	
5	Flushing of entire line	1																	
6	Isolation at Agbada booster plant & Agbada AGG plant	1																	
7	Mobilisation to site/ excavation	1																	
8	Sectional replacement on 3-nos Illegal Connection points	2																	
9	Carry out radiography																		
10	Field joint coating																		
11	De-isolation at Agbada booster plant & Agbada AGG plant	1																	
12	Backfilling & demob from from defect si	2																	
		14																	

Note: The green shade shows the actual shut-down window

UIO-G FLARING/GOR CONTROL WAIVER

Serial No.: Date: 30-09-2014

Category[a]: Excess of GOR limit (3*RSI or 5,000scf/b) ☐ Compressor-system outage ☐

NAG Flaring ☐ AG flaring ☐ Others ☐

Waiver Start Date/Time: 01/10/2014; 1200hrs Waiver End Date/Time: 12/10/2014; 1800hrs

Facility Name	Agbada 1 & 2 Flow Stations
Flare (or AG) Volume[b] (mmscfd)	Circa 13.6 MMscf/d (Circa 2.6 MMscf/d – Agbada1 and 11 MMscf/d - Agbada 2)
Associated Oil Production[c] (boe)	22,000boe/d
Reason for flaring (or HGOR production)	**AGBADA AGG TURBINE 30 K INSPECTIONS.** • There is a planned change out of Agbada AGG Turbine Engine from 01/10/2014 to 12/10/2014, unit having run 33,391 hrs to date against 30,000 fired hours scheduled engine change out. The engine is available and site mobilisation in place to execute the work as per attached work schedule. This will prevent the compression of associated gas from Agbada 1and 2 F/S respectively. **SECTIONAL REPLACEMENT OF 12 GAS PIPELINE AGBADA 1 TO AGBADA 2.** • Planned pipeline sectional replacement of 12" gas export line from Agbada 1 to Agbada 2 requires complete isolation of the line and shutdown of the Booster Compressor. During the Turbine Engine change out, there will be flaring of 13.60MMscf from Agbada 1 and 2 Flow Stations as against target flares volume of 1.95MMscf/d.
Justification for waiver request	The waiver is to: 1) Ensure continued production of 22,000 boe/d from these two facilities ? 2) Keep the flow line pressurised and discourage flow line and well head Vandalisation 3) Achieve planned maintenance activities on AGG and Pipeline facilities.
Post event actions to remain compliant	1. Production monitoring: • HGOR wells will be closed-in based on Agbada 1 & 2 GOR creaming curve • Gas lift to all gas lifted wells closed 2. Prompt commissioning of Agbada2 AGG and Agbada 1 Booster as soon as the various activities are completed and SoF approved. Daily routine flare rate when the AGG and Booster is available is circa 0.90MMscfd which is within the limit of 1.95MMsfcd target.

	Originator: Asset/Project/Asset Dev. Mgr	Agreement: GM/Lead - (Asset/Project/Dev.)	Supported (SCiN only): Mgr, Prod. Services
Name	BOMA BROWN	JURGEN JANSEN	OBI AKOSA
Job Title	ASSET MANAGER	GM,ONSHORE PRODUCTION	PRODUCTION SERVICE MANAGER
Signature		P.P. J.JONZEN	
Date	30/09/2014	30/09/2014	

30/09/14

Approved by the GM, Production: Signature and Date:.....

Distribution List :

Signatories + Operations Manager/Senior Operations Support Engineer/ Gas Allocation Engineers/Senior Programmer/Maintenance and Integrity Manager/ Production Services Manager.

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[a] *Please tick the appropriate box*

[b] *please specify amount of gas to be flared per day*

[c] *please specify potential net oil per day that would have been produced if the gas is flared*

[g] *please specify actions to be taken post event so as to remain compliant with policy and set target*