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| EVENT REPORT: | | | | | | | | | | | | | | | |
| 1. WHAT IS THE PROBLEM? | | | | | | | | | | | | | | | |
| Title: Investigation of Frequent trip on EPU 3&4 Chemical injection Pump | | | | | | | | | | | | | | | |
| Date Occurred: | | |  | | | | Location: EPU3&4 | | | | | | | | |
| Date Reported: | | |  | | | | Reported by: | | | | | | | | |
| **Event Type** | | Potential Threat (not yet occurred)  Reliability/integrity – Trip  Reliability/integrity – Equipment failure  Reliability/integrity – Others | | | | | | | | | | |  | | |
| Threat Description: | | | | | | | | | | | | | | | |
| Unavailability of chemical injection pump (CIP) would lead to production deferement of about 100mmscf of gas after 18days cumulative of non-injection and possible corrosion of EPU flowline to Gbaran. | | | | | | | | | | | | | | | |
| Consequences: | | | |  | Risk Assessment: (People, Asset, Environment, Reputation) | | | | | | | | | | |
| No deferment / outage  Oil: Condensate -  Gas:  Water: Nil  Flare: Nil  Other:  Downtime: | | | |  | A | | B | C | D | E | Actual: | | | |
| 0 |  | |  |  |  |  |
| 1 |  | |  |  |  | A |
| 2 |  | |  |  |  |  |
| 3 |  | |  |  |  |  |
| 4 |  | |  |  |  |  |
| 5 |  | |  |  |  |  |
| Immediate Corrective Actions Taken: | | | | | | | | | | | | | | | |
| # | Immediate action | | | | | | | | | Date | | | | By | Notification / WO # |
| 1. | CRO reported the incident | | | | | | | | |  | | | |  |  |
| 2. | Mtc & Lab team visited for on the spot assesment | | | | | | | | |  | | | |  |  |
| 3. | Notifiication raised | | | | | | | | |  | | | |  |  |
| 4 |  | | | | | | | | |  | | | |  |  |

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| 2. WHAT DO WE THINK CAUSED THE PROBLEM? | | | | | | |
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| **Team** | | 1. Kabir Abass 2. Omeje Godson 3. Ojiabo Chiemezie 4. Adeola Adeniyi 5. Ba-Bari Richard | | | | |
| **Problem (Primary Effect)** | | **Expected:** It is expected that the CIP would be available for continous injection without tripping while service delivery the right pressure and flow   1. **Actual**: CIP found tripping intermittently and it has done cumulate 5days of non-injection 2. Impact: Potential of production deferment and flowline corrosion | | | | |
|  | | **Why? / Immediate cause** | **Answer/Root Cause** | | 3. EVIDENCE? | |
| Why 1 | | Why was there CIP trip alarm from EPU | The Pump tripped in service | | CCR confirmed from the console | |
| Why 2 | | Why did the CIpump tripped frequently | Loss of electric power  Loss of chemical/Loss of containment  No/low chemical flow  Pump ineffcient  No/low tank chemical level  High pump discharge pressure  Faulty HIC  Faulty flowmeter  Clogged strainer | | Flowmeter reading were 0.00069m3/hr, 0.0019m3/hr, 0.0014m3/hr. Flowmeter L-Ltrip setpoint at 0.00075m3/hr.  2 out 3 transmitter to effect a trip | |
| Why 3 | | Why was there low chemical flow into bulkline | Blockage on the Discharge line  Faulty flow transmitter | | There was evidence of thick chemical foaming on the discharge line | |
| Why 4 | | Why was there blockage in the discharge line | Heavy/congeal substance in the discharge line | | Physical confirmation | |
| Why 5 | | Why was there congeal/heavy chemical foaming in the discharge line | Impropriate chemical concentration  Heavy chemical dosing  Prolong Well closed-in  Prolong pump unavailability  Presence of Air | | There was air bled off from the discharge line | |
| Why 6 | | Why was there air in the discharge |  | |  | |
| Why 7 | |  |  | |  | |
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| **Comments:** | | | | | | |
| **4. WHAT SOLUTIONS DO WE HAVE IN MIND?** | | | | | | |
| **#** | **Proposed Action** | | | **Action Party** | | **Target Date** |
| 1 | Check functionality of pump HIC | | | Ololo | |  |
| 2 | Check chemical SHOC card | | | Omeje | |  |
| 3 | Check pump efficiency and repair if require | | | Abass | |  |
| 4 |  | | |  | |  |
| **5. HOW WILL THE PROPOSED SOLUTIONS ELIMINATE THE CAUSES OF THE PROBLEM?** | | | | | | |
|  | | | | | | |
| **LESSONS LEARNT** | | | | | | |
| **Incident Owner:** | | | | | | |