



## ARNG REGION NORTHEAST INDUSTRIAL HYGIENE OFFICE

2624 FAIRVIEW POINT ROAD, BUILDING E6812, SUITE IH  
EDGEWOOD, MARYLAND 21040

ARNG-CSG-P

19 June 2018

### MEMORANDUM FOR

SAFETY AND OCCUPATIONAL HEALTH MANAGER (SOHM), PENNSYLVANIA  
ARMY NATIONAL GUARD (PAARNG), BUILDING 11-9, FORT INDIANTOWN GAP  
(FTIG), ANNVILLE, PENNSYLVANIA 17003

SUBJECT: Industrial Hygiene (IH) Survey

1. Purpose: At the request of the Region Northeast Industrial Hygiene Office, an IH survey was conducted to identify, assess, and make recommendations for the reduction or elimination of potential health hazards present in the workplace.
2. Findings and Recommendations. The enclosed report contains findings and recommendations. Additional interpretation or clarification of these findings and recommendations should be requested through the Region Northeast IH Office.
3. The technical points of contact are, Cynthia Harrison at 410-612-4140 or [cynthia.s.harrison2.civ@mail.mil](mailto:cynthia.s.harrison2.civ@mail.mil) and Jayson Allan at 410-612-4139 or [jayson.r.allan.civ@mail.mil](mailto:jayson.r.allan.civ@mail.mil).

A handwritten signature in black ink that reads "Jayson R. Allan".

JAYSON R. ALLAN

ARNG Regional Industrial Hygienist

A handwritten signature in black ink that reads "Cynthia S. Harrison".

CYNTHIA S. HARRISON, CIH

ARNG Regional Industrial Hygienist

FEDERAL OCCUPATIONAL HEALTH

INDUSTRIAL HYGIENE SURVEY  
COMPLETED FOR THE  
Pennsylvania Army National Guard (ARNG)

**Survey location:**

East Stroudsburg Readiness Center  
Pennsylvania Army National Guard  
271 Washington Street  
East Stroudsburg, PA

**Survey date:**

SEPTEMBER 11, 2017

**Prepared by:**

UNITED STATES PUBLIC HEALTH SERVICE  
FEDERAL OCCUPATIONAL HEALTH  
NEW YORK FIELD OFFICE  
26 FEDERAL PLAZA, ROOM 138  
NEW YORK, NY 10278



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## 1.0 EXECUTIVE SUMMARY

An industrial hygiene survey was conducted on September 11, 2017 at the Pennsylvania Army National Guard (ARNG) East Stroudsburg Readiness Center (RC) located at 271 Washington Street, East Stroudsburg, PA 18301. The purpose of the survey was to identify and assess industrial hygiene conditions at the facility and to comply with the signed Memorandum for the Chiefs of Staff of all States, Puerto Rico, the US Virgin Islands, Guam, and the District of Columbia, National Guard Bureau, ARNG-CSG, subject: Possible Lead Dust Hazard in Army National Guard (ARNG) Readiness Centers, 23 September 2015. This memo regarding possible lead in RCs sets forth the requirement to conduct surface wipe sampling annually and to set limitations on public and family member access to the RCs based on unacceptable sampling results.

A walkthrough was conducted of the facility, noting potential industrial hygiene related conditions and controls present to mitigate the potential physical and chemical stress issues. An informal interview was conducted with Eric Bussman to obtain additional information on the practices and control measures employed in the building.

This facility and armory is a three-story brick structure built in the early 1900's. The building includes a Classroom, Former Indoor Firing Range (FIFR)/ Locker Room, Maintenance Room, Maintenance Storage Room, Maintenance Locker Room, Maintenance Office, Gym, Shower Room, Male and Female Latrines, Kitchen, Kitchen Storage Room, Cleaning Chemical Storage Room, Weapons Vault, Radioactive Vault, Drill Hall, Orderly Room, First Sergeant's (1SG) Office, Commander's Office, and Recruiter's Office. The facility consists of one building, with a shed outside for chemical storage.

East Stroudsburg RC primarily performs administrative work for the ARNG. It also serves as an armory and storage area for the ARNG, and acts as a staging area in case National Guard personnel are needed. It is rented out by the Red Cross for blood drives, as well as an annual wrestling tournament.

The level of activity was very light on the survey day. The only activities observed were standard administration work.

This report was requested through and funded on behalf of the Army National Guard Region Northeast Industrial Hygiene Office, 2624 Fairview Point Road, Edgewood, Maryland and Regional Industrial Hygienists Cynthia Harrison, CIH and Jayson Allan. PHASE Associates, LLC is subcontracted by Federal Occupational of Health (FOH) for this contract.

## 2.0 DISCUSSION OF RESULTS

### 2.1 Vehicle and Equipment Maintenance

No vehicle and equipment maintenance conducted at East Stroudsburg RC.

## 2.2 Battery Charging

No battery room is present at East Stroudsburg RC.

## 2.3 Grinding

Grinding and buffing are not performed in East Stroudsburg RC.

## 2.4 Welding

Welding is not performed in East Stroudsburg RC.

## 2.5 Vehicle and Equipment Power Washing

Power washing is not performed at East Stroudsburg RC.

## 2.6 Parts Washing

Parts washing is not performed at East Stroudsburg RC.

## 2.7 Petroleum, Oil and Lubricant (POL) Handling

POL handling is not performed at East Stroudsburg RC.

## 2.8 Hazardous Materials Storage

### 2.8.1 Hazards, Assessments and Controls

The hazard associated with this activity includes inhalation, ingestion and absorption of the materials.

### 2.8.2 Storage Practices

Hazardous materials are stored in appropriate cabinets, lockers and/or sheds. These include flammable storage and corrosives cabinets that are located in the facility. The cabinets had inventories attached to the exterior, along with the appropriate Safety Data Sheets (SDS).

### 2.8.3 Personal Protective Equipment

Personnel are provided with glasses and gloves when handling hazardous materials.

## 2.9 Illumination Survey

Illumination readings were obtained with a Cooke Corporation cal-Light 400L light meter at a height of approximately 5 feet above the bay or office floor surface. Readings were recorded in foot-candles (Fcs). Readings were taken in all accessible offices, break areas, conference/meeting rooms, exercise facilities, storage facilities. For all office areas, illumination was measured on or close to the desktops.

The results are presented in Appendix A. Areas within the facility which did not meet the minimum requirements are identified with the measurement in **BOLD**. The illumination results exceeded the results in many of the rooms, but fell below the requirements in the Maintenance Storage Room, Gym, Shower Room, Weapons Vault, and the stairs to the second floor on the west side of the building.

