

Coast Environmental Training Services

AR_N00247_000606
NTC SAN DIEGO
SSIC NO. 5090.3.A

June 1, 2000

ATTN: Dove Clancy
Critical Cleaning Services, Inc.
1760 Palm Avenue, Suite D
San Diego, CA 92154

Re: Revised report for Building 443, Naval Training Center, San Diego - IR site 15

Dear Ms. Clancy:

On May 16, 1999, Mr. Henry Lee & Ms. Cindi Randall, representatives of Coast Environmental Training Services (CETS) conducted a building inspection at the above referenced location to determine the presence of asbestos containing materials (ACM) and lead based paint (LBP).

Below is a breakdown of materials found to contain ACM:

Building 443

<u>Location</u>	<u>Description</u>	<u>Asbestos</u>	<u>Percentage</u>	<u>Approximate Square Feet</u>
Restroom	12x12 FT/Mastic	Chrysotile	2-4%	100
Room 6	12x12 FT/Mastic	Chrysotile	2-4%	750
Room 5	12x12 FT/Mastic	Chrysotile	2-4%	500
Room 4	12x12 FT/Mastic	Chrysotile	2-4%	525
Room 2	12x12 FT/Mastic	Chrysotile	2-4%	120
Room 1	12x12 FT/Mastic	Chrysotile	2-4%	550
Boiler	Rope	Chrysotile	60%	40 linear ft.
Boiler	Boiler Compound	Chrysotile	95%	15
Room 4	Pipe Insulation	Chrysotile	90%	5
Roof	Penetration Mastic	Chrysotile	4%	40
Exterior	Stucco Color Coat	Chrysotile	2%	3300

On May 25th, 2000, Ms. Dove Clancy, submitted an additional bulk sample of the exterior stucco to JMR Environmental Laboratories to have a layer by layer analysis conducted. The results were <1% Chrysotile asbestos found only in the color coat. Additional samples were submitted to H.M. Pitt Laboratories on May 26th, 2000 for a

Critical Cleaning Services, Inc.
Asbestos & Lead Survey

Building 443, Naval Training Center
Page 1

layer by layer analysis by Coast Environmental Training Services. The results were .22% and .5% Chrysotile asbestos in the color coat only. Enclosed are the results of the additional testing.

It is the consensus of the three testing laboratories, two asbestos consultants and a Certified Industrial Hygienist that the <1% asbestos detected in the latter samples best represent the entire stucco wall system. As stated in a previous letter special care should be undertaken when demolition occurs on the exterior stucco. The use of wet methods shall apply and color coat material shall be bagged and disposed of separately from the remaining wall system, especially if concrete material is to be recycled. Color coat material can be disposed of as building debris due to the <1% reading.

The boiler rope, boiler compound and pipe insulation located in the facility was determined to be friable. The double layer floor tile & mastic and roofing penetrations are considered to be non-friable. Materials can remain in place, however if renovation or demolition occurs friable material will need to be removed prior to demolition by a licensed abatement contractor.

The floor tile and roof mastic can remain in place, however if renovation occurs materials will need to be removed by a licensed abatement contractor. If building is to be demolished materials can remain in place during demolition, however if certain materials are to be recycled, they must be removed prior to the recycling. If materials are not recycled wet methods shall be utilized during demolition and workers shall have at least 8 hours of Asbestos Awareness Training and supervised by an AHERA Certified Supervisor on the site at all times.

Below is a breakdown of materials found to contain LBP:

<u>Location</u>	<u>Description</u>	<u>Percentage</u>
Steam Press	Brown Paint	.20%
Boiler Room	White/Green Paint	.06%

On the three steam press machines there is approximately 45 square feet surface lead based paint. Paint is intact and not subject to the guidelines for scraping. In the boiler room the walls are covered with lead based paint and due to the condition of the paint, removal of the peeling, flaking and chipping paint is required

HUD guidelines regulate LBP at .5% by weight and Cal/OSHA regulates lead based paint removal at .06% by weight. If renovations or demolition have an impact on the LBP, all loose and flaky paint will need to be wet scraped and disposed of properly. Workers will need to be properly trained for LBP removal and utilize proper techniques as described in Title 8 CCR 1532.1 Lead in Construction as per California regulations.

Enclosed you will find the results of the samples collected of asbestos containing material and lead based paint.

All light fixtures in the facility were checked for PCB's and information gathered from the fixtures themselves state that they are PCB free.

If you have any questions, please feel free to contact our office at (619) 258-9785.

Sincerely,

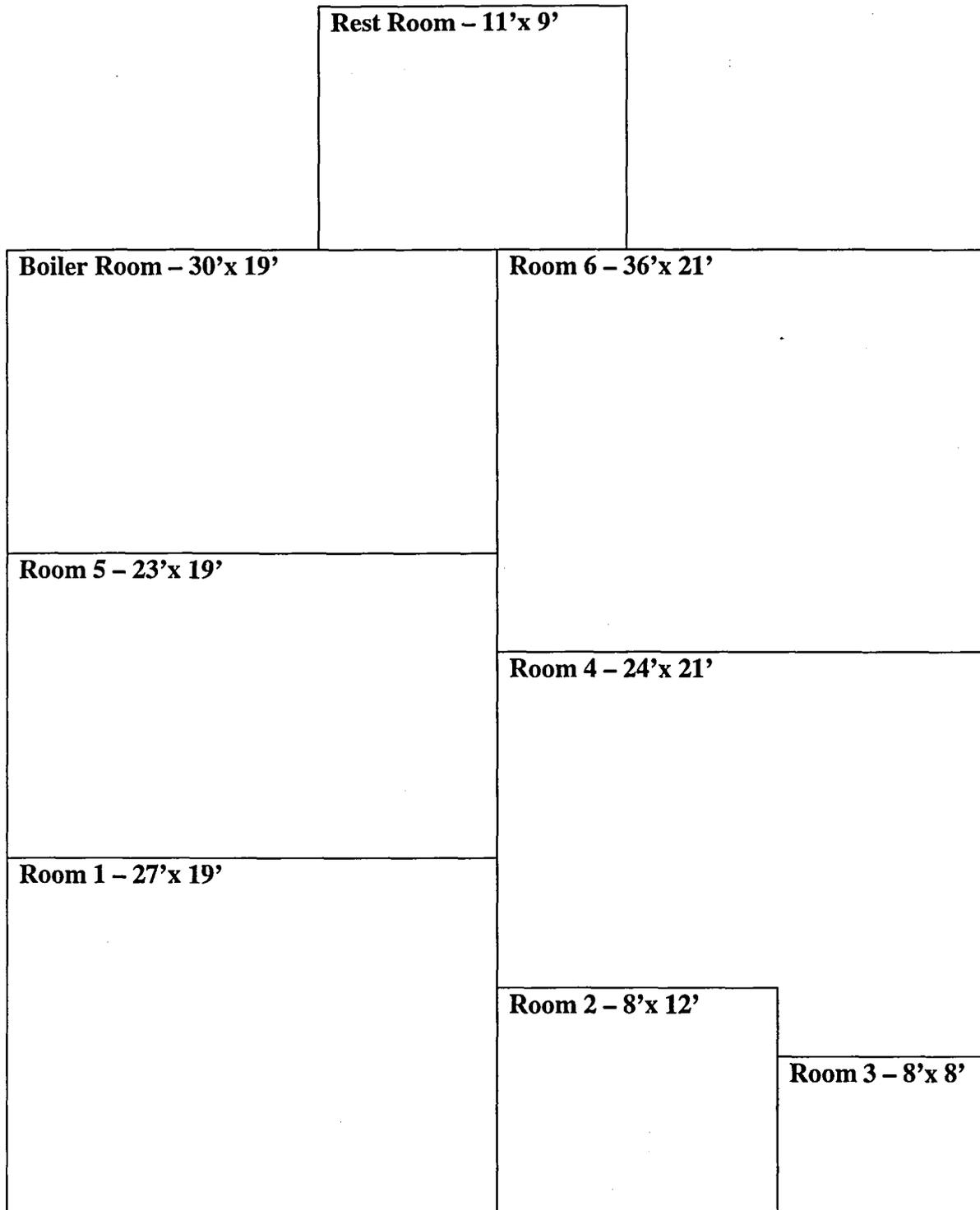


Cindi Randall
Certified Asbestos Consultant
CA: #94-1343

Sample Locations and Descriptions

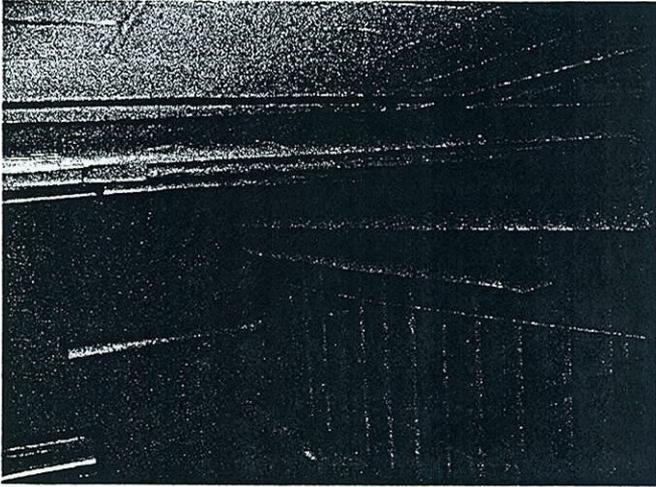
Sample #	Sample Location	Material Sampled
1	Room 4 SW Wall	12 x 12 FT/Mastic – 2 Layers
2	Room 6 SW Wall	12 x 12 FT/Mastic – 2 Layers
3	Room 5 Center	12 x 12 FT/Mastic – 2 Layers
4	Room 4 SW Wall	Cove Base Glue
5	Room 6 SW Wall	Cove Base Glue
6	Room 6 NW Wall	Cove Base Glue
7	Room 6 Overhead Pipe	Pipe Wrap
8	Room 6 Overhead Pipe	Pipe Wrap
9	Room 6 Overhead Pipe	Pipe Wrap
10	Boiler Room (boiler)	Interior Boiler Rope
11	Boiler Room (boiler)	Interior Boiler Rope
12	Boiler Room (boiler)	Interior Boiler Rope
13	Boiler Room (boiler)	Boiler Gasket
14	Boiler Room (boiler)	Boiler Gasket
15	Boiler Room (boiler)	Boiler Gasket
16	Boiler Room (boiler)	Boiler Compound
17	Boiler Room (boiler)	Boiler Compound
18	Boiler Room (boiler)	Boiler Compound
19	Room 6 NE wall	Drywall/Mud
20	Room 4 NW Wall	Drywall/Mud
21	Room 6 East Center	Drywall/Mud
22	Room 4 (shirt steamer)	Pipe Wrap
23	Room 4 (shirt steamer)	Pipe Wrap
24	Room 4 (shirt steamer)	Pipe Wrap
25	Exterior East	Window Putty
26	Exterior East	Window Putty
27	Exterior East	Window Putty
28	Roof East	Rolled Roofing
29	Roof Center	Rolled Roofing
30	Roof West	Rolled Roofing
31	Roof Exhaust Vent West	Penetration Mastic
32	Roof Exhaust Vent Center	Penetration Mastic
33	Roof Exhaust Vent East	Penetration Mastic
34	Entrance East	Exterior Stucco
35	Restroom West	Exterior Stucco
36	South Wall	Exterior Stucco

Building 443, Naval Training Center (NTC)

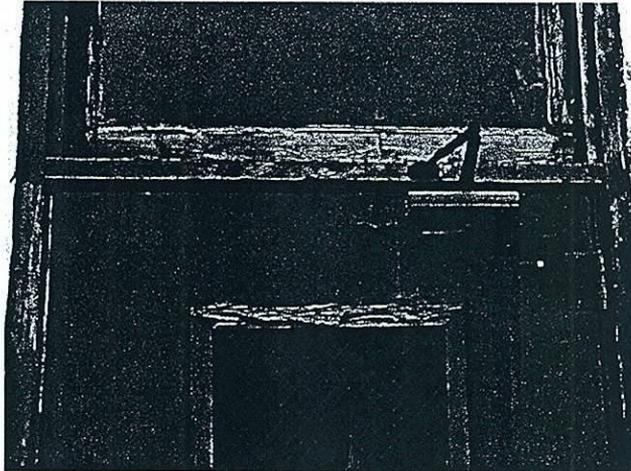
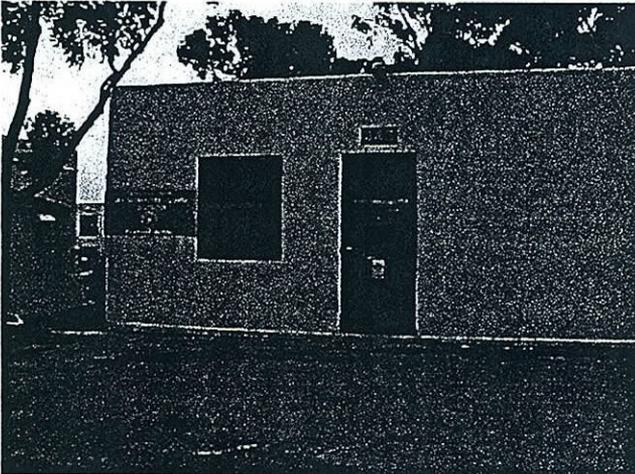


N.T.C. BUILDING 443

ROOM 1 HAS THE FOLLOWING:

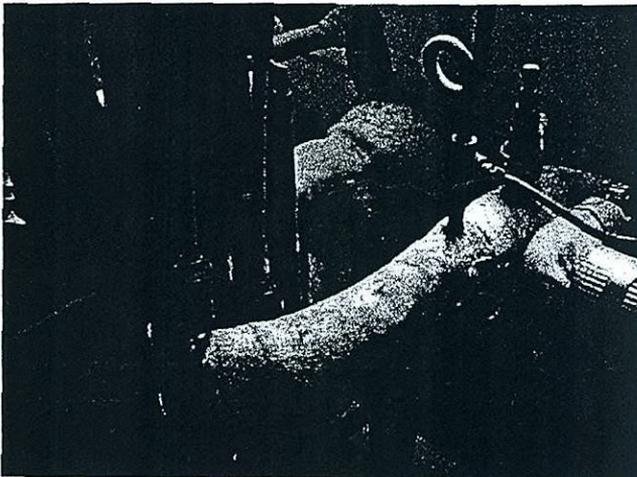
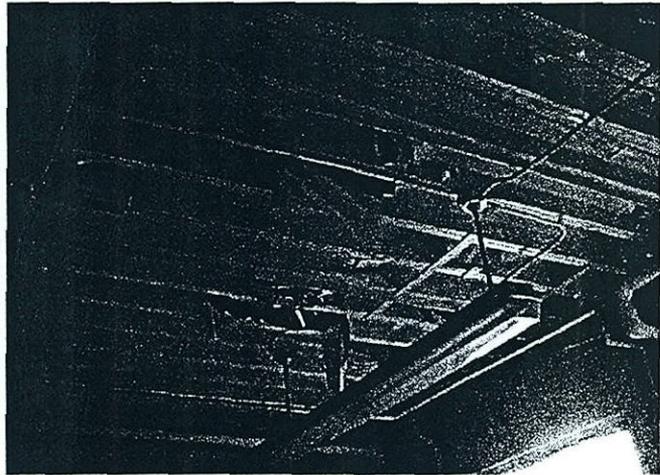
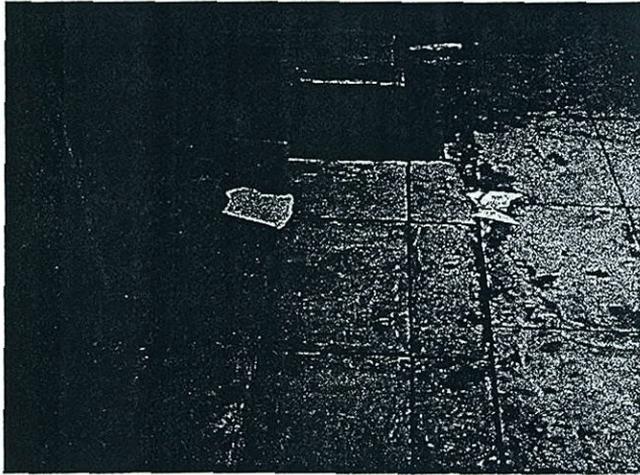
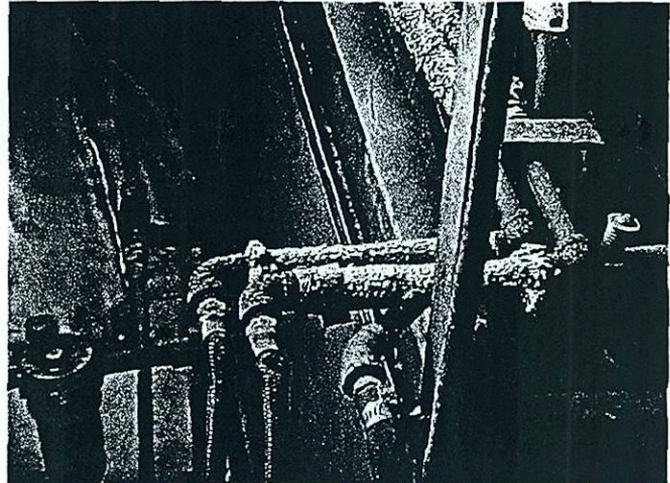
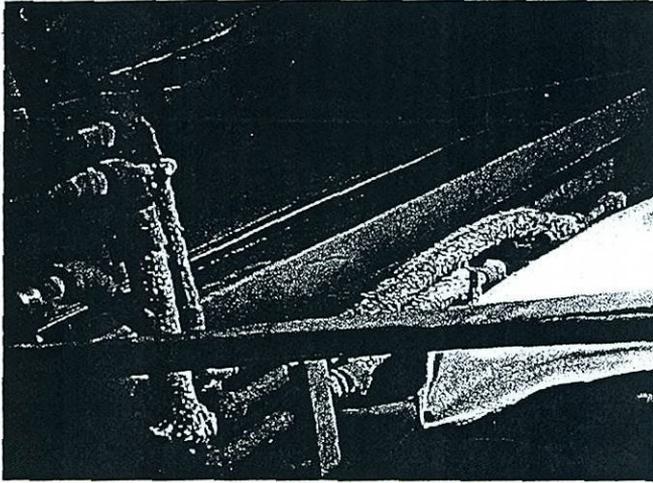


FRONT DOOR OF EAST-SIDE OF BUILDING



N.T.C. BUILDING 443

ROOM 6 HAS THE FOLLOWING:



ABM ENVIRONMENTAL LABORATORIES, INC.

Analytical • Environmental • Industrial Hygiene • Consulting

Lab Report # 201006

DATE: May 18, 2000

CLIENT: Coast Environmental Training
10761 Woodside Ave., Suite E
Santee, CA 92071

SITE: Project: NTC Bldg 443

EVALUATION: NIOSH 7300 - METALS: TOTAL LEAD; ICP-AES

RESULTS:

CLIENT ID #	LAB ID #	SAMPLE LOCATION	DATE	UNIT	LEAD Pb	PDL
37	201006	Paint Chips, Red Paint	05/16/2000	mg/kg	223.3	0.1
38	201007	Paint Chips, Blue Paint	05/16/2000	mg/kg	84.8	0.1
39	201,007	Paint Chips, Brown Paint	05/16/2000	mg/kg	2,046.1	0.1
40	201,007	Paint Chips, Yellow Paint	05/16/2000	mg/kg	371.3	0.1
41	201,007	Paint Chips, Beige Paint	05/16/2000	mg/kg	93.7	0.1
42	201,007	Paint Chips, White Paint	05/16/2000	mg/kg	136.9	0.1
43	201,007	Paint Chips, White/Green Paint	05/16/2000	mg/kg	583.0	0.1

Samples analyzed as submitted

Submitted on 05/16/2000

APPROVED: 
Andrew Moroz, MSChE
Laboratory Director

ABM ENVIRONMENTAL LABORATORIES, INC.
 1123 West Morena Blvd. Suite "B"
 San Diego, CA 92110
 ☎ (619) 276-1104, 279-8505
 FAX (619) 276-1205, 279-8211

CHAIN OF CUSTODY RECORD

Page _____ Of _____

CLIENT NAME: COAST ENVIRONMENTAL TRAINING SERVICES		PROJECT: <i>NTC Bldg 443</i>		ANALYSIS REQUESTED				SPECIAL HANDLING <input type="checkbox"/> Same Day Rush (plus 75%) <input checked="" type="checkbox"/> 24 Hours (plus 25%) <input checked="" type="checkbox"/> 48/72 Hours (REGULAR) <input type="checkbox"/> QA/QC Package Reporting Agency: _____ Method of Shipment: _____																																																																																	
ADDRESS: <i>10761 Woodside # E Santee</i>		PHONE #: <i>258-9785</i> <i>258-9759 fax</i>																																																																																							
PROJECT MANAGER:		SAMPLER: <i>Denny Lau</i>		P.O. #		<table border="1" style="width:100%; height:100%; border-collapse: collapse;"> <tr><td style="width:20px; height:20px;"></td><td style="width:20px; height:20px;"></td></tr> <tr><td style="width:20px; height:20px;"></td><td style="width:20px; height:20px;"></td></tr> <tr><td style="width:20px; height:20px;"></td><td style="width:20px; height:20px;"></td></tr> <tr><td style="width:20px; height:20px;"></td><td style="width:20px; height:20px;"></td></tr> <tr><td style="width:20px; height:20px;"></td><td style="width:20px; height:20px;"></td></tr> <tr><td style="width:20px; height:20px;"></td><td style="width:20px; height:20px;"></td></tr> <tr><td style="width:20px; height:20px;"></td><td style="width:20px; height:20px;"></td></tr> <tr><td style="width:20px; height:20px;"></td><td style="width:20px; height:20px;"></td></tr> </table>																																																																																			
LAB ID. #	DATE SAMPLED	TIME SAMPLED	SAMPLE TYPE ◆	SAMPLE DESCRIPTION	# OF CONT.	REMARKS																																																																																			
<i>201006</i>	<i>5-16-00</i>		<i>PT</i>	<i>37 Red</i>	<i>1</i>	<i>X</i>																																																																																			
<i>201007</i>	}			<i>38 Blue</i>	<i>1</i>	<i>X</i>																																																																																			
<i>201008</i>				<i>39 Brown</i>	<i>1</i>	<i>X</i>																																																																																			
<i>201009</i>					<i>40 yellow</i>	<i>1</i>	<i>X</i>																																																																																		
<i>201010</i>					<i>41 beige</i>	<i>1</i>	<i>X</i>																																																																																		
<i>201011</i>					<i>42 white</i>	<i>1</i>	<i>X</i>																																																																																		
<i>201012</i>					<i>43 white/green</i>	<i>1</i>	<i>X</i>																																																																																		
RELINQUISHED BY: <i>Denny Lau</i>		DATE/TIME <i>5-16/2:00 P.M</i>		RECEIVED BY: <i>Dennis Moran</i>		◆ = AQ - Aqueous; NA - Nonaqueous; SL - Sludge; DW - Drinking Water; WW - Wastewater; GW - Groundwater; SO - Soil; SW - Solid Waste; AF - Air Filters; WP - Wipes; PT - Paint Chips; OF - Oil or Fuel; OT - Other SAMPLE CONDITION: Precocled Y/N Preserved Y/N Evidence seals intact Y/N Preserved at Lab Y/N DISPOSITION OF SAMPLES: Pick Up by client Y/N Return Y/N Dispose by Lab ** Y/N ** Extra charge added																																																																																			
RELINQUISHED BY:		DATE/TIME		RECEIVED BY: MAY 16 2000																																																																																					
RELINQUISHED BY:		DATE/TIME		RECEIVED BY:																																																																																					
SPECIAL REQUIREMENTS OR INSTRUCTIONS:																																																																																									

Client: _____
 Address: _____
 Phone: _____
 Fax: _____

Coast Environmental Training

Submitted: _____
 Collected: _____
 Analysis: _____
 Inspector: _____
 Date: _____

Facility Name: Ntc
 Address: Bldg 443

Building Survey Data Sheet

Sample #	Location	Material Type	Sq. / Ln. Ft.	Results
1	center rm South corner	Ft 12x12/mastic ^{2 Layers}	4006 \checkmark	
2	west room South	" "		
3	class rm #2 North	" "		
4	center rm South wall	COVE Glue	100 \checkmark	
5	west rm South wall	" "		
6	west rm SW corner	" "		
7	west rm North Center	pipe wrap	20 LF	
8	west rm North Center	" "		
9	west rm North Center	" "		

Sampled By: _____ Date: _____

Relinquished By: _____ Date: _____

Received By: _____ Date: _____

Analyzed By: _____ Date: _____

Client: _____
 Address: _____
 Phone: _____
 Fax: _____

Coast Environmental Training

Submitted: _____
 Collected: _____
 Analysis: _____
 Inspector: _____
 Date: _____

Facility Name: _____
 Address: _____

Building Survey Data Sheet

Sample #	Location	Material Type	Sq. / Ln. Ft.	Results
10	inside boiler (Boiler Rm)	Boiler Rope	40 <input checked="" type="checkbox"/>	
11	" boiler "	" "		
12	" boiler "	" "		
13	" boiler "	Gasket material (ACM)	10 <input checked="" type="checkbox"/>	
14	" boiler "	" " "		
15	" boiler "	" " "		
16	" boiler	Boiler Compound	10 LF	
17	" boiler	" "		
18	" boiler	" "		

Sampled By: _____ Date: _____

Relinquished By: _____ Date: _____

Received By: _____ Date: _____

Analyzed By: _____ Date: _____

Client: _____
 Address: _____
 Phone: _____
 Fax: _____

Coast Environmental Training

Submitted: _____
 Collected: _____
 Analysis: _____
 Inspector: _____
 Date: _____

Facility Name: _____
 Address: _____

Building Survey Data Sheet

Sample #	Location	Material Type	Sq. / Ln. Ft.	Results
19	center wall west side	Drywall / mud / tape	100 #	
20	center wall east side	" " "		
21	center wall west center	" " "		
22	Shiat Steamer west	4CM Pipe wrap		3 #
23	Shiat Steamer center	" " "		
24	Shiat Steamer east	" " "		
25	East Building window (S)	window putty		5 #
26	East Building window (center)	" "		
27	East Building window (north)	" "		

Sampled By: _____ Date: _____

Relinquished By: _____ Date: _____

Received By: _____ Date: _____

Analyzed By: _____ Date: _____

Client: _____
 Address: _____
 Phone: _____
 Fax: _____

Coast Environmental Training

Submitted: _____
 Collected: _____
 Analysis: _____
 Inspector: _____
 Date: _____

Facility Name: _____
 Address: _____

Building Survey Data Sheet

Sample #	Location	Material Type	Sq. / Ln. Ft.	Results
28	Roof - East	Roofing Material		
29	Roof - Center	" "		
30	Roof - West	" "		
31	Exhaust vent - west	Penetration mastic	40 Δ	
32	Center - Exhaust vent	" "		
33	Exhaust vent - East	" "		
34	East entrance door	Stucco	3362 Δ	
35	West Restroom wall	"		
36	South Building wall	"		

Sampled By: _____ Date: _____
 Relinquished By: _____ Date: _____
 Received By: _____ Date: _____
 Analyzed By: IBM Date: _____

Client: C.C. SERV. INC.
 Address: _____
 Phone: 619-424-3220
 Fax: _____

Coast Environmental Training

Submitted: _____
 Collected: *Denny Lee / [Signature]*
 Analysis: _____
 Inspector: _____
 Date: 5-16-00

Facility Name: NTC
 Address: Bldg 443

Building Survey Data Sheet

Sample #	Location	Material Type	Sq. / Ln. Ft.	Results
37	Electrical Rm	PAINT Red		
38	EAST ENTRANCE DOOR FRAME	Blue		
39	Steam Press #1	Brown		
40	Southside exterior	yellow		
41	interior Door	Beige		
42	ceiling west	white		
43	Boiler Room South wall	white/Green		

Sampled By: _____ Date: _____

Relinquished By: _____ Date: _____

Received By: _____ Date: _____

Analyzed By: _____ Date: _____

**JMR** Environmental Services, Inc.

Coast Environmental
Cindi Randall
10761 Woodside Avenue #E
Santee, CA 92071



1-23-052500-A
05/26/00

A bulk sample analysis was performed by JMR Environmental Services Inc. on 05/25/00. Two sample(s) submitted and identified by the Client on 05/25/00 from NTC Building 443.

Project:

The samples described above were analyzed for asbestos content. Results are expressed in approximate percent of each type of asbestos present. Results included in this report are representative of the submitted samples only.

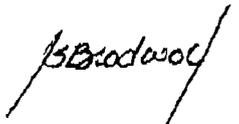
Procedure:

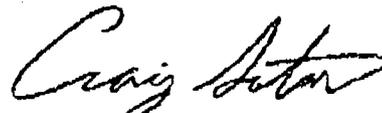
Sample analysis of bulk materials was performed in accordance with procedures described in Appendix A, 'Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples', published in 40 CFR Ch. I (7-1-91 edition) Pt. 763, Subpart F App. A, pages 293 - 299. This procedure involves examination of the samples with a petrographic microscope utilizing polarized light, a procedure commonly known as polarized light microscopy (PLM).

JMR Environmental Services Inc. appreciates the opportunity to provide these services.

This report shall not be reproduced, except in full, without prior authorization by JMR, and shall not be used by client to claim NVLAP or U.S. Government product endorsement.

Prepared by:


Laboratory Analyst


Craig Sobotka
Laboratory Manager

1-23-052500-A
05/26/00

Results:

Sample Number	Sample ID	Type of Asbestos Present	Total Percentage by Volume	Other Materials Present		Gross Appearance
20354	1; NTC Building 443 Stucco - Finish Coat West Side	Chrysotile	<1%	Cellulose Paint Quartz Clay	<1%	Layered Fibrous Lt Yel/Lt Org Non-Friable
20355	2; NTC Building 443 Stucco - Concrete West Side	None Detected		Cellulose Quartz Clay	<1%	Homogenous Fibrous Gray

20354-2

JMR ENVIRONMENTAL SERVICES, INC.
3491 Kurtz Street
San Diego, CA 92110-4130
Tel: (619) 222-0544 Fax: 224-7260

BULK ASBESTOS CHAIN OF CUSTODY

Project Name:	Company Name: <u>COBE ENVIRON</u>	Phone #:
Job Address:	Attention:	Fax #:
JMR Job #:	Address:	Client Job #:
Collected By & Date:	City, State, Zip:	Client PO#:

RUSH (Same Day)
 Next Day
 Two Days
 Normal (5 Days)

Lab #	Sample #	Materials Sampled	Location	Results
20354	1.	stucco-finish coat	NTC Bldg 443 W. SIDE	<1% chrysotile
20355	2.	stucco-concrete	⚡	None detected

Relinquished By: Dave C. [Signature]
 Date: 5-25-00 Time: 1:20
 Received By: [Signature]
 Date: 5-25-00 Time: 1:20

Comments:

SOUTHLAND LABS, INC.

2434 Southport Way, Suite L & M - National City, CA 91950 - (619) 474-8548

LAB#: 25934-1

Company: Coast Environmental Training

Site: Bldg 443

Comments: Analysis by EPA 1000 Point Count

Report Date: 05/30/2000

Date Analyzed: 05/30/2000

Date Received: 05/26/2000

P.O.#: NA

Job #: NA

Sampler: Henry Lhu

Analyst: Leland S. Pitt

EVALUATION: Polarized Light Microscopy

SAMPLE NUMBER: 25934-1-1

CUSTOMER SAMPLE NUMBER: 1

SAMPLE DESCRIPTION: north stucco

DATE SAMPLED: 05/26/00

RESULTS: Asbestos: 0.2% friable chrysotile

SAMPLE NUMBER: 25934-1-2

CUSTOMER SAMPLE NUMBER: 2

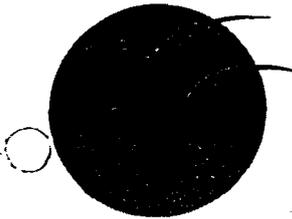
SAMPLE DESCRIPTION: south stucco

DATE SAMPLED: 05/26/00

RESULTS: Asbestos: 0.5% friable chrysotile

APPROVED BY:

Leland S. Pitt 5/30/00
LELAND S. PITT, CIH



*Coast Environmental
Training Services*

Bulk Sample Analysis Report

Client: Critical Cleaning Services, Inc.
1760 Palm Avenue, Suite D
San Diego, CA 92154
Attn: Dove Clancy

Job: 00-012-C

Samples Analyzed By JMR Environmental Services, Inc.

Building 443, Naval Training Center, San Diego
May 15, 2000

Lab ID#	Date	Description	Asbestos	Percentage
B-26147	5/16/00	12 x 12 FT/Mastic Room 4 SW Sample #01 (Double Layer)	Chrysotile Chrysotile Non-Fibrous	2% in Tile 4% in Mastic 94%
B-26148	5/16/00	12 x 12 FT/Mastic Room 6 SW Sample #02 (Double Layer)	Chrysotile Chrysotile Non-Fibrous	2% in Tile 4% in Mastic 94%
B-26149	5/16/00	12 x 12 FT/Mastic Room 5 Center Sample #03 (Double Layer)	Chrysotile Chrysotile Non-Fibrous	2% in Tile 4% in Mastic 94%
B-26150	5/16/00	Cove Base Glue Room 4 SW Wall Sample #04	N.D. Cellulose Non-Fibrous	2% 98%
B-26151	5/16/00	Cove Base Glue Room 6 SW Wall Sample #05	N.D. Cellulose Non-Fibrous	2% 98%
B-26152	5/16/00	Cove Base Glue Room 6 NW Wall Sample # 06	N.D. Cellulose Non-Fibrous	2% 98%

Continued on Page 2

Lab ID#	Date	Description	Asbestos	Percentage
B-26153	5/16/00	Pipe Insulation Room 6, Overhead Sample #07	N.D. Cellulose Fiberglass	5% 85%
B-26154	5/16/00	Pipe Insulation Room 6, Overhead Sample #08	N.D. Cellulose Fiberglass	5% 85%
B-26155	5/16/00	Pipe Insulation Room 6, Overhead Sample #09	N.D. Cellulose Fiberglass	5% 85%
B-26156	5/16/00	Boiler Rope Inside Boiler Sample #10	Chrysotile Cellulose Non-Fibrous	60% 15% 25%
B-26157	5/16/00	Boiler Rope Inside Boiler Sample #11	Chrysotile Cellulose Non-Fibrous	60% 15% 25%
B-26157	5/16/00	Boiler Rope Inside Boiler Sample #12	Chrysotile Cellulose Non-Fibrous	60% 15% 25%
B-26158	5/16/00	Boiler Gasket Inside Boiler Sample #13	N.D. Cellulose Synthetics	45% 35%
B-26159	5/16/00	Boiler Gasket Inside Boiler Sample #14	N.D. Cellulose Synthetics	45% 35%
B-26160	5/16/00	Boiler Gasket Inside Boiler Sample #15	N.D. Cellulose Synthetics	45% 35%
B-26161	5/16/00	Boiler Compound Inside Boiler Sample #16	Chrysotile Cellulose Non-Fibrous	95% 2% 3%
B-26162	5/16/00	Boiler Compound Inside Boiler Sample #17	Chrysotile Cellulose Non-Fibrous	95% 2% 3%

Lab ID #	Date	Description	Asbestos	Percentage
B-26163	5/16/00	Boiler Compound Inside Boiler Sample #18	Chrysotile Cellulose Non-Fibrous	95% 2% 3%
B-26164	5/16/00	Drywall/Mud Room 6, NE Wall Sample #19	N.D. Cellulose Fiberglass	 5% 5%
B-26165	5/16/00	Drywall/Mud Room 4, NW Wall Sample #20	N.D. Cellulose Fiberglass	 5% 5%
B-26166	5/16/00	Drywall/Mud Room 6, East Center Sample #21	N.D. Cellulose Fiberglass	 5% 5%
B-26167	5/16/00	Pipe Insulation Shirt Steamer Pipe Sample #22	Chrysotile Cellulose Non-Fibrous	90% 3% 2%
B-26168	5/16/00	Pipe Insulation Shirt Steamer Pipe Sample #23	Chrysotile Cellulose Non-Fibrous	90% 3% 2%
B-26169	5/16/00	Pipe Insulation Shirt Steamer Pipe Sample #24	Chrysotile Cellulose Non-Fibrous	90% 3% 2%
B-26170	5/16/00	Window Putty Exterior East Sample #25	N.D. Cellulose Non-Fibrous	 5% 95%
B-26171	5/16/00	Window Putty Exterior East Sample #26	N.D. Cellulose Non-Fibrous	 5% 95%
B-26172	5/16/00	Window Putty Exterior East Sample #27	N.D. Cellulose Non-Fibrous	 5% 95%
B-26173	5/16/00	Rolled Roofing Roof East Sample #28	N.D. Cellulose Fiberglass	 35% 25%

5/16/00

Lab ID #	Date	Description	Asbestos	Percentage
B-26174	5/16/00	Rolled Roofing Roof Center Sample #29	N.D. Cellulose Fiberglass	35% 25%
B-26175	5/16/00	Rolled Roofing Roof East Sample #30	N.D. Cellulose Fiberglass	35% 25%
B-26176	5/16/00	Penetration Mastic West Roof, Exhaust Vent Sample #31	Chrysotile Cellulose Non-Fibrous	4% 2% 94%
B-26177	5/16/00	Penetration Mastic Center Roof, Exhaust Vent Sample #32	Chrysotile Cellulose Non-Fibrous	4% 2% 94%
B-26178	5/16/00	Penetration Mastic East Roof, Exhaust Vent Sample #33	Chrysotile Cellulose Non-Fibrous	4% 2% 94%
B-26179	5/16/00	Exterior Stucco Entrance East Sample #34	Chrysotile Cellulose Non-Fibrous	<1% 5% 95%
B-26180	5/16/00	Exterior Stucco Restroom West Sample #35	Chrysotile Cellulose Non-Fibrous	2% 5% 93%
B-26181	5/16/00	Exterior Stucco South Wall Sample #36	Chrysotile Cellulose Non-Fibrous	2% 5% 93%

The samples were analyzed in accordance with procedures described in Appendix A, "Interim Method for the Determination of Asbestiform Minerals in Bulk Insulation Samples". This procedure involves the examination of the samples with a procedure commonly known as Polarized Light Microscopy (PLM). For more sensitive testing Transmission Electron Microscopy (TEM) is recommended.

Signature: Pindi Randall Date: 5-20-00



*Coast Environmental
Training Services*

ASBESTOS ABATEMENT PLAN

BUILDING 443

NAVAL TRAINING CENTER

SAN DIEGO, CA

May 30, 2000

PREPARED FOR:

Dove Clancy
Critical Cleaning Services
1760 Palm Ave., Suite D
San Diego, CA 92154

PREPARED BY:

Cindi Randall
Coast Environmental Training Services
10761 Woodside Ave., Suite E
Santee, CA 92071



Cindi Randall
State of California
Certified Asbestos Consultant, #94-1343

Asbestos Abatement Plan
Building 443, Naval Training Center

Critical Cleaning Services, Inc.

REGULATIONS

The contractor will assume full responsibility for compliance with the most stringent applicable Federal, State and Local regulations pertaining to Work Practices, Disposal, Worker Protection, Control Measures, Environmental Protection and Testing.

Code of Federal Regulations (CFR)

29CFR1926.1101	Construction Industry Standard
29CFR1910.134	Respiratory Protection Standard
29CFR1910.1200	Hazard Communication Standard
29CFR1910.1001	General Industry Standard
40CFR763.120	Worker Protection Rule
40CFR61 Subpart A	General Provisions for Hazardous Materials
40CFR61 Subpart M	National Emissions Standard for Hazardous Air Pollutants (NESHAPS)

California Code of Regulations (CCR)

Title 8, 1529	Construction Safety Orders
Title 8, 1509	Illness & Injury Prevention

Environmental Protection Agency Guidelines

560/5-85-024	Guidance for Controlling Asbestos-Containing Materials in Buildings
600/4-85-049	Measuring Airborne Asbestos Following an Abatement Action
560/OPTS-86-001	A Guide to Respiratory Protection For The Asbestos Abatement Industry

The asbestos abatement work includes the removal of asbestos containing floor tile, floor tile mastic, roofing penetration mastic and pipe insulation located in Building 443,

Naval Training Center, San Diego California. At no time will unauthorized entry be permitted into the asbestos abatement work area.

Permits

Critical Cleaning Services (CCS) and/or subcontractors will obtain all applicable notifications and permits as required by 29 CFR 1926.1101 and 40 CFR 61 Subpart M prior to asbestos removal, including NESHAP and San Diego Air Pollution Control District notifications/permits.

Site Safety

CCS and subcontractors will conform to the emergency response actions described in this plan. Daily health and safety meetings will be conducted each morning before work begins.

Prior to any work activities, "Lock-out/Tag-out" procedures will be performed. All portable electric powered tools will be used with a ground fault circuit interrupter. All flammable liquids will be contained in vessels, which comply with current regulations and include appropriate warning labels.

Fire Emergency Plan

CCS and/or subcontractors will locate ABC-type fire extinguishers in regulated areas during removal activities. At a minimum, one fire extinguisher will be located in the work area at all times. Each employee will be properly trained in the use of fire extinguishers. Emergency and fire exits will be clearly marked and maintained throughout the removal process.

Medical Emergency

CCS will have at least two employees with current first aid and cardiopulmonary resuscitation training on site at all times. CCS will complete an incident report for any accidents/incidents, which occur during the abatement activities.

Personnel and Visitors Log

CCS and/or subcontractor will provide an employee and visitor log in/out system at the job site. All persons entering into the work area will be required to sign in and sign out upon exiting the work area. All employees and visitors must present evidence of asbestos training, respirator training, fit testing, and physician's approval to wear the respirator prior to entry into the restricted area.

Other Project Activities

No other trades or project activities are to be concurrently active in the immediate area during the asbestos abatement. Other work activities outside the immediate work area during the abatement will need to be assessed and approved individually by the CAC and Site Surveillance Technician (SST). At a minimum, any other work activities must be at least 20 feet from the asbestos abatement activities.

Worker Training

Asbestos removal personnel, Certified Industrial Hygienist, CAC, SST, and any person entering the regulated area will be properly trained in asbestos-related procedures.

Employee Training

Personnel involved in the removal of ACM must be Asbestos Hazard Emergency Response Act certified as a worker or contractor/supervisor. Current training certificates will be submitted for review prior to the removal activities.

Each employee will have received training in the proper handling of materials that contain asbestos, the health implications and risks involved, the possible health effects from exposure to airborne asbestos, the use and limits of the respiratory equipment to be used, and the interpretation of monitoring results of airborne quantities of asbestos.

Certified Asbestos Consultant

The CAC responsible for the asbestos abatement plan and the oversight of the project is currently certified by the Occupational Safety and Health Administration (OSHA), as per California regulations.

The CAC for the project is Ms. Cindi Randall (Certification Number 94-1343) of Coast Environmental Training Services (CETS), San Diego, California.

Site Surveillance Technician

The SST performing the air monitoring and inspection of work will have a minimum of 1 year experience and have completed a minimum of six projects of similar scope involving ACM abatement. The SST will perform his/her duties under the direct supervision of the CAC.

Pre-Construction Submittals

CCS will submit personnel training and medical certificates, equipment lists with product material sheets, Material Safety Data Sheets for any chemical brought on site, asbestos work procedures, a written respiratory program, testing laboratory accreditation, CAC and SST experience and certifications, and the designated disposal landfill.

Asbestos Abatement Plan

The following subsections present the Asbestos Abatement Plan and procedures.

Warning Signs and Labels

CCS and/or CCS subcontractor will provide warning signs and barrier tape at all approaches to asbestos control areas. A 20 foot protection zone will be established between the work area and the outer perimeter of the barrier tape. CCS and/or subcontractor will provide labeled disposal bags and affix labels to all asbestos material, scrap, waste, debris, and other products contaminated with asbestos. Signs and labels will comply with the requirements of 29 CFR 1926.1101.

**DANGER
ASBESTOS
Cancer & Lung Disease Hazard
Authorized Personnel Only
Respirator & Protective
Clothing are Required in this Area**

The signs shall be posted in English and in Spanish.

Labels

Disposal bags will display the following warning in English and Spanish:

**DANGER
Contains Asbestos Fibers
Avoid Creating Dust
Cancer and Lung Disease Hazard**

Preparation Of The Work Areas

Work areas will be designated, pre-cleaned and isolated, and decontamination and waste load-out facilities will be established before asbestos abatement commences.

An asbestos regulated area will be established for actual removal activities. Visible barricades and/or caution tape will delineate the physical boundaries. An asbestos control area will be maintained 20 feet in all directions from the asbestos regulated area. The control area will be restricted to authorized personnel who need to facilitate the work activities.

Eating, drinking, smoking, chewing gum or tobacco is prohibited in the regulated area or in areas where the potential for the transfer of contaminated materials exists.

Temporary power and lighting will be provided when and where required. Contractor will ensure safe installation of the temporary power source and follow all applicable electrical code requirements. All power and lighting will be equipped with ground fault circuit interrupters (GFCI).

Where applicable, the contractor will pre-clean the work areas utilizing High Efficiency Particulate Air (HEPA) filtered vacuum equipment or wet cleaning methods. Non-stationary items will be pre-cleaned and removed from the work area. Dry sweeping or any methods that create dust are prohibited in or outside the work area.

All openings to the outside such as windows, doors, vents, etc. shall be sealed using 1 layers of 6 mil polyethylene (poly) sheeting and sealed with duct tape enclosed containment around the work area. Negative air pressure will be established, wherever feasible, inside the containment using HEPA filter equipped air handling machines. Airlocks to and from the work area are to be built which will allow air to enter the area but constructed as to prevent contaminated air from leaving the work area, especially when negative air is employed. When ACM is located outdoors and/or construction of an enclosed containment is not feasible, mini-containment techniques, outdoor methods, or glovebag methods will be used for the abatement of ACM. The subcontractor will ensure that barriers to the work area are properly sealed at all times. Any breach or defects will be repaired immediately upon discovery. All enclosures will be visually inspected at the beginning of each work shift. A detailed description of this inspection will be included in the subcontractor's daily log.

DECONTAMINATION UNIT AND WASTE LOAD-OUT

Contractor will construct a decontamination enclosure contiguous to the work area, consisting of three stages utilizing 2 layers of 6 mil poly, PVC piping or 2x4 wood studs. Each chamber or stage will be separated by a double poly or "Z" door. Set up of the decontamination system is as follows:

Stage one: Clean Room shall be constructed where workers will enter from the outside or non-contaminated areas. Area shall be constructed with sufficient room for storage of workers' street clothing, clean towels, additional respirator filters and other non-contaminated articles.

Stage two: The shower will be connected directly to the clean room, where workers will pass through the air lock from the clean room into the shower when entering the regulated area. Contractor will ensure there is a sufficient supply of shampoo and soap in the shower at all times. Clean and dry towels (preferably disposable towels) will be supplied by the contractor for employees and authorized personnel when exiting the work area. A three stage water filtration system shall be employed prior to the release of shower water into the local sewer system. Any water that cannot be properly filtered will be bagged or barreled and labeled and disposed of accordingly.

Stage three: Exit from the shower into the equipment room will be through a double poly or "Z" door. The equipment room (sometimes referred to as the dirty room) will be attached directly to the work area with a double poly or "Z" door. Workers will enter and exit the contained area only through the decontamination unit.

Remote decontamination stations may be used during the project to facilitate small duration work in several adjacent areas. The three-stage decontamination system described will be used in the remote location. Personnel will employ remote decontamination procedures, as described in Section Personnel Decontamination.

Contractor shall ensure that portable toilets are on site and properly maintained if no permanent facilities are available at a rate of one toilet per twenty employees.

Protection Of Walls And Floors

When full-containment removal techniques are employed, walls, floors, and stationary items will be covered in two layers of 6-mil poly sheeting secured with duct tape and spray glue.

Glovebags shall be utilized for the removal of the pipe insulation. All critical barriers shall be covered with one layer of 6 mil poly sheeting and a 6-mil poly drop cloth will be laid on

the floor, secured with duct tape and spray glue.

In the case of vinyl floor tile (VFT) removal, walls will also be protected with one layer 6-mil poly sheeting, secured with duct tape and spray glue, 48 inches high from the floor base.

Removal Of Asbestos-Containing Material

Negative pressure will be established in the work area after the area has been prepared as described above. ACM to be removed will be wetted with a mist of amended water, removal encapsulant, or surfactant utilizing equipment capable of providing a low pressure application to reduce the possibility of fibers being released. The ACM will be adequately wet, to the substrate, avoiding oversaturation and dripping. Material will be kept wet during the entire removal process, minimizing the release of fibers into the controlled area.

Floor Tile & Mastic Removal

Full containment is not required for this procedure. Critical barriers will be covered in one layer of 6 mil poly sheeting and a 48" poly splash guard shall be utilized to protect the walls. Three stage decontamination chamber shall be utilized. Negative pressure shall be maintained throughout the demolition process. Lockable door to entrance of containment shall be required during off removal hours.

Penetration Mastic Removal

A 20 foot perimeter shall be established at the base of the units with a 6-mil poly drop cloth and warning/caution tape to avoid unauthorized entry. Material shall be wetted prior to cutting or removing. Fall protection shall be required during roof removal. Remote decon shall be utilized during roof removal.

Encapsulation

After all surfaces are cleaned in areas of ACM removal and the work area has been fine detailed, a visual inspection will be conducted as described in Section Site Clearance and Cleanup. Upon visual inspection clearance, encapsulant will be applied to bind or lockdown any remaining non-visible asbestos fibers. Encapsulant will be applied according to the manufacture's recommendations.

Materials

The materials used during the asbestos removal will meet the specifications described in the following subsections. Material and product information will be submitted for approval

prior to commencing work.

HEPA Filters

Vacuums will be leak proof and equipped with HEPA filters. Filters on vacuums will conform to ANSI Z9.2 and Underwriter's Laboratory 586.

Respirators will be equipped with HEPA filters, National Institute for Occupational Safety and Health (NIOSH) rating number P-100, with an efficiency rating of 99.97 percent up to 0.3 microns and larger and meet 29 CFR 1926.1101 standards.

Surfactant

The surfactant will be a 50/50 mixture of polyoxyethylene ether and polyoxyethylene ester, or equivalent, mixed with water to a concentration of 1 ounce of surfactant to 5 gallons of water. An equivalent surfactant is a material with a surface tension of 29 dynes/centimeter, as tested in accordance with the ASTM D1331 standard.

Encapsulant

The CCS subcontractor will submit encapsulant specifications with the pre-construction submittals for approval by the CAC.

Glovebags

The CCS subcontractor will submit glovebag specifications with the pre-construction submittals for approval by the CAC.

Personnel Protective Equipment

Personnel protective equipment (PPE) will be used in all regulated areas.

Protective Clothing

All personnel entering into the regulated area will don full body Tyvek or equivalent suits including hoods, booties, goggles (not required when full face respirator is donned) and gloves while removing asbestos.

In the case of a remote decontamination facility, personnel performing asbestos removal and others entering the asbestos removal area will wear full body Tyvek or equivalent suits including hoods, booties, goggles (not required when full-face respirator is donned), and gloves while removing asbestos. Tyvek suits will be taped at the wrists, ankles, and zipper.

Upon completion of each shift, all workers will remove their outer body suit inside the work area to be disposed as asbestos waste, and proceed to a cleaning station for final decontamination of themselves, their safety equipment, and removal of the remaining Tyvek suit.

Respiratory Protection

Personnel entering the work area will be provided with clean and properly maintained respiratory protection approved by NIOSH and the Mining Safety and Health Administration as specified in 29 CFR 1910-134 (Respiratory Protection Standard), whenever the levels of exposure in the work area exceeds 0.1 fibers per cubic centimeter (f/cc). Respiratory protection will be, at a minimum, air purifying respirators equipped with HEPA filters.

The CCS and/or subcontractor will supply a sufficient quantity of respirator filters during the work day. The respirator filters will be stored in the clean room of the decontamination unit and must at all times be protected from exposure to asbestos prior to their use. Heat exchanger insulation may require the initial use of powered air-purifying respirators at the discretion of the CAC. Single use disposable respirators will not be used on this project.

Respirators will be assigned to individual workers for their exclusive use. Respirators will be cleaned and disinfected after each day of use, and stored in a clean and sanitary location.

CCS will submit a written respiratory protection program, current employee respirator fit-test certificates, and current medical certification to CAC for approval prior to starting asbestos removal activities.

Personnel Protection

Approved respirators and protective clothing will be worn by all personnel in the asbestos regulated area as described in Section Personnel Protective Equipment. The determination for the downgrading PPE will be made by the project CAC.

Fall Protection

Approved safety belts and lanyards shall be worn by those workers whose work exposes them to falling in excess of 7½ feet from the perimeter of a structure, through shaftways and openings, sloped roof surfaces steeper than 7:12 or other sloped surfaces steeper than 40 degrees.

Safety Nets

Where the elevation is 25 feet or more above the ground, water surface or continuous floor level below, and when the use of safety belts and lifelines or more conventional types of protection are clearly impractical, the exterior and/or interior perimeter of the structure shall be provided with an approved-type safety net extending at least eight feet horizontally from such perimeter and being positioned at a distance not to exceed 10 feet vertically below where such hazards exist, or equivalent protection provided. Nets shall be hung with sufficient clearance to prevent user's contact with the surfaces or structures below. Such clearances shall be determined by impact load testing.

Personnel Decontamination

Personnel decontamination procedures include the following:

1. The worker will remove gross contamination from protective clothing each time before leaving the work area. The worker will proceed into the equipment room and remove all clothing, and while still wearing the respirator, will enter the shower room.
2. Once in the shower room, the worker will clean the outside of the respirator with soap and water while showering. At this time the respirator can be removed and workers will thoroughly shampoo and wash themselves. Respirator filters can be removed (if required) from the respirator, soaked, and disposed of in the container provided for that purpose. The inside of the respirator will be washed and rinsed. The worker will then proceed into the clean room.
3. Once in the clean room, the workers will dry themselves and dress in street clothing. Respirators will be properly stored at this time pending their next use. If respirator filters are not disposed of after each use, the worker will ensure that the inlet side of the filter is properly sealed with duct tape prior to storage.
4. Before re-entering the work area, each worker will remove his/her street clothing in the clean room and don protective clothing and respiratory protection. Workers that are intending to re-wear contaminated clothing of footwear stored in the equipment room, will don respiratory protection before proceeding through the shower to the equipment room.

These procedures will be conducted any time the worker leaves the work area at the end of

the work day, or prior to eating, smoking or drinking.

All equipment and personnel decontamination must be performed within the asbestos control area before exiting.

Equipment Decontamination

All decontamination of materials and equipment will be accomplished with disposable rags and water, followed by encapsulation with sealant. Rags will be disposed of as an ACM waste.

Contaminated clothing, footwear, or other materials and equipment will be stored in the equipment room when not in use in the work area. All such items will be disposed of at the end of the abatement project, unless they can be sufficiently cleaned with soap and water inside and outside of all asbestos contamination. Contaminated clothing, footwear, and other materials and equipment will be placed in receptacles for disposal and labeled accordingly.

Waste Load-Out and Disposal

All waste will be placed in double poly bags and transported to the approved disposal/shipping container through the personnel decontamination unit. Waste bags will be rinsed in the shower, passed to the clean room, and dried. All waste disposal containers will have the sides and floor of the containers lined with one layer of 6-mil poly sheeting secured with duct tape and spray glue. CCS/subcontractor will ensure that containers are leak tight and locked during non-use. OSHA warning signs will be placed on all sides of the containers.

When ACM is located outdoors or remote decontamination facilities are used, disposal bags will be wet wiped carefully in the abatement area, and transported to the remote shower for rinsing.

Waste will be disposed of in accordance with Federal & State Regulations.

Site Clearance and Cleanup

CCS/subcontractor will be responsible for obtaining site clearance, as approved by the SST and/or CAC.

Site Clearance for Indoor Work

The project site must pass a visual inspection by the SST, at a minimum, prior to releasing

the site to other occupants.

Aggressive sampling will be employed where feasible. PCM samples will be collected to ensure site clearance. Refer to Section Clearance Sampling, for further details.

Site Clearance for Outdoor Work

For outdoor work, no clearance air monitoring is necessary if personal monitoring or downwind sampling does not exceed 0.01 f/cc. Refer to Section Clearance Sampling, for further details.

Site Cleanup

After the work area has passed visual and air sample clearances, negative air pressure can be discontinued, decontamination units will be dismantled, and poly sheeting will be carefully removed and placed in properly labeled disposal bags. Disposal bags will be loaded-out as described in Section Waste Load-Out and Disposal.

Site Restoration

All non-stationary items removed from the work area will be returned to their original location. All tools, equipment, and materials will be removed from the site.

All waste disposal receptacles will have sides and floor lined with one layer of 6 mil poly sheeting secured with duct tape and spray glue. Contractor will ensure that receptacles are leak tight and locked during non use. OSHA warning signs shall be placed on all sides of the receptacles.

MAINTENANCE OF THE ENCLOSURE SYSTEM

Contractor shall ensure that barriers to the work area are properly sealed at all times. Any breach or defects will be repaired immediately upon discovery.

All enclosures will be visually inspected at the beginning of each work shift. A detailed description of this inspection shall be included in the Contractor's daily log.

NOTIFICATION AND POSTINGS,

Contractor shall ensure that all applicable notification and permits are obtained as required by 29CFR1926.1101 and 40CFR61 Subpart M prior to asbestos removal.

Waste hauler and disposal site, approved by the United States Environmental Protection Agency (USEPA), have been identified prior to asbestos removal.

Arrangement have been made for containing, filtering and disposal of waste water as a result of showering and other abatement activities such as bag wash down during waste load out.

All tools, equipment and materials are on site and in good working condition, to properly conduct asbestos removal.

Contractor will provide an employee and visitor log in/out system at the job site. All persons entering into the work area will be required to sign in and sign out upon exiting the work area. Bound ledgers with pre-paginated pages shall be employed for the sign in/out system. All employees and visitors must present evidence of respirator training, fit testing and physician's approval to wear the respirator prior to entry into the restricted area.

Contractor shall provide and post, in the equipment and clean room, decontamination procedures to be followed by workers as described in Worker Protection Procedures on pages 11-12 of this plan.

ORDER OF OPERATIONS FOR ASBESTOS REMOVAL

- * Site will be prepared as described on pages 6-8 of this plan.
- * All non-stationary items that can be properly decontaminated shall be cleaned and removed prior to commencement of asbestos removal if applicable.
- * Removal of all visible and accessible asbestos containing material (ACM) as noted on the drawings, or identified to the Contractor by the Contracting Officer.
- * Removal of all asbestos debris and contaminated fixtures from the work site that may have been pre-existing.
- * All areas shall be encapsulated from which the asbestos was removed.
- * Visual inspection conducted by the Certified Asbestos Consultant (CAC) or Certified Site Surveillance Technician working under the supervision of the CAC.

- * **Clearance air sampling utilizing aggressive conditions for all interior work areas.**
- * **Removal of the poly sheeting from interior surfaces of the work areas if applicable.**
- * **Clean up work site.**

REMOVAL PROCEDURES

After the work area has been prepared and negative pressure has been established, wet the material with a mist of amended water, removal encapsulant or surfactant utilizing equipment capable of providing a low pressure application to reduce the possibility of fibers being released. Ensure that material is adequately wet, to the substrate, but that excessive dripping does not occur. Material shall be kept wet during the entire removal process. This procedure will minimize the release of fibers into the controlled area.

The surfactant shall be a 50/50 mixture of polyoxyethylene ether and polyoxyethylene ester or equivalent. An equivalent surfactant shall be a material with a surface tension of 29 dynes/cm as tested in accordance with the American Society for Testing and Material (ASTM) D1331. Contractor is utilizing EPA 55.

Contractor shall follow manufacture's recommended procedures for removal encapsulant. Ensure all abatement activities are conducted in accordance with applicable Federal, State and Local Regulations.

Contractor shall remove the saturated asbestos material within the controlled work area. Material will be continuously bagged during the removal process. Place material in 6 mil disposable containers or bags. Material shall not be allowed to dry prior to insertion into the first container or bag. Excessive amounts of standing water are prohibited in the disposal bags. Contractor shall adhere to weight and size requirements for disposal containers. Material shall not be allowed to accumulate within the work area. Material will then be placed in a second bag and securely sealed with duct tape for transport. All double bagging or rewrapping of friable material will take place in the waste load-out area. All external surfaces of the of the containers or bags shall be wet sponged. Place caution labels on containers in accordance with OSHA regulation 29CFR1926.1101. All bagged or wrapped asbestos materials shall placed in the poly lined dumpster at the end of each working day.

WORKER PROTECTION ENTRY AND EXIT PROCEDURES

Prior to entering the work area, each worker shall remove his/her street clothing in the clean room and don protective clothing and respiratory protection. Workers that are intending to re-wear contaminated clothing or footwear stored in the equipment room, shall don respiratory protection before proceeding through the shower to the equipment room.

Each time a worker leaves the work area he/she shall remove gross contamination from clothing before leaving the work area. Worker will proceed into the equipment room and remove all clothing, still wearing the respirator worker will enter the shower and clean the outside of the respirator with soap and water while showering. At this time respirator can be removed and worker shall thoroughly shampoo and wash themselves. Respirators filters can be removed (if required) from the respirator, soaked, and disposed of in the container provided for that purpose. Wash and rinse the inside of the respirator.

Worker shall then proceed from the shower into the clean room and dress in clean clothing. This procedure shall be conducted any time the worker leaves the work area at the end of the work day or prior to eating, smoking or drinking. Respirators shall be properly stored at this time pending their next use. If respirator filters are not disposed of after each use, worker shall ensure that inlet side of the filter is properly sealed with duct tape prior to storage.

Before re-entering the work area, each worker shall remove his/her street clothing in the clean room and don protective clothing and respiratory protection. Workers that are intending to re-wear contaminated clothing or footwear stored in the equipment room, shall don respiratory protection before proceeding through the shower to the equipment room.

Contaminated clothing or footwear shall be stored in the equipment room, when not in use in the work area. All such items shall be disposed of at the end of the abatement project, unless they can be sufficiently cleaned with soap and water inside and out of all asbestos contamination. Contaminated clothing and footwear shall be placed in receptacles for disposal and labeled accordingly.

Workers shall not eat, drink, smoke or chew gum or tobacco, or utilize the toilet facilities at the work site except in established locations outside the containment or enclosures.

AIR MONITORING REQUIREMENTS

Air monitoring shall be conducted by the certified Site Surveillance Technician under the direction of the CAC throughout the removal of the asbestos containing material and subsequent cleaning process. Environmental air monitoring will be conducted in the ambient areas to ensure that the Contractor is complying with all applicable regulations and is conducted in a manner which minimizes fiber release.

Personal air monitoring shall be conducted by the certified Site Surveillance Technician under the direction of the CAC throughout the removal of the asbestos containing material and subsequent cleaning process. Personal air samples will be collected from the breathing zone of a representative number of abatement employees daily to determine their 8 hour Time Weighted Average (TWA) exposure to asbestos fibers in addition to one 30 minute sample each work shift to determine if the short term exposure level (STEL) or excursion limit (EL) of 1.0 fibers/cc is exceeded. Personal samples shall be collected at least every four hours. Analytical results of personal air samples will be made available to the Contracting Officer in order to supplement ambient air conditions. Results will be made available to the Contracting Officer on a 16 hour turnaround basis.

Written reports shall be sent directly to the Contracting Officer's representative from the laboratory. An independent laboratory shall be utilized for analysis of all air samples collected for this project. An independent laboratory is one in which neither the contractor nor any of his employees or relatives have a financial interest.

Air monitoring, during the removal of asbestos material, shall be conducted and analyzed by Coast Environmental Training Services, Santee, CA 92071.

For each set of air samples submitted to the laboratory for analysis, the site surveillance tech shall submit a minimum of two field blank cassettes for analysis or 10%, whichever is greater. Each sample cassette shall be submitted as a part of the Contractor's laboratory submittal for the day.

Any air sample submitted by the site surveillance tech for analysis shall be made to a laboratory currently enrolled in the American Industrial Hygiene Association (AIHA) and NIOSH Proficiency Analytical Testing (PAT) Program.

Evidence of enrollment in the PAT program shall be provided to the Contracting Officer. The laboratory's results from the most recent four rounds shall be provided to the Contracting Officer. Laboratory shall have received a proficiency rating in each of the four rounds with no more that two outliers total in the four rounds.

Contractor shall provide evidence to the Contracting Officer that the microscopist

responsible for the analyses has taken the NIOSH course for sampling and evaluating airborne asbestos (NIOSH Course No. 582, which shall have included instruction on the 7400 procedures).

Any air monitoring results provided by the laboratory to the Contracting Officer shall include as a minimum for each sample the following:

- * Sample ID number
- * Laboratory ID number
- * Date sample was collected
- * Filter area in mm²
- * Flow rate in liters per minute (LPM)
- * Time recorded in minutes
- * Graticule field area in mm²
- * Average fiber count (fibers/field)
- * Fibers per cubic centimeter (f/cc)
- * Detection limit for each sample (f/cc)
- * Location, employee's name, SSN
- * Type of activity
- * Name of Analyst
- * Date sample was analyzed

Analysis shall be conducted according to 29CFR1910.1001 Appendices A & B which describe the OSHA Reference Method and which utilizes the acetone/triacetin sample preparation (or equal) procedures and a phase contrast microscope fitted with the Walton-Beckett eyepiece graticule.

All air samples obtained by the Contractor's laboratory shall be archived and provided to the Contracting Officer at the conclusion of the Contract. Such samples shall be individually preserved or archived and appropriately labeled.

Aggressive clearance sampling will be conducted and results show fiber concentrations of ≤ 0.01 f/cc. No other trades or unauthorized personnel will be allowed access to this area until containment has been cleared and removed.

The minimum amount of air samples to be collected per work area will be:

- * 1 pre-abatement or back ground sample at the start up of each new area.
- * 1 inside work area sample
- * 1 outside work area sample

- * 1 30 minute STEL or EL sample per day
- * 1 personal air sample per four employees per shift
- * 1 aggressive final clearance sample for interior work areas upon completion of removal

DISPOSAL REQUIREMENTS

All ACM or asbestos contaminated material must be double bagged or wrapped in 6 mil poly sheeting prior to being placed into a enclosed poly lined dumpster. All ACM or asbestos contaminated material must be damp when delivered to the EPA authorized disposal site.

Sealed plastic bags may be dumped into the disposal site unless the bags have been broken or damaged. Damaged bags shall be rebagged or sealed in disposal drums and the entire contaminated drum shall be buried. Uncontaminated drums may be recycled.

A waste disposal dumpster or any EPA approved hazardous waste container system capable of being totally secured can be used for transport to the disposal site. All loads are to be delivered in an enclosed vehicle.

Submit documentation or manifest regarding disposal to the Contracting Officer.

LEAD BASED PAINT REMOVAL

The paint located in the boiler room will be wetted with a TSP solution and all peeling, flaking and chipping paint will be removed. In the case of materials being recycled all paint shall be removed,

FOSTER WHEELER

FOSTER WHEELER ENVIRONMENTAL CORPORATION

TRANSMITTAL/DELIVERABLE RECEIPT

Contract No. N-68711-98-D-5713

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TO: Contracting Officer
Naval Facilities Engineering Command
Southwest Division
Mr. Richard Lovering, 02R.RL
1220 Pacific Highway
San Diego, CA 92132-5190

DATE: June 5, 2000

CTO: 0013

LOCATION: NTC SD

FROM: Kui Falva D.P.M. for:
Neil Hart, Program Manager

DESCRIPTION: Hazardous Materials Survey Report - IR Site 5 - 06/01/00

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 Other

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