Document 1

LANGAN

Draft Memorandum

300 Kimball Drive Parsippany, NJ 07054 T: 973.560.4900 F: 973.560.4901

To: John Duffy - NJSEA

From: Vijay Patel, Miroslaw Baran

Info: Maryam Moait, David Forti, Michelle Glidden - NJSEA
Paul McAndrew – Langan

Date: March 15, 2022

Re: Limited Asbestos Containing Materials Survey
Maintenance Building & Pump House Generator Room
Meadowlands Sports Complex
East Rutherford, NJ 07073
Langan Project No.: 1009529021

This report by Langan Engineering & Environmental Services, Inc. (Langan) summarizes asbestos containing materials (ACM) findings in select areas of the Maintenance Building & Pump House located within the Meadowlands Sports Complex, East Rutherford, NJ 07073. Langan's scope for the project was limited to the following:

1. ~~Maintenance Building - Assessment and sampling of suspect flooring and baseboard.~~
2. Generator Room in Pump House - Assessment and sampling of suspect materials affected by generator removal activities.

Langan completed sampling of accessible suspect building materials that would be impacted by planned project activities.

SUMMARY OF OBSERVATIONS AND FINDINGS

Asbestos Containing Materials:

Nineteen (19) representative bulk samples (with sub-layers) of suspect ACM were collected during the February 23, 2022 site visit. Materials determined to be ACM through testing, are summarized below.

Material	Location	Survey Results	Estimated Quantity	
Maintenance Building - Survey Limited to Select Areas with Vinyl Floor Tiles				
12-inch floor tiles and associated mastic	Select Building Spaces	ACM	2,460	SF
Glue to baseboard molding (Molding shall be treated as asbestos contaminated)	Select Building Areas	ACM	140	SF
Pump House - Generator Room				
Exterior louver caulk (observed)	Perimeter Wall	ACM	80	LF
Exterior louver caulk (estimated concealed)	Perimeter Wall	ACM	100	LF

Table 1 in Attachment A presents a summary of suspect materials observed and sampled during our site visit.

RECOMMENDATIONS

All identified ACM which would be impacted by planned project activities shall be properly abated prior to performing such activities. The removal and disposal should be performed by a licensed asbestos handling contractor in accordance with Federal, State, and Local regulations. Proper notifications must be filed with the USEPA, State of New Jersey, and other regulatory agencies prior to performing such activities.

Enclosures:

Attachment A: Limited Asbestos Assessment Findings
Attachment B: Asbestos Laboratory Analytical Results and chain-of-Custody Documentation

Attachment A

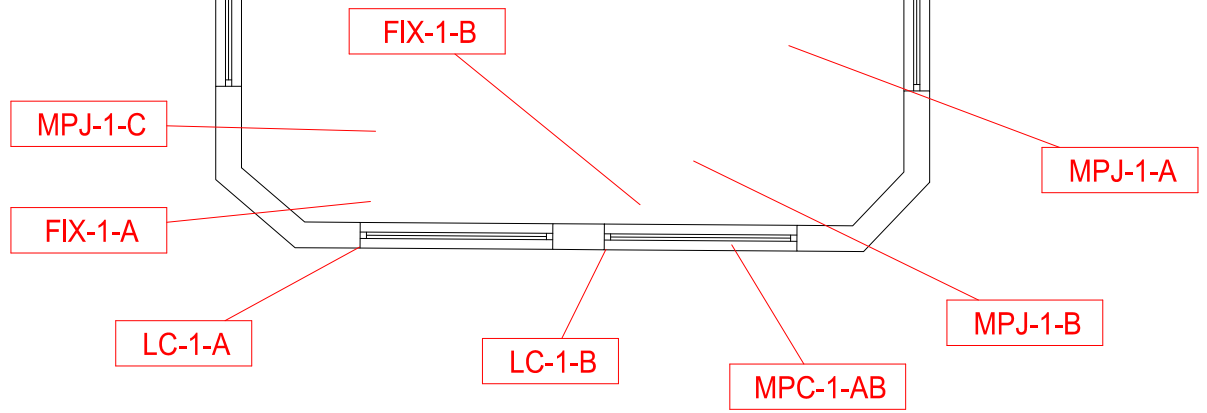
Limited Asbestos Assessment Findings

LANGAN

Table 1 - SUMMARY OF ASBESTOS SURVEY FINDINGS
Meadowlands Sports Complex,East Rutherford, NJ 07073

Material	Sample ID	Location	Survey Results		Estimated Quantity of ACM	Notes/Comments
ACM FINDINGS						
Maintenance Building - Sampling of Flooring Materials (Select Areas)						
12-inch mottled tan floor tile	FT-1-A	Spaces S1, S2, S6, S9, S10, S11, S12	ACM	CHRY 2.0%	1,790 SF	---
Mastic to floor tile			ACM	CHRY 10.0%		
12-inch lt. beige floor tile	FT-2-A	Spaces S3 & S4	ACM	CHRY 3.0%	150 SF	---
Mastic to floor tile			ACM	CHRY 5.0%		
12-inch grey floor tile	FT-3-A	Spaces S5 & S13	Non-ACM	ND	520 SF	---
Mastic to floor tile			ACM	CHRY 3.0%		
Baseboard molding	BBM-1-A	Throughout Surveyed Areras	Non-ACM	ND	140 SF	---
Glue to baseboard			ACM	ANTH 2.0%		
12-inch spackled tan floor tile	FT-4-A	Spaces S7 & S8	Non-ACM	ND	-- SF	---
Glue to floor tile			Non-ACM	ND		
Pump House - Generator Room						
Exterior louver caulk (observed)	LC-1	Generator Room - Exterior	ACM	ANTH 3.0%	80 LF	---
Exterior louver caulk (estimated concealed with blocked side louvers)	LC-1	Generator Room - Exterior	ACM	ANTH 3.0%	100 LF	---
Mud-pack elbow, joint & pipe end insulation	MPJ	Generator Room - Interior/Exterior	Non-ACM	ND	-- LF	---
Flexible connector	FIX	Generator Room - Interior	Non-ACM	ND	-- SF	---
Wall/exhaust caulk	MPC-1	Generator Room - Interior	Non-ACM	CHRY Trace	-- LF	---

1 A material with asbestos content greater than one percent (>1.0%) is considered as an asbestos-containing material (ACM). Concentrations in weight percent.
2 ND = "None Detected" – Asbestos not detected in sampled material.
3 CHRY = Chrysotile Asbestos
4 ANTH = Anthophyllite Asbestos



1 ASL-02

GENERATOR ROOM
PUMP HOUSE

SCALE: N.T.S.