### **2.10 Ventilation Survey**

Ventilation survey was not performed at East Stroudsburg RC, as the ventilation controls are not present at that location.

### **2.11 Sound Level Survey**

There are not currently high noise operations or processes performed at East Stroudsburg RC hence a sound level survey was not conducted.

### **2.12 Asbestos**

There was presumed asbestos-containing materials in the shower room. We were told during a walkthrough that the floor tiles in the Shower Room contained asbestos, and the edge of the tiles by the drain contained friable asbestos. The tiles were replaced in a portion of the room by the shower. A picture of the tiles is attached.

### **2.13 Ergonomics**

An ergonomic assessment of work stations throughout the facility was performed and there were no ergonomic hazards identified or additional control measures required at this time.

### **2.14 Indoor Air Quality**

Indoor air quality measurements, including temperature, relative humidity, carbon dioxide, and carbon monoxide, were generally conducive to a comfortable work environment in areas throughout the facility. A table of measurements is provided in Appendix B.

Appendix C of the American National Standards Institute (ANSI)/American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE) Standard 62.1 – 2016 recommends that carbon dioxide concentrations not exceed 700 parts per million (ppm) above the outdoor air level. The indoor carbon dioxide concentrations ranged from 509 ppm to 829 ppm, with the outdoor level at 382 ppm. The latter carbon dioxide concentration was in the Recruiter's Office which was due to a large amount of people populating the area at the time of the survey.

The ANSI/ASHRAE 62.1, 8 hour average is at 9 ppm for Carbon Monoxide per the National Ambient Air Quality Standards (NAAQS). The indoor carbon monoxide concentrations ranged from 1.2 ppm to 2.3 ppm. The outdoor carbon monoxide concentration was 1.3 ppm.

Thermal comfort was evaluated using ANSI/ASHRAE Standard 55-2013, Thermal Environmental Conditions for Human Occupancy. This standard specifies a thermal environment that approximately 80% of the occupants should find acceptable. The recommended temperature range at approximately 50% relative humidity (RH) is 68° - 81° degrees Fahrenheit (°F) during the heating season. The temperature ranged from 67 °F to 73.3 °F. The temperature outside

was 74 °F. The temperature level in the Classroom was slightly below the recommended temperature.

Humidity levels of indoor air affect the potential growth of mold. Ideally, %RH should be maintained between 30% RH and 50% RH. On the day of this survey it ranged from 45 % RH to 56% RH. The outdoor measured 43% RH.

### **2.15 Facility Conditions**

Water damage was found on the ceiling, walls, and associated building materials in the gym. It was reported that the water damaged was caused by water intrusion from a leak in the adjacent window. There was also suspect water damage on the walls by the front entrance, with peeling paint, caused by the major flood that occurred here.

## **3.0 SURFACE WIPE SAMPLING PLANS AND PROCEDURES**

Surface wipe sampling for lead was conducted in several areas throughout the facility. These areas were determined based on previous sampling that had been performed, where several samples had tested positive for lead, in accordance with concentration limit set for all National Guard facilities Memorandum, ARNG-CSG, subject: Possible Lead Dust Hazard in Army National Guard (ARNG) Readiness Centers, 23 September 2015.

Sample results for lead concentrations ranged from less than the laboratory limit of detection of 5 micrograms per square foot ( $\mu\text{g}/\text{ft}^2$ ) to 1612  $\mu\text{g}/\text{ft}^2$ . Results from lead wipe samples can be found in Appendix C and the table clearly marks the samples that exceed 40  $\mu\text{g}/\text{ft}^2$ .

### **3.1 Sampling Plan**

#### **3.1.1 Identification of Personnel Qualified to Conduct Sampling**

All personnel performing the wipe sampling surveys have read the ARNG Industrial Hygiene Sampling Guide for Surface Lead in Readiness Centers.

#### **3.1.2 Team Member Designation**

PHASE Associates had two people available for this sampling survey.

#### **3.1.3 Sample Collection Plan**

Since East Stroudsburg RC is listed as a nonfunctional (closed but not cleaned and converted) indoor firing range (IFR), thirty-nine (39) samples and three blanks were collected in accessible areas as per Table 1 of the ARNG Industrial Hygiene Sampling Guide for Surface Lead in Readiness Centers. Sampling was conducted using the method outlined in the American Society for Testing and Materials (ASTM E 1728). Actual sample locations were recorded on a floor plan of each facility.

### **3.2 Sampling Supplies**

All sampling supplies used on this project were supplied by the ARNG Regional Industrial Hygiene (IH) Offices.

#### **3.2.1 Wipes**

PHASE Associates used Environmental Express® Ghost Wipes™ with a valid expiration date or wipes meeting the criteria outlined in ASTM E1792.

#### **3.2.2 Containers**

Collected wipe samples were stored and transported in individual plastic containers with secure, screw on lids.

#### **3.2.3 Bags**

Plastic storage bags for collected wipe samples/plastic containers were used to further protect samples.

#### **3.2.4 Gloves**

Disposable, one-time use, powder free gloves were used for each sample.

#### **3.2.5 Templates**

To achieve the desired laboratory detection limit of 5 µg/ft<sup>2</sup>, 1 foot (ft) by 1 ft pre-cut cardboard one-time use templates were used.

### **3.3 Surface Wipe Sampling Procedures**

#### **3.3.1 Supply Request**

A request for supplies was completed by e-mail no less than two weeks prior to the start of the surveys using the form in Appendix B of the ARNG Industrial Hygiene Sampling Guide for Surface Lead in Readiness Centers. The provided supply packs included administrative support items such as field data sheets, laboratory chain of custody and analysis request forms, pre-labeled shipping boxes, permanent markers, duct tape, gloves, and re-sealable bags were used.

#### **3.3.2 Control, Storage, and Transportation of Sampling Supplies**

PHASE Associates maintained wipes, templates, plastic tubes, and lids in closed, re-sealable bags until ready for use and kept clean and away from contamination. Visual control of supplies was maintained at all times at the facility. To avoid temperature extremes of hot or cold samples, supplies were not left in vehicles overnight.

#### **3.3.3 Damaged Supplies**

Only supplies in undamaged packaging were used for this sampling event.

#### **3.3.4 Surface Selection**

PHASE Associates selected surfaces that were “solid, hard, and non-porous” as much as possible. Locations near the edges of rooms, where dust is most likely settled and locations under desks or cabinets where



cleaning occurs less frequently were selected. PHASE Associates used Table 1 (for RCs with active or nonfunctional IFRs) of the ARNG Industrial Hygiene Sampling Guide for Surface Lead in Readiness Centers for surface location, type, and collection quantity.

