



AIR QUEST® ENVIRONMENTAL, INC.

April 5, 2010

Mr. Mark Wheelus
Southeast Region Operations Manager
URS
U.S. Department of Treasury
Seized Real Property Support

Re: Results of Drywall Investigation for the Single-Family Residence Addressed at 2834 St. Barts Square, Vero Beach, FL 32967

Dear Mr. Wheelus:

AirQuest Environmental, Inc. (“AirQuest”) is pleased to provide you with the results of the inspection for imported corrosive drywall conducted at the single-family residence located at 2834 St. Barts Square in Vero Beach, Florida 32967 (“the site”).

Introduction

AirQuest Project Manager Paul LeBlanc and Paul Bhagraj conducted the site inspection on March 12, 2010. The site was vacant during the site inspection. The inspection was conducted to document conditions and to determine if the residence meets the Florida Department of Health (FDOH) 3-Criteria Case Definition for “Drywall Associated Corrosion in Residences” (“the FDOH Case Definition”) and the Consumer Product Safety Commission (CPSC) and the Department of Housing and Urban Development (HUD) issued guidance titled *Interim Guidance – Identification of Homes with Corrosion from Problem Drywall* (“the CPSC/HUD Interim Guidance”).

Procedures

The inspection consisted of a walkthrough of the residence as well as a detailed investigation into possible indicators for the presence of corrosive drywall. The following scope of services was performed:

- Documentation of the presence of odors
- Visual inspection and photographic documentation of the condition of:
 - the air handler
 - the electrical panel
 - representative switches and outlets
 - potentially impacted appliances
 - metal finishes (mirrors, faucets, plumbing)

- drywall backings (if accessible through non-destructive techniques).
- Field screening for hydrogen sulfide (H₂S) to evaluate for the presence of confounding factors.
- X-Ray Fluorescence (XRF) analysis to determine the concentration of strontium present in drywall at the site.
- Sample collection for laboratory analysis of elemental sulfur.

Direct Read Field Analysis for Hydrogen Sulfide

Air samples were screened for H₂S using a Jerome 631-X direct reading instrument (serial number 2645). The instrument is capable of detecting hydrogen sulfide in the parts per billion range, assisting in the evaluation of possible confounding factors. The instrument was regenerated and zeroed prior to sample collection.

XRF Analysis

Testing of the samples for strontium content was performed using the Innov-X Systems Model α-6500 (Serial #10862). The XRF instrument exposes the surface to high energy primary X-ray photons, causing the irradiated substance to emit a spectrum of characteristic frequencies. The frequencies which are characteristic of strontium are singled out, measured by the instrument, and reported in milligrams per kilogram (mg/kg). The FDOH has guidance that states that corrosive drywall will have a strontium reading greater than 2,000 mg/kg. The Consumer Product Safety Commission (CPSC) has indicated that corrosive drywall will have a strontium reading greater than 1,200 mg/kg. Between thirty-five (35) and forty-five (45) drywall samples were tested for strontium using XRF technology.

Elemental Sulfur

AirQuest collected one (1) piece of drywall (2½ inches in diameter) for laboratory analysis of elemental sulfur (Orthorhombic sulfur, cyclooctasulfur, S₈) to determine if the content of gypsum core exceeds 10 mg/kg, indicating the gypsum in the drywall sample from the home contains the source material that is believed to contribute to the reduced sulfur gasses emitted from corrosive drywall¹. The sample was submitted to EMSL Analytical, Inc. (“EMSL”) for elemental sulfur laboratory analysis by Gas Chromatography/ Mass Spectrometry (GC/MS).

Results

The residence was vacant at the time of the site inspection. Photographs taken during the site inspection are included in Attachment I. The following data and observations were recorded at the time of the site inspection:

- An odor characteristic of imported corrosive drywall was not detected within the residence at the time of the site inspection.
- The results of the visual inspection did not identify corrosion on the following commonly corroded materials:
 - the copper line entering the air handler
 - the air conditioning coils

¹ <http://www.doh.state.fl.us/Environment/community/indoor-air/casedefinition.html>, accessed February 2010.

- representative switches and outlets
- refrigerator compressor
- metal finishes
- Five eighths inch ($\frac{5}{8}$ ") drywall was observed in the attic of the residence.
- Field screening for H₂S was conducted in sixteen (16) locations within the residence and outside. The results were below detection limits, 0.000 parts per million (ppm) hydrogen sulfide.
- The results of the XRF analysis did not identified strontium levels greater than 700 mg/kg in drywall at the site.
- Laboratory results of a sample collected from the kitchen (behind the refrigerator) indicate that the sample contained <2 mg/kg or <2 ppm elemental sulfur. A copy of the laboratory report and chain of custody record is included in Attachment II.

FDOH Case Definition

The FDOH Case Definition (12-18-09) for Drywall Associated Corrosion in Residences indicates that homes must meet three (3) criteria to be considered a confirmed case of corrosive drywall. Based upon the options presented in the FDOH case definition that were included in this scope of work, the results of this inspection are summarized in Table 1.

Table 1 – Summary of Results based upon the FDOH Case Definition

Criteria	Description	Results
1 - Possible Case (all 3 conditions must be met)	Constructed After 2001; and	Yes*
	Observed Black Corrosion of Air Handler; and	No
	Observed Metal Corrosion	No
2 - Probable Case (1 condition must be met)	Drywall Markings from China; or	No
	XRF Analysis >2,000 mg/kg Strontium	No
3-Confirmed Case (1 condition must be met)	Elemental Sulfur >10 mg/kg	No

**Information provided by the Client*

CPSC/HUD Interim Guidance

The CPSC/HUD Interim Guidance indicates that homes must pass a two (2) step investigation to be identified as a home with problem drywall. Based upon the options presented in the CPSC/HUD Interim Guidance that were included in this scope of work, the results of this inspection are summarized in Table 2.

Table 2 – Summary of Results based upon the CPSC/HUD Interim Guidance

Step	Description	Results
1 – Threshold Inspection	Blackening of copper electrical wiring and/or air conditioning evaporator coils; and	No
	Installation of new drywall between 2001 and 2008	Yes*
2- Corroborating Evidence For drywall installed after 2004, 2 of 6 conditions must be met.	Confirmed markings of Chinese origin for drywall in the home; and/or	No
	Strontium levels in samples of drywall core found in the home (i.e. excluding the exterior paper surfaces) exceeding 1200 parts per million (ppm); and/or	No
	Elemental sulfur levels in samples of drywall core found in the home exceeding 10 ppm;	No

*Information provided by the Client, NE - Not evaluated, XRF – X-ray Fluorescence

Conclusions

The site does not meet the FDOH Case Definition (12/18/09) and the CPSC/HUD Interim Guidance for corrosive drywall. The results of the investigation did not indicate any confounding factors at the site.

AirQuest appreciates the opportunity to assist you on this project. If you have any questions or comments, please don't hesitate to contact me at 954-792-4549, extension 112.

Sincerely,
AirQuest Environmental, Inc.



Traci-Anne Boyle, MBA, CIH
Senior Project Manager

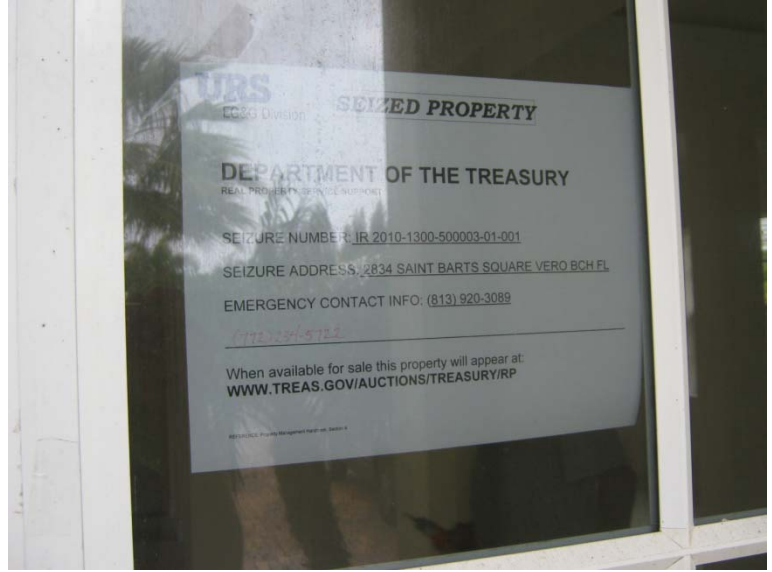
Attachment I –Photographs
Attachment II – Laboratory Report and Chain of Custody

Attachment I

Photographs



Exterior of the residence.



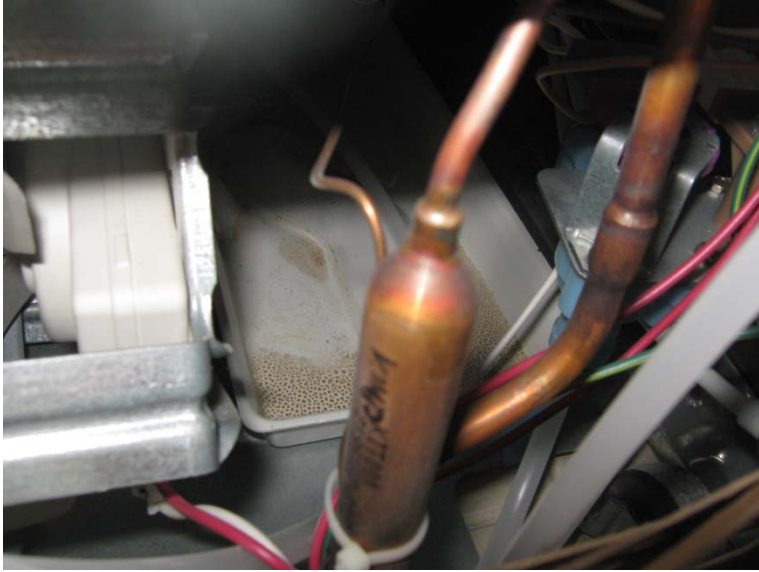
URS notification on the window.



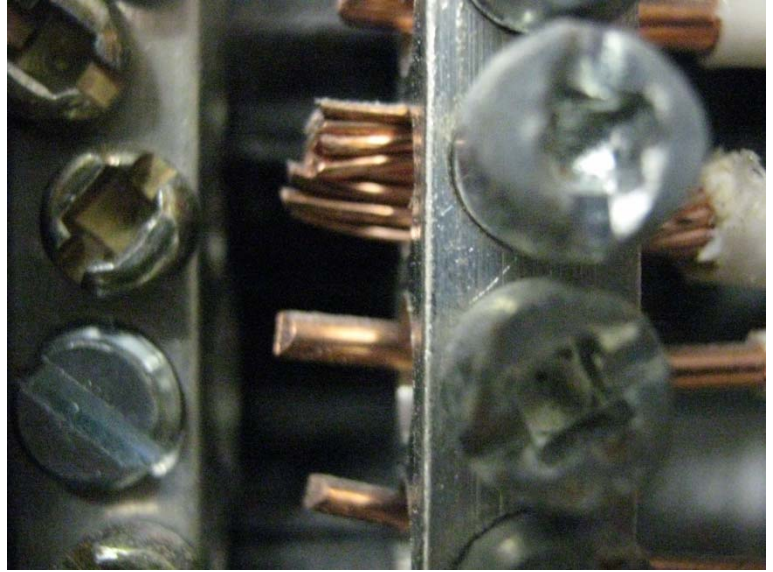
The foyer of the residence.



The kitchen.



The refrigerator coils.



Example of stripped electrical wires in the main panel.



