	CV MITRA HA	ASANAH TEKNIK
Report Title : Assessment of Ins	trument Device 2022	continued
End User Name PT INDO BARAT RAYON Tag no. LT4003 Manufacturer HONEYWELL Reference Data sheet, Manual	Location CIKAMPEK Description Level Transmitter for H-401 Device Level Transmitter DP Cell Type ACCEPTED / NOT ACCEPTED	Recommendation:  - To procure suitable transmitter for replacement .  - To change material code in SAP with suitable transmitter for future use.  - To perform calibration and rerange existing transmitter.  - The existing transmitter specification is;  STR93D-21B-1C0BDABA-507K-MB-CM-CC-TG-F1-TP.E1D9  - Recommended transmitter for replacement is;  STR12D-21B-1B0BDABA-507K-MB-CC-TG-F1-TP-E1D9  - The similar issue for LT 4084
Method  Method of assessment is mentioned here below;  - Visit site for inspection equipment.  - Check and verify equipment specification  - Review equipment performance through operation report		Attachment;  1. Data sheet LT4003.  2. Instuction manual mention different minimum SPAN between type STRD93D and type STR12D.  3. Vessel H-401 dimension drawing.
With refer to tank H-401 dimension and process data, the existing transmitter installed is not suitable for this application, existing transmitter has minimum SPAN 670 mBar, but maximum SPAN generated at transmitter tapping point only 350 mBar		Reference: https://www.jasaservis.net/ibr-document  Assessor: Mohamad Yani/ Riswanto Date: 7-4-2022  Customer Comment

CV MITRA HASANAH TEKNIK		
Report Title: Assessment of Instrument Device 2022		Continued
End User Name PT INDO BARAT RAYON Tag no. FT5038 Manufacturer HONEYWELL	Location CIKAMPEK Description Main air to RF burner Device Flow Transmitter DP Cell Type	Recommendation.  - To raise MOC  - To create proper calibration procedure.  - To perform transmitter calibration.  - To rectify discrepancy Range between transmitter and DCS.  The similar problems occurs in several other flow transmitters as
Reference Data sheet, Calibration report	ACCEPTED / NOT ACCEPTED	outlined in the attachment
Method  Method of assessment is mentioned here below;  - Visit site for inspection equipment.  - Check and verify equipment specification  - Review equipment performance through operation report		Attachment: - FE5038 Orifice data sheet - FT5038 Transmitter data sheet - FT5038 Calibration report - List of transmitter with similar issue
Activities/ Observation;  - Range value implemented in DCS and Transmitter both are deviated from Data sheet.  - Transmitter has been calibrated out of procedural, it was performed in linear mode instead of Square root mode.		Reference <a href="https://www.jasaservis.net/ibr-document">https://www.jasaservis.net/ibr-document</a> Assessor: Mohamad yani/ Riswanto Date: 7-4-2022  Customer Comment

	CV MITRA HAS	SANAH TEKNIK
Report Title : Assessment of Ir	strument Device 2022	continued
End User Name	Location	Recommendation;
PT INDO BARAT RAYON	CIKAMPEK	- To Raise MOC
Tag no.	Description	- To Re-range transmitter based on vessel dimension and process data
LT3001	Transmitter for vessel V-300	- To perform calibration and commissioning.
Manufacturer	Device	
HONEYWELL	Level Transmitter DP Cell Type	Attachment/ References:
Reference	ACCEPTED / NOT ACCEPTED	- LT3001 data sheet
Data sheet	ACCEPTED / NOT ACCEPTED	- Manufacture manual mention how to define transmitter range.
Method		- LT DP type presentation
Method of assessment is mentione	d here below;	
- Visit site for inspection equipment.		
- Check and verify equipment speci	fication	
- Review equipment performance through operation report		
Activities / Observation		Reference
- No previous calibration report fou		https://www.jasaservis.net/ibr-document
- Range implemented in the transmitter deviate from manufacture		A Malk   Wast/Big   7.4.2022
instruction manual, company requested to explain the basis, otherwise		Assessor: Mohamad Yani/ Riswanto Date: 7-4-2022
transmitter range have to modified with reference to basic principle of		
level transmitter DP type.		Customer Comment

CV MITRA HASANAH TEKNIK			
Report Title : Assessment of Instrument Device 2022		continued	
End User Name PT INDO BARAT RAYON Tag no.	Location <i>CIKAMPEK</i> Description	Recommendation: In order to minimize unsafe action due to dipstick	
LT5003  Manufacturer  HONEYWELL  Reference	Transmitter for vessel T-750  Device Level Transmitter DP Cell Type	measurement activities, additional level transmitter proposed to be installed at this vessel. The Bubbler type transmitter is the one to be considered.	
Data sheet  Method  Method of assessment is mentio  - Visit site for inspection equipme  - Check and verify equipment spe  - Review equipment performance	ent. ecification	Attachment: Bubbler type transmitter presentation	
Activities/ Observation;		https://www.jasaservis.net/ibr-document	
- The only one level transmitter available to measure level in this vessel - Seem personel often use dipstick to measure actual level of this vessel.		Assessor: Mohamad Yani/ Riswanto Date: 7-4-2022  Customer Comment	

