	UGEE CHEMICALS PSG Department	SOP Standard Operating Procedure

BUGGY FLOOR MANAGEMENT SYSTEM OPERATION

SOP #: UCL/IBDPSG/CD/Q/14.0	Issuance Date:	As at Last Signature	
	Revision Date:	Maximum 2 Years from the effective date	
	Effective Date	20 Days from Issuance Date.	Page 1 of 11

PURPOSE

- To define a standard procedure for operating buggy floor management system to prevent product mispack on PSG production floor and to keep an adequate inventory of good quality FP and off spec. product buggies on buggy floor.

SCOPE

- This SOP covers all the process of production in buggy floor operation as it is a buffering stage between making and packing operations. It covers the responsibilities of buggy floor team leaders, control room operators, line operators, shift E&Is, MSG team leaders, PSG shift QA leaders and PSG team leaders towards achieving its mentioned purpose.

RESPONSIBILITY

- **Control Room Operator:** Responsible for switching on BFMS server at every start of operation. At resumption of his shift, he confirms on the BFMS server that BFMS service is running and changes operator and shift information on BFMS page of control room SCADA. He also confirms that only one BFMS server is switched on at a time during operation.

- **MSG Team Leader:** Responsible for checking once every hour that density data is being updated by buggy floor team leader and printed buggy labels are pasted on buggies.

- **PSG Team Leader:** Responsible for initiating packing changeover per line on BFMS before starting changeover on the line. He conducts BFMS start up and shut down checks following checklists. He is also responsible for switching off BFMS server.

- **PSG Shift QA Leader:** Provides start up and shut down checklist to PSG team leader and collects filled checklist as part of BPR document.

- **Buggy Floor Team Leader:** Responsible for collecting finished product from buggy filling station (BFS) with only buggies that are OK as indicated by the BFS display. He enters buggy density in BFMS buggy inventory page on client computer after the buggy leaves BFS, and also paste label accordingly on the buggy. He also coordinates loading and dumping of buggies by buggy floor operators.

- **Buggy Floor Operator:** Responsible for loading and dumping of buggies.

- **E&I:** Responsible for timely fixing of BFMS alarms to root cause.

- **PSG Line Operator:** conducts analysis for BFMS alarms in his area.

- **PSG PC&IS Leader:** Responsible for ownership and provision of various access privileges for BFMS service. He also adds GCAS number of new formulations to BFMS.

POTENTIAL RISKS

- NA

PPE REQUIRED

- NA

PROCEDURE

AT START UP

1. Control room operator starts main BFMS server. By doing this, BFMS picks current MSG brand. If he changes over afterwards, BFMS will be updated automatically.
2. PSG team leader will, at every start up, conduct BFMS start up checks following checklist and confirms that loading, reblend and dumping spots are on auto mode.
3. PSG team leader will, at every changeover, go to BFMS client and login with his access. He will make changeover for various packing lines based on production plan from SAP.
4. PSG team leader initiates changeover for all packing lines as planned on SAP.

AT SHIFT HANDOVER

5. The incoming shift control room operator logs into BFMS application to confirm that BFMS service is still running.
6. The incoming shift control room operator will open BFMS page of control room SCADA and change all the shift and operator information accordingly.
7. PSG team leader will confirm that loading, reblend and dumping spots are on auto mode.

DURING NORMAL OPERATION
AT THE LOADING SPOT

8. Buggy floor team leader will, at every mixer batch, move a buggy to BFS. He will check that the LED display on BFS indicates "OK BUGGY" before opening the BFS valve to load product into buggy.
9. In case the display indicates an error, he will remove the buggy from BFS loading spot and reset the alarm on BFMS client application. If he tries using the buggy again and error persist, then he needs to park the buggy and use another buggy.
10. If the LED display indicates "OK BUGGY", he goes ahead and fill the buggy with product and collect the sample for density.
11. Once the buggy is filled, he will remove it from BFS. While the buggy is being removed from BFS, the BFMS application will automatically update the buggy in historical buggy page with all information correct except for finished product density.
12. The buggy floor team leader will update the finished product density in buggy inventory page of BFMS application before moving the next buggy to be filled into BFS loading spot as the buggy label card for a previous buggy will be printed automatically as soon as the next buggy enters into BFS loading spot.