GENERAL NOTES:

A. THIS PLAN IS PROVIDED TO SHOW APPROXIMATE SAMPLING LOCATIONS. THE ACTUAL LAYOUT OF THE BUILDING AND BUILDING EQUIPMENT MAY BE SLIGHTLY DIFFERENT THAN SHOWN.

LANGAN
Langan Engineering and Environmental Services, Inc.
300 Kimball Drive
Parsippany, NJ 07054
T: 973.560.4900 F: 973.560.4901 www.langan.com
NJ Certificate of Authorization No.24GA27996400

Project
Meadowlands Sports Complex
GENERATOR ROOM
EAST RUTHERFORD NEW JERSEY

Drawing Title
ASBESTOS SAMPLING LOCATIONS

Project No.	100952902
Date	2022-02-28
Drawn By	MB
Checked By	VP

Drawing No.
ASL-02
Sheet 02 of 02

Filename: \\langan.com\data\PAR\data9\100952901\Project Data_Discipline\Hazmat\6 - Maintenance Garage & Pump House Survey\Sample Location Drawings\ASL.dwg Date: 2/28/2022 Time: 09:50 User: mbaran Style Table: Langan.stb Layout: 02

Attachment B

Asbestos Laboratory Analytical Results and chain-of-Custody Documentation

Please Reply To:

AmeriSci New York
117 EAST 30TH ST.
NEW YORK, NY 10016
TEL: (212) 679-8600 • FAX: (212) 679-3114

LABORATORY ELECTRONIC TRANSMITTAL

To: Vijay Patel
Langan Engineering & Environmental Service
Fax #:

Email: vpatel@langan.com, ddesai@langan.com, bfeury@langan.com, mbaran@langan.com

From: John P. Koubiadis
AmeriSci Job #: 222023138
Subject: PLM 3 day Results
Client Project: 100952902; 50 NJ-120 - Maintenance Building & Pump House; Meadowlands Sports Complex, East Rutherford, NJ 07073

Date: Sunday, February 27, 2022
Time: 10:18:19
Comments:

Number of Pages: _____
(including cover sheet)

NOTE: Attached report is to be considered preliminary until final review with accompanying analysis summary letter is issued.

PLM Bulk Asbestos Report

100952902; 50 NJ-120 - Maintenance Building & Pump House;
Meadowlands Sports Complex, East Rutherford, NJ 07073

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
BBM-1-A BBM1G	222023138-09L2 **Location:** Maintenance Building - Baseboard Glue	***Yes***	2% (by CVES) by John P. Koubiadis on 02/26/22
Analyst Description: Brown, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Anthophyllite 2.0 % **Other Material:** Fibrous Talc 5%, Non-fibrous 93%			
BBM-1-B BBM1	222023138-10L1 **Location:** Maintenance Building - Baseboard	***No***	NAD (by CVES) by John P. Koubiadis on 02/26/22
Analyst Description: Brown, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100%			
BBM-1-B BBM1G	222023138-10L2 **Location:** Maintenance Building - Baseboard Glue		NA/PS
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
MPJ-1-A MPJ1	222023138-11 **Location:** Pump House - Mud-Pack Elbow, Joint & Pipe End Insulation	***No***	NAD (by CVES) by John P. Koubiadis on 02/26/22
Analyst Description: Grey, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Fibrous glass 15%, Non-fibrous 85%			
MPJ-1-B MPJ1	222023138-12 **Location:** Pump House - Mud-Pack Elbow, Joint & Pipe End Insulation	***No***	NAD (by CVES) by John P. Koubiadis on 02/26/22
Analyst Description: Grey, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Fibrous glass 15%, Non-fibrous 85%			
MPJ-1-C MPJ1	222023138-13 **Location:** Pump House - Mud-Pack Elbow, Joint & Pipe End Insulation	***No***	NAD (by CVES) by John P. Koubiadis on 02/26/22
Analyst Description: Grey, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Fibrous glass 15%, Non-fibrous 85%			

See Reporting notes on last page

PLM Bulk Asbestos Report

100952902; 50 NJ-120 - Maintenance Building & Pump House;
Meadowlands Sports Complex, East Rutherford, NJ 07073

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
FLX-1-A FLX1	222023138-14 **Location:** Pump House - Flexible Connector	***No***	NAD (by CVES) by John P. Koubiadis on 02/26/22
Analyst Description: Black/Gray, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Fibrous glass 75%, Non-fibrous 25%			
FLX-1-B FLX1	222023138-15 **Location:** Pump House - Flexible Connector	***No***	NAD (by CVES) by John P. Koubiadis on 02/26/22
Analyst Description: Black/Gray, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Fibrous glass 75%, Non-fibrous 25%			
LC-1-A LC1	222023138-16 **Location:** Pump House - Exterior Louver Caulk	***Yes***	3% (by CVES) by John P. Koubiadis on 02/26/22
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Anthophyllite 3.0 % **Other Material:** Fibrous Talc 7%, Non-fibrous 90%			
LC-1-B LC1	222023138-17 **Location:** Pump House - Exterior Louver Caulk		NA/PS
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
MPC-1-A MPC1	222023138-18 **Location:** Pump House - Wall / Exhaust Caulk	***No***	NAD (by CVES) by John P. Koubiadis on 02/26/22
Analyst Description: Off-White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100%			
MPC-1-B MPC1	222023138-19 **Location:** Pump House - Wall / Exhaust Caulk	***No***	NAD (by CVES) by John P. Koubiadis on 02/26/22
Analyst Description: Off-White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100%			

See Reporting notes on last page

PLM Bulk Asbestos Report

100952902; 50 NJ-120 - Maintenance Building & Pump House;
Meadowlands Sports Complex, East Rutherford, NJ 07073

Reporting Notes:

Analyzed by: John P. Koubiadis
Date: 2/26/2022

Reviewed by: Marik Peysakhov

*NAD/NSD =no asbestos detected; NA =not analyzed; NA/PS=not analyzed/positive stop, (SOF-V) = Sprayed On Fireproofing containing Vermiculite; (SM-V) = Surfacing Material containing Vermiculite; PLM Bulk Asbestos Analysis using Olympus, Model BH-2 Pol Scope, Microscope, Serial #: 223705, by Appd E to Subpt E, 40 CFR 763 quantified by either CVES or 400 pt ct as noted for each analysis (NVLAP 200546-0), ELAP PLM Method 198.1 for NY friable samples, which includes the identification and quantitation of vermiculite, or ELAP 198.6 for NOB samples, or EPA 400 pt ct by EPA 600-M4-82-020 (NY ELAP Lab 11480); Note:PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. NAD or Trace results by PLM are inconclusive, TEM is currently the only method that can be used to determine if this material can be considered or treated as non asbestos-containing in NY State (also see EPA Advisory for floor tile, FR 59,146,38970,8/1/94) National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the lab.This PLM report relates ONLY to the items tested. RI Cert AAL-094, CT Cert PH-0186, Mass Cert AA000054, NJ Lab ID #NY031.

_____END OF REPORT_____

Table I
Summary of Bulk Asbestos Analysis Results

100952902; 50 NJ-120 - Maintenance Building & Pump House; Meadowlands Sports Complex, East Rutherford, NJ 07073

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
09L1	BBM-1-A	BBM1	0.310	33.4	32.0	34.6	NAD	NAD
Location: Maintenance Building - Baseboard								
09L2	BBM-1-A	BBM1G	----	----	----	----	Anthophyllite 2.0	NA
Location: Maintenance Building - Baseboard Glue								
10L1	BBM-1-B	BBM1	0.263	32.1	34.4	33.5	NAD	NAD
Location: Maintenance Building - Baseboard								
10L2	BBM-1-B	BBM1G	----	----	----	----	NA/PS	NA
Location: Maintenance Building - Baseboard Glue								
11	MPJ-1-A	MPJ1	----	----	----	----	NAD	NA
Location: Pump House - Mud-Pack Elbow, Joint & Pipe End Insulation								
12	MPJ-1-B	MPJ1	----	----	----	----	NAD	NA
Location: Pump House - Mud-Pack Elbow, Joint & Pipe End Insulation								
13	MPJ-1-C	MPJ1	----	----	----	----	NAD	NA
Location: Pump House - Mud-Pack Elbow, Joint & Pipe End Insulation								
14	FLX-1-A	FLX1	----	----	----	----	NAD	NA
Location: Pump House - Flexible Connector								
15	FLX-1-B	FLX1	----	----	----	----	NAD	NA
Location: Pump House - Flexible Connector								
16	LC-1-A	LC1	----	----	----	----	Anthophyllite 3.0	NA
Location: Pump House - Exterior Louver Caulk								
17	LC-1-B	LC1	----	----	----	----	NA/PS	NA
Location: Pump House - Exterior Louver Caulk								
18	MPC-1-A	MPC1	0.176	59.0	33.8	7.1	NAD	Chrysotile Trace
Location: Pump House - Wall / Exhaust Caulk								
19	MPC-1-B	MPC1	0.246	58.7	35.6	5.6	NAD	Chrysotile Trace
Location: Pump House - Wall / Exhaust Caulk								

See Reporting notes on last page

Client Name: Langan Engineering & Environmental Services

Table I
Summary of Bulk Asbestos Analysis Results

100952902; 50 NJ-120 - Maintenance Building & Pump House; Meadowlands Sports Complex, East Rutherford, NJ 07073

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM

Analyzed by: Marik Peysakhov
Date: 2/27/2022

Reviewed by: Marik Peysakhov

**Quantitative Analysis (Semi/Full); Bulk Asbestos Analysis - PLM by Appd E to Subpt E, 40 CFR 763 or NYSDOH ELAP 198.1 for New York friable samples or NYSDOH ELAP 198.6 for New York NOB samples; TEM (Semi/Full) by EPA 600/R-93/116 (or NYSDOH ELAP 198.4; for New York samples). Analysis using Hitachi, Model H7000-Noran 7 System, Microscope, Serial #: 747-05-06. NAD = no asbestos detected during a quantitative analysis; NA = not analyzed; Trace = <1%; (SOF-V) = Sprayed On Fireproofing containing Vermiculite; (SM-V) = Surfacing Material containing Vermiculite; Quantitation for beginning weights of <0.1 grams should be considered as qualitative only; Qualitative Analysis: Asbestos analysis results of "Present" or "NVA = No Visible Asbestos" represents results for Qualitative PLM or TEM Analysis only (no accreditation coverage available from any regulatory agency for qualitative analyses): NVLAP (PLM) 200546-0, NYSDOH ELAP Lab 11480, NJ Lab ID #NY031.

Warning Note: PLM limitation, only TEM will resolve fibers <0.25 micrometers in diameter. TEM bulk analysis is representative of the fine grained matrix material and may not be representative of non-uniformly dispersed debris for which PLM evaluation is recommended (i.e. soils and other heterogenous materials).

LANGAN
300 Kimball Drive
Parsippany, NJ 07054
Phone: 973-560-4900
Fax: 973-560-4901

CHAIN OF CUSTODY RECORD / ANALYSIS REQUEST

222023138

Project Name:	50 NJ-120 - Maintenance Building & Pump House		
Address:	Meadowlands Sports Complex, East Rutherford, NJ 07073	Auth. By:	Vijay Patel
		Phone No:	973.560.4983
Langan Job No.:	100952902	Sampling Date:	2/23/2022
Sampled By/License #:	MIROSLAW BARAN		

Sample #	Sample ID	Description of Sample	Sample Location	Analysis Requested for Asbestos: PLM	PLM-NOB	TEM	Analysis Requested for Lead: AAS	TCLP	Analysis Requested for PCB: EPA Method 8082	Results
11	**MPJ-1-A**	Mud-pack elbow, joint & pipe end insulation	Pump House	X						
12	**MPJ-1-B**	Mud-pack elbow, joint & pipe end insulation	Pump House	X						
13	**MPJ-1-M**	Mud-pack elbow, joint & pipe end insulation	Pump House	X						
14	**FLX-1-A**	Flexible connector	Pump House	X						
15	**FLX-1-B**	Flexible connector	Pump House	X						
16	**LC-1-A**	Exterior louver caulk	Pump House	X		X				
17	**LC-1-B**	Exterior louver caulk	Pump House	X		X				
18	**MPC-1-A**	Wall/exhaust caulk	Pump House	X		X				
19	**MPC-1-B**	Wall/exhaust caulk	Pump House	X		X				

Total No. of Samples: 9

Turnaround Request:

RUSH	12 hours	24 hours	48 hours	72 hours	5 days
				X	

Laboratory Instructions: Stop analysis @ 1st positive (>1% by weight) for each homogenous sample group. Please e-mail results to mbaran@langan.com and vpatel@langan.com.

