

Prepared (also subject responsible if other) S Ramesh		No.		
Checked		Date 05-02-2020	Rev Ver1.0	Reference

## MOP of VSWR limits exceeded for Ericsson Site

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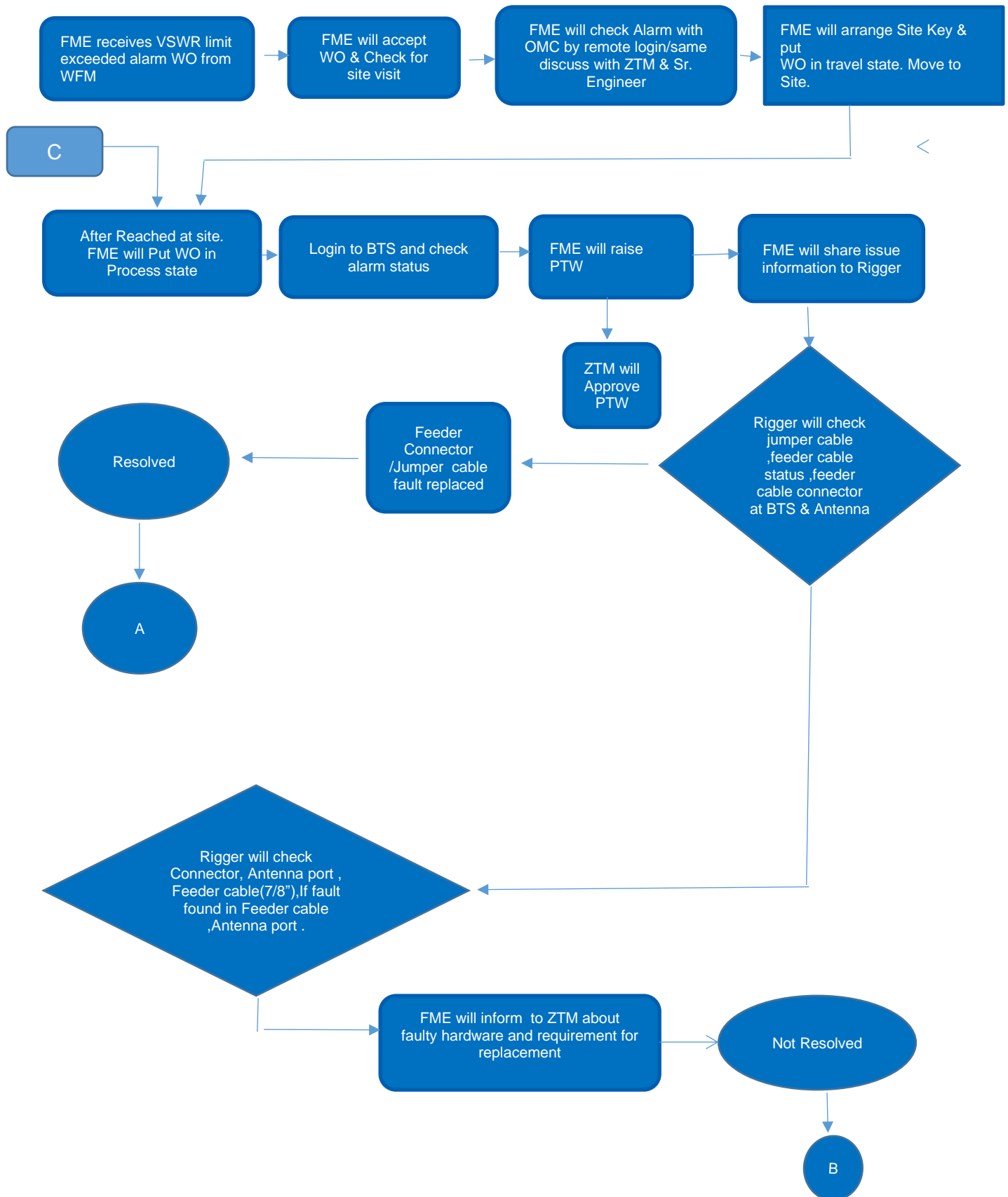
## Activity Description

This activity is for E2E troubleshooting and Clearance of VSWR limits exceeded  
Attached are the details to be followed by RAN Team. As this need to be followed as guideline.

