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Deer Park
November
1996*

**Board Of Review
Wastewater Stripper - High RVCM
of January 1, 1996**

Introduction

At 11 am the morning of January 1, 1996 a wastewater stripper rvcm of 25 ppm was reported for the 0600 sample, exceeding the NESHAP limitation of 10 ppm. The column was immediately resampled at 0.2 ppm. A review of the original sample analysis found no testing problems to exist. A review of column operations during the sampling period showed periodic cycling in bottoms level, pressure and top temperature sufficient to produce an rvcm of the level reported. Due to the nature of the exceedance and after determining SARA "Reportable Quantity" limitations had not been exceeded, no external agencies reports were required.

Board of Review

A Board of Review was held on the evening of January 4th to review the incident and ensure that sufficient corrective actions were in place to prevent a recurrence of the incident.

Attending:

Ed McKinley	Manufacturing Manager
Mark Reynolds	Plant Engineer
Bill Lindstrom	Maintenance Engineer
Lewis Payne	Manufacturing Specialist
Dave McBride	Instrument Technician 1st Class
Eddie Dillow	Shift Leader

Conclusions

The following conclusions were reached from this inquiry:

1. The high rvcm was the direct result of sampling during unstable column conditions.
2. The unstable column conditions were the result of resin fouling the trays and downcomer weirs.

Corrective Actions

The following measures shall be taken to prevent reoccurrence of the incident:

1. Clean and re-adjust wastewater stripper internals during January plant outage. - Bill Lindstrom
2. Develop summary wastewater stripper trend screen on Provox Data Historian. - Joe Schwarz - completed
3. Train operators on new trend screen and ensure periodic reviews are made. - Ed McKinley
4. Revise existing data sheet to reflect desired practices. - Mark Reynolds
5. Review practice of stripping off-grade foam trap material in the wastewater stripper and determine alternatives. Review system for additional sources of resin which may have caused tray fouling. - Ed McKinley
6. Revise existing procedures and train laboratory operators to perform SARA reporting of NESHAP rvcm exceedances. - Mark Reynolds
7. Improve plant understanding of NESHAP wastewater requirements. - Mark Reynolds
8. Review incident with all operators during monthly safety meetings. - Bob DesJardins
9. Re-emphasize safety and environmental priorities with all plant personnel. - Dave Laubacher

Narrative

On Monday January 1st 1996 the LIMS watchdog timer printed the usual weekly wastewater stripper barcode label requesting the outside operator to sample the column for rvcn. The operator retrieved the sample and logged it into the lab at 0830. At 11 am the analyzed result of 25 ppm was reported to production. A second sample was immediately pulled and was found to be 0.2 ppm, well within compliance. Review of the column operating parameters showed that the top temperature, pressure, and bottoms level were cycling. The column control valves were inspected and tuning parameters were adjusted but all failed to correct the problem. At that time calcium buildup within the column was believed to be causing the problem. On line cleaning using a NALCO citric acid solution was introduced into the column feed tank. Acid cleaning failed to improve the column operations at which time the column was shutdown for entry and internal examination. Inspection of the internals found resin accumulation on several of the trays had severely restricted steam flow. The trays were cleaned and the column was returned to operation. The operation of the column returned to normal.

Facts Surrounding The Incident

That afternoon a Board of Review was held to review information from the incident. During the Board of Review the following was discussed.:

1. Resin buildup on the trays was the cause of the column control problem. Resin was cleaned adequately to return the column to service. It was agreed that additional cleaning would be conducted during the plant outage this January. Further, internal inspection revealed a few trays and downcomers had become loose and were out of position. It was agreed that these were not an immediate but needed to be cleaned and tightened during the January plant outage.
2. Prior to the incident the operators did not have a trend to readily access for troubleshooting the problem. A trend chart was constructed on Jan. 2 allowing operators access to historical wastewater stripper information. It was agreed to revise existing procedures and train all operators to review the trend on a periodic basis.
3. The plant has existing procedures detailing reporting responsibilities for a wastewater exceedance. This procedure was reviewed with all plant personnel during December. Discussions with various operators and shift leaders revealed additional training is required. Further, to ensure reporting requirements are met it was agreed to revise existing procedures to give the laboratory technician the primary reporting responsibility for rvcn excursions.