



September 6, 2007

Project No. 1827.04-07DB

Mr. John Horman ODOT District 7 1001 St. Mary's Avenue P.O. Box 969 Sidney, Ohio 45365-0969

> NESHAP Asbestos Survey Report D-7 ESA FY07/08 Task Order PID 75863 US-35 Woodman Drive Bridge, SR 835 MOT-835-002 Montgomery County, Ohio

Dear Mr. Horman:

TTL Associates, Inc. (TTL) performed a United States Environmental Protection Agency (U.S. EPA) National Emissions Standards for Hazardous Air Pollutants (NESHAP) asbestos survey on the bridge located on State Route 835 Woodman Drive over US-35 in Montgomery County, Ohio on April 23, 2007. A map depicting the approximate location of the bridge is included in Attachment I. The purpose of this asbestos survey was to identify asbestos containing materials (ACMs) prior to future renovation and/or demolition activities. The U.S. EPA defines an ACM as a material that contains greater than one-percent asbestos by visual estimation or weight. This survey was conducted in accordance with the Ohio Department of Transportation's (ODOT) Task 07-D.

#### SURVEY, SAMPLING, AND ANALYSIS

The objective of this project was to collect the data necessary to comply with the NESHAP renovation/demolition inspection requirements. To meet this objective, Mr. Randall Brown and Mr. Adam Mead of TTL conducted a non-destructive, non-abrasive NESHAP asbestos survey of the accessible areas of the bridge. Mr. Brown and Mr. Mead are certified by the State of Ohio as Asbestos Hazard Evaluation Specialists (ES33290 and ES34615, respectively). The asbestos survey included the identification of suspect materials and the definition of homogeneous sampling areas (HSAs), assessment of the condition of each material, estimation of the approximate quantity of the suspect ACMs, and collection and analysis of bulk samples from each identified HSA. An HSA is defined as a material that exhibited similar physical characteristics (e.g., texture, surface color, and appearance) and was applied or installed at the same time (if known) as observed by our inspector utilizing professional judgment and experience.

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A cross section of the suspect material was collected using appropriate means (i.e. hammer, chisel, utility knife). The samples were placed into clean and unused sealable bags marked with a unique sample identification number and submitted to TTL's laboratory. The samples of suspect ACMs were analyzed by Polarized Light Microscopy using U.S. EPA Method 600/R-93/116. TTL's laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) which is administered by the National Institute of Standards and Technology (NIST).

#### **SURVEY RESULTS**

The US-35 Woodman Drive Bridge is constructed of concrete with steel deck supports. The concrete guardrails are topped by a steel chain-link fence. The bridge is supported by concrete abutments, piers and the concrete deck is not paved. No construction records were available to determine the building materials used in the construction of the structure. The exterior surfaces were examined which included the abutments, piers, bridge decking, piping and any remaining easily observable areas of the bridge. Photographs of the bridge are included in Attachment II.

A total of six (6) suspect ACMs were identified in accessible areas of the US-35 Woodman Drive Bridge, from which a total of fifteen (15) samples were collected. The concrete was cracked and flaking at locations under the deck. This concrete was sampled and submitted for analysis. Samples of tar on the deck associated with expansion joints, blue paint on steel deck supports, caulk on the guardrails and flex joint material were also collected for analysis. A diagram depicting the approximate sample locations is included in Attachment III. According to the laboratory analysis, no asbestos was detected in the samples analyzed. Electrical wiring was not sampled as not to compromise its integrity or the safety of the inspector and is therefore, deemed positive for asbestos until sampling can be conducted. One material was assumed to be positive. Refer to the attached NESHAP Asbestos Survey Summary Table (Attachment IV) for a listing of the materials identified. A copy of the laboratory analytical report is included as Attachment V. The following material was identified as an ACM defined by the U.S. EPA:

• Approximately 330 linear feet (l.f.) of electrical wire (HSA 05)-assumed positive.

#### CONCLUSIONS/RECOMMENDATIONS

TTL sampled all visible and reasonably accessible materials. Materials located beneath bridge decks, behind concrete or otherwise not accessible (such as rocker pads, waterproofing membranes between concrete deck and asphalt overlays and concealed insulation) were not assessed or sampled and therefore, will need to be addressed when uncovered.