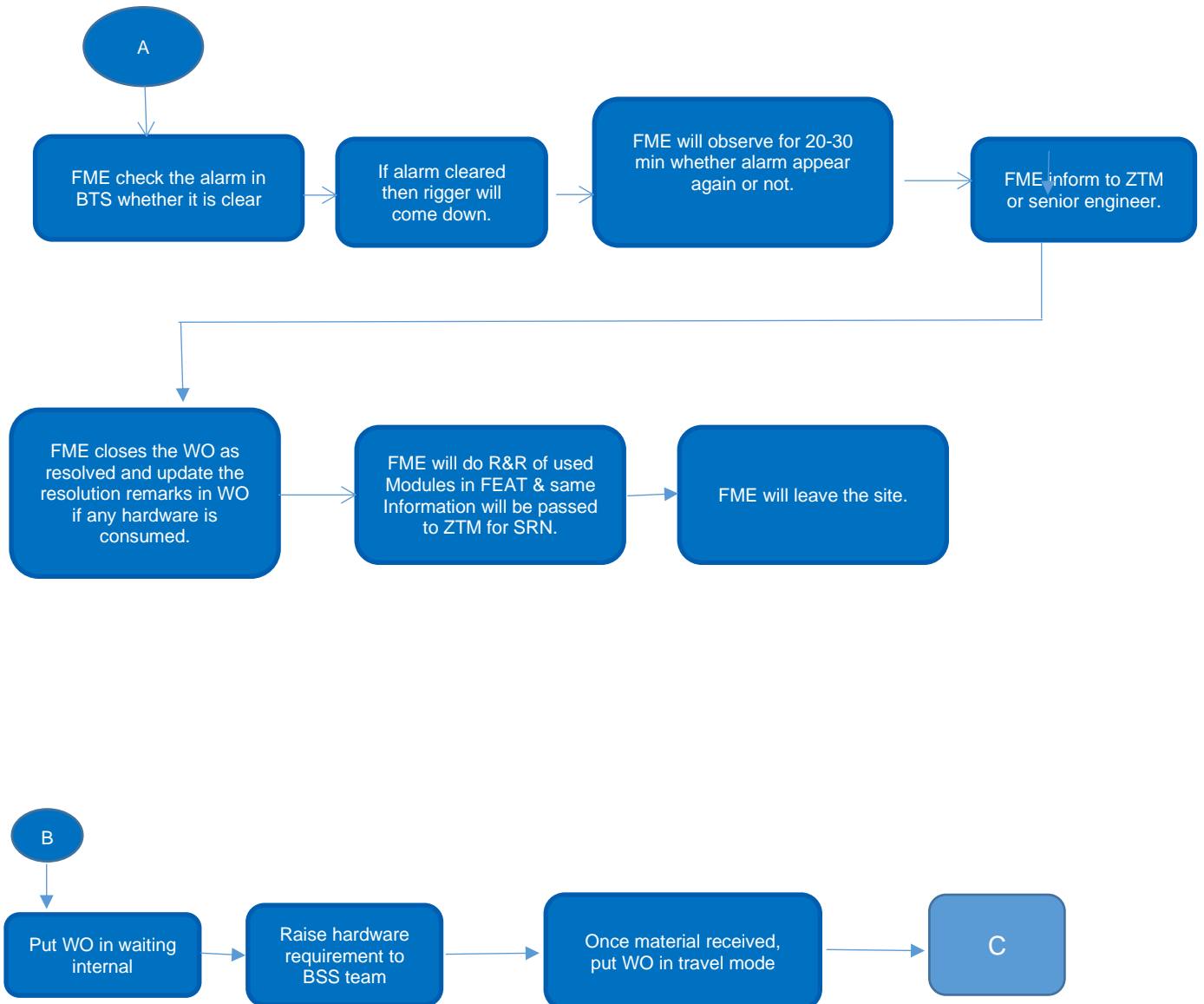
Alarm Name	VSWR limits exceeded at ONE FM end
Alarm Description	CF 2A 8-VSWR limits exceeded alarm
Possible Causes	<ol style="list-style-type: none"><li>1. Jumper cable fault at BTS end</li><li>2. Feeder cable connector and 7/8" Cable damage or bend</li><li>3. Waterlogged at connector due to improper weather proof sealing at antenna end.</li><li>4. Loose Connection of connector at antenna end and BTS.</li></ol>