### **3.3.5 Sampling Supplies**

A new pair of gloves and a new, clean template was used for the collection of each sample. No sampling supplies were reused.

### **3.3.6 Template Placement**

With clean hands and only touching the outer edges, a clean template was placed on the surface without disturbing existing dust. The template had the ability to lay flat and was secured by its outer edges with tape. Template locations were recorded on the facility floor plan.

### **3.3.7 Sample Collection**

The ‘sampler’ donned a pair of clean, powder free gloves; removed the wipe from the open package, unfolded it, and wiped in accordance with the method outlined in ASTM E 1728 and depicted in reference 3 of the ARNG Industrial Hygiene Sampling Guide for Surface Lead in Readiness Centers.

### **3.3.8 Documentation and Labeling**

PHASE Associates used a permanent marker to mark the side of the collection tube with the sampling identification (ID). The following sampling ID naming convention was followed:

State two letter abbreviation (space) First Four Letters of Town/City of Readiness Center Location (space) Sample Number (space).

### **3.3.9 Blanks**

PHASE Associates prepared the number of blanks described in Tables 1 and 2 of the ARNG Industrial Hygiene Sampling Guide for Surface Lead in Readiness Centers.

### **3.3.10 Field Data Sheets**

PHASE Associates filled out the provided field data sheets completely including signature and date.

### **3.3.11 Sample Shipping**

PHASE Associates filled out the laboratory request for analysis of the selected laboratory and included a copy of the field data sheet with the analysis request and samples. A copy of the lab request and field data sheet was emailed to the Regional ARNG IH Office.

## **4.0 CONCLUSIONS**

Occupational health risks at East Stroudsburg RC were well controlled with the exception of the items listed in the report. Implementation of the recommendations in this report

will enhance regulatory compliance and contribute to the healthfulness of the work environment of this facility.

## 5.0 RECOMMENDATIONS

1. Illuminations should be improved in the Gym, Shower Room, Weapons Vault, and the Stairway to the Second Floor on the West side of the building. Improving illumination can be achieved by replacing burned-out lamps/bulbs, cleaning fixtures, relocating detailed work activities to more illuminated areas, and using supplemental task lighting (Reference 2). RAC-5
2. Ceiling, walls, and associated suspect water damaged building materials should be removed and replaced in the gym and hallway by the entrance. A mold inspection should be conducted to ensure mold growth is not present in water damaged areas. (Reference 6). RAC-5
3. Decontaminate the floor and walls within the Former Indoor Firing Range (FIFR), work bench in the Maintenance Room, floor of the Maintenance Locker Room, desk of the Maintenance Storage Room, and floor of the Cleaning Supply Room and Weapons Vault, which must be conducted in accordance with all applicable federal, state and local regulations and requirements. (Reference 5 and 13). RAC-3
4. The facility should be evaluated for improvement on temperature control and maintenance. (Reference 5) RAC-5
5. The FIFR is classified as nonfunctional, therefore it should be empty. At the time of the survey, the FIFR was being used as a locker room. This area needs to be decontaminated before using or storing anything in it (Reference 3 and 13). RAC-4
6. Remediate damaged Presumed Asbestos Containing floor tiles in the Shower Room. Develop and implement an operations and maintenance program (Reference 1). RAC-2

## 6.0 REFERENCES

A listing of references used for this survey is included in Appendix D.


## 7.0 PHOTOGRAPHS

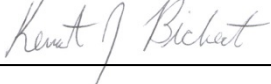
A photograph index and site photographs are included in Appendix E.

## 8.0 LIMITATIONS

The observations and findings outlined in this report are based on the conditions, operations, practices and interviews conducted during the survey. Conditions may not have been representative of a typical day and will vary over time.

This concludes the report narration.

Survey conducted and prepared by:  Aaron Chen, MPH, CIH, FAIHA

Report survey review:   
Kenneth Bickerton, CIH, CSP

**APPENDIX A – ILLUMINATION MEASUREMENTS****East Stroudsburg RC****East Stroudsburg, PA****September 11, 2017**

<b>Location</b>	<b>Light Measurements (Foot-Candles)<sup>2</sup></b>	<b>IESNA (Foot-Candles)<sup>1</sup></b>
Classroom	<b>22</b>	40
Former Indoor Firing Range (FIFR)/ Locker Room	6	5
Maintenance Room	57	50
Maintenance Storage	<b>29</b>	30
Maintenance Locker Room	27	5
Gym	<b>14</b>	40
Shower Room	<b>4</b>	10
Men's Bathroom	31	5
Kitchen Storage	25	10
Cleaning Chemical Storage	16	10
Kitchen	17	10
Maintenance Office	31	30
Stairs To Basement	3	5
Basement Hallway By Stairs	13	5
Basement Hallway By Door	50	5
Weapons Vault	<b>24</b>	30
Radioactive Vault	72	30
Drill Hall	25	5
Hallway By Front Door	26	10
Stairs To Second Floor West	<b>3</b>	5
Orderly Room	91	50

## Footnotes:

1. Illuminating Engineering Society of North America (IESNA), Lighting Handbook, 10th Ed., 2011, Tables 22.2, 24.2, 27.2, 28.2, 29.2.
2. NE denotes Not Established.
3. BOLD denotes levels below IESNA established illumination levels.

**APPENDIX B – INDOOR AIR QUALITY MEASUREMENTS****East Stroudsburg RC****East Stroudsburg, PA****September 11, 2017**

<b>Location</b>	<b>Temperature (°F)<sup>6</sup></b>	<b>Carbon Monoxide<sup>4</sup> (ppm)<sup>1</sup></b>	<b>Carbon Dioxide<sup>5</sup> (ppm)<sup>1</sup></b>	<b>Relative Humidity<sup>7</sup> (%)<sup>3</sup></b>
Classroom	67	2.1	680	56
IFR/ Locker Room	68	2.1	710	54
Maintenance Room	70	2.1	625	49
Maintenance Storage	70	2	590	50
Maintenance Locker Room	70	2.3	650	50
Gym	70	2	595	48
Shower Room	70	1.2	690	48
Men Bathroom	70	1.4	556	48
Kitchen Storage	70	1.8	560	46
Cleaning Chemical Storage	71	1.8	690	48
Kitchen	72	1.3	630	51
Maintenance Office	70	1.5	509	51
Stairs To Basement	70	1.5	509	50
Basement Hallway By Stairs	70	1.2	543	49
Basement Hallway By Door	70	1.3	599	50
Weapons Vault	70	1.4	655	51
Radioactive Vault	71	2.1	664	52
Drill Hall	70.5	1.8	608	48.5
Hallway By Front Door	71.2	1.5	629	49.8
Stairs To Second Floor – West	71	1.7	626	50.1
Orderly Room	71.4	1.4	664	48.9
First Sergeant's (ISGT) Office	72	1.2	796	48.2
Commanders Office	72.3	1.2	747	47.7
Recruiters Office	73.2	1.5	829	47
Recruiters Office	73.3	1.3	822	47.7
Stairs To Second Floor - East	73.1	1.5	820	45.4

## Footnotes:

1. ppm denotes parts per million.
2. F denotes Fahrenheit.
3. % denotes percentage.
4. The ANSI/ASHRAE 62.1, 8 hour average is at 9 ppm for Carbon Monoxide per the National Ambient Air Quality Standards (NAAQS).