Please analyze all fireproofing, plaster and wall coating materials samples. Do not stop analysis @ 1st positive (>1% by weight).

Relinquished By:	MIROSLAW BARAN	Date:	Time:	Received by:	Date:	Time:
		2/23/2022		J. Byrne	2/24/22	1630
Company: **LANGAN**				Company: Amerisci NJ		

Laboratory Name:

SECTION 02 06 00 - ASBESTOS ABATEMENT

PART 1-GENERAL

1.01 GENERAL

1. This specification covers the proper and legal removal and disposal of asbestos containing materials (ACM) caulking, floor tiles and associated mastic, baseboard mastic and contaminated vinyl baseboard from select locations of the Maintenance Building and Pump House Generator Room at the Meadowlands Sports Complex, East Rutherford, New Jersey. The abatement activities shall comply with all aspects of the contract documents and Federal, State and local requirements.

2. Whenever there is a conflict or overlap within these specifications and between applicable codes and regulations, the most stringent provision shall apply.

3. The abatement contractor (Contractor) shall be responsible for obtaining all necessary or required permits from the Federal, State and local agencies having jurisdiction over this asbestos abatement project. Failure on behalf of the Contractor to obtain these permits shall not result in any extension for the timely results of completion of the work set forth in the Contract. The Contractor shall be responsible and shall be required to pay any administrative penalties imposed on the owner for actions taken or lack thereof by the Contractor.

4. Upon completion of asbestos removal, the contractor shall provide completed, signed and notarized statement stating that all known and identified asbestos-containing materials (ACM) included in the scope of work were properly removed and disposed in accordance with applicable Federal, State, and Local rules and regulations.

5. Contractors submitting bid for this work shall attend a pre-bid meeting and site walk-through to be scheduled by the Owner, and familiarize them with the work in its entirety. The contractors pre-meeting attendance and bid submission affirms his/her acceptance of the work, site and building conditions as is.

6. The contractor shall be responsible to provide all temporary utility connections and hook-ups as well as obtaining permits and paying all fees for making such services available for his work as is necessary.

7. All Contractor personnel involved with asbestos removal work must be thoroughly familiar with the applicable Federal and State regulations governing asbestos removal work.

8. All abatement work activities related to the louver caulk must be performed from building exteriors. Critical barriers shall be installed on the inside before initiating louver caulk removal from the exterior.

9. The Supervisor and Asbestos Abatement workers shall be accredited in accordance with EPA regulation 40 CFR Part 763, New Jersey Departments of Health (NJDOH), and New Jersey Department of Labor (NJDOL) requirements.

10. All Personnel Handling Hazardous Waste shall maintain Hazardous Waste Operations and Emergency Response Standard (HAZWOPER) training/certification.

11. Project Name “Meadowlands Sports Complex” must be included on all hazardous waste manifests.

12. Copies of Asbestos Waste Manifests must be included with the Contractor’s application for payment in order to receive payment approval.

1.02 REFERENCE STANDARDS AND NOTICES

A. Except to the extent that more explicit or more stringent requirements are written directly into these Specifications, all applicable codes, regulations, and standards have the same force and effect (and are made a part of the these specifications by reference) as if copied directly into these Specifications, or as if published copies are bound herewith. The Contractor shall assume full responsibility and liability for the compliance with all applicable Federal, State, local and city regulations pertaining to work practices, hauling, disposal, and protection or workers, visitors to the site, and persons occupying areas adjacent to the site. The Contractor is responsible for providing medical examinations and maintaining medical records of personnel as required by the applicable Federal, State, and local regulations. The Contractor shall hold the Owner, Architect, and Owner's Engineer harmless for failure to comply with any applicable work, hauling, disposal, safety, health or other regulation on the part of himself, his employees, or his subcontractors.

B. Federal Regulations:

1. 29 CFR 1910.1001, "Asbestos" (OSHA)
2. 29 CFR 1910.1200, "Hazard Communication" (OSHA)
3. 29 CFR 1910.134, "Respiratory Protection" (OSHA)
4. 29 CFR 1910.145, "Specification for Accident Prevention Signs and Tags" (OSHA)
5. 29 CFR 1926, "Construction Industry" (OSHA)
6. 29 CFR 1926.1101, "Asbestos, Tremolite, Anthophyllite, and Actinolite" (OSHA)
7. 29 CFR 1926.500 "Guardrails, Handrails and Covers" (OSHA)
8. 40 CFR 61, Subpart A, "General Provisions" (EPA)
9. 40 CFR 61, Subpart M, "National Emission Standard for Asbestos" (EPA)
10. 49 CFR 171-172, Transportation Standards (DOT)

C. New Jersey Regulations

State requirements which govern asbestos abatement work and hauling and disposal of asbestos waste materials include but are not necessarily limited to the following:

1. N.J.A.C. 7:26
2. N.J.A.C. 12:120
3. N.J.A.C. 8:60

D. Local Requirements

Local agencies which may govern or have certain requirements regarding asbestos abatement work or hauling and disposal of asbestos waste materials include but are not necessarily limited to the following:

1. Building Department
2. Health Department
3. Fire Department

E. Standards and Guidance Documents:

Standards and guidance documents which apply to asbestos abatement work or hauling and disposal of asbestos waste material include but are not necessarily limited to the following:

a. American National Standards Institute (ANSI)

1) Fundamentals Governing the Design and Operation of Local Exhaust Systems Publication Z9.2-79
2) American National Standard Institute (ANSI) Z88.2-80, Practices for Respiratory Protection

b. American Society for Testing and Materials (ASTM)

1) Safety and Health Requirements Relating to Occupational Exposure to Asbestos E 849-82.

c. Underwriters Laboratories, Inc. (UL)
Standards: 586 (High Efficiency Particulate Air filter units).