13. The buggy floor team leader will paste the buggy label card on the buggy while in storage before moving it to dumping spot of packing lines.

14. The buggy floor team leader will label and report any empty buggy that was not used due to persistent BFS load spot alarm to PSG team leader.

15. PSG team leader engages shift E&I in fixing the alarm to root cause.

16. PSG team leader informs PSG PC&IS leader any alarm that could not be fixed by operating team.

17. PSG team leader will raise deviation to run on manual mode for certain period if the alarm could not be fixed immediately.

18. PSG team leader will only change to manual mode if the deviation is approved by QA manager.

19. MSG team leader will go to buggy floor once every hour to confirm that buggy operation is in line with this SOP.

AT THE DUMPING SPOT

20. Buggy floor team leader will monitor dumping spot low level alarm from BFMS client and status lights on packing lines

21. In case of a low-level alarm at a dumping spot, buggy floor operators will remove the empty buggy from that dumping spot and replace it with a full buggy.

22. Before opening the buggy at a dumping spot, the buggy floor operators will check the line LED display for error.

23. If the line LED display indicates "OK BUGGY", the buggy floor operators will open the buggy to fill that dumping spot.

24. If the line LED display indicates an alarm for the dumping spot, the buggy floor operators will remove the buggy, reset the alarm on BFMS client before placing another buggy.

25. The buggy floor team leader will label and report the buggy that gives alarm at the dumping spot to PSG team leader.

26. PSG line operator will analyse and fix alarms relating to his area.

27. PSG team leader informs PSG PC&IS leader any alarm that could not be fixed by operating team.

28. PSG team leader will raise deviation to run on manual mode for certain period if the alarm could not be fixed immediately.

29. PSG team leader will only change to manual mode if the deviation is approved by QA manager.

AT REBLEND SPOT

30. MSG team leader engages his shift E&I in fixing alarms relating to reblend spot.

31. MSG team leader informs PSG PC&IS leader any alarm that could not be fixed by operating teams.

AT PACKING CHANGEOVER

32. PSG team leader will initiate the changeover based on SAP plan.

BFMS Reader Functionality Test

This test is to be carried out bi-annually for loading, reblend and dumping spots during normal operation.

(a) Open overview page on BFMS client PC. Confirm that buggy number displayed on the overview page for loading, reblend and dumping spots match what is on the lines. Test passes when buggy numbers captured by BFMS match the buggy number on the lines.

(b) Check that BFMS overview page does not display buggy number when buggy is not physically present on loading, reblend and any dumping spots. Test passes when BFMS does not display buggy number for loading, reblend and dumping spots with no physical buggy.

(c) Check that buggy number is not missing on BFMS overview page for loading, reblend and dumping spots that have physical buggy placed on them. Test passes when buggy numbers captured by BFMS match the buggy number on the lines.

Note: In all cases, follow troubleshooting guide to fix any observed issue(s). Test must be done for each of the active dumping spots on packing UVA and Multilane lines. Reblend spot is at MSG level 24.

AT SHUT DOWN

33. PSG team leader confirms that making operation has stopped and then goes ahead to shut down BFMS server following BFMS shut down checklist.
34. PSG team leader gives filled shut down checklist to PSG shift QA leader as part of BPR document.

REASON FOR UPDATE: New SOP

END OF PROCEDURE

SOP RELATED ATTACHMENTS
ATTACHMENT 1 - SOP Qualification
ATTACHMENT 2- SOP Model Answers
ATTACHMENT 3- Reader functionality test checklist
ATTACHMENT 4- Start up and shut down checklist
ATTACHMENT 5 – BFMS server set up guide (how to switch from main server to backup server and vice versa)

UGEE CHEMICALS IBADAN PLANT	**PSG Department**

BUGGY FLOOR MANAGEMENT SYSTEM OPERATION
Training & Qualification Sheet

Trainee Name:		Trainer Name:	
Training Date:		Qualifier Name:	

Question # 1: What is the purpose of this SOP?

Answer # 1: (A) To define a standard procedure for operating buggy floor management system to enable product mispack on PSG production floor and to keep an adequate inventory of good quality FP and off spec. product buggies on buggy floor.

