JOHN W. SUNDELIUS, P.E., M.P.A.
Director of Public Works/City Engineer
920.766.6305
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Kaukauna
ON THE FOX

February 29, 2016

Eric Bauer, Plant Engineer
Albany International
3601 Electric City Boulevard
Kaukauna, WI 54130

Dear Eric:

Thank you, and other members of Albany management, for meeting with staff of the City of Kaukauna (City) and the Heart of the Valley Metropolitan Sewerage District (HOVMSD) earlier this month concerning a polyurethane based substance that has shown up on a few occasion in the sanitary sewer collection system. As stated in my January 5th letter, the substance caused issues for both the City and the HOVMSD last December. Infrared spectroscopy testing was performed on the material and test results indicated that it is a polyether polyurethane. (A copy of the test report is enclosed.)

Albany has determined that the substance discovered is used regularly in liquid form in one of Albany's coating processes. The process and material has been used regularly over the past several years. Disposal of the substance in diluted liquid form has been discharged without incident into the sanitary sewer collection as a routine part of the process.

Previous to the December incident, City employees have only noticed the solidified material in a few instances and in very small quantities and without harm to the collection system or to the HOMVSD metering process.

The City has continued to monitor the sanitary sewer collection system that serves your property on Electric City Boulevard. We have not noticed any additional occurrences or problems since our meeting. It is also my understanding that Albany is analyzing the solid form of the polyurethane to determine why the material solidified in the sanitary sewer collection system and if any changes in the coating or cleanup process would aid in preventing further occurrences.

The City is not requiring any changes in Albany's sanitary sewer discharge at this time. We will continue to monitor the sanitary sewer collection system and notify Albany should the solidified material be found again in the collection system.

I would appreciate if you would inform me of any relevant findings in your analysis of the substance or of any proposed changes in discharges to the collection system.

Please contact me with any question or comments you may have and thank you for your cooperation in this matter.

Sincerely,

John Sundelius
Director of Public Works/City Engineer

C: Glen Geurts, HOVMSD
Patrick VandenHeuvel, Street Superintendent
Robert Jakel, Planning Director

IPSTESTING

TEST REPORT

January 4, 2016

IPS 01728-15

Report to: John W. Sundelius
City of Kaukauna
201 West Second Street
P.O. Box 890
Kaukauna, WI 54130-0890

Sample Identification: **1 deposit**

Date received: December 16, 2015

Test requested: Infrared Spectroscopy

Purchase Order: Sundelius 12/16/15

Report of Analysis

Enclosed is the result of the analysis performed on the sample we received.

If you have any questions concerning this work, please do not hesitate to contact us.

Authorized By: _____ Signed _____

Jeffrey J. Bushner
Lab Manager
Analytical Services

Robert M. Adams
Technical Leader
Analytical Sciences
(920) 749-3040

Infrared Spectroscopy

The sample consisted of a lump of material between two to three inches in diameter. The exterior surface was gray, and the interior was white. The sample was labeled "H.O.V.M.S.D. Flume Material".

A small portion was removed from the white interior of the sample. This was then washed with denatured ethyl alcohol (to minimize any bacteriological load). The washed material was then gently heated and when pliable, it was flattened with a roller. This produced a transparent film. The film was analyzed by Fourier Transform Infrared Spectroscopy (FTIR)

The analysis result is listed in Table 1. Representative spectra are located in Spectra 1.

Table 1. Infrared Spectroscopy Analysis Results

Sample Identification	Analysis Result
H.O.V.M.S.D. Flume Material	Polyurethane

Discussion

As can be seen in Spectra 1, the white substance is a good match for polyurethane. The third spectrum on that page references a specific type of polyurethane, a polyether polyurethane. This is a type of polyurethane that is commonly utilized for the production of flexible or rigid polyurethane foams.

Analyzed by RMA
Quality review by WJM
Date(s) of testing January 4, 2016