Roanoke County Schools

Three Year AHERA Reinspection

Glenvar High School Facility 003

Reinspection Date: February 12, 2008

Baratta & Associates, Inc PO Box High School 293 Vinton, Virginia 24179 540-890-4875

Michael Baratta, PE

Virginia Asbestos Inspector License: 3303-000065

Virginia Asbestos Management Planner License: 3304-000208

Baratta & Associates, Inc.

Virginia Department of Education Energy and Facilities Service LEA Roanoke County Schools
School 003 Glenvar High School
Building Main

SCHOOL BUILDINGS

Location	Circon	Check here for the presence of:			No ACBM
	ACI	ВМ	1	-	
	Friable	Non- friable	Friable	Non- friable	
4549 Malus Drive Salem, VA 24153	X	X			
		Friable 4549 Malus Drive X	4549 Malus Drive X X	Friable Non-friable 4549 Malus Drive X X	Friable Non-friable Non-friable 4549 Malus Drive X X

		Ma				
Inspector:			21		110	
Name: Michael Baratta	_Signature/		- ~	Date_	2/22/09	
Accreditation Number: 3303	000065 Age	ency: Virginia I	OPOR			

Virginia Department of Education Energy and Facilities Services

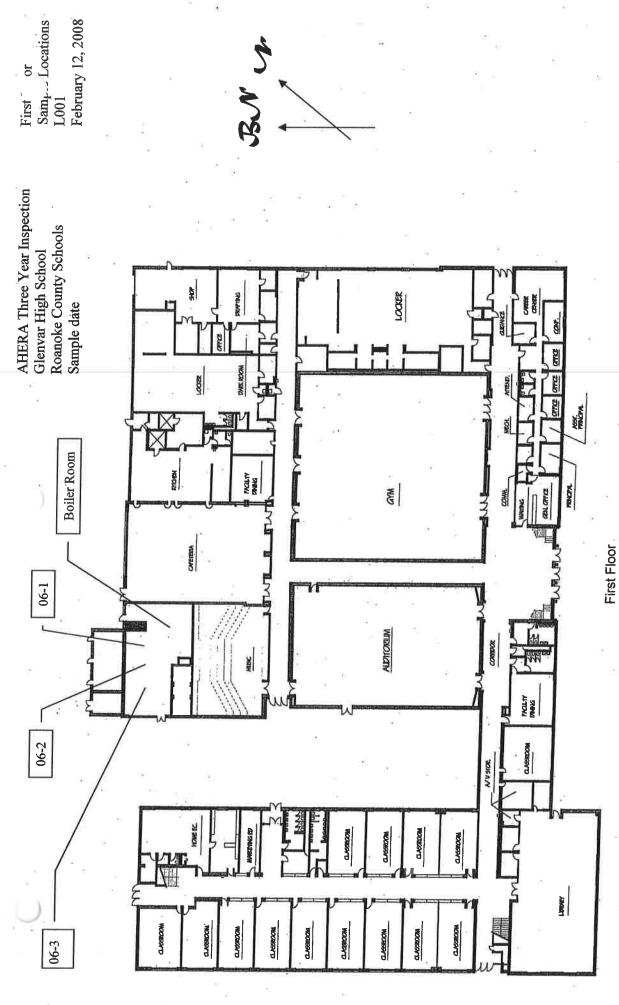
LEA	Roanoke County Schools	
School:	003 Glenvar High School	
Buildi	ng: Main	

DETERMINATION OF EACH SAMPLE AREA

The asbestos containing boiler TSI (06) was reported removed in October 1991. Samples 06-1, 06-2 and 06-3 were taken to confirm this fact. Some inconsistency existed regarding the lay-in ceiling (LIC). H-K sample 24 (HA-03) tested positive but was not picked up in the H-K damage category or removal estimate documentation. This sample had come from the career center / guidance area. A gypsumboard ceiling now occupies that area. We designated the LIC in the SW corner of the second floor HA-11 and obtained two (2) samples of this product.

Homogeneous Area	Material	Sample Number	Location
06	Boiler TSI	06-1	Boiler 1, south side
		06-2	Boiler 2, south side
		06-3	Boiler 3, south side
10	Floor light wire	10-1	Auditorium ceiling space
	insulation	10-2	Auditorium ceiling space
11	LIC 2' x 2', random	11-1	208D, center of room
	pattern	11-2	208C, center of room

		MMA		/ /	
Name: Michael Baratta	Signature	1111111	Date	2/22/08	
Accreditation Number: 330	3 000065 A	gency: Virginia DPOR			



*Positive Samples in Bold

Baratta & Associates, Inc. Inspection Engineers P.O. Box 293 Vinton, VA 24179

HA-06 Boiler TSI Samples 06-1, 06-2, 06-3 February 12, 2008

L001

Second Floor Sample Locations

AHERA Three Year Inspection

Glenvar Hig h School Roanoke County Schools Sample date:

Baratta & Associates, Inc. Inspection Engineers P.O. Box 293 Vinton, VA 24179

HA. 11 LIC 2'x2', random pattern Samples 11-1, 11-2

Room 208D

Room 208C

11-2

Document E.1

Virginia Department of Education Energy and Facilities Services LEA Roanoke County Schools

School: 003 Glenvar High School

Building: Main

Sample Date: February 12, 2008

BULK SAMPLE ANALYSIS

Analysis Date: February 13, 2008
Analysis Method: PLM EPA 6000/M4-82-020

Homogeneous Area	Sample Number	Material	Asbestos Content
06	06-1	Boiler TSI	NAD
	06-2		NAD
	06-3		NAD
10	10-1	Floor light wire insulation	75 % chrysotile
	10-2		70 % chrysotile
11	11-1	LIC 2' x 2', random pattern	NAD
	11-2		NAD

NAD – no asbestos detected

See attached AmeriSci PLM Bulk Asbestos Report Number 108021377

Name: Michael Baratta Signature Date Vz 8/69
Accreditation Number: 3303 000065 Agency: Virginia DPOR



AmeriSci Richmond

13635 GENITO ROAD MIDLOTHIAN, VIRGINIA 23112 TEL: (804) 763-1200 • FAX: (804) 763-1800

PLM Bulk Asbestos Report

Baratta & Associates, Inc. Attn: Michael Baratta 1150 Shady Run Road

Date Received

02/13/08

AmeriSci Job #

108021377

Date Examined 02/13/08

P.O. # Page

of

RE: L001; Glenvar High School; AHEM

Vinton, VA 24179

Client No. / HGA	Lab No	o. Asbestos Present	Total % Asbestos
06-1	108021377 Location: Boiler TSI	7-01 No	NAD (by CVES) by William M. Dunstan
Asbestos Typ	on: Gray, Heterogeneous, Non-Fibrous es: lal: Fibrous glass 40 %, Non-fibrous 60		on 02/13/08
06-2	108021377		NAD
JO-2	Location: Boller TSI	15 3	(by CVES) by William M. Dunstan on 02/13/08
Asbestos Typ	on: Gray, Heterogeneous, Non-Fibrous, es: ial: Fibrous glass 40 %, Non-fibrous 60		
06-3	108021377 Location: Boiler TSI	7-03 No	NAD (by CVES) by William M. Dunstan on 02/13/08
Asbestos Typ	on: Gray, Heterogeneous, Non-Fibrous es: lal: Fibrous glass 40 %, Non-fibrous 60		
0-1	108021377 Location: Wire Insulation	7-04 Yes	75 % (by CVES) by William M. Dunstan on 02/13/08
Asbestos Typ	on: White, Heterogeneous, Fibrous, Bu es: Chrysotile 75.0 % ial: Cellulose 20 %, Non-fibrous 5 %	lk Material	
10-2	108021377	7-05 Yes	70 %
	Location: Wire Insulation	ā.	(by CVES) by William M. Dunstan on 02/13/08
Asbestos Typ	on: White, Heterogeneous, Fibrous, Bu es: Chrysotile 70.0 % lal: Fibrous glass 25 %, Non-fibrous 5		

AmeriSci Job #: 108021377

Client Name: Baratta & Associates, Inc.

PLM Bulk Asbestos Report

L001; Glenvar High School; AHEM

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
11-1 Location: La	108021377-06 ay In Ceiling	No	NAD (by CVES) by William M. Dunstan on 02/13/08
Asbestos Types:	terogeneous, Fibrous, Bulk Materla	brous 30 %	NAD
11-2 Location: La	108021377-07 ay In Ceiling	No	(by CVES) by William M. Dunstan on 02/13/08
Asbestos Types:	terogeneous, Fibrous, Bulk Material 30 %, Fibrous glass 40 %, Non-fil	3.	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7

Reporting Notes:

Analyzed by: William M. Dunstan

Date

Date

VICES

Analyzed by: William M. Dunstan

Date

Date

VICES

NAD = no asbestos detected, Detection Limit <1%, Reporting Limits: CVES = 1%, 400 Pt Ct = 0.25%, 1000 Pt Ct = 0.1%; "Present" or NVA = "No VIsible Asbestos" are observations made during a qualitative analysis; NA = not analyzed; NA/PS = not analyzed / positive stop; PLM Bulk Asbestos Analysis by EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab Code 101904-0) and ELAP PLM Analysis Protocol 198.1 for New York friable samples (198.6 for NOB samples)(NYSDOH ELAP Lab # 10984); CA ELAP Lab # 2508; Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar NOB materials. NAD or Trace results by PLM are inconclusive, TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in New York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). NIST Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the laboratory. This PLM report relates ONLY to the items tested.