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## Flow Chart



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## Activity Summary

1	Corrective Work order -VSWR limits exceeded alarm will received on WFM portal
2	FME will accept the WO- FME will check with alarm team-any alarm in site .
3	FME will change WO status to travel –will go to site.
4	Once reached site –FME will change WO status to in progress
5	Login the BTS & Check alarm status –Jumper cable connection, Hardware issues at BTS end, No issue at BTS. Need to check Antenna end.
6	PTW will be raised to ZTM
7	Once PTW Approval done by ZTM
8	Rigger will climb on tower and check RF Jumper, connector and feeder. If no issue found we have to swap the RF jumper in antenna end, if alarm position is changed then there is no issue at antenna ports, now swap the RF jumper in feeder/RRU end ,If alarm remain in same position then issue in RF Jumper, pls replace the same. But if the alarm again shift after swapping the RF Jumper, pls replace the same. But if the alarm again shift after swapping then there is issue in either connector or feeder/RRU port.
9	FME will check in BTS (Alarm cleared or not).
10	If alarm cleared, then WO will be closed.
11	If alarm not cleared,-FME will inform to ZTM about fault cause and hardware requirement.
12	If any HW Required at site - Work order status as Waiting internal
13	Raise Request of Hardware to BSS Team (Antenna/Feeder cable/hardware)
14	Once material received -WO in Travel mode
15	After reaching site - WO in progress
16	Raise PTW to ZTM
17	PTW Approval done by ZTM
18	Replace the hardware
19	Check alarm cleared or not-BTS login ,After hardware replacement
20	Once alarm cleared
21	FME will close the WO as resolved

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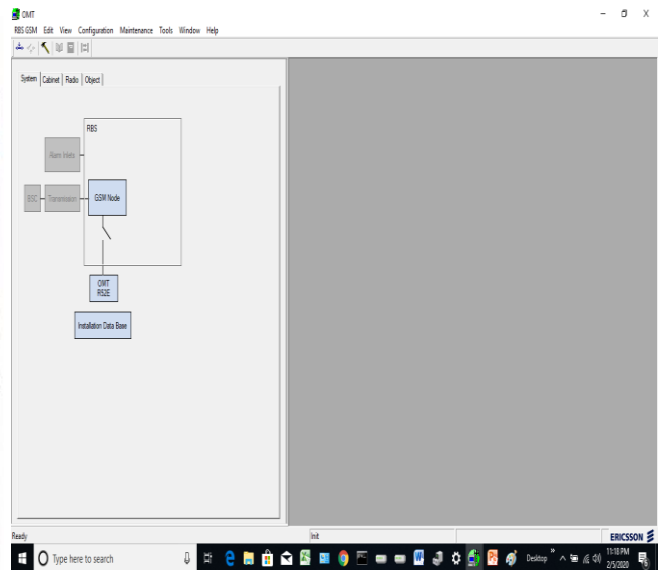
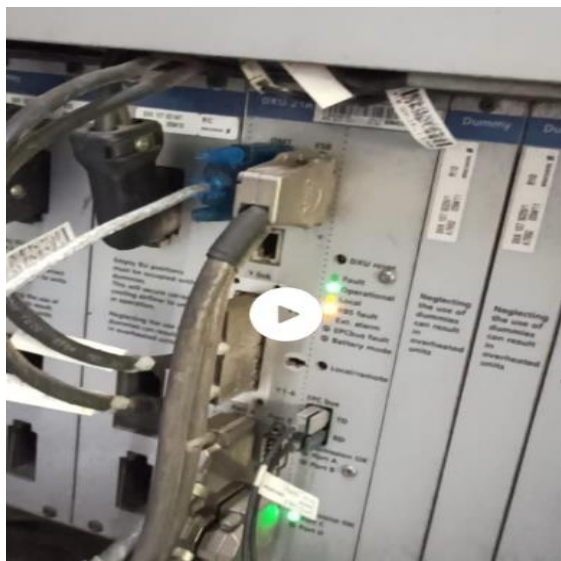
## Activity Details