F. Notices

1. The Contractor shall send by certified mail, all required notifications to all applicable governing agencies as required by Federal, State and local regulations. Failure on behalf of the Contractor to file notifications as required shall not result in any extension of the completion date set forth in the Contract. Also, at least 7 days prior to initiation of abatement work, required signs must be posted.

2. U.S. Environmental Protection Agency

Send Written Notification as required by USEPA National Emission Standards for Hazardous Air Pollutants (NESHAP) Asbestos Regulations (40 CFR 61, Subpart M) to the regional Asbestos NESHAP. Contact at least 10 working days prior to beginning any work on asbestos-containing materials. Send notification to the following address:

a. USEPA Region II
Asbestos NESHAPS Contact Air and Waste Management Division
290 Broadway
New York, New York 10007

b. The following information shall be included in notification to the NESHAPS contact, as a minimum:

- Name, address and telephone number of Owner or operator;

- Name, address, telephone number, and asbestos license number of the asbestos abatement contractor;

- Description of the facility being demolished or renovated, including the size, age, and prior use of the facility;

- Estimate of the approximate amount of friable asbestos material present in the facility in terms of linear feet of pipe, and surface area on other facility components. For facilities in which the amount of friable asbestos materials is less than 80 linear meters (260 linear feet) on pipes and less than 15 square meters (160 square feet) on other facility components, explain techniques of estimation;

- Location of the facility being demolished or renovated;

- Scheduled starting and completion dates of demolition or renovation;
- Nature of planned demolition and method(s) to be used;
- Procedures to be used to comply with the requirements of USEPA National Emission Standards for Hazardous Air Pollutants (NESHAPS) Asbestos Regulations (40 CFR 61 Subpart M);
- Name and location of the waste disposal site where the friable asbestos waste material will be deposited;
- Name and license number of the waste hauler;
- The nature of asbestos abatement;
- Amount of asbestos-containing materials to be removed;
- Update the notification whenever the amount changes by at least 20 percent; and,
- Re-notify EPA if start date changes from originally given date.

3. State and Local Agencies

   Send notification at least 10 working days prior to beginning any abatement work to NJDOL, NJDOH, and NJDEP. Also obtain abatement permit from the Local Building Department.

4. The Contractor shall post all notices required by applicable Federal, State and local regulations. Maintain a copy of applicable Federal, State and local regulations and standards at the site.

5. The Contractor shall notify other entities at the job site of the nature of the asbestos abatement activities, location of asbestos-containing materials, requirements relative to asbestos set forth in these specifications, and applicable regulations. All notification shall first be cleared through the Owner's Representative.

6. The Contractor shall notify emergency service agencies including fire, ambulance, police, or other agency that may service the abatement work site in case of an emergency. Notification is to include methods of entering work area, emergency entry and exit locations, modifications to fire notification or fire fighting equipment, and other information needed by agencies providing emergency services. The Contractor shall clearly post telephone numbers and locations of emergency services including but not limited to fire, ambulance, doctor, hospital, police, and power and telephone Companies.

1.03 SCOPE OF WORK

A. Work includes filing and permitting all necessary applications, notifications, requirements and fees; insurance; necessary design services; providing skilled, licensed and certified labor; materials; and equipment necessary for proper preparation, handling, removal and legal disposal of asbestos-containing caulking, floor tiles/mastic and baseboard mastic.

B. The estimated quantity of ACM to be removed from the buildings are listed below:

TABLE 1
ESTIMATED QUANTITY OF ACM TO BE REMOVED

Material	Survey Results	Estimated Quantity to be Removed		ACM Removal Method
MAINTENANCE BUILDING				
12-inch floor tile and associated mastic	ACM	**2,460**	**SF**	Recommended Work Practices for the Removal of Resilient Floor Coverings Additionally, all work shall be performed within a negative pressure containment. Decontamination unit shall be attached to the work area.
Baseboard mastic	ACM	**140**	**SF**	
PUMP HOUSE - GENERATOR ROOM				
Exterior louver caulk	ACM	**180**	**LF**	Non-friable removal procedures

1.04 RELATED DOCUMENTS AND SECTIONS

A. The following Contract Drawings specifically apply to the Work under this Section:

Drawing Title	Drawing No.	Date
Asbestos Containing Materials (ACM) Identification Plan	H-101.00	5/11/2022

1.05 SUBMITTALS

A. The Contractor shall submit copies of the following Pre-Work submittals:

1. Valid Contractor's Asbestos Removal license issued by New Jersey Department of Labor (NJ-DOL).

2. Certificate of insurance covering work of this Contract. Endorsement and waiver of subrogation as required by The Meadowlands Sports Complex.

3. List and copies of all permits, variances, licenses, and notifications (certified receipts) which are necessary to be applied for by the Contractor, obtained, and posted.

4. Name, address, applicable permits and certificate of insurance for the asbestos waste hauling company.

5. Name, location, and applicable licenses of landfill for disposal of asbestos-containing material and asbestos contaminated waste.

6. Name, experience of supervisors, and copies of valid Asbestos Supervisor permits issued by the NJDOL.

7. Proof that all on-site employees have passed appropriate medical examinations as required by OSHA regulations.

8. Certification that each on-site employee has been properly fit tested with a NIOSH Approved respirator.

9. Contractor's Abatement Work Plan: Provide plans that clearly indicate the following:

    a. Locations and types of decontamination enclosures.
    b. Type of abatement activity/technique for each Work Area/Containment.
    c. Waste transport routes through the building to the waste storage container.
    d. Locations of emergency exits, fire exits and fire extinguishers.
    e. Source of access (Scaffolding, boom lift, etc.)

10. Summary of the Contractor's workforce by disciplines. Include a notarized statement signed by the Contractor documenting that all proposed workers, by name, have received all required medical examinations and have been properly trained and certified in asbestos removal work, respirator use, in accordance with EPA and OSHA standards for asbestos removal.

    All of the above listed items shall be submitted within 10 days of contract award.