	CV MITRA	HASANAH TEKNIK
Report Title : Assessment o	f Instrument Device 2022	continued
End User Name	Location	Recommendation:
PT INDO BARAT RAYON	CIKAMPEK	- To perform wet calibration
Tag no.	Description	- To provide/ procure tool for calibration
LT5032	Transmitter at S-509	
Manufacturer	Device	Attachment:
HONEYWELL	LT Magnetostrictive type	- Instrument list consist of transmitter need to be calibrated during SD.
Reference	ACCEPTED / NOT ACCEPTED	- Calibration procedure.
Data sheet	ACCEPTED / NOT ACCEPTED	- Magnetostrictive level transmitter manual.
<ul> <li>Check and verify equipment specification</li> <li>Review equipment performance through operation report</li> </ul>		
Activities/ Observation; LT integrated with LG, working based on buoyancy of displacer, testing and verification using liquid media is required. Cannot find calibration report in the pass for similar type of transmitter		https://www.jasaservis.net/ibr-document  Assessor: Mohamad Yani/ Riswanto Date: 7-4-2022
find calibration report in the pass for similar type of transmitter		Customer Comment

CV MITRA HASANAH TEKNIK		
Report Title : Assessme	nt of Instrument Device 2022	continued
End User Name PT INDO BARAT RAYON	Location CIKAMPEK	Recommendation;
Tag no. HS6104A/C/D	Description sh button for CS2 Loading Arm Sa	-To replace push button with new one for following tags f(HS6104A at CS2 loading area
Manufacturer <i>HONEYWELL</i>	Device Push button	HS6104C at CS2 Daily tank area HS6104D at near to cooling water area
Reference plot plan	ACCEPTED / NOT ACCEPTED	-To reconnect wiring and check functionality.
Method of assessment is mentioned here below; - Visit site for inspection equipment Check and verify equipment specification - Review equipment performance through operation report		
Activities/ Observation  - Found push button phisically cracked and cover broken.  - TAG number missing		https://www.jasaservis.net/ibr-document  Assessor: Mohamad Yani/ Riswanto Date: 7-4-2022  Customer Comment
		Customer Comment

CV MITRA HASANAH TEKNIK			
Report Title: Assessment of Instrument Device 2022		continued	
End User Name PT INDO BARAT RAYON	Location CIKAMPEK	Recommendation;	
Tag no.  HS5097  Manufacturer  General PB  Reference  Logic diagram  Method  Method  Method of assessment is men - Visit site for inspection equip	Description V-506 Low-Low By passed Device Push button  ACCEPTED / NOT ACCEPTED  tioned here below; oment. specification	In order to reduce risk due to equipment and human failure we recommend to implement following procedure; - Hardware bypass for "steam drum low-low level" to be removed from logic The TORF (temporary override form) system must be implemented every time site personnel need to enable this bypass logic Approval must be limited to maintenance manager and operation superintendent.  Attachment; - ESD interlock diagram	
- Review equipment performance through operation report  Activities/ Observation: Stakeholder are recommended to review ESD logic for this bypass switch, we identified there is potential hazard need to be evaluated.		Please find reference document by visiting below URL  https://www.jasaservis.net/ibr-document  Assessor: Mohamad Yani/ Ri: Date: 7-4-2022  Customer Comment	

CV MITRA HASANAH TEKNIK			
Report Title : Assessmen	t of Instrument Device 2022	continued	
End User Name PT INDO BARAT RAYON	Location <i>CIKAMPEK</i>	Recommendation; To check functionality both flame detector and amplifier during unit	
Tag no. <i>BE5087</i>	Description Fire box flame detector	shutdown.  To provide/procure UV/IR lamp for testing 9 pcs flame detector installed at	
Manufacturer <i>Fireye</i>	Device Flame detector	site.	
Reference Instruction Manual	ACCEPTED / NOT ACCEPTED	Attachment; Flame detector testing tool catalog	
<ul> <li>Visit site for inspection equipment.</li> <li>Check and verify equipment specification</li> <li>Review equipment performance through operation report</li> </ul>			
Found flame monitor not responding, no signal detected and no output to DCS.		Please find supporting document by visiting below URL  https://www.jasaservis.net/ibr-document  Assessor: Mohamad Yani/ Riswanto Date: 7-4-2022	
		Customer Comment	

CV MITRA HASANAH TEKNIK		
Report Title : Assessment of Instrument Device 2022		continued
End User Name PT INDO BARAT RAYON	Location CIKAMPEK	Recommendation;
Tag no.  FT2001  Manufacturer  Endress Hauser  Reference  Data sheet	Description Sulphur to furnace flow Device Flow transmitter Coriolis type ACCEPTED / NOT ACCEPTED	<ul> <li>To check pipe line from any obstruction ( check valve, manual valve etc.)</li> <li>To rectify steam trace leak at FE side,</li> <li>To add position feedback at control valve FCV2001,</li> <li>If required use noninvasive temperature transmitter to monitor process temperature,</li> </ul>
Method  Method of assessment is mentioned here below;  - Visit site for inspection equipment.  - Check and verify equipment specification  - Review equipment performance through operation report		To perform tuning Controller FIC2001
Reported controller upset in Auto mode, and flow reading not stable in manual mode		For reference please visit; https://www.jasaservis.net/ibr-document  Assessor: Mohamad Yani/ Riswanto Date: 7-4-2022  Customer Comment

	CV MITRA HAS	ANAH TEKNIK
Report Title : Assessment of Instrument Device 2022		continued
End User Name PT INDO BARAT RAYON	Location CIKAMPEK	Recommendation:  • To provide TAG number for each device, recommended to
Tag no.	Description	arrange different color between TAG plate for ESD device and TAG plate for DCS devices.
Manufacturer	Device	<ul> <li>To rectify broken enclosure, many of them have broken hinge</li> <li>To do painting instrument valves which are rusty at certain point</li> </ul>
Reference	ACCEPTED / NOT ACCEPTED	To do painting instrument valves which are rusty at certain point
- Review equipment performance t	nrougn operation report	
Activities/ Observation; Identification TAG for field instrument missing Enclosure for transmitter damaged. Control valve actuator found rusty ON-OFF valve for connection actuator to body found rusty		Please find reference document by visiting below URL <a href="https://www.jasaservis.net/ibr-document">https://www.jasaservis.net/ibr-document</a> Assessor: Mohamad Yani/ Riswanto Date: 7-4-2022  Customer Comment

	CV MITRA HASA	NAH TEKNIK
Report Title : Assessment of Instrument Device 2022		continued
End User Name PT INDO BARAT RAYON Tag no.	Location CIKAMPEK Description	Recommendation:  Recommended to have universal configurator/communicator for supporting instrument job,
Manufacturer	Device Calibration Tool	AMS Trex Device Communicator from Rosemount Company is the most suitable tool we propose.
Reference	ACCEPTED / NOT ACCEPTED	
<ul> <li>Visit site for inspection equipment.</li> <li>Check and verify equipment specification</li> <li>Review equipment performance through operation report</li> </ul>		
<ul> <li>Review equipment performance through operation report</li> <li>Activities/ Observation;</li> <li>Configurator device is very important tool for managing instrumentation</li> </ul>		https://www.jasaservis.net/ibr-document
equipment, it is used for calibration, configuration, trouble shooting and diagnose instrument devices.		Assessor: Mohamad Yani/ Riswanto Date: 7-4-2022
We noticed some instrument devices installed at field not able to communicate with any communicator available in workshop, it can lead difficulties when problem occurred to those field device.		Customer Comment

CV MITRA HASANAH TEKNIK		
Report Title : Assessment of Instrument Device 2022		continued
End User Name PT INDO BARAT RAYON	Location CIKAMPEK	Recommendation:
Tag no.	Description	- To perform proper control valve calibration. - To do painting as required
Manufacturer	Device Control Valve	Attachment:
Reference Data sheet	ACCEPTED / NOT ACCEPTED	- Calibration sheet - Recommended calibration Form
- Check and verify equipment specification - Review equipment performance through operation report		
without considering spring range pressure		https://www.jasaservis.net/ibr-document
- Mounting for connection actuator to body ON-OFF VALVE found		Assessor: Mohamad Yani/ Riswanto Date: 7-4-2022  Customer Comment

	CV MITRA HAS	SANAH TEKNIK				
Report Title : Assessment o	of Instrument Device 2022	continued				
End User Name PT INDO BARAT RAYON	Location CIKAMPEK	Recommendation; - To replace faulty Thermocouple element when				
Tag no. <b>TE2030</b> Manufacturer <i>Thermetron</i>	Description Skin tube furnace temperature Device Thermocouple	opportunity available - To review thermocouple quality.				
Reference Data sheet	ACCEPTED / NOT ACCEPTED					
<ul> <li>Visit site for inspection equipment.</li> <li>Check and verify equipment specification</li> <li>Review equipment performance through operation report</li> </ul>						
		https://www.jasaservis.net/ibr-document  Assessor: Mohamad Yani/ Riswanto Date: 7-4-2022  Customer Comment				