5. ANSI/ASHRAE Standard 62.1 – 2016 recommends that carbon dioxide concentrations not exceed 700 ppm above the outdoor air concentration.
6. ANSI/ASHRAE Standard 55 – 2013 recommends that the recommended temperature range at a relative humidity of approximately 60% is 69 to 77 degrees Fahrenheit during the heating season.
7. TG 277 recommends a relative humidity level between 30-50% to inhibit mold growth.

**APPENDIX C – SURFACE WIPE SAMPLES FOR LEAD****East Stroudsburg RC****East Stroudsburg, PA****September 11, 2017**

<b>Sample ID</b>	<b>Sample Location</b>	<b>Result (<math>\mu\text{g}/\text{ft}^2</math>)<sup>1</sup></b>	<b>Meets Evaluation Criteria <sup>*2</sup> (Yes / No)</b>
PA ESTR 1	Classroom Table	<5.0	Yes
PA ESTR 2	Maintenance Room Work Bench	69	No
PA ESTR 3	Maintenance Locker Room Floor	868	No
PA ESTR 4	Maintenance Storage Room Desk	143	No
PA ESTR 5	Maintenance Room Floor By Bench	<5.0	Yes
PA ESTR 6	Basement Hall Floor By Gym Door	<5.0	Yes
PA ESTR 7	Gym Floor	<5.0	Yes
PA ESTR 8	Men's Shower Floor	<5.0	Yes
PA ESTR 9	Classroom Floor	9.4	Yes
PA ESTR 10	Kitchen Table Next To Microwave	<5.0	Yes
PA ESTR 11	Kitchen Middle Table	<5.0	Yes
PA ESTR 12	Cleaning Supply Room, 3Rd Shelf On Left, By Bleach	13	Yes
PA ESTR 13	On Floor In Cleaning Supply Room where Old Boiler located	234	No
PA ESTR 14	Men's Bathroom Floor	<5.0	Yes
PA ESTR 15	Floor Outside IFR	<5.0	Yes
PA ESTR 16	IFR Floor By Door	<5.0	Yes
PA ESTR 17	IFR Floor Center	<5.0	Yes
PA ESTR 18	IFR Floor By Back Wall	<5.0	Yes
PA ESTR 19	IFR North Wall By Door	21	Yes
PA ESTR 20	IFR North Wall Center	94	No
PA ESTR 21	IFR North Wall By Back Of Room	70	No
PA ESTR 22	IFR East Wall, Left Side	50	No
PA ESTR 23	IFR East Wall Middle	1612	No
PA ESTR 24	IFR East Wall Right Side	44	No
PA ESTR 25	IFR South Wall Left Side	41	No
PA ESTR 26	IFR South Wall Middle	<5.0	Yes
PA ESTR 27	IFR South Wall Right Side	<5.0	Yes

<b>Sample ID</b>	<b>Sample Location</b>	<b>Result (<math>\mu\text{g}/\text{ft}^2</math>)<sup>1</sup></b>	<b>Meets Evaluation Criteria <sup>*2</sup> (Yes / No)</b>
PA ESTR 28	IFR West Wall Left Side	<5.0	Yes
PA ESTR 29	IFR West Wall Middle	<5.0	Yes
PA ESTR 30	IFR West Wall Right Side	<5.0	Yes
PA ESTR 31	IFR Ceiling By Door	<5.0	Yes
PA ESTR 32	IFR Ceiling Middle	<5.0	Yes
PA ESTR 33	IFR Ceiling By East Wall	<5.0	Yes
PA ESTR 34	Drill Hall Floor	<5.0	Yes
PA ESTR 35	Weapons Vault Desk	<5.0	Yes
PA ESTR 36	Weapons Vault Floor	49	No
PA ESTR 37	Weapons Vault Floor	14	Yes
PA ESTR 38	Orderly Room Desk	<5.0	Yes
PA ESTR 39	Recruiter Desk	<5.0	Yes
PA ESTR 40	Blank	<5.0	Yes
PA ESTR 41	Blank	<5.0	Yes
PA ESTR 42	Blank	<5.0	Yes

## Footnotes:

1.  $\mu\text{g}/\text{ft}^2$  denotes micrograms per square foot of sampled surface area.
2. Evaluation criteria is  $40 \mu\text{g}/\text{ft}^2$ . Visitors are prohibited from RCs if any sample is  $>40 \mu\text{g}/\text{ft}^2$  per Memorandum, ARNG-CSG, subject: Possible Lead Dust Hazard in Army National Guard (ARNG) Readiness Centers, 23 September 2015.



# PSC-FOH ENVIRONMENTAL LABORATORY

536 S. CLARK STREET CHICAGO, IL 60605 PHONE: (312) 886-0413 FAX: (312) 886-0434

## ANALYTICAL REPORT

Submitted To: ARNG – Region NE IH Office  
2824 Fairview Pt Rd STE IH  
Edgewood, MD 21040

Attention: Mr. Jayson R. Allan/Ms. Cynthia S. Harrison, CIH/Gary Schwartz, CIH, CSP, CMC

Submitted By: Ms. Michelle C. Stemmons

**Reference Data:** Lead

Sampling Site: NGB: East Stroudsburg, PA  
Sample Media: Ghost Wipe(s)®  
Method Reference: OSHA ID-121  
Project ID: Project 16688  
DFOH Lab Nos.: TM-17-146757 through TM-17-146798  
Date Received: 09/15/17  
Data Analyzed: 10/06/17 – 10/07/17  
Date Issued: 10/11/17

The wipe samples were hot plate digested using a CEM MDS-2000. The samples were run on a Perkin Elmer flame atomic absorption spectrophotometer (AA).

### General Lab Comments:

All quality control criteria have been met.

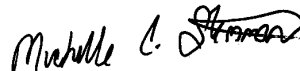
\* All samples received in condition acceptable for analysis unless otherwise noted.

\*\* Sample results have not been corrected for contamination based on the field blank or other analytical blank unless otherwise noted.