### Pre requisites:

- 1) SVD WO - VSWR limits exceeded for alarm.
- 2) Alarm on OneFM /WFM.

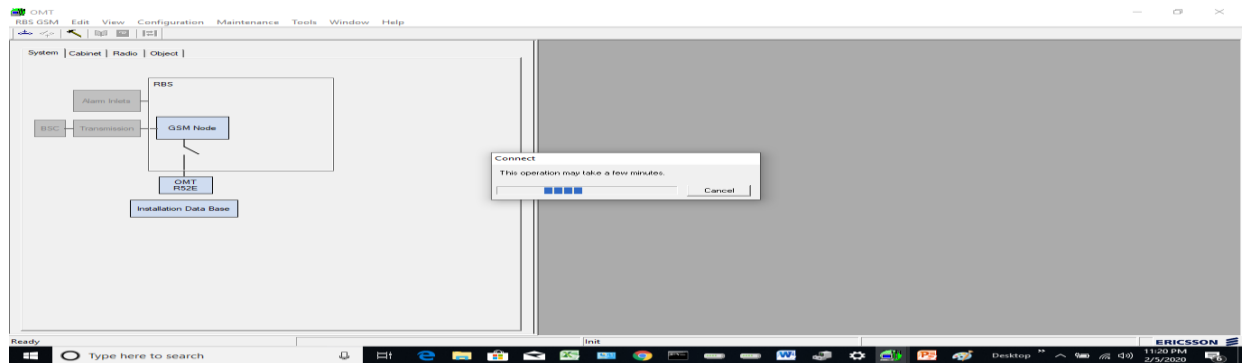
When VSWR limits exceeded, Below the activities need to be done step by step to clear the alarm'

