Pump Vibration Service Report

Service Date: March 10, 2024
Service Technician: Michael Anderson
Customer Name: Delta Chemicals Inc.
Customer Address: 789 Industrial Avenue, Manufacturing City, USA
Contact Information: (555) 987-6543, michael.anderson@email.com
Pump Information:
- **Pump Type:** Centrifugal Pump v 10
- **Pump Serial Number:** HSC-345678
- **Pump Location:** Pump Room B, Delta Chemicals Inc.

Service Details:

1. Initial Assessment:

Upon arrival at Delta Chemicals Inc., a thorough assessment of the pump with reported vibration issues was conducted. Key findings during the assessment include:

- The pump, identified as a Horizontal Split Case Pump, was located in Pump Room B and was easily accessible for inspection.
- The pump's serial number HSC-345678 was verified.
- Visual inspection revealed pronounced vibrations, suspected to be linked to the suction piping.
- Further investigation highlighted issues with the suction piping insulation, which were contributing to the pump's vibration problem.

2. Vibration Analysis:

A comprehensive vibration analysis was carried out to quantify and diagnose the pump's vibration issues. Significant measurements and findings from the analysis include:

- **Vibration Measurements:** Utilizing advanced vibration sensors, readings indicated vibration levels exceeding acceptable thresholds.
- **Frequency Analysis:** Frequency analysis pinpointed resonance within the system, primarily originating from improper insulation in the suction piping.

3. Corrective Actions:

To rectify the vibration issue related to the suction piping insulation, the following corrective actions were implemented:

- **Suction Piping Insulation Adjustment:** The improperly installed insulation was rectified, eliminating resonance and minimizing vibrations.

4. Equipment Calibration and Testing:

Following corrective actions, the pump underwent recalibration to ensure proper alignment and functionality. Testing procedures included:

- **Vibration Reassessment:** Subsequent vibration measurements confirmed a reduction in vibration levels to within acceptable limits.
- **Functional Test:** The pump was operated to validate that the vibration issue had been successfully addressed, and the pump was functioning optimally.

5. Documentation:

A comprehensive record of all service and repair activities was meticulously documented. This included visual documentation, vibration analysis data, calibration records, and maintenance logs. This documentation will be provided to the customer for their records.

6. Customer Feedback and Approval:

The customer was briefed on the service outcomes and given the opportunity to inspect the pump. Satisfactory results were communicated, and customer approval was obtained.

7. Recommendations:

In light of the assessment and service, the following recommendations were provided to the customer:

- Regular monitoring of vibration levels to detect potential issues early on.
- Periodic inspection of the insulation system to ensure sustained proper installation and prevent vibration-related problems.

8. Conclusion:

The pump's vibration issue, stemming from suction piping insulation concerns, has been successfully addressed. The customer expressed satisfaction with the service, and all pertinent documentation was updated to reflect the service details and customer approval.

9. Customer Signature:

Customer Signature: _____
Date: _____

10. Service Technician Signature:

Technician Signature: Michael Anderson

Date: March 10, 2024