The U.S. EPA defines regulated asbestos-containing material (RACM) as: (a) Friable asbestos material, (b) Category I non-friable ACM that has become friable, (c) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or (d) Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or



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renovation operations.

The following Category II non-friable ACM was identified and might become RACM based on the renovation/demolition techniques:

• Approximately 330 l.f. of electrical wire (HSA 05)-assumed positive.

The NESHAP asbestos regulations require the removal of all RACM from a facility being demolished or renovated prior to beginning any activity that might damage or disturb the material.

A written Notification of Intent to Renovate/Demolish is required to be submitted to the U.S. EPA or their designated authority at least ten working days prior to beginning any asbestos abatement and/or demolition project and has been included in Attachment VI. Additional state or local agencies may also have notification requirements.

#### **LIMITATIONS**

TTL has made reasonable efforts to identify and quantify suspect ACM based upon the standard of care in the environmental industry existing at the time of the survey. This survey only summarizes the potential presence and estimated quantities of visually observed ACM. TTL did not perform any destructive testing and this survey is limited to areas that were accessible to and visually observed by TTL at the time of the survey.

Additional material disturbed during renovation or demolition activities should be evaluated on a case-by-case basis, especially materials that were previously hidden, obscured, or inaccessible, to determine if the material is included in this survey. If a given material is not described in this survey or cannot be identified as a non-suspect material, the material should be assumed to contain asbestos and renovation and/or demolition activities should be halted until sampling and analysis can be accomplished. Parties conducting renovation and/or demolition activities should follow all applicable federal, state, and local regulations in handling identified and suspect ACMs.

The information contained in the report was based upon specific parameters and regulations in force at the time of the survey. The information herein is only for the specific use of ODOT and TTL, unless written authorization is obtained from TTL. TTL accepts no responsibility for the use, interpretation, or reliance by other parties on the information contained herein, nor does this report represent an instrument of regulatory compliance or an asbestos abatement specification.



TTL appreciates the continued opportunity to provide ODOT with our environmental, geotechnical, testing, and consulting services and we look forward to working with you in the future. Should you have any questions concerning this report, please contact Ms. Susan Yarger at (419) 324-2222 extension 1166.

Sincerely,

TTL Associates, Inc.

Randall Brown

Asbestos Hazard Evaluation Specialist

Accreditation #ES33290

Susan E. Yarger

Manager, Environmental Services

#### Attachments

V:\Toledo\ODOT\District 7 Environmental\182704 Task 07D Asb Bridge Inspections\Bridge B - US-35 Woodman Drive - Montgomery County\182704 Bridge B US-35 Woodman Drive SR 835 NESHAP Report.doc



## ATTACHMENT I AREA MAP





2000 Aerial Map



1984 Topographic Map

## ATTACHMENT II PHOTOGRAPHIC DOCUMENTATION





Photo No. 1: View of bridge from the west.



Photo No. 2: Electrical wiring.



Photo No. 3: Under side of concrete deck and steel support beams.



Photo No. 4: Underside of deck drains.



Photo No. 5: Styrofoam inside expansion joint.

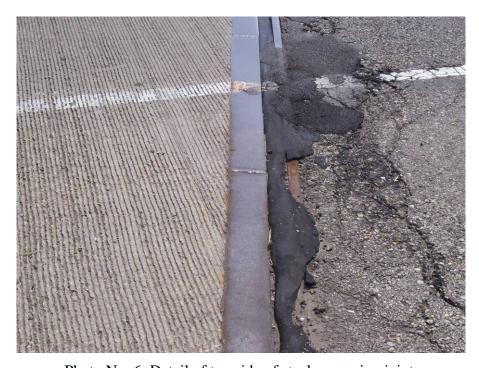


Photo No. 6: Detail of top side of steel expansion joint.