- a) Login 2G BTS Via OMT -Using OMT login cable



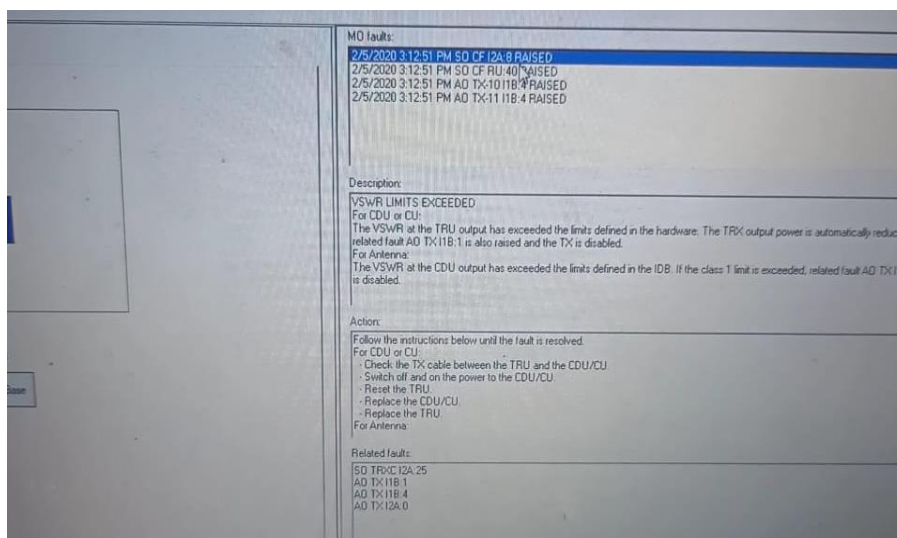
Login 2G BTS

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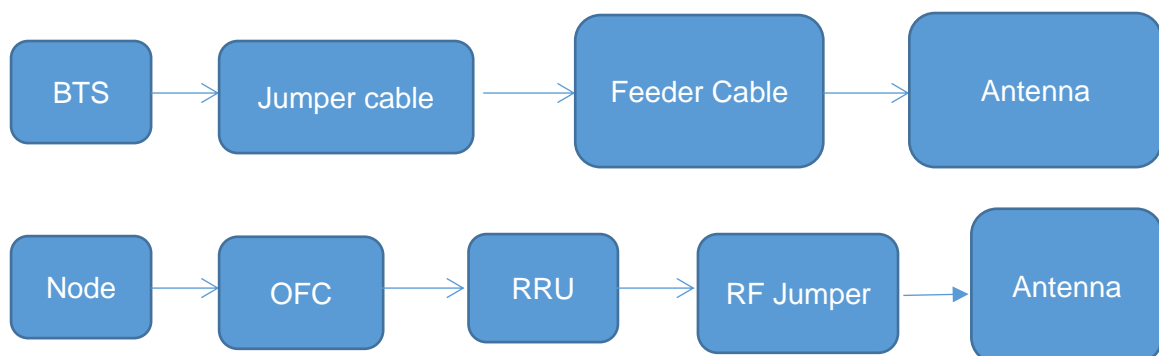


b) Verify the Alarm status 2G.

VSWR limits exceeded alarm



c) Check the Feeder cable Connectivity from BTS to Antenna end (Connectivity Diagram)



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d) Basic required material and Tools for VSWR alarm Clearance



Step to clear VSWR limits exceeded alarm

1. Check jumper cable at BTS end
2. Check any loose connection between Jumper cable and Feeder cable.
3. Check Feeder cable connector at BTS end.
4. Check antenna end feeder connector & feeder cable boot earth .(Weather proof sealing must to be done)
5. Check BTS hardware also(EDRU,RUS,EDTRU,CDU)



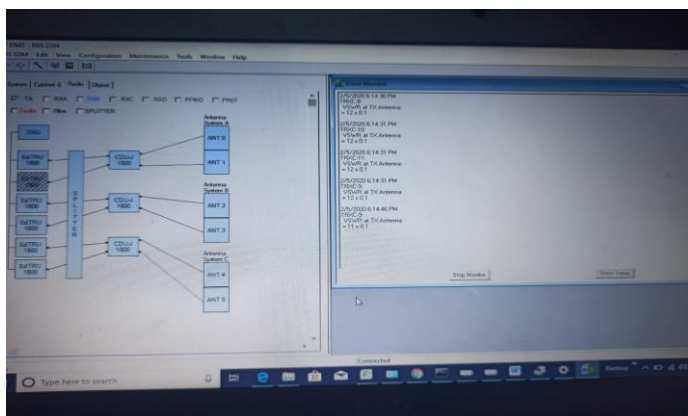


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e) If tower work involves, Raise PTW..



After Alarm Clearance –Cross check alarm at BTS.VSWR Value.



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## Post Analysis

Step No.	Step Name/Step Type	Command	Field	Mandatory (Y/N)	Expected Result
1	FME will wait at site for 30 minutes to check alarm status.	As per MOP and run the alarm check command to confirm its Cleared	RAN	Y	As per MOP
2	BSS Team will check after 24 hrs if alarm has reappeared	As per MOP			