CV MITRA HASANA					
Report Title: Assessment of Instrument Device 2022					
End User Name	Location	2 UV Source			
PT INDO BHARAT RAYON - CS2 PLANT	CIKAMPEK	3 Analysis			
Tag no.	Description				
AT5250 A/B/C	A-560 SO2/O2 Analyzer				
Manufacturer	Device type				
Rosemount Analytical	O2/SO2 (CEMS) Analyzer				
Reference/Model no X-STREAM X2XF	ACCEPTED / NOT ACCEPTED				

- <sup>1</sup> Flexible Hose/Tube on Paramagnetic Detector (pO2) has been broken
- 2 UV Source has decrease performance and visually the window has dirty.
- 3 Analysis Cell has been Dirty.

#### Method of assessment

- a. Visit site for inspection equipment.
- b. Check and verify equipment specification
- c. Review equipment performance through operation report

## Activities/ Observation

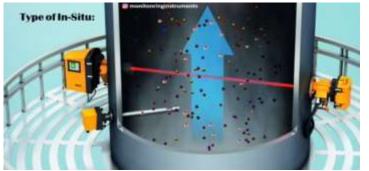
## A Gas Cylinders

- A 1 Calibration gas cylinder have expired and not valid to used.
  - 2 Zero gas cylinder
  - 3 Calibration gas cylinder chains corroded (risk of cylinder falling).
- B The Heated Sample Probe System at the incinerator stack disconnected
  - 1 The Timer for Blowback is not Functioning.
  - 2 PLC still run but several SOV cannot work.
  - 3 Perma pure Dryer Assembly is clogged
  - 4 Ceramic Filter was dirty and clogged.
  - 5 Filter element is already dirty, damp and wrinkled.
- C Sample Transport Line (tubing) choked hence disconnected
  - 1 The non heated sample transport line tubing partially clogged.
  - 2 Instrument Air connected to the Sample Transport Line at the Analyzer Shelter
- D Sample Handling System in the Analyzer House
  - 1 No Filter Element in Coalescing Filter
  - 2 Existing Sample pump damaged.
  - 3 Additional equipment (pump, Coaliscer Filter and Instrument Air Filter)
  - 4 connected to Analzyer Sample Conditioning System.
- E SO2 and O2 Analyser **out of service** has been removed and sent for repair and calibration

# Recommendation:

- 1 Procure Calibration Gas Cylinders (Zero and Span Gas Cylinders)
- 2 Rectify the problem on Heated Sample Probe or purchase a new one.
- 3 The new purging line (modification) to be remove and NOT TO BE USED.
- 4 Rectify the problem on Sample Handling System or purchase a new one.
- 5 Repair the analyzer (if the process condition as per original desig )
- 6 Otherwise procure a new cross stack CEMS analyzer to avoid choke in Heated Sample Probe and Sample Handling System as the best solution.
- 7 Create item code/number for particular spares and analyzer Note

High content of Moisture and SO2 in the sampling system can be a significat significant problem in current extractive type CEMS analyzer(choke) tubing)



Assessor: Riswanto / Mohamad Yani/ Date: 21-4-2022

**Customer Comment** 

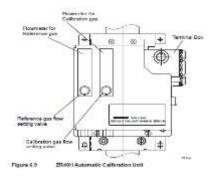
CV MITRA HASANAH TEK					
Report Title : Assessment of Instr					
End User Name	Location				
PT INDO BHARAT RAYON - CS2 PLANT	CIKAMPEK				
Tag no.	Description				
QT2036	O2 IN FLUE GAS A-200				
Manufacturer	Device type				
YOKOGAWA	ZIRCONIUM OXIDE, INS ITU				
Reference/Model no	ACCEPTED / NOT ACCEPTED				
ZR402G	ACCEPTED / NOT ACCEPTED				

# Method of assessment

- a. Visit site for inspection equipment.
- b. Check and verify equipment specification
- c. Review equipment performance through operation report

## Activities/ Observation

- A Gas Cylinders
  - 1 No Calibration gas cylinder valid to used.
  - 2 Analyzer not calibrate and set up correctly
  - 3 analyzer supplied with model ZR40H Automatic Calibration Unit auto-switching of the calibration gas.



### Recommendation:

- 1 Procure Calibration Gas Cylinders (Span Gas Cylinder)
- 2 Set up analyzer calibration ararngement in order to able to calibrate in semi automatic calibration.
- 3 Set up the reference gas and calibration gas flow rate as per manufaturer recomendation
- 4 Calibrated the analyzer as per manufacturer recomendation
- 5 Create item code/number for particular spares and analyzer

Assessor: Riswanto / Mohamad Yani/ Date: 8 April 2022

#### **Customer Comment**