(B) To define a standard procedure for operating buggy floor management system to prevent product mispack on PSG production floor and to keep an adequate inventory of good quality FP and off spec. product buggies on buggy floor.

Question # 2: How many BFMS server should be switched on at a time during operation?

Answer # 2:   (A) One   (B) Two

Question # 3: who provides start up and shut down checklist to PSG team leader and collects filled checklist as part of BPR document?

Answer # 3: (A) MSG team leader (B) PSG shift QA leader (C) PSG PC&IS leader

Question # 4: PSG team leader does not need to stop loading and dumping operation before initiating changeover on BFMS client?

Answer # 4:   (A) True   (B) False

Question # 5: Who conducts analysis for BFMS alarms in his area?

Answer # 5: (A) PSG line operator (B) Shift E&I (C) Team leader (D) Satlab operator

Question # 6: MSG team leader checks that buggy operation is in line with this SOP every…

Answer # 6: (A) Two hours   (B) one hour   (C) 30 minutes   (D) 20 minutes

Question # 7: What is the full meaning of BFMS?

Answer # 7: (A) Buggy Floor Management Server (B) Buggy Floor Management System

SOP OWNER	QA APPROVAL	HS&E APPROVAL	AUTHORISATION
Atobajaiye 'Segun	Alawode Olujide	Adebiyi Adedoyin	Oguntinde Adebayo
Date: 28/02/2022	Date: 28-02-2022	Date: 28-02-2022	Date: 28/02/2022

	UGEE CHEMICALS IBADAN PLANT	PSG Department

BUGGY FLOOR MANAGEMENT SYSTEM OPERATION
Training & Qualification Sheet

Question # 8: The buggy floor operator should not open buggy on a dumping spot while an alarm is displayed for the dumping spot.

Answer # 8: (A) True   (B) False

Question # 9: Buggy team leader can open buggy without label at dumping spot

Answer # 9: (A) True   (B) False

Question # 10: All loading and dumping spots alarms will be reported to PSG team leader.

Answer # 10: (A) True   (B) False

The person is considered passed if he scores 100 % in the above test.

Training Results: _____ (tick as appropriate)   Succeeded: [ ]

Qualifier 's Sign/Date: _____

Fill if re-qualification is needed:

Date of re-qualification : _____

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BFMS READER FUNCTIONALITY TEST CHECKLIST

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Checked by (name& sign) :

		Team:	Date:	Shift:

S/N	Steps	Time (min)	Status (OK/NOT OK)	Action if status is not ok	Comment
1	BFMS application is running	1		Start BFMS	
2	Place any buggy on load spot. Buggy number of buggy on load spot matches what is on BFM LS1 section of overview page	2		Follow TSG	
3	Place any buggy on reblend spot at level 24. Buggy number of buggy on reblend spot matches what is on BFM Reblend section of overview page	10		Follow TSG	
4	Place any buggy on each dump spot(A,B,C,D,E,F,G,H,RST,UVW,IJK &LMN). Buggy number of buggy on each dump spot matches what is on each dump spot section of overview page	10		Follow TSG	
5	Remove buggy from load spot. Load spot must not display any buggy number on BFM LS1 section of overview page	2		Follow TSG	
6	Remove buggy from reblend spot at level 24. Reblend spot must not display buggy number on BFM reblend spot section of overview page	10		Follow TSG	
7	Remove buggy from all dump spots (A,B,C,D,E,F,G,H,RST,UVW,IJK &LMN. No dump spot must display buggy number on BFM dump spots section of overview page	10		Follow TSG	
	Total time	45			

Note: Success criteria is; (1)BFM application must display right buggy number for load, reblend and dump spots with physical buggy present
(2) BFM must not display buggy number for load, reblend and dump spot when buggy is not physically present there
Reblend spot is at MSG level 24

Additional comment

SOP OWNER	QA APPROVAL	HS&E APPROVAL	AUTHORISATION
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BFMS START UP/SHUT DOWN CHECKLIST

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Checked by (name& sign):   Team: Date: Shift:

START UP

S/N	Steps	Time (min)	Status (Yes/No)	Action if status is NO	Comment
1	The UPS panel at MSG MCC room has been powered	1		Switch ON UPS panel SDS	
2	UPS at MSG MCC room is powered and loaded	1		Switch ON UPS	
3	BFMS server power sockets are turned on	1		Switch ON BFMS power sockets	
4	BFMS PLC and server are switched on	1		Start up BFMS PLC and server	
5	BFMS service status in RUN mode	1		Launch BFMS application and start service	
6	LAN cables lights for BFMS server cisco switch are ON and greenish for port 4, 6, 7 & 8 if main server is used and port 2,4,14 &19 if back up server is used and BFM PLC/MSG stratix switches LAN ports are ON and greenish for those with LAN cables	2		Insert LAN cable (follow TSG if problem persist)	
7	Control panels SDS and RFID readers are ON for LS1, LP1012, L1, L2 and L4A&B	4		Switch on panel (follow TSG if problem persist)	
8	Ready to work indicator is ON and stable for each of LS1, L1, L2 and L4A&B RFID readers	4		Switch off reader and restart after one minute and then stop and restart service (follow TSG if problem persist)	
9	Stratix switch LAN ports are ON for LS1, LP1012, L1, L2 & L4A&B	4		Insert LAN cable (follow TSG if problem persist)	
10	Alarms on LS1, L1, L2 & L4 dump spots on BFMS application have been cleared	1		Follow TSG if problem persist	
	Total	20			

SHUT DOWN

S/N	TASK	Time (min)	Status (Yes/No)	Action if status is NO	Comment
1	BFMS server has been shut down	3		Shut down BFMS server	
2	Sockets for servers and stratix switches have been switched off	1		Switch off sockets	
3	UPS at MSG MCC room has been shut down	1		Shut down UPS	
4	UPS panel at MSG MCC room has been switched off	1		Switch off UPS panel SDS	
	Total	6			

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STEPS TO SETTING UP BFMS SERVER

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S/N	ACTION	TIME(SEC)
	AT MCC ROOM (SERVER ROOM)	
1	Check that two power cords are connected to the server	30
2	Check that three LAN cables are connected from the server to cisco switch. For main server, LAN cables must be on cisco switch port 6, 7 & 8 and for back up server LAN cables must be on cisco switch port 2, 14 & 19. Note port 4 on cisco switch is for connection to BFM PLC stratix switch.	30
3	Switch on power to the server from UPS/socket	30
4	Start the server by pressing the start push botton on the server	180
5	When the server finished booting, ping the reader, point I/O, stratix switch, display and printer to be sure there is communication. IP address to ping are: 192.168.104.73 (load spot reader), 192.168.103.64 (load spot point I/O), 192.168.104.217(stratix switch for panel LP1012), 192.168.105.64 (load spot display), 192.168.104.15(printer), 192.168.104.50 (L1 reader), 192.168.104.52 (L2 reader), 192.168.104.56 (L4A reader), 192.168.104.57 (L4B reader)	360
6	Login to BFMS service and stop the service	60
7	Log out and go to buggy floor	180
	AT BUGGY FLOOR	
8	Change the .ini file on buggy floor PC to reflect the server you are switching to. The essence of this is to establish communication between buggy floor PC and server.To change .ini file go to computer/C drive/program Files (x86)/BFMS/BFMS.ini. Replace the BFMS.ini file with that of the server you are switching to. DO NOT ALTER INSTRUCTION ON THE FILE. JUST DELETE THE ONE YOU MET THERE AND COPY &PASTE THE ONE YOU NEED. To copy the .ini file, go to computer/C drive/users/public/public documents/BFMS backup server (or BFMS main server). Open the folder named BFMS backup server and copy the .ini file named BFMS if you are switching to backup server. Open the folder named BFMS main server and copy the .ini file named BFMS if you are switching to main server.	360
9	Login to BFMS service and click on program settings	180
10	Click server tab and select the correct server name (you can also type the server name). Main server name is IBA-BFM-SVR-01 and Back up server name is 192.168.104.58	180
11	Click Test SQL Connection (the response must be SQL Server Connection Test Succeded)	120
12	Select English as language, click apply tab and then Accept tab.	30
13	Start BFMS service. The server is now ready for use.	60
	Total Time(30Mins)	**1800 Sec**

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