Reviewed By:

Baratta & Associates, Inc.

P.O. Box 293 Vinton, Virginia

LEA	Roanoke County Schools		
School	003 Glenvar High School		
Building	Main		

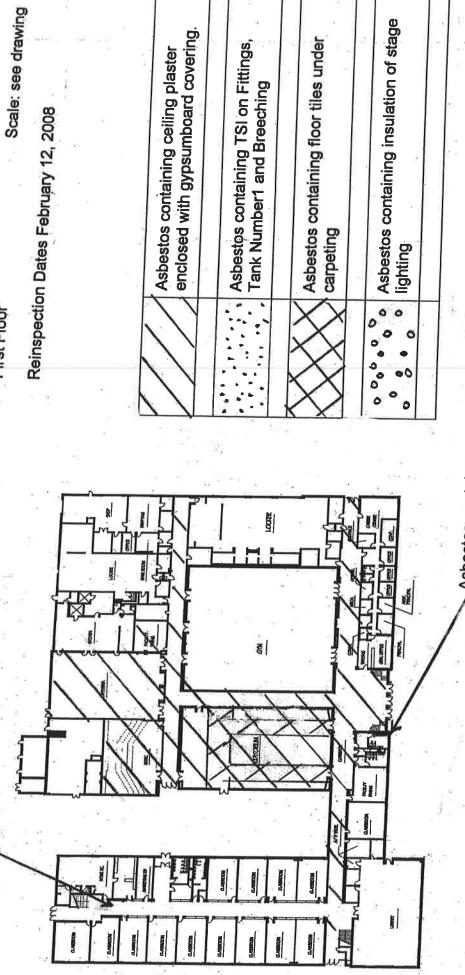
REASSESSMENT OF MATERIALS

Past or Initial Assessment: Hall-Kimbrell April 1989

Accreditation Number: 3303 000065 Agency: Virginia DPOR

Homogeneous	Description	Past	Reassessment
Area		Assessment	Category #
		Category #	
02	Hard plaster	Non-ACM	Non-ACM
03	Lay-in Ceiling Panels (LIC)	Non-ACM	Removed
04	Acoustical ceiling plaster (note 1)	1	6
05	Floor tile (note 2)	5	5
06	Boiler TSI	1	Removed
			Non-ACM
07	Breeching TSI	1	1
08	Fitting TSI	1	1
09	Tank TSI (note 3)	1	1
10	Stage lighting wire insulation	Not evaluated	5
11	LIC 2' x 2'random pattern	Not evaluated	Non-ACM

Note 1	Acoustical ceiling plaster (04) is enclosed behind a gypsumboard enclosure
Note 2	Carpeting had been placed atop of the asbestos containing floor tile in the auditorium
Note 3	Tanks 1 & 2 have been removed from the Boiler Room. TSI-ACM remains on Tank 1
AHERA - Phy	rsical Assessment Categories - 763.88(a)(2)(b)
1	Damaged or significantly damaged TSI-ACBM
2	Damaged friable surfacing ACBM
3	Significantly damaged friable surfacing ACBM
4	Damaged or significantly damaged friable miscellaneous ACBM
5	ACBM with potential for damage
6	ACBM with potential for significant damage
7	Any remaining friable ACBM or friable suspect ACBM
Inspector:	
Name: Micha	el Baratta Signature // Date 2/22/09



LOCATION OF ACBMs

removed from this hall in Summer of Asbestos containing ceiling plaster

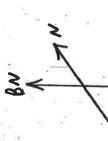
1999

Glenvar High School

First Floor

"Asbestos containing fitting muds in bathroom chases - Typical

First Floor



Scale: see drawing Asbestos containing insulation of stage enclosed with gypsumboard covering. Asbestos containing TSI on Fittings, Asbestos containing floor tiles under Asbestos containing ceiling plaster Tank Number1 and Breeching Reinspection Dates February 12, 2008 carpeting lighting Second floor 0 Asbestos containing fitting muds in 0 0000 ٥ ٥ bathroom chases - Typical ٥ 00 Second Floor MODEO!

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Glenvar High School

LOCATION OF ACBMs

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Virginia Department of Education Energy and Facilities Service

LEA	Roanoke County Schools
School	003 Glenvar High School
Building:	Main

RESPONSE ACTIONS RECOMMENDED

Total cost to remove \$247,000

Each Location	Recommended Response Actions	Scheduled To Begin	Scheduled To Be Completed	Est. Cost To Remove
Surface Ceiling Material	Monitor for any future damage. Place in O & M plan until other needs require the ceiling to be removed	none	none	\$200,000
Floor Tile	Place in O & M plan until other needs require the floor tile to be removed	none	none	10,000
TSI in Boiler Room (Breeching, Fittings and Tank Number 1)	Repair damaged TSI. Place in O & M plan until other needs require the TSI be removed	none	none	\$25,000
Fitting TSI in Bathroom Chases	Remove damaged TSI	none	none	\$10,000
Stage Lighting	Place in O & M plan until other needs require the fixtures need to be removed	none	none	\$2,000

	//////		
Management Planner:	111111111111111111111111111111111111111		1 1
Name: Michael Baratta Signature	1/10100	Date_	2/22/09
Accreditation Number: 3304 000208	Agency: Virginia DPOR		

ASBESTOS MANAGEMENT, OPERATIONS AND MAINTENANCE PLAN

Glenvar High School

February 15, 2008

This Asbestos Management Operations and Maintenance Plan is based on the three year AHERA Reinspection performed by Baratta & Associates, Inc on February 12, 2008. It covers procedures to be followed in dealing with the Asbestos-Containing Materials (ACMs) found in the Glenvar High School.

SUMMARY

The thermal system insulation (TSI) on the boilers was removed in 1991. The asbestos containing TSI remains on the breeching, fittings and on Tank Number 1. Some of these items are damaged. We recommend the damaged areas be repaired.

Damaged fitting muds were observed in the bathroom chases. Access to these chases should be limited until the damaged fitting TSIs are abated.

The asbestos ceiling in the west wing on the first floor was removed in 1999. The balance of the asbestos containing ceiling plaster is enclosed with a gypsumboard covering. This protects it from further damage.

Asbestos floor tiles exist under the carpeting in the auditorium. The floor tiles are non-friable and protected by the carpet.

The wiring on some of the flood lights in the auditorium ceiling space were found to be insulated with asbestos containing insulation. Since few people enter this space, general asbestos hazard does not exist.

STAFF NOTIFICATION

The School should send all staff members a brief notice stating that Asbestos-Containing Materials exist in the building.

ACM IDENTIFICATION

The following products were found to be Asbestos-Containing Materials (ACMs):

Homogeneous Area	•	
04	Acoustical ceiling plaster	_
05	Floor tile under carpeting	
07	Breeching TSI	
08	Fitting TSI	
09	Tank TSI	
10	Stage lighting wire insulation	

CARE OF THE ASBESTOS CONTAINING CEILING PLASTER

This plaster is found in some of the halls, auditorium and cafeteria areas. It has been enclosed behind a gypsumboard enclosure thus protecting it from physical damage. In its current condition, it does not present an asbestos related health hazard to the building occupants.

Do not drill or hang any objects from the ceiling.

If you notice the ceiling is water stained or shows other signs of damage, please report it to the principal so appropriate actions can be taken.

CARE OF THE THERMAL SYSTEM INSULATION (TSI)

Repair the damaged areas. Once the damaged areas are repaired, an asbestos waning sticker should be applied to the tanks and breeching. If any of the lagging experiences additional damage, the damaged TSI should be removed.

Damaged fitting muds were noted in the chases between the bathrooms. The chase accesses should be sealed. An asbestos warning sign should be placed on the door until the damaged fittings are removed.

Any patching, repair work or removal should be carried out by a licensed asbestos abatement contractor.

CARE OF THE FLOOR TILES

These are found under the carpet in the auditorium. No drilling, sanding, or other abrasive or penetrating activities shall be used on the asbestos containing floor tiles. To do so may release asbestos fibers into the environment.

The floor tiles are tough, non-friable and covered with carpeting. It is doubtful anything other than forceful vandalism will deteriorate this material to a point where significant fiber release will occur.

CARE OF STAGE LIGHTING

The wiring on some of the stage lighting in the auditorium ceiling space is insulated with asbestos containing materials. Care should be taken not to dislodge any of the insulation while adjusting these lights.

When the light fixtures are retired, they should be disposed of as asbestos containing waste.

PERMIT REQUIREMENTS

Before any work that may require the disturbance of the noted Asbestos Containing Materials is performed, maintenance personnel or contractors shall obtain an Asbestos Work Area Permit from the School System's Asbestos Program Manager.