Example of stripped electrical wire in a power outlet.



The air-handler unit within the garage.



Close-up of AHU coils.



Close-up of AHU coils.



Close-up of AHU coils.



An example of the copper plumbing.



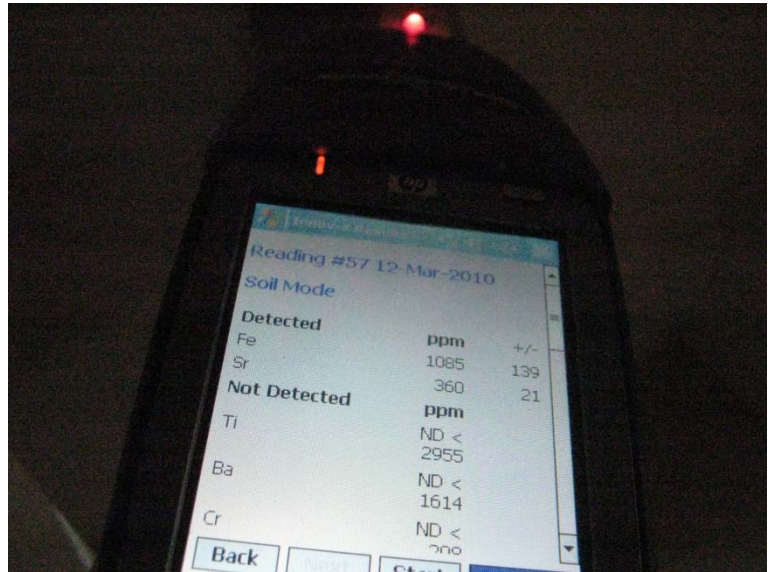
An example of the copper plumbing.



An example of the plumbing fixtures.



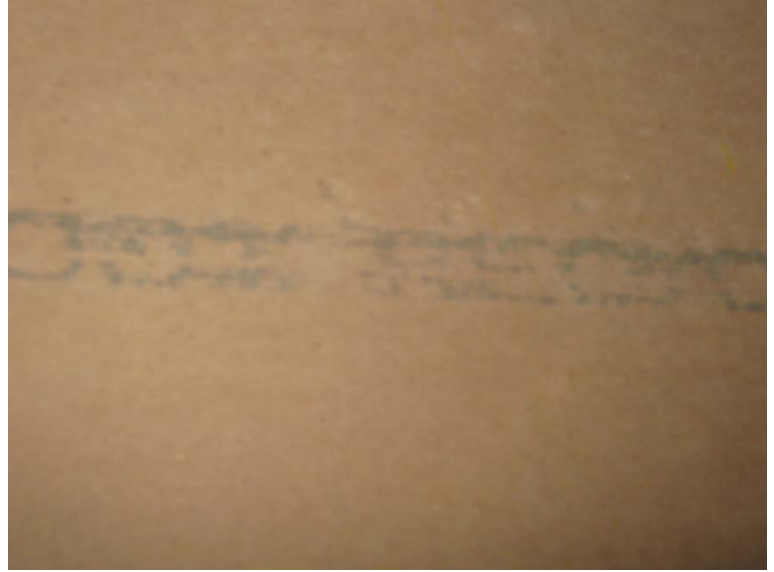
Example of a clean gypsum sample location.



Example of a clean gypsum sample readings.



Wallboard label within the attic.



Wallboard label within the attic.



Example of sample location.



Core sample location behind the refrigerator.

Attachment II

Laboratory Report & Chain of Custody Record



EMSL Analytical, Inc., IH Laboratory, 107 Haddon Avenue, Westmont, NJ 08108 phone (800)220-3675 x 1275

Elemental Sulfur Content of Gypsum Wallboard by Base / Neutral / Acid (BNA) Extraction Analyzed by Gas Chromatography / Mass Spectroscopy (GC/MS)

March 29, 2010

Paul LeBlanc
AirQuest Environmental, Inc.
4990 Southwest 52nd Street, Suite 204
Fort Lauderdale, FL 33314

Email: labresults@airquestinc.com

EMSL Project: 281000378-1
Customer Reference: 2834-01 St Barts Square
Sample Type: Bulk Gypsum Wallboard Sample

The sample was received in good condition. The original scope of the project was to look for the presence of elemental sulfur as an indicator for odorous corrosive gypsum wallboard.

Experimental

Approximately 2 gram samples were cut from the center of each sample, pulverized, and weighed. 5 ml of n-hexane were added, and the sample sonicated for 30 minutes, and allowed to settle. 1.0 ml of supernatant was then drawn off, concentrated, and placed in an autosampler vial for analysis. The extract was analyzed by Gas Chromatography with Mass Spectrometry (GC/MS) using direct injection and electron impact ionization in the SIM mode.

Results

Results of the BNA extraction and GC/MS analysis are in the table below;

EMSL Order #	Customer Sample #	Sulfur Conc. (ppm)
281000378-0001	2834-01	<2

Discussion

The sample did not contain sulfur (S8 or orthorhombic sulfur). The CPSC/HUD guidance level for Chinese Drywall is 10 ppm. Your sample tested below this level. Other criteria may have to be met before classifying this drywall as acceptable and not of Chinese origin or problematic. Please consult the CPSC/HUD guidance document.

If you require any additional information, please do not hesitate to contact me.



Scott VanEtten, CIH
Laboratory Manager
EMSL Analytical

Warranty: EMSL warrants to its clients that all services provided hereunder shall be performed in accordance with established and recognized analytical testing procedures and with reasonable care in accordance with applicable federal, state and local laws. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied. EMSL disclaims any other warranties, express or implied, including a warranty of fitness for particular purpose and warranty of merchantability.

Limits of Liability: In no event shall EMSL be liable for indirect, special, consequential, or incidental damages, including, but not limited to, damages for loss of profit or goodwill regardless of the negligence (either sole or concurrent) of EMSL and whether EMSL has been informed of the possibility of such damages, arising out of or in connection with EMSL's services thereunder or the delivery, use, reliance upon or interpretation of test results by client or any third party. We accept no legal responsibility for the purposes for which the client uses the test results. EMSL will not be held responsible for the improper selection of sampling devices even if we supply the device to the user. The user of the sampling device has the sole responsibility to select the proper sampler and sampling conditions to insure that a valid sample is taken for analysis. Any resampling performed

will be at the sole discretion of EMSL, the cost of which shall be limited to the reasonable value of the original sample delivery group

(SDG) samples. In no event shall EMSL be liable to a client or any third party, whether based upon theories of tort, contract or any

other legal or equitable theory, in excess of the amount paid to EMSL by client thereunder. **Indemnification:** Client shall indemnify

EMSL and its officers, directors and employees and hold each of them harmless for any liability, expense or cost, including reasonable attorney's fees, incurred by reason of any third party claim in connection with EMSL's services, the test result data or its use by client.

281000378

Daily Bulk Sample Log & Chain of Custody



4990 Southwest 52 Street, Ste 204
Fort Lauderdale, Florida 33314

Fax: (866) 461-2791
Toll Free: (877) 247-8146
Email: labresults@airquestinc.com

Sample Date: 3/12/2010
Project Number: 3787
Project Name: 2834 St. Barts Square
Surveyor: P. LeBlanc

Turnaround RUSH 24 Hour XX Standard

Signature

Homo Area	Sample Number	Material Type	Sample Location	Analysis Requested	Comments
1	2834-01	Wallboard	Hallway Closet	Elemental Sulfur/ BNA Extraction	

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RECEIVED
EMSL
WESTMONT, NJ

Relinquished by: Date/Time: 3/19/10 5:00pm

Received by: _____ Date/Time: _____

Relinquished by: _____ Date/Time: _____

Received by: _____ Date/Time: _____

PK 930

SAMPLES ACCEPTED
FOR ANALYSIS BY
E.M.S.L. LABORATORY, INC.