Analytical results are given on the enclosed tables. Results relate only to items tested. If you have any questions about these results, feel free to phone the Laboratory at (312) 886-0413.



Ms. Edna A. Bautista  
Technical Manager



Ms. Michelle C. Stemmons  
Laboratory Director



Project 16688  
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PSC



# PSC-FOH ENVIRONMENTAL LABORATORY

536 S. CLARK STREET CHICAGO, IL 60605 PHONE: (312) 886-0413 FAX: (312) 886-0434

## LEAD on WIPE RESULTS

SAMPLE NUMBER*	LABORATORY NUMBER	CONCENTRATION (µg)	CONCENTRATION (µg/ft <sup>2</sup> )
PA ESTR 1	TM-17-146757	<5.0	<5.0
PA ESTR 2	TM-17-146758	69	69
PA ESTR 3	TM-17-146759	868	868
PA ESTR 4	TM-17-146760	143	143
PA ESTR 5	TM-17-146761	<5.0	<5.0
PA ESTR 6	TM-17-146762	<5.0	<5.0
PA ESTR 7	TM-17-146763	<5.0	<5.0
PA ESTR 8	TM-17-146764	<5.0	<5.0
PA ESTR 9	TM-17-146765	9.4	9.4
PA ESTR 10	TM-17-146766	<5.0	<5.0
PA ESTR 11	TM-17-146767	<5.0	<5.0
PA ESTR 12	TM-17-146768	13	13
PA ESTR 13	TM-17-146769	234	234
PA ESTR 14	TM-17-146770	<5.0	<5.0
PA ESTR 15	TM-17-146771	<5.0	<5.0
PA ESTR 16	TM-17-146772	<5.0	<5.0
PA ESTR 17	TM-17-146773	<5.0	<5.0
PA ESTR 18	TM-17-146774	<5.0	<5.0
PA ESTR 19	TM-17-146775	21	21
PA ESTR 20	TM-17-146776	94	94
PA ESTR 21	TM-17-146777	70	70
PA ESTR 22	TM-17-146778	50	50
PA ESTR 23	TM-17-146779	1612	1612
PA ESTR 24	TM-17-146780	44	44
PA ESTR 25	TM-17-146781	41	41
PA ESTR 26	TM-17-146782	<5.0	<5.0
PA ESTR 27	TM-17-146783	<5.0	<5.0
PA ESTR 28	TM-17-146784	<5.0	<5.0
PA ESTR 29	TM-17-146785	<5.0	<5.0
PA ESTR 30	TM-17-146786	<5.0	<5.0
PA ESTR 31	TM-17-146787	<5.0	<5.0
PA ESTR 32	TM-17-146788	<5.0	<5.0
PA ESTR 33	TM-17-146789	<5.0	<5.0
PA ESTR 34	TM-17-146790	<5.0	<5.0
PA ESTR 35	TM-17-146791	<5.0	<5.0
PA ESTR 36	TM-17-146792	49	49
PA ESTR 37	TM-17-146793	14	14
PA ESTR 38	TM-17-146794	<5.0	<5.0
PA ESTR 39	TM-17-146795	<5.0	<5.0
PA ESTR 40	TM-17-146796	<5.0	<5.0
PA ESTR 41	TM-17-146797	<5.0	<5.0
PA ESTR 42	TM-17-146798	<5.0	<5.0



LAB # 102643

# PSC-FOH ENVIRONMENTAL LABORATORY

536 S. CLARK STREET CHICAGO, IL 60605 PHONE: (312) 886-0413 FAX: (312) 886-0434

## Surface Wipe Sampling Criteria

Metal	Acceptable Surface Level $\mu\text{g}/\text{ft}^2$	Basis for Criteria
Lead	200 for facilities (all surfaces)	NG Pam 420-15, Guidelines and Procedures for Rehabilitation and Conversion of Indoor Firing Ranges, 3 November 2006, <a href="http://www.ngbpdc.ngb.army.mil/pubs/420/ngpam420_15.pdf">http://www.ngbpdc.ngb.army.mil/pubs/420/ngpam420_15.pdf</a>
Lead	40 for any potentially child occupied areas of facility (all surfaces); used for armories with public access, family services offices, or other routine use by children	NG Pam 420-15, Guidelines and Procedures for Rehabilitation and Conversion of Indoor Firing Ranges, 3 November 2006, <a href="http://www.ngbpdc.ngb.army.mil/pubs/420/ngpam420_15.pdf">http://www.ngbpdc.ngb.army.mil/pubs/420/ngpam420_15.pdf</a>

## Metals in Wipe Limits (based on one $\text{ft}^2$ sampled area)

Analyte	Analytical Method	Method Detection Limit	Minimum Reporting Limit
Lead	OSHA ID-121	2.5 $\mu\text{g}/\text{ft}^2$	5.0 $\mu\text{g}/\text{ft}^2$

  
Ms. Edna A. Bautista  
Technical Manager



**US PUBLIC HEALTH SERVICE, FEDERAL OCCUPATIONAL HEALTH CHAIN-OF-CUSTODY / FIELD DATA SHEET**

<b>Environmental Laboratory</b> 536 S. Clark Street South, Suite 714 Chicago, IL 60605-1521 Tel: (312)-886-0413 Fax: (312)-886-0434 Attn: Michelle Stemmons		<b>PROJECT REFERENCE</b>		For Lab Use Only <span style="font-size: 1.5em;">10688</span>		Conditions on Receipt with Name & Date <span style="font-size: 1.5em;">10/4</span>												
		Agreement No.: <b>MIPR6G18MM0066</b>	Statement of Work No.: <b>S</b>	Project /Report #: <span style="font-size: 1.5em;">10688</span>		Due Date: _____		Samples Received Chilled? YES NO (circle one)										
<b>Contact Information</b> Name: Jayson Allan, Cynthia Harrison Address: ARNG Region NE IH Office 2624 Fairview Point Rd. Edgewood, MD 21040 Phone/Fax: 443-243-5492 (Blackberry) Email: jayson.r.allan.civ@mail.mil, cynthia.s.harrison2.civ@mail.mil		Project No.: <b>P</b>	Agency: <b>NGB Region Northeast IH</b>	Container Types: P-Plastic		Turn Around Time Codes <sup>4</sup> STD- Standard 3D- Three Day Rush® WH Weekend/Holiday*		Analysis Requested										
		Proj. Manager: Jayson Allan, Cynthia Harrison	Location (City, State): <b>Armory/Facility name, City State East Stroudsburg, PA</b>	Preservatives: A A-None, B-H <sub>2</sub> SO <sub>4</sub> , C-HNO <sub>3</sub> , D-NaOH		Water Sample Codes <sup>3</sup>		Lab ID #		Lead in micrograms per ft <sup>2</sup>								
ID #		Type <sup>1</sup>	Media <sup>2</sup>	Collected Date	Time	Sample Location / Description	Flow (LPM)	Air Time (Min.)	Volume (Liters)		Wipe Area (ft <sup>2</sup> )	Water Volume (Liters)	Code <sup>3</sup>	Turn Around Time <sup>4</sup>	Lab ID #			
Sample ID #1		7	5	Date	n/a	1SG's office Desk	n/a	n/a	n/a	1	n/a	n/a	STD					
Sample ID #2		7	5	Date	n/a	1SG's office Floor	n/a	n/a	n/a	1	n/a	n/a	STD					
PA ESTR 1		7	5	9/11/17	12:14	Classroom table	na	na	na	1	na	na	STD	TM-17-146757				
PA ESTR 2		7	5	9/11/17	12:30	Maintenance Room walkway	na	na	na	1	na	na	STD	146758				
PA ESTR 3		7	5	9/11/17	12:37	Maintenance locker room	na	na	na	1	na	na	STD	146759				
PA ESTR 4		7	5	9/11/17	12:45	Maintenance storage room	na	na	na	1	na	na	STD	146760				
PA ESTR 5		7	5	9/11/17	12:45	Floor by Bereh Bridge	na	na	na	1	na	na	STD	146761				
PA ESTR 6		7	5	9/11/17	12:50	Hallway Floor by Gym Door	na	na	na	1	na	na	STD	146762				
PA ESTR 7		7	5	9/14/17	12:55	Gym floor	na	na	na	1	na	na	STD	146763				
PA ESTR 8		7	5	9/11/17	1:10	Mens Shower Floor in front of door	na	na	na	1	na	na	STD	146764				
PA ESTR 9		7	5	9/11/17	1:08	Classroom floor	na	na	na	1	na	na	STD	146765				
PA ESTR 10		7	5	9/11/17	1:11	Kitchen table next to microwave	na	na	na	1	na	na	STD	146766				
PA ESTR 11		7	5	9/11/17	1:12	Kitchen middle table	na	na	na	1	na	na	STD	146767				
Sample Type Codes <sup>1</sup> 1-Air 2-Water 3-Paint 4-Soil 5-Dust 6-Bulk 7-Wipe 8-Other		Sample Media Codes <sup>2</sup> 1-Charcoal 2-Matched Weight, 0.8um 3-PVC filter 4-M CE 0.8 um , 37 mm 5-Ghost Wipes™ 6. Passive badge 7. Other		Relinquished By <del>Jayson Allan</del> Aaron Chen		Date & Time <del>4/14/2016</del> 9/14/17		Received By Karen [Signature]		Date & Time 9/15/17								
COMMENTS: CC Paula Tessier: Paula@phaseassociate.com																		

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**US PUBLIC HEALTH SERVICE, FEDERAL OCCUPATIONAL HEALTH CHAIN-OF-CUSTODY / FIELD DATA SHEET**

<b>Environmental Laboratory</b> 536 S. Clark Street South, Suite 714 Chicago, IL 60605-1521 Tel: (312)-886-0413 Fax: (312)-886-0434 Attn: Michelle Stemmons				<b>PROJECT REFERENCE</b>				<b>For Lab Use Only</b> <i>146688</i> Conditions on Receipt with Name & Date <i>2014</i> Project /Report #: _____ Due Date: _____ Samples Received Chilled? YES NO (circle one) <span style="float:right">Rev. 07/2010</span>										
				Agreement No.: <b>MIPR6G18MM0066</b>		Statement of Work No.: <b>S</b>		Project No.: <b>P</b>		Container Types: P-Plastic		Turn Around Time Codes <sup>4</sup> STD- Standard 3D- Three Day Rush® WH Weekend/Holiday*		Analysis Requested				
<b>Contact Information</b> Name: Jayson Allan, Cynthia Harrison Address: ARNG Region NE IH Office 2624 Fairview Point Rd. Edgewood, MD 21040 Phone/Fax: 443-243-5492 (Blackberry) Email: jayson.r.allan.civ@mail.mil, cynthia.s.harrison2.civ@mail.mil				Agency: NGB Region Northeast IH Proj. Manager: Jayson Allan, Cynthia Harrison		Preservatives: A A-None, B-H <sub>2</sub> SO <sub>4</sub> , C-HNO <sub>3</sub> , D-NaOH												
				Location (City, State): Armory/Facility name, City State <i>East Stroudsburg, PA</i>														
ID #	Sample			Sample Location / Description	Air			Wipe	Water		Turn Around Time <sup>4</sup>	Lab ID #	Lead in micrograms per ft <sup>2</sup>					
	Type <sup>1</sup>	Media <sup>2</sup>	Collected Date Time		Flow (LPM)	Time (Min.)	Volume (Liters)	Area (ft <sup>2</sup> )	Volume (Liters)	Code <sup>3</sup>								
Sample ID #1	7	5	Date	n/a	1SG's office Desk	n/a	n/a	n/a	1	n/a	n/a	STD		X				
Sample ID #2	7	5	Date	n/a	1SG's office Floor	n/a	n/a	n/a	1	n/a	n/a	STD		X				
PA ESTR 12	7	5	9/11/17	15:24	3rd s helix on left Cleaning Supply Room + Bleach	na	na	na	1	na	na	STD	TM-17-146768	X				
PA ESTR 13	7	5	9/11/17	1:27	0D floor in cleaning supply room on old wipers spot	na	na	na	1	na	na	STD	146769	X				
PA ESTR 14	7	5	9/11/17	1:27	Mons bathroom floor	na	na	na	1	na	na	STD	146770	X				
PA ESTR 15	7	5	9/11/17	1:30	outside IFR door on hallway floor	na	na	na	1	na	na	STD	146771	X				
PA ESTR 16	7	5	9/11/17	1:30	IFR floor by door	na	na	na	1	na	na	STD	146772	X				
PA ESTR 17	7	5	9/11/17	1:40	IFR floor center	na	na	na	1	na	na	STD	146773	X				
PA ESTR 18	7	5	9/11/17	1:40	IFR floor by back wall	na	na	na	1	na	na	STD	146774	X				
PA ESTR 19	7	5	9/11/17	1:47	IFR wall by door	na	na	na	1	na	na	STD	146775	X				
PA ESTR 20	7	5	9/11/17	1:55	IFR north wall center	na	na	na	1	na	na	STD	146776	X				
PA ESTR 21	7	5	9/11/17	1:55	IFR north wall by back of room	na	na	na	1	na	na	STD	146777	X				
PA ESTR 22	7	5	9/11/17	2:30	IFR <del>floor</del> wall left side	na	na	na	1	na	na	STD	146778	X				
<b>Sample Type Codes<sup>1</sup></b> 1-Air 2-Water 3-Paint 4-Soil 5-Dust 6-Bulk 7-Wipe 8-Other				<b>Sample Media Codes<sup>2</sup></b> 1-Charcoal 2-Matched Weight, 0.8um 3-PVC filter 4-M CE 0.8 um , 37 mm 5-Ghost Wipes™ 6. Passive badge 7. Other				<b>Relinquished By</b> Jayson Allan Jason Wrotsky		<b>Date &amp; Time</b> 9/14/2016 9/14/17		<b>Received By</b> Karen Hody		<b>Date &amp; Time</b> 9/15/17				
<b>COMMENTS:</b> CC Paula Hessler : paula@phaseassociate.com																		

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**US PUBLIC HEALTH SERVICE, FEDERAL OCCUPATIONAL HEALTH CHAIN-OF-CUSTODY / FIELD DATA SHEET**

<b>Environmental Laboratory</b> 536 S. Clark Street South, Suite 714 Chicago, IL 60605-1521 Tel: (312)-886-0413 Fax: (312)-886-0434 Attn: Michelle Stemmons				<b>PROJECT REFERENCE</b>				<b>For Lab Use Only</b> <span style="float:right">Conditions on Receipt with Name &amp; Date</span> Project /Report #: <u>146088</u> <span style="float:right"><u>304</u></span> Due Date: _____ Samples Received Chilled? YES NO (circle one) <span style="float:right">Rev. 07/2010</span>										
				Agreement No.: <b>MIPR6G18MM0066</b>		Statement of Work No.: <b>S</b>		Water Sample Codes <sup>3</sup>		Turn Around Time Codes <sup>4</sup>		Analysis Requested						
<b>Contact Information</b>				Project No.: <b>P</b>		Container Types: P-Plastic		STD- Standard 3D- Three Day Rush® WH Weekend/Holiday*		Lead in micrograms per ft²								
Name: Jayson Allan, Cynthia Harrison		Agency: NGB Region Northeast IH		Preservatives: A A-None, B-H <sub>2</sub> SO <sub>4</sub> , C-HNO <sub>3</sub> , D-NaOH														
Address: ARNG Region NE IH Office 2624 Fairview Point Rd. Edgewood, MD 21040		Proj. Manager: Jayson Allan, Cynthia Harrison		Location: Armory/Facility name, City (City, State): State <u>East Stream, Maryland, PA</u>														
Phone/Fax: 443-243-5492 (Blackberry)																		
Email: jayson.r.allan.civ@mail.mil, cynthia.s.harrison2.civ@mail.mil																		
ID #	Type <sup>1</sup>	Media <sup>2</sup>	Collected		Sample Location / Description	Air			Wipe	Water		Turn Around Time <sup>4</sup>	Lab ID #					
			Date	Time		Flow (LPM)	Time (Min.)	Volume (Liters)	Area (ft²)	Volume (Liters)	Code <sup>3</sup>							
Sample ID #1	7	5	Date	n/a	1SG's office Desk	n/a	n/a	n/a	1	n/a	n/a	STD		X				
Sample ID #2	7	5	Date	n/a	1SG's office Floor	n/a	n/a	n/a	1	n/a	n/a	STD		X				
PA ESTR 23	7	5	9/11/17	2:36	IFR <del>East</del> wall middle	na	na	na	1	na	na	STD	TM-17-146779	X				
PA ESTR 24	7	5	9/11/17	2:40	IFR <del>East</del> wall right side	na	na	na	1	na	na	STD	146780	X				
PA ESTR 25	7	5	9/11/17	2:55	IFR South wall left side	na	na	na	1	na	na	STD	146781	X				
PA ESTR 26	7	5	9/11/17	3:05	IFR South wall middle	na	na	na	1	na	na	STD	146782	X				
PA ESTR 27	7	5	9/11/17	3:13	IFR South wall right side	na	na	na	1	na	na	STD	146783	X				
PA ESTR 28	7	5	9/11/17	3:26	IFR West wall left side	na	na	na	1	na	na	STD	146784	X				
PA ESTR 29	7	5	9/11/17	3:21	IFR West wall middle	na	na	na	1	na	na	STD	146785	X				
PA ESTR 30	7	5	9/11/17	3:25	IFR West wall by door	na	na	na	1	na	na	STD	146786	X				
PA ESTR 31	7	5	9/11/17	3:30	IFR ceiling by door	na	na	na	1	na	na	STD	146787	X				
PA ESTR 32	7	5	9/11/17	3:35	IFR ceiling middle	na	na	na	1	na	na	STD	146788	X				
PA ESTR 33	7	5	9/11/17	3:40	IFR ceiling by East wall	na	na	na	1	na	na	STD	146789	X				
<b>Sample Type Codes<sup>1</sup></b>			<b>Sample Media Codes<sup>2</sup></b>			<b>Relinquished By</b>			<b>Date &amp; Time</b>		<b>Received By</b>		<b>Date &amp; Time</b>					
1-Air 2-Water 3-Paint 4-Soil 5-Dust 6-Bulk 7-Wipe 8-Other			1-Charcoal 2-Matched Weight, 0.8um 3-PVC filter 4-M CE 0.8 um, 37 mm 5-Ghost Wipes™ 6 Passive badge 7. Other			Jayson Allan Jason Wisotzky			4/14/2016 9/14/17		Karen H...		9/15/17					
<b>COMMENTS:</b> CC Paula Hessler : paula@phaseassociate.com																		

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<b>Environmental Laboratory</b> 536 S. Clark Street South, Suite 714 Chicago, IL 60605-1521 Tel: (312)-886-0413 Fax: (312)-886-0434 Attn: Michelle Stemmons				<b>PROJECT REFERENCE</b>				<b>For Lab Use Only</b> <span style="float:right">Conditions on Receipt with Name &amp; Date</span> Project /Report #: <u>16688</u> <span style="float:right"><u>4/04</u></span> Due Date: _____ Samples Received Chilled? YES NO (circle one) <span style="float:right">Rev. 07/2010</span>										
				Agreement No.: <b>MIPR6G18MM0066</b>		Statement of Work No.: <b>S</b>		Project No.: <b>P</b>		Container Types: P-Plastic		Turn Around Time Codes <sup>4</sup> STD- Standard 3D- Three Day Rush® WH Weekend/Holiday*		Analysis Requested				
<b>Contact Information</b> Name: Jayson Allan, Cynthia Harrison Address: ARNG Region NE IH Office 2624 Fairview Point Rd. Edgewood, MD 21040 Phone/Fax: 443-243-5492 (Blackberry) Email: jayson.r.allan.civ@mail.mil, cynthia.s.harrison2.civ@mail.mil				Agency: <b>NGB Region Northeast IH</b>		Proj. Manager: Jayson Allan, Cynthia Harrison		Preservatives: <b>A</b> A-None, B-H <sub>2</sub> SO <sub>4</sub> , C-HNO <sub>3</sub> , D-NaOH		(City, State): <u>State East Stroudsburg, PA</u>								
ID #	Sample			Sample Location / Description	Air		Wipe	Water		Turn Around Time <sup>4</sup>	Lab ID #	Lead in micrograms per ft <sup>2</sup>	Analysis Requested					
	Type <sup>1</sup>	Media <sup>2</sup>	Collected Date Time		Flow (LPM)	Time (Min.)	Volume (Liters)	Area (ft <sup>2</sup> )	Volume (Liters)				Code <sup>3</sup>					
Sample ID #1	7	5	Date	n/a	1SG's office Desk	n/a	n/a	n/a	1	n/a	n/a	STD						
Sample ID #2	7	5	Date	n/a	1SG's office Floor	n/a	n/a	n/a	1	n/a	n/a	STD						
PA ESTR 34	7	5	9/11/17	3:50	Drill hall floor	na	na	na	1	na	na	STD	TM-7-146790					
PA ESTR 35	7	5	9/11/17	3:55	Weapons Vault Desk	na	na	na	1	na	na	STD	146791					
PA ESTR 36	7	5	9/11/17	3:57	Weapons Vault floor	na	na	na	1	na	na	STD	146792					
PA ESTR 37	7	5	9/11/17	4:02	MVC floor	na	na	na	1	na	na	STD	146793					
PA ESTR 38	7	5	9/11/17	4:07	Orderly room Desk	na	na	na	1	na	na	STD	146794					
PA ESTR 39	7	5	9/11/17	4:08	Recruiter Desk	na	na	na	1	na	na	STD	146795					
PA ESTR 40	7	5	9/11/17	4:10	Blank	na	na	na	1	na	na	STD	146796					
PA ESTR 41	7	5	9/11/17	4:10	Blank	na	na	na	1	na	na	STD	146797					
PA ESTR 42	7	5	9/11/17	4:10	Blank	na	na	na	1	na	na	STD	146798					
<b>Sample Type Codes<sup>1</sup></b> 1-Air 2-Water 3-Paint 4-Soil 5-Dust 6-Bulk 7-Wipe 8-Other				<b>Sample Media Codes<sup>2</sup></b> 1-Charcoal 2-Matched Weight, 0.8um 3-PVC filter 4-M CE 0.8 um , 37 mm 5-Ghost Wipes™ 6. Passive badge 7. Other				<b>Relinquished By</b> <u>Jayson Allan</u> <u>Jason Wisniewsky</u>		<b>Date &amp; Time</b> <u>4/14/2016</u> <u>9/14/17</u>		<b>Received By</b> <u>Karen Hols</u>		<b>Date &amp; Time</b> <u>9/19/17</u>				
<b>COMMENTS:</b> CC Paula Hessler : paula@phaseassociate.com <u>9/14/17</u>																		

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## APPENDIX D – REFERENCES

1. Occupational Safety and Health Administration (OSHA), 29 Code of Federal Regulations (CFR), 1910 - General Industry
2. Lighting Handbook, Illuminating Engineering Society of North America (IESNA), 10<sup>th</sup> Edition, 2011.
3. Army National Guard Pamphlet (NG Pam) 420-15, "Guidelines and Procedures for Rehabilitation and Conversion of Indoor Firing Ranges," 3 Nov 2006
4. American National Standards Institute (ANSI)/American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE) 62.1-2016, Ventilation for Acceptable Air Quality
5. ANSI/ASHRAE 55-2013, Thermal conditions for human occupancy
6. United States Army Center for Health Promotion and Preventive Medicine (USACHPPM) Technical Guide 277, Army Facilities Management Information Document on Mold Remediation Issues, February 2002
7. Department of the Army Pamphlet 40-513, "Occupational and Environmental Health Guidelines for the Evaluation and Control of Asbestos Exposure," July 2013
8. Memorandum, NGB-ZA, subject: Supplemental Guidance to ARNG-CSG Memorandum, Possible Lead Dust Hazard in Army National Guard (ARNG) Readiness Centers, 6 December 2016.
9. Industrial Hygiene Sampling Guide for Surface Lead in Readiness Centers, Army National Guard (ARNG) Industrial Hygiene Program, 26 October 2015.
10. American Society for Testing and Materials (ASTM) Standard E1728, *Standard Practice for Collection of Settled Dust Samples Using Wipe Sampling Methods for Subsequent Lead Determination*, ASTM International, West Conshohocken, Pennsylvania, [www.astm.org](http://www.astm.org), 2010.
11. Department of Defense Instruction 6055.01, Department of Defense (DoD) Safety and Occupational Health Program, 14 October 2014.
12. Department of the Army Pamphlet (DA-PAM) 40-503, Industrial Hygiene Program, 2 April 2013.
13. Memorandum for the Chiefs of Staff of all States, Puerto Rico, the US Virgin Islands, Guam, and the District of Columbia, National Guard Bureau, ARNG-CSG, subject: Possible Lead Dust Hazard in Army National Guard (ARNG) Readiness Centers, 23 September 2015.
14. Title 40 CFR, Part 745, as amended, Environmental Protection Agency (EPA).
15. Department of Energy (DOE), Brookhaven National Laboratory, Safety & Health Services Division, Standing Operating Procedure (SOP) IH75190, Surface Wipe Sampling Procedure, 3 April 2014.
16. Lead Cleaning SOP, ARNG Industrial Hygiene Program, 2015.
17. ASTM Standard E1792, 2011, "*Standard Specification for Wipe Sampling Materials for Lead in Surface Dust*," ASTM International, West Conshohocken, Pennsylvania, [www.astm.org](http://www.astm.org).



## **APPENDIX E – PHOTOGRAPH INDEX AND SITE PHOTOGRAPHS**

### **PHOTOGRAPH INDEX**

1. Water damage on ceiling in the Gym
2. Damaged potential asbestos containing floor tiles
3. Damaged potential asbestos containing floor tiles
4. Water damage on wall in hallway near main entrance

## SITE PHOTOGRAPHS



1. Water damage on ceiling in the Gym



2. Damaged potential asbestos containing floor tiles



3. Damaged potential asbestos containing floor tiles



4. Suspect water damage on wall in hallway near main entrance