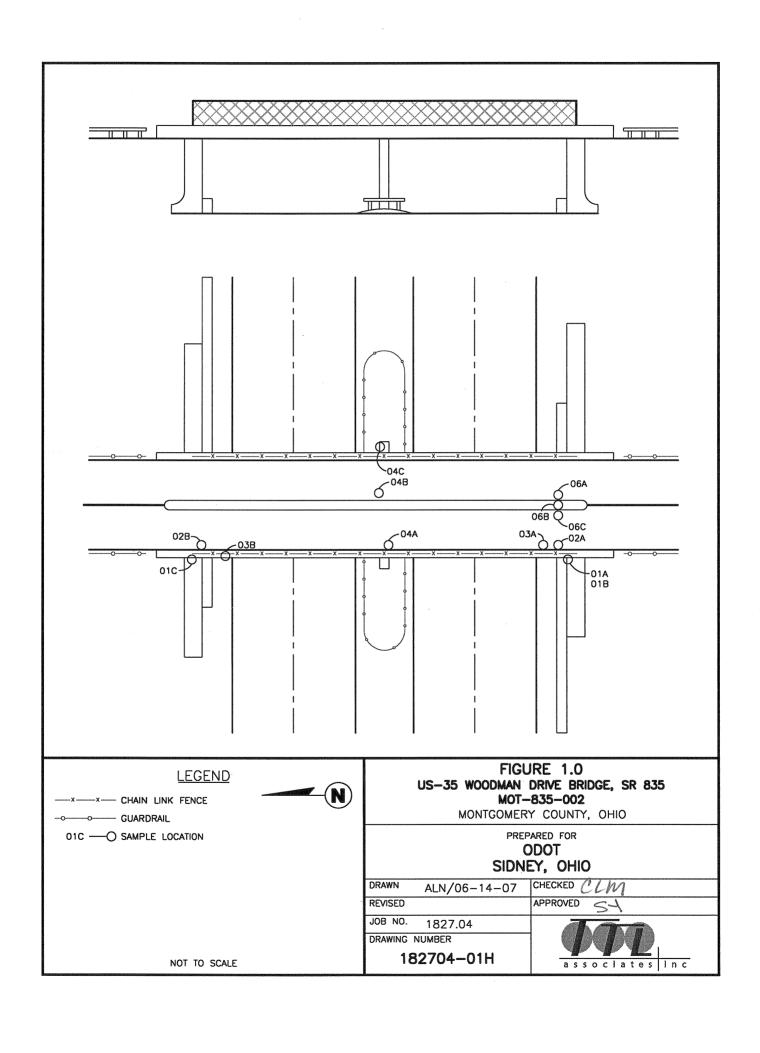
Photo No. 7: Fence mount on top of guard rails.



Photo No. 8: Concrete deck and expansion joint.

## ATTACHMENT III SITE DRAWINGS





## ATTACHMENT IV NESHAP ASBESTOS SURVEY SUMMARY TABLE



### NESHAP ASBESTOS SURVEY SUMMARY D-7 ESA FY07/08 TASK ORDER PID 75863 US-35 WOODMAN DRIVE BRIDGE, SR 835 MONTGOMERY COUNTY, OHIO TTL PROJECT NO. 1827.04-07DB

Page 1 of 1

HSA No.	HSA Material Description	Results	Friability	Approximate Quantity [square feet (s.f.)] [linear feet (l.f.)]	Functional Area(s)	Condition
01	Concrete	N	NF-II	10,970 s.f.	Throughout	Good
02	Tar	N	NF-II	180 s.f.	Throughout	Good
03	Blue Paint	N	NF-II	14,000 s.f.	Throughout	Good
04	Caulk	N	NF-II	30 l.f.	Throughout	Good
05	Electrical Wire	A	NF-II	330 l.f.	Throughout	Good
06	Flex Joint	N	NF-II	3 l.f.	North End of Center Median	Good

RESULTS: FRIABILITY: CONDITION:

P: Positive F: Friable Good: Little or no damage

N: Negative NF-I: Non-Friable Category I Damaged: Less than 10% damage of total surface area, or less than 25% damage in a localized area
A: Assumed Positive NF-II: Non-Friable Category II Significantly Damaged: Greater than 10% damage of total surface area, or greater than 25% damage in

a localized area

Refer to report for a discussion of the areas surveyed and survey limitations for the project.

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## ATTACHMENT V ASBESTOS ANALYTICAL REPORT





1915 North 12th Street Toledo, OH 43604-5305 T 419-324-2222 F 419-241-1808 www.ttlassoc.com

**CLIENT:** Ohio Department of Transportation

DATE:

May 07, 2007

1001 St. Mary's Avenue

SIDNEY, OHIO 43565-0969

ATTN:

Mr. John Horman

**Project No.:** 

1827.04

Lab Receiving No.:

07-04-200430

**Date Received:** 

April 30, 2007

**Date Sampled:** 

April 23, 2007

**Project Location:** 

Bridge B

Bridge Over US 35

US 35 Woodman Drive

Dayton, Ohio

Sample Point(s):

see analytical results

**Analysis Performed:** 

Asbestos Analysis by PLM

DISCLAIMER

This report is "PROPRIETARY AND CONFIDENTIAL" and delivered to, and intended for the exclusive use of the above named client only. TTL Associates, Inc.,

Reviewed by:

Date: 5/7/2007

Approved by:

Date: 5/7/2007

Weltin, Quality Assurance Officer

#### **ANALYTICAL NARRATIVE**

The note(s) below pertain to the sample(s) and analytical data reported herein:

Quantitative results are listed as approximate % asbestos. Results are based on calibrated visual estimation of materials. All results <1% asbestos (Trace) have been confirmed by the analysis of a duplicate slide. As per the method, all "negative" or BDL samples have been confirmed by triplicate analyses. Due to the nature of the samples the following measurements of uncertainty may apply:

% Asbestos	Uncertainty
1%	± 2%
5%	± 4%
10%	± 5%
>20%	± 10%

Due to the complexity of analyzing floor tile by PLM, the client may want to consider having "negative" floor tiles analyzed further by an alternative method such as TEM.

Samples are archived by TTL Associates for a period of thirty days. Samples may be retained for a longer period of time or returned to the client upon written request.

#### **Laboratory Accreditation:**

U.S. Department of Commerce, National Institute of Standards and Technology, National Voluntary Laboratory Accreditation Program (NVLAP), Lab #101594-0

This report may not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report relates only to the items tested, and may not be reproduced, except in full, without the written approval of the laboratory.

#### Report Key:

BDL = Below Detection Level

n/a = not applicable

HSA = Homogeneous Sampling Area

Detection Level: 1% asbestos fibers greater than one micrometer in length.

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# POLARIZED LIGHT MICROSCOPY ANALYTICAL RESULTS

EPA/600/R-93/116, July, 1993; 40 CFR, Ch. 1 (7-1-93 ed.), Part 763, Subpart F, Appendix A, pages 293-299 2PLM008407 METHOD NUMBER:

May 1, 2007 BATCH NUMBER:

DATE ANALYZED:

Myron Gasiorowski ANALYST:

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LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS
1.65116	18270407DB-01A	10	Concrete, southwest corner	Grey Concrete	100% Binder	BDL
165117	18270407DB-01B	01	Concrete, southwest corner	Grey Concrete	100% Binder	BDL
165118	18270407DB-01C	04	Concrete, northwest corner	Grey Concrete	100% Binder	BDL
165119	18270407DB-02A	05	Tar, southwest corner	Black Tar	100% Binder	BDL
165120	18270407DB-02B	02	Tar, northwest corner	Black Tar	100% Binder	BDL
165121	,18270407DB-02C	02	Tar, southeast corner	Black Tar	100% Binder	BDL
165122	18270407DB-03A	03	Blue paint, southwest corner	Blue Paint	100% Binder	BDL
165123	18270407DB-03B	03	Blue paint, northwest corner	Blue Paint	100% Binder	BDL
165124	18270407DB-03C	03	Blue paint, southeast corner	Blue Paint	100% Binder	BDL
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# POLARIZED LIGHT MICROSCOPY ANALYTICAL RESULTS

EPA/600/R-93/116, July, 1993; 40 CFR, Ch. 1 (7-1-93 ed.), Part 763, Subpart F, Appendix A, pages 293-299 2PLM008407 METHOD NUMBER:

BATCH NUMBER:

May 1, 2007 DATE ANALYZED: Myron Gasiorowski

ANALYST:

LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS
165125	18270407DB-04A	04	Caulk, west edge of middle of bridge	Grey Caulk	100% Binder	BDL
165126	18270407DB-04B	40	Caulk, middle of bridge	Grey Caulk	100% Binder	BDL
165127	18270407DB-04C	04	Caulk, middle of bridge	Grey Caulk	100% Binder	BDL
165128	18270407DB-06A	90	Flex Joint, south end of middle of bridge	Grey Fabric	90% Binder, 10% Synthetic Fibers	BDL
165129	18270407DB-06B	90	Flex Joint, south end of middle of bridge	Grey Fabric	90% Binder, 10% Synthetic Fibers	BDL
165130	18270407DB-06C	90	Flex Joint, south end of middle of bridge	Grey Fabric	90% Binder, 10% Synthetic Fibers	BDL

## **Chain of Custody Record**

Ship To Address: ATTN: RECEIVING LAB, 1810 North 12th St., Toledo, OH 43624-1302 1915 North 12th St., Toledo, OH 43624-1305; Voice 419-324-2222, Fax 419-241-1808. Other ☐ Plymouth ☐ Detroit □ Toledo

Sent From:

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□ yes Kno Rev. 11/03 010 □ in field □ in lab □ N/A □ oC yes 🗆 no □ no □ N/A yes 🗆 no Xin person □ by courier 430 100 DU 9/1/591 50/59 165120 65/33 165118 house 411691 Z yes 165LQ Wyes LAB USE ONLY Was shipping label completed properly per regulations? Were samples packaged properly for type of material? Preserved Yes/No Parameters LAB USE ONLY Was container labeled properly for contents? Did samples arrive intact and sealed? Were proper containers used? Were samples preserved Were samples delivered 1 (49 CFR 170, etc.) Temp of samples Comments Total No. of Containers 0080 Kg Time Time West Robect Middlew Time Date Date NW Corner US 35 Woodman JE COLUST Blux Paint SW Corner SE Carner NW Corner James ms NW COLAR James Come Converte SW Corner Sample Location Sampler's Signature Sampler's Name CAUK Received By: Received By: 101 Time Oaco La ins Time Matrix Project/Location: Date Date Date Date Type Client: Time Sampled Date Sampled のを 2 2 Relinquished By: Relinquished By: Relinquished By Rélinguished By Sample I.D. Project Mgr.: Project No.: Phone No. P.O. No.: Item No. Item No. Item No. Item No. Item No. 0 6 2  $\sim$ Ŋ 9

Distribution: Original plus one accompanies shipment (white and yellow); copy to coordinator field files (pink)

## **Chain of Custody Record**

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Ship To Address: ATTN: RECEIVING LAB, 1810 North 12th St., Toledo, OH 43624-1302 1915 North 12th St., Toledo, OH 43624-1305; Voice 419-324-2222, Fax 419-241-1808

☐ Plymouth ☐ Detroit ☐ Other

□Toledo

Sent From:

P.O. No.:

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☐ In field ☐ in lab ☐ N/A yes 🗆 no - n □ yes □ □ no □ N/A Vyes 🗆 no Vin person Dby courier 165/126 165/24 165/89 05/59 165/128 yes TAB USE ONLY Were samples packaged properly for type of material? Was shipping label completed properly per regulations? Preserved Yes/No **Parameters** LAB USE ONLY Was container labeled properly for contents? Did samples arrive intact and sealed? Were proper containers used? Were samples preserved Were samples delivered Temp of samples Total No. of Containers 080 Flex Joint, South and of Middle Time Middlend Brobs Date Sampler's Signature Sampler's Name Received By: Time Time Matrix Project/Location: Date Date Type Client: Time Sampled 182704070BA 4/23/67 Date Sampled 760-Relinquished By: Relinquished By Sample I.D. Project Mgr.: Project No.: Phone No.

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(49 CFR 170, etc.)

Comments

Time

Date

Received By:

Time

Date

Relinquished By:

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Item No.

## ATTACHMENT VI EPA DEMOLITION/RENOVATION NOTIFICATION



## OHIO ENVIRONMENTAL PROTECTION AGENCY NOTIFICATION OF DEMOLITION AND RENOVATION

Page 1 of 2

Operator Project # Postmark		k	Date	Received	Notif	ication #	
I. Type of Notification (check of	one): X Original  Re	vised □ Can	celed				
Building Name: <u>ODOT Brid</u> Address: <u>Woodman Drive Sl</u>	II. Facility Description (include building name, number, and floor or room number)  Building Name: ODOT Bridge MOT-835-002  Address: Woodman Drive SR 835 and US-35  City: Dayton State: OHIO Zip Code: 45431 County: Montgomery						
City: <u>Dayton</u> Site Location (specific):	State:	ОНЮ	Zip Coo	de: <u>45431</u>	County: Montg	gomery	
Building Size (square feet): Present Use: <u>Bridge</u>		# of Floor Prior Use:		Age in Years:			
III. Type of Operation (check	one): X Demo □ Orde	red Demo 🗆	Renovation   E	mergency Renovat	tion 🗆 Fire Traini	ing	
IV. Is Asbestos Present? (check	k one): X Yes □ No						
V. Facility Information Owner Name: Ohio Departs Address: 1001 St. Mary's Av. City: Sidney Contact: John Horman Removal Contractor Name Address: City: Contact: Other Operator (demolition Address: City: Contact: VI. Procedure, including analy Category I and Category II no Ohio Asbestos Hazard Evaluation VII. Approximate Amount of A	venue, P.O. box 969 e: on/general): ytical methods, emploonfriable ACM: on Specialist: Randal Name	State: Telephone License # State: Telephone State: Telephone	e: ( ) e: ( )	Zip Co Fax: ( Zip Co Fax: ( of and to estimate	37) 497-6870  de: )  the quantity of 1	RACM and	
	RACM to be	Removed		pestos Material to emoved		sbestos Material be Removed	
			Category I	Category II	Category I	Category II	
Pipes (linear feet)				330 l.f. of electrical wire			
Surface Area (square feet)							
Facility Components (cubic feet)							
VIII. Scheduled Dates Demolition or Renovation: Start: Complete:							
IX. Dates for Asbestos Removal (MM/DD/YY) Start: Complete:						1	
Days of the Week: Monda	ny Tuesday	Wednesday	y Thursday	Friday	Saturday	Sunday	
Hours of Operation:							
Complete all unshaded spaces, exce spaces VII, XI,XII,XIII,XIV, and X						I, need not complete	

## OHIO ENVIRONMENTAL PROTECTION AGENCY NOTIFICATION OF DEMOLITION AND RENOVATION

Page 2 of 2

X. Description of planned Demolition or Renovation work to be performed and method(s) to be employed, including demolition or renovation techniques to be used and description of affected facility components:							
XI. Description of work practices and engineering controls to be used to comply with the requirements, including asbestos							
removal and waste handling emission control procedures:							
XII. Waste Transporter #1							
Name:							
Address:							
City:	State:	Zip Code:					
Contact:	Contact: Telephone: ( ) Fax: ( )						
Waste Transporter #2 Name:	Waste Transporter #2						
Address:							
City:	State:	Zip Code:					
Contact:	Telephone: ( )	Fax: ( )					
XIII. Waste Disposal Name:							
Address:							
City:	State:	Zip Code:					
Contact:	Telephone: ( )	Fax: ( )					
<ol> <li>Attach a copy of the Order to this notice.</li> <li>Name of Authority Issuing Order: Title:</li> <li>Authority of Order (Citation of Code):</li> <li>Date of Order (MM/DD/YY): Date Ordered to Begin:</li> <li>Emergency Renovation (Attach separate sheet with the following information if project is Emergency Reno.)</li> <li>Date and Hour of the Emergency</li> <li>Description of the Sudden, Unexpected Event</li> <li>Explanation of how the event caused unsafe conditions or equipment damage or an unreasonable financial burden.</li> </ol>							
VVI D							
XVI. Description of procedures to be followed in the event that unexpected RACM is found or nonfriable ACM becomes crumbled, pulverized or reduced to powder.							
XVII. I certify that an individual trained in the provisions of NESHAPS (40 CFR PART 61, SUBPART M) will be on-site during the Demolition or Renovation and evidence that the required training has been accomplished by this person will be available during normal business hours.							
Signature of Owner/Operator	Date	Type or Print Name and Title					
XVIII. I acknowledge the existence of laws prohibit		Type or Print Name and Title					
contained in this notification are true, accurate, and		unig statements and I certify that facts					
Signature of Owner/Operator	Date	Type or Print Name and Title					
Original Notification must be mailed or hand delivered at le		* *					
hegins except emergency demolitions and emergency renov							

(Form Revised 11/12/97)

## ATTACHMENT VII INSPECTOR CERTIFICATIONS