B. On-Site Submittals/Posting:

The following submittals, documentation, and postings shall be maintained on-site by the Contractor during abatement activities at a location approved by the Owner:

1. Contractor 's License
2. NJDOL Asbestos Handler certification cards for each person employed in the removal, handling, or disturbance of asbestos.
3. Daily OSHA personal air monitoring results.
4. Certification for the laboratory that will be analyzing the OSHA personnel air samples.
5. Waste Transporter's Permit.
6. Project documents (inspection reports, specifications and drawings.)
7. Notifications (US-EPA, NJDOL).
8. Asbestos Abatement Permit from Local Building Department (If applicable)
9. Applicable Federal, State and Local regulations.
10. Safety Data Sheets (SDS) of supplies/chemicals used on the Project.
11. Approved Contractor's Abatement Work Plan
12. List of emergency telephone numbers.
13. Daily Project Log.
14. Workers Acknowledgement Certification

Ensure that a copy of most up-to-date notifications and Variances petition is maintained on-site.

B. Project Close-out Submittals: Within 30 days of the completion of each abatement phase, the Contractor shall submit two copies of the documents listed below. One set of the documents shall be transmitted to the Architect and one set to the Owner for review and approval prior to the Contractor's final payment.

1. Original of all waste disposal manifests and disposal logs.
2. OSHA compliance air monitoring records conducted during the Work.
3. Daily progress log, including the entry/exit log.
4. Provide Contractor's Acknowledgement Statement indicating that employees involved with the abatement: a) have received the medical examinations required by

OSHA 29 CFR 1926.1101; b) have been fit tested specifically for respirators used on the Project; and c) have received training as required by OSHA 29 CFR 1926.1101 in the proper handling of asbestos containing materials, including the health implications and risks involved, as well as the use and limitations of the respiratory equipment to be used. The Statement shall be signed by the Contractor and notarized.

1.06 INDEMNIFICATION

A. The Contractor and its sub-contractors shall indemnify and hold harmless the Owner, Owner's Representative, Architect, Engineer, and their directors, officers, agents, employees from and against all claims, damages, losses, liabilities and expenses, out of or resulting from the performance of the work specified herein.

B. Nothing in these specifications shall be inferred to transfer the Contractor's responsibility for a thorough and safe job to the Owner, Owner's Engineer or their representatives.

1.07 PRODUCTS

A. All products, equipment and material used by the Contractor shall be of sufficient size, configuration, and quality to perform the tasks required.

B. Provide disposable protective whole body clothing, head coverings, gloves and foot coverings for the project personnel. Provide disposable plastic or rubber gloves to protect hands. Cloth gloves may be worn inside the plastic or rubber for comfort, but shall not be used alone. Make sleeves secure at the wrists and make foot coverings secure at the ankles by the use of tape, or provide disposable coverings with elastic wrists or tops.

C. Provide sufficient quantities of protective clothing to assure a minimum of four (4) complete disposable outfits per day for each individual performing abatement Work.

D. Eye protection and hard hats shall be provided and made available for all personnel entering any Work Area.

E. Authorized visitors shall be provided with suitable protective clothing, headgear, eye protection, and footwear whenever they enter the Work Area.

1.08 WORKER AND WASTE DECONTAMINATION SYSTEM FOR ASBESTOS ABATEMENT

A. The following requirements shall be followed for full containment decontamination unit:

1. At all asbestos abatement projects shall be equipped with decontamination facilities consisting of: a clean room, a shower room, and an equipment room. This system shall be located adjacent to the work area.

   a) Clean Room: In this room, persons remove and leave all street clothes and put on clean disposable coveralls. Approved respiratory protection equipment is stored in this area. The floor of the clean room must be kept dry at all times. At the end of each shift, the room must be cleaned using wet rags. Also, a lockable door may be installed. No asbestos-containing materials are allowed in this room. The clean room shall be equipped with suitable hooks, lockers, shelves, etc. for workers to store personal articles and clothing. THIS IS NOT A CONTAMINATED AREA.

   b) Shower Room: Provide a completely watertight operational shower to be used by cleanly dressed workers heading for the Work area from the clean room or for showering workers headed out of the Work Area after dressing in the Equipment Room. Shower must be constructed so that water leakage is minimized. The

shower shall have one shower per eight full shift abatement person, calculated on the basis of the largest shift. Any leaking water must be cleaned immediately. Showers must be equipped with hot and cold running water adjustable at the tap, soap and sufficient disposable towels for the number of workers at the job site. Arrange water shut off and drain pump operation controls, so that a single individual can shower without assistance from either inside or outside the Work Area. THIS IS A CONTAMINATED AREA.

c) Pump wastewater into a polyethylene lined 55-gallon drum located in the Work Area to be added to the asbestos waste. If the water is allowed by the city and work treatment workers to be pumped into a drain, provide 20 micron and 5 micron waste water filters in line to drain. Change filters at a minimum of once a day. Locate filters inside the shower unit, so that the shower pan catches the water lost during filter change. A permit shall be obtained from the local department if the filtered water is scheduled to be disposed into the City sewer.

d) Equipment Room: Work equipment, footwear, and all other contaminated work clothing are to be left here upon exiting Work Area. A walk-off pan filled with water shall be located in the work area just outside the equipment room for workers to clean foot coverings while exiting the work area. This is a change and transit area for workers. Provide a drop cloth layer of sheet plastic on the floor of the Equipment Room for every shift change. Roll drop cloth layer in upon itself at the end of each shift and dispose of as contaminated waste. THIS IS A CONTAMINATED AREA.

e) Each room shall be separated from the other and from the work area by airlocks such as will prevent the free passage of air or asbestos fibers and shall be accessible through doorways protected with three (3) overlapping 6 mil polyethylene sheets which shall be weighed, so as to fall into place when people pass through the area. The shower room shall be contiguous to the clean room and equipment room. All personnel entering or leaving the work area shall pass through the shower room. The number of showers provided shall satisfy the requirements of OSHA 29 CFR 1910.141(de)(3)(11). Hot and cold water shall be supplied to the showers. The equipment room (dirty room) shall be situated between the shower room and the work area and separated from both by means of suitable barriers or overlapping flaps such as will prevent the free passage of air or asbestos fibers.

f) Decontamination chamber doors shall be of sufficient height and width to enable replacement of equipment which may fall and to safely stretcher or carry an injured worker from the site without destruction of the chamber or unnecessary risk to the integrity of the work area. Such doors must be at least four (4) feet wide, and the distance between sets of doors must be at least four (4) feet.

