Pump Vibration Service Report

Service Date: March 10, 2024
Service Technician: Michael Anderson
Customer Name: Acme Chemicals Inc.
Customer Address: 789 Industrial Avenue, Chemical City, USA
Contact Information: (555) 789-0123, michael.anderson@email.com
Pump Information:
- **Pump Type:** Centrifugal Pump v 10
- **Pump Serial Number:** DPM-456789
- **Pump Location:** Chemical Processing Plant, Pump Station C, Acme Chemicals Inc.

Service Details:

1. Initial Assessment:

Upon arrival at the customer's site, a comprehensive assessment of the diaphragm pump exhibiting vibration issues was conducted. Key observations include:

- The diaphragm pump was identified and located in Pump Station C within the Chemical Processing Plant.
- The pump's serial number DPM-456789 was verified.
- Visual inspection revealed noticeable vibrations, indicating potential issues within the pump system.
- Further examination identified the root cause as misalignment in the pump's drive assembly.

2. Vibration Analysis:

A detailed vibration analysis was performed to quantify the severity of the pump's vibration issue. Significant findings from the analysis include:

- **Vibration Measurements:** Utilizing precision vibration sensors, measurements indicated excessive vibration levels exceeding acceptable thresholds.
- **Frequency Analysis:** Analysis revealed that the vibrations were consistent with misalignment-related issues in the pump's drive components.

3. Corrective Actions:

To address the misalignment causing vibration issues, the following corrective actions were taken:

- **Drive Assembly Realignment:** The misaligned components in the pump's drive assembly were carefully realigned using precision alignment tools to eliminate vibration sources.

4. Equipment Calibration and Testing:

Following the corrective actions, the pump underwent recalibration to ensure proper alignment and functionality. Tests performed include:

- **Vibration Reassessment:** Post-realignment, vibration measurements confirmed a significant reduction in vibration levels, bringing them within acceptable ranges.
- **Functional Test:** The pump was operated to verify that the misalignment issue had been successfully resolved, and the pump was functioning optimally.

5. Documentation:

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

6. Customer Feedback and Approval:

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

7. Recommendations:

Based on the assessment and service, the following recommendations were provided to the customer:

- Regular monitoring of vibration levels to identify potential issues at an early stage.
- Scheduled preventive maintenance to ensure continued optimal performance and to address any emerging alignment concerns.

8. Conclusion:

The pump's vibration issue, attributed to misalignment in the drive assembly, has been successfully resolved. 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