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Cincinnati, Ohio 45241  
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July 23, 2012

Mr. John T. Horman  
ODOT District 7 – Planning/Environmental  
1001 St. Mary's Avenue / PO Box 969  
Sidney, Ohio 45365-0969

Re: **Asbestos Inspection**  
**Bridge MOT-CR0- 74-Section 0.65**  
**Woodman Drive, Just North of US-35**  
**Montgomery County, Ohio**  
**PID No. 75863, Agreement No. 15445, Task Order No. 07-J**  
ATC Project No. 72.33784.0019

Dear Mr. Horman:

ATC Associates Inc. (ATC) has completed the above-referenced project, in general accordance with ATC Proposal number 072-2011-0626, as authorized on October 24, 2011. The purpose of the project was to identify the presence of any asbestos-containing materials on the subject bridge prior to any future renovation and/or demolition activities. Accordingly, the scope of work consisted of a bridge inspection, and associated sampling/analysis of suspect asbestos-containing materials. This report documents our methodologies as well as our findings, conclusions and recommendations.

### **METHODOLOGY**

ATC performed an asbestos inspection of Bridge MOT-CR-074-Section 0.65, on July 10, 2012. The Bridge was operational at the time of ATC's inspection and is located on Woodman Drive, just north of US-35 in Montgomery County, Ohio. The Bridge has concrete embankments, as well as metal guard rails on both sides.

Ohio Department of Health licensed Asbestos Hazard Evaluation Specialists Mr. Michael Bryson and Mr. Tom Ernstes (ODH Certification Numbers ES32232 and ES31708, respectively) performed the inspection. The inspectors' certifications are provided in Attachment A. Photographic documentation of the inspection is provided in Attachment B.

ATC inspected the subject bridge for suspect asbestos-containing material (ACM) such as Transite<sup>®</sup> conduits, tar, grout, felts, gaskets, and expansion joints. Suspect materials were physically examined to determine their degree of friability, homogeneity, and based on this information, sampling locations were identified. ATC did not utilize destructive methods of inspection to confirm the presence or absence of suspect ACM. Additional quantities of ACMs may be located within these inaccessible areas of the bridge's construction. The inspector recorded pertinent field data including the types of suspect ACM present, quantities and condition of materials, sampling locations, sample numbers, and dimensions of areas containing suspect ACM.

To avoid disturbing suspect ACM any more than necessary and to minimize the release of asbestos fibers, ATC performed bulk sampling of the suspect materials in accordance with the Ohio Administrative Code (Chapter 3701-34-06). Procedures outlined in the current Environmental Protection Agency (EPA) guidance documents and in Building Inspector/Management Planner certification course manuals were also utilized. Each sample was collected and placed in a clean, sealable, plastic container and labeled with a unique sample identification number. Additional information including the date of the inspection, the name of the inspector, the building name, a brief description of the sample, the sample location, and the type of material sampled was also recorded in the inspector's field notes.

Three homogeneous areas of suspect ACM were identified during the subject inspection: 1) non-friable tar material at each corner of the bridge, 2) non-friable tar expansion joint crossing the roadway, and 3) non-friable gray caulking material in between concrete abutments. A total of nine samples were collected and submitted to ATC's Cincinnati, Ohio, NVLAP-accredited asbestos laboratory (NVLAP-200471-0) using chain-of-custody controls. The samples were analyzed using polarized light microscopy (PLM) visual estimation method) in accordance with the prescribed

EPA Test Method (EPA/600/R-93/116), "Method for the Determination of Asbestos in Bulk Building Materials," 40 CFR Part 763, Appendix A to Subpart F. Sample locations, friability and asbestos content are summarized in Table 1. A complete copy of the laboratory report and chain of custody is included in Attachment C.

### **FINDINGS AND CONCLUSIONS**

Laboratory analysis indicated asbestos content greater than one percent (>1%) in three of the samples collected. The samples, identified as black tar-like material between sections of concrete on each end of the bridge (on the bike path side) had an asbestos content of 2% to 5%. This material is considered to be Category I Non-Friable ACM. See Table 2 (Inventory of Asbestos Containing Materials) for estimated amount of ACM and NESHAP category.

Revised Ohio EPA Asbestos Regulations (i.e., Ohio Administrative Code 3745-20) became effective on or about March 1, 2012. The revision requires that any Category I asbestos-containing material which through demolition or renovation activities has suffered a reduction in total volume or size less than four square inches be considered friable and a Regulated Asbestos Containing Material (RACM), and should be removed by appropriately trained individuals utilizing approved OSHA methods. The NESHAP Category I asbestos-containing materials may remain during the demolition as long as the criteria described above is met.

A written Notification of Intent to Renovate/Demolish is required to be submitted to the United States Environmental Protection Agency or their designated authority at least ten working days prior to starting any renovation or demolition project. The aforementioned notification is included in Attachment D.

Based on current, average industry costs, ATC estimates the cost to remove the NESHAP Category I asbestos-containing material to be approximately \$800.00. This is a "material removal only" estimate and does not include the cost associated with third party oversight, clearance air sampling, laboratory analysis or the replacement of any of the removed materials. In the event ODOT should

require actual costs for removal, ATC recommends consultation with a licensed, Ohio asbestos abatement contractor.

### QUALIFICATIONS

Our professional services have been performed, our findings obtained, and our recommendations prepared in accordance with customary principles and practices in the fields of industrial hygiene and engineering. This statement is in lieu of other statements either expressed or implied. ATC is not responsible for the independent conclusions, opinions or recommendations made by others based on the observations presented in this report.

The results, findings, conclusions and recommendations expressed in this report are based only on conditions that were observed during ATC's inspection of the bridge in Montgomery County, Ohio, on July 10, 2012. The inspection was limited to accessible areas and did not include areas below grade. Should additional suspect ACM be discovered during renovation/demolition activities, work should be stopped and an Ohio Department of Health certified Asbestos Hazard Evaluation Specialist called to the site to investigate.

This report is intended for the sole use of ODOT District 7 – Planning/Environmental Department and is designed to aid the owner, architect, construction manager, general contractors and potential asbestos abatement contractors in locating ACM. The scope of services performed in execution of this evaluation may not be appropriate to satisfy the needs of other users, and the use or re-use of this document or the findings, conclusions, or recommendations is at the risk of said user.

Sincerely,

**ATC ASSOCIATES INC**

  
Michael L. Bryson

Environmental Technician



Thomas E. Boecher, CHMM  
EHS Specialist

Attachments (5)

**LIST OF ATTACHMENTS**

**TABLES**

Table-1 Bulk Sample Data Sheet

Table-2- Inventory of Asbestos Containing Materials

**ATTACHMENT A**

Inspector Accreditations/Certifications

**ATTACHMENT B**

Photographic Documentation

**ATTACHMENT C**

Laboratory Report and Chain of Custody

**ATTACHMENT D**

OEPA Demolition/Renovation Notification

## TABLES

**TABLE 1: BULK SAMPLE DATA SUMMARY  
BRIDGE MOT-CR-074-0.65  
MONTGOMERY COUNTY, OHIO**

<b>SAMPLE DESCRIPTION</b>	<b>SAMPLE LOCATION</b>	<b>HA #</b>	<b>SAMPLE I.D. NO.</b>	<b>LAB I.D. NO.</b>	<b>ASBESTOS CONTENT</b>	<b>FRIABLE NONFRIABLE</b>
Black tar (Miscellaneous)	N.E. side of bridge	1	1-1	12B-09362	2% Chrysotile	Non-friable
Black tar (Miscellaneous)	N.E. side of bridge	1	1-2	12B-09363	5% Chrysotile	Non-friable
Black tar (Miscellaneous)	N.W.	1	1-3	12B-09364	5% Chrysotile	Non-friable
Black tar (Miscellaneous)	Expansion joint crossing road	2	2-1	12B-09365	None Detected	Non-friable
Black tar (Miscellaneous)	Expansion joint crossing road	2	2-2	12B-09366	None Detected	Non-friable
Black tar (Miscellaneous)	Expansion joint crossing road	2	2-3	12B-09367	None Detected	Non-friable
Gray caulking (Miscellaneous)	In between concrete sections of bridge	3	3-1	12B-09368	None Detected	Non-friable
Gray caulking (Miscellaneous)	In between concrete sections of bridge	3	3-2	12B-09369	None Detected	Non-friable
Gray caulking (Miscellaneous)	In between concrete sections of bridge	3	3-3	12B-09370	None Detected	Non-friable

TABLE I-1

**TABLE 2 - INVENTORY OF ASBESTOS-CONTAINING MATERIALS  
BRIDGE MOT- CRO-74-0.65 MONTGOMERY, COUNTY, OHIO**

Location	Homogeneous Area No. †	NESHAPS Category	Material Description	Material Condition	Friable/ Non-friable	Amt. of Material (approx.)	Estimated Cost to Remove
Each end of bridge at abutments on bike path sides of bridge	1	Category I	Bridge end tar joints	Good	Non-friable	80 lf	\$800.00

**Estimated Total \$800.00**

RACM = Regulated Asbestos-Containing Material  
 Category I Non-Friable ACM - resilient floor covering, roofing products, gaskets and packings  
 Category II Non-Friable ACM - all other non-friable material  
 N/A - Cost included with cost to remove associated floor tile  
 \* = Assumed Material

† **Asbestos-containing homogeneous area number description:**

HA 1: Bridge end tar joints



ATTACHMENT A

Inspector Accreditations/Certifications

**ENVIRONMENTAL SAFETY ASSURANCE INSTITUTE**

1435 Sadlier Circle West Drive  
Indianapolis, Indiana 46239  
(317) 352-1270 / (317) 352-0669

**MICHAEL L. BRYSON**

Has Successfully Completed The Course  
Required Under TSCA Title II  
And Passed The Written Examination  
With a Score of 70% or Better  
For

**ASBESTOS BUILDING INSPECTOR REFRESHER**

Accredited by the  
Indiana Department of Environmental Management

Certificate # ES12/BIR1652

Course Dates : 01/12/2012  
Test Date: 01/12/2012 Expires: 01/12/2013

State of Ohio  
Department of Health  
Division of Quality Assurance - Asbestos Program

Asbestos Hazard Evaluation Specialist

Michael L Bryson  
ATC Associates Inc.  
11121 Canal Rd  
Cincinnati OH 45241

DOB: 03/09/1949  
Certification Number ES32232  
Expiration Date 02/24/2013

This certification is issued pursuant to Chapter 3710 of the Revised Code and 3701-34 of the Ohio Administrative Code  
Certification Card is not valid if altered

*Sharyn Reyes*  
Sharyn Reyes  
Manager

State of Ohio  
Department of Health  
Division of Quality Assurance - Asbestos Program

Asbestos Hazard Evaluation Specialist

Tom G. Ernstes  
20043 Ravenda Drive  
Lawrenceburg IN 47025



DOB: 05/24/1957  
Certification Number  
ES31708  
Expiration Date  
04/18/2013

This certification is issued pursuant to Chapter 3701 of the Revised Code and 3701-34 of the Ohio Administrative Code

Certification Card is not valid if altered

ATTACHMENT B

Photographic Documentation



**Photograph 1: Bridge MOT-CR-074-0.65, Facing Down Toward Bike Path, Northeast**



**Photograph 2: Bridge MOT-CR-074-0.65, Tar @ Joints on Bike Path Side, Ends of Bridge**

**SITE PHOTOGRAPHS  
Attachment B**

Photographs Taken By: M. Bryson  
Date of Photographs: 7/10/12



**Bridge MOT-CR-074-0.65  
Woodman Dr., Just N. of US-35  
Dayton, Ohio  
ATC Project No. 72.33784.0019**





**Photograph 3: Bridge MOT-CR-074-0.65, Top of Bridge Facing West**



**Photograph 4: Bridge MOT-CR-074-0.65, Roadway Expansion Joint**

**SITE PHOTOGRAPHS  
Attachment B**

Photographs Taken By: M. Bryson  
Date of Photographs: 7/10/12

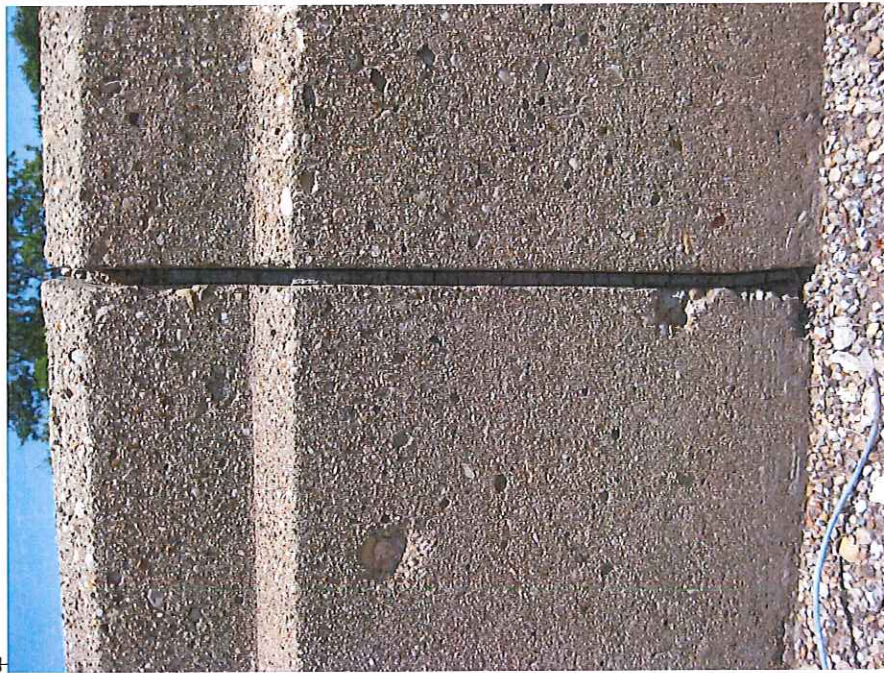


**Bridge MOT-CR-074-0.65  
Woodman Dr., Just N. of US-35  
Dayton, Ohio  
ATC Project No. 72.33784.0019**





**Photograph 5: Bridge MOT-CR-074-0.65, East Side of Roadway Facing South**



**Photograph 6: Bridge MOT-CR-074-0.65, Caulking Material Between Concrete Abutments**

**SITE PHOTOGRAPHS**  
**Attachment B**  
Photographs Taken By: M. Bryson  
Date of Photographs: 7/10/12



**Bridge MOT-CR-074-0.65**  
**Woodman Dr., Just N. of US-35**  
**Dayton, Ohio**  
ATC Project No. 72.33784.0019





**Photograph 7: Bridge MOT-CR-074-0.65, West Side of Bridge Facing Down, Southwest**



**Photograph 8: Bridge MOT-CR-074-0.65, Locked Access Road at Spinning Road**

**SITE PHOTOGRAPHS  
Attachment B**

Photographs Taken By: M. Bryson  
Date of Photographs: 7/10/12



**Bridge MOT-CR-074-0.65  
Woodman Dr., Just N. of US-35  
Dayton, Ohio  
ATC Project No. 72.33784.0019**



ATTACHMENT C

Laboratory Report and Chain of Custody





ATTACHMENT D

OEPA Demolition/Renovation Notification

# INSTRUCTIONS FOR NOTIFICATION OF ASBESTOS DEMOLITION AND RENOVATION OHIO ENVIRONMENTAL PROTECTION AGENCY

## Regulatory Requirements:

The Ohio Environmental Protection Agency adopted Chapter 3745-20 of the Ohio Administrative Code (OAC) "Asbestos Emission Control from Renovation Demolition and Waste Disposal Operation" May 29, 1990. Chapter 3745-20 implements the National Emission Standard for Hazardous Air Pollutants (NESHAP) Standard for Asbestos. On November 20, 1990 U.S. EPA revised the asbestos NESHAP. Proper completion and submittal of the Ohio EPA form for notification, meets or exceeds all requirements for notification under the NESHAP and the Ohio Administrative Code. Notification requirements are found in OAC 3745-20-03 and in 40 CFR Section 61.145(b).

## Who Must Notify:

Every demolition of a facility requires notification regardless of whether asbestos is involved. Renovation of a facility must be submitted when the amount of regulated asbestos-containing material (RACM) stripped, removed, dislodged, cut, drilled, or similarly disturbed exceeds 260 linear feet on pipes or 160 square feet on other facility components or 35 cubic feet off facility components.

## When Must Notification Be Provided:

Notice must be postmarked, delivered or received by the Ohio EPA district office or local air agency with jurisdiction in the county where the operations will occur. A list of the counties and a map is available for reference. All notifications must be submitted at least 10 working days (Monday-Friday excluding weekends) before operations begin. Phone notification is not acceptable for original notification. Notification must be updated when substantive information changes or the amount of asbestos changes by more than 20%. Updated notification may be provided by phone or fax followed in writing before the operations continue. An emergency demolition or emergency renovation notice must be submitted as early as possible before but not later than the following working day, and must include the information required under notice sections XIV and XV.

## What Information Must Be Supplied:

Complete all parts of the form except XIV and XV unless the notice is for emergency demolitions or renovations. Demolition

which involves less than 260 linear feet or 160 square feet do not need to complete items XI, XII, and XIII. Before submitting any notice the facility must be thoroughly inspected for asbestos including Category I (nonfriable packing gaskets, floor tile, asphalt roofing) and Category II (all other nonfriable ACM). OAC 3701-34-02(C) prohibits any person not certified as an asbestos hazard evaluation specialist in Ohio from inspecting and identifying asbestos for the purpose of determining the need for an asbestos hazard abatement activity.

Operator Project # -- this is an optional space provided for the person submitting the notice to indicate a project number.

- I. Identify if the notice is an original, revised, or canceled.
- II. A complete facility description must be provided including the specific portion of the facility affected by the operations. Building size must be estimated in square feet, number of floors, and age in years. Also include the present and prior use (i.e., industrial, commercial, institutional, etc.)
- III. Identify the type of operation being notified. If uncertain consult 40 CFR 61.141 and 61.145(a) or OAC 3745-20-01 and 3745-20-02.
- IV. Declare whether or not asbestos is present in any quantity.
- V. All spaces must be completed identifying the Owner, Removal Contractor and other responsible operator (if applicable) such as a demolition contractor or general contractor.
- VI. Include the procedure used to detect and analyze asbestos. All operations should have the records of the inspection and analyses on-site during active operations for inspection. Such records would include a list of materials assessed, locations sampled and the sample results.
- VII. Quantify asbestos in the three columns (RACM, Nonfriable Asbestos Material to be Removed, Nonfriable Asbestos Material NOT to be Removed).

- VIII. The starting and ending date for demolition or renovation must be noted even when asbestos is not being removed.
- IX. Include the scheduled dates for asbestos removal and specify the hours of operation and check off the days of the week operations will be active.
- X. Describe the demolition or renovation which will occur and the methods or operations that will be employed.
- XII. Indicate the names and addresses and phone numbers of any waste transporters. You must also complete a Waste Shipment Record prior to consigning any asbestos waste materials.
- XIII. Identify the waste disposal site and its actual location (may be different from mailing address).
- XIV. This space is only for emergency demolitions that meet the definitions and requirements of the regulation. In addition to completing the notification form, four additional items must be completed or attached to the notice. If a facility is not in imminent danger of collapse, it is not an emergency demolition even though it may be ordered due to hazardous conditions.
- XV. Emergency Renovations must meet criteria described at 40 CFR 61.141 and OAC 3745-20-01. Include an attachment with the three items listed on the notice form.
- XVI. Describe the procedures to be followed in the event unexpected asbestos is found or nonfriable asbestos becomes RACM. This will prevent delays or complete re-notification. In the event asbestos quantities change by 20% or more, you must update the notice.
- XVII. After November 20, 1991 you must certify a NESHAP trained person will be available during normal business hours at the demolition or renovation site. Signature must be by an authorized officer of the owner or operator.



# OHIO ENVIRONMENTAL PROTECTION AGENCY NOTIFICATION OF DEMOLITION AND RENOVATION

Operator Project #	Postmark	Date Received	Notification #
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**I. Type of Notification** (check one):       Original       Revised       Canceled

**II. Facility Description** (include building name, number, and floor or room number)  
 Building Name: Bridge MOT-CR-074-0.65, Woodman Drive, just north of US-35  
 Address: See Above  
 City: Dayton State: OHIO Zip Code: \_\_\_\_\_ County: Montgomery  
 Site Location (specific): \_\_\_\_\_  
 Building Size (square feet): # of Floors: \_\_\_\_\_ Age in Years: N/A  
 Present Use: Bridge/Culvert Prior Use: Bridge

**IV. Is Asbestos Present?** (check one):       Yes       No

**V. Facility Information**  
**Owner Name:** Ohio Department of Transportation – District 7  
 Address: 1001 St. Mary's Avenue P.O. Box 9696  
 City: Sidney State: Ohio Zip Code: 45365-0969  
 Contact: Mr. John T. Horman Telephone: (937) 497-6808 Fax: (937) 497-6754  
**Removal Contractor Name:** \_\_\_\_\_ License # \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
 Contact: \_\_\_\_\_ Telephone: ( ) Fax: ( )  
**Other Operator (demolition/general):** \_\_\_\_\_ License # \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
 Contact: \_\_\_\_\_ Telephone: ( ) Fax: ( )

**VI. Procedure, including analytical methods, employed to detect the presence of and to estimate the quantity of RACM and Category I and Category II nonfriable ACM:**

Visual inspection for suspect asbestos containing materials. Suspect asbestos containing materials were sampled and analyzed for asbestos content by Polarized Light Microscopy

Ohio Asbestos Hazard Evaluation Specialist: Name: Michael Bryson Certification # ES32232

**VII. Approximate Amount of Asbestos Materials:**

	RACM to be Removed	Nonfriable Asbestos Material to be Removed		Nonfriable Asbestos Material NOT to be Removed	
		Category I	Category II	Category I	Category II
Miscellaneous	Not Applicable			80 SF	
Surface Area (square feet)	Not Applicable				
Facility Components (cubic feet)	Not Applicable				

**VIII. Scheduled Dates Demolition or Renovation:** Start: \_\_\_\_\_ Complete: \_\_\_\_\_

**IX. Dates for Asbestos Removal (MM/DD/YY)** Start: \_\_\_\_\_ Complete: \_\_\_\_\_

Days of the Week:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Hours of Operation:							

Complete all unshaded spaces, except demolitions which involve less than 260 linear feet, 160 square feet, or 35 cubic feet of RACM, need not complete spaces VII, XI, XII, XIII, XIV, and XV. Notifications for Emergency Demolition or Emergency Renovation must supply attachments.