2. No person or equipment shall leave the asbestos abatement project work area unless first decontaminated by showering, wet washing or HEPA vacuuming to remove all asbestos debris. No asbestos contaminated materials or persons shall enter the clean room.

3. In specific situations where the asbestos contractor determines that it is not feasible to establish a contiguous decontamination system at a work site, the asbestos contractor shall utilize a remote decontamination system. Such systems must be operated in conformance with 29 CFR 1926.1101.

B. Waste/Equipment Decontamination Enclosure System: This system shall be located adjacent to the work area. The equipment decontamination enclosure system, consisting of two totally enclosed spaces, shall be constructed as follows:

1. Equipment Washroom: An equipment washroom shall have two air locks: one adjacent to the work area and one common air lock which separate it from the holding area. The washroom shall have facilities for washing material containers and equipment. Gross removal of dust and debris from contaminated material containers and equipment shall be accomplished in the work area, prior to moving to the washroom.

2. Holding Area: A holding area shall share a common air lock with the equipment washroom and shall have a curtained doorway to outside areas. A hinged, lockable door shall be placed at the holding area entrance to prevent unauthorized access into the work area.

1.09 ABATEMENT PROCEDURES

A. The following procedures shall be followed while performing abatement of asbestos containing louver caulking:

1. The asbestos abatement contractor shall inspect and verify all ACM planned for removal from the subject building as described in Scope of Work.

2. No asbestos abatement work including preparation shall be performed or continued without having proper notification and a NJDOL certified asbestos supervisor at the work site.

3. Workers performing the work must receive HAZWOPER and OSHA awareness training, and work practices training related to asbestos disturbances and handling and must have a valid NJDOL asbestos worker license.

4. Provide and display danger signs at every entrance to the work areas in clearly visible locations indicating that asbestos removal work is being conducted and unauthorized and not protected persons should not enter.

Provide danger signs in vertical format conforming to 29 CFR 1926.1101, minimum 20" x 14" displaying the following legend.

DANGER
ASBESTOS
CANCER AND LUNG DISEASE HAZARD
RESPIRATORS AND PROTECTIVE CLOTHINGS
ARE REQUIRED IN THIS AREA
AUTHORIZED PERSONNEL ONLY

Signs shall be posted which meet the specifications set forth in 29 CFR 1926.1101 at all approaches to the work area. Signs shall be posted a sufficient distance from the work area to permit a person to read the sign and take precautionary measures to avoid exposure to asbestos.

5. A restricted area shall be established using warning tape extending at least 25 feet from the affected areas of the building or to the nearest vertical obstruction or the curb. Provide 3" wide red barrier tape printed with black lettered, "DANGER ASBESTOS REMOVAL". Locate barrier tape across all corridors, entrances and access routes to asbestos Work Area. Install tape 3' to 4' above the ground level.

6. The restricted area may be entered only by certified workers or authorized visitors.

7. All openings to the building or structure's interior which are within 25 feet of the affected ACM shall be closed and made airtight.

8. Prior to initiating louver caulk removal activities, the interior of the louver opening shall be covered with a layer of fire retardant 6-mil plastic sheeting sealed with tape (masking tape is preferred to avoid damage to interior painted surfaces). Do not use spray glue to install the plastic sheeting.

9. Contractor shall install and utilize fixed scaffolding or a man lift to facilitate removal of caulking materials associated with louver units from outside the building. Comply with all applicable OSHA fall protection requirements. All removal activities must be performed from building exteriors.

10. A remote worker and waste decontamination unit shall be constructed outside the work area, and attached to common spaces leading to individual work areas.

11. The worker and waste decontamination unit shall be installed or constructed prior to the commencement of gross removal work.

12. The remote worker decontamination unit shall consist of, at least, a shower room, and a clean room separated from each other by an airlock.

13. In addition to the showerheads, the shower room shall be provided with a flexible hose for equipment and waste decontamination.

14. The decontamination system shall be in place for the entire duration of the abatement activities.

15. All asbestos handlers shall wear two disposable suits, including gloves, hood and footwear, and appropriate respiratory equipment, after removing street clothes in the clean room.

16. The exterior ground level within 10 feet of the affected ACM shall be covered with a layer of 6-mil plastic sheeting.

17. Do not conduct work on the exterior if wind speeds are greater than 20 miles per hour. Work must stop and clean up must occur before rain begins.

18. Each abatement team shall be equipped with appropriate tools, rags, a portable supply of amended water, and a HEPA vacuum. After the ACM caulking material is adequately wetted, it shall be striped using hand tools, with the ACM caulking material being directly bagged or dropped into a flexible catch basin and promptly bagged. The stripped joints shall then be HEPA vacuumed, and then wet-wiped, to remove any loose debris still in place. All exposed joints shall be coated with an encapsulant.

19. Abatement of asbestos-containing materials shall be done by wet methods only.

20. ACM shall be sprayed with amended water in sufficient frequency and quantity for enhanced penetration. Sufficient time shall be allowed for penetration to occur prior to removal action or other disturbance-taking place. Dry removal of asbestos materials is prohibited.

21. Do not allow bags of ACM to be dropped or thrown to the ground. For asbestos materials, dropped distances greater than 10 feet, dust tight, enclosed, inclined chutes must be used.

22. Upon completion of the ACM removal at a location and before moving to the next, the surfaces of the immediate work area shall be rendered free of visible debris. The plastic covering of the platform or flooring shall be carefully bagged, and a new plastic sheet applied, and secured, at the next work area.

23. After the ACM removal and bagging, the bagged waste shall be HEPA-vacuumed then wet cleaned and transferred into the airlock or into the shower room for double bagging, and thereafter the double-bagged waste shall be transferred outside the airlock or outside the clean room for its final transfer for storage in an enclosed waste container.

B. Removal of Floor Tiles/Mastic using the Resilient Floor Covering Institute's (RFCI's) Recommended Work Practices for the Removal of Resilient Floor Coverings.

1. Prior to performing any exempted activities, a contractor must initially submit a completed Contractor Information for Non-Friable Asbestos Work Activities—Exemption Request form to the NJDOH. NJDOH staff will verify that all of the information provided is accurate. Following is a list of items required to be submitted:

   - Method of Removal—Contractors must indicate the method of removal and sign a statement that those methods will be adhered to during the removal of the VAT. Currently, the only removal method recognized by the NJDOH is the Resilient Floor Covering Institute's (RFCI's) Recommended Work Practices for the Removal of Resilient Floor Coverings.

   - Employee Training—Evidence that employees have been trained by the manufacturer on any specialized equipment to be used (such us a radiant heat machine), must be provided.

   - OSHA Training—Must provide evidence of completion of a training course which complies with the OSHA Asbestos Standard, 29 CFR part 1926-1101, sections (k)(9) (iv) and (o)(4)(i) for Class II operations. This documentation must be submitted for each employee who will be removing the VAT.

2. Heat must be used following the RFCI recommended work practices for removal and clean-up.

3. The contractor must follow work practices which limit tile breakage during work. When tiles begin to break frequently (more than once every so often), removal activities must cease.

4. Contractors must have the scope of work on the job site at all times during the work.

5. Contractors must generally isolate the work area by posting notices and placing demarcation barriers between any building occupants and the work area.

6. All HVAC vents must be sealed with poly.

7. All building occupants not involved in the removal of the VAT must be restricted from entering the work area.

8. All movable objects must be moved out of the work area.

9. All horizontal surfaces within the work area must be wet wiped and then vacuumed with a vacuum cleaner equipped with a High Efficiency Particulate Air (HEPA) filter. The vacuum cleaner must be made for this purpose as household vacuum cleaners equipped with a HEPA filter are not adequate.

10. Contractors must comply with all applicable state and federal regulations regarding the transport and disposal of asbestos containing materials.

11. A Notification of Non-Friable Asbestos Work Activities form must be submitted 10 days in advance of the beginning of the job. Should an emergency arise which requires the material to be removed sooner than 10 days, a written justification from the building owner must accompany the form.

12. Isolation of Work Area: All egress openings including doors and windows to the work area shall be covered with two layers of nominal six mil polyethylene sheeting to isolate the work area from non-work areas of the building. Other openings in the work area such as HVAC grilles, grates, diffusers, grilles, floor drains, sink drains, etc. shall also be covered with two layers of nominal six mil polyethylene sheeting. The work area shall be under negative pressure containment. HEPA AFD(s) shall be used to create two (2) air changes inside the work area.

13. Workers inside the work area will don proper personal protection equipment (PPE) including respirator, body coverall, hard hat, gloves, safety shoes, goggles, etc.

14. Electric power to all work areas shall be shut down and locked out except for electrical equipment that must remain in service. Safe temporary power and lighting shall be provided in accordance with all applicable codes.

15. Completely remove all bulk mastic, using an approved mastic solvent in accordance with manufacturer recommendation. Product application shall be in accordance with the manufacturer's instructions and the Safety Data Sheet (SDS) for the product. Do not allow solvent to stand or to be absorbed by sub-floor. Prevent the uncontrollable flow of solvent under walls or into other materials and areas by placing impermeable absorbent materials specified for use by the manufacturer which act as a preventive impermeable barrier against seepage of liquid and/or vapor into unwanted areas.

16. After completion of mastic removal, the Contractor shall thoroughly wash and clean the floor to remove any residue or fumes of mastic remover in accordance with manufacturer guidelines. Place waste in sealed drums dedicated for the disposal of floor tile mastic waste. No bulk mastic residue shall remain on the floor surface following removal and cleaning. It is not necessary to remove asphalt stain from pores of concrete.

17. Spent mastic removal agents must be properly stored, categorized and disposed.

18. On completion of floor mastic removal the floor shall be smooth, free from ridges and bumps.

19. Waste Management
    - Following the abatement completion and wet cleaning, the doubled bagged or wrapped waste shall be placed into the waste container.

    - Properly labeled with site-specific generator labels (Generator labels shall be affixed to the wrapped waste/bags).

- Site specific generator labels will include the name of the generator, building location, City and State.
- The asbestos waste shall be transported from the work area on the ground level using leak proof manual push carts. The push carts shall be lined with 6- mil poly.
- All asbestos waste shall be monitored and secured in a locked container.
- All asbestos waste will be picked up by a NJDEP licensed waste transporter from the site.

1.10 ASBESTOS WASTE DISPOSAL

A. The Contractor shall package, label, and remove all asbestos waste from the work area and transport to the landfill in accordance with the regulations set forth by the EPA, NJ-DEP, DOT and the states through which the waste is being transported and disposed. Packaging shall be accomplished in a manner that minimizes waste volume, but insures waste containers shall not tear or break.

B. Asbestos wastes may include building materials, insulation, disposable clothing and protective equipment, plastic sheeting and tape, exhaust systems or vacuum filters, contractor equipment, or other materials designated by state or local authorities which have been potentially contaminated with asbestos and have not been fully cleaned.

C. Waste Container Storage: As a minimum, line the container with two layers of a 6-mil polyethylene sheeting to prevent contamination from damaged or leaking containers. Warning signs shall be posed on the Dumpster in accordance with Sections 29 CFR 1926.1101.

D. Waste Transportation and Disposal

a. It is the responsibility of the Contractor to determine and insure that the Contractor and his/her subcontractor are complying with: 1) current waste handling regulations; and 2) the current regulations for transporting and disposing waste at the ultimate disposal landfill. The Contractor must comply fully with these regulations, and with all U.S. Department of Transportation, State, local, and EPA requirements.

b. The louver caulk was confirmed to be ACM. All caulk including contaminated waste that is generated during the removal/abatement shall be disposed of at a certified landfill that accepts ACM containing waste.

c. The Contractor's waste hauler and disposal contractor shall maintain a valid hazardous waste transporter's permit and identification number; and obtain complete, and fully comply with any other local hazardous waste manifesting requirements.

d. Exercise care before and during transport to ensure that no unauthorized persons have access to the containerized ACW.

e. Do not transport ACW on open trucks. Treat and dispose of drums that have been contaminated as asbestos-containing waste.

f. A copy of ACW manifest forms shall be sent to the Owner after each disposal is completed and all required data and signatures have been

inserted.

g. The Contractor shall return the original Disposal Certificate (landfill receipt) to the Owner within 10 working days of waste shipment from the site.

1.11 AIR MONITORING

A. Personal OSHA Monitoring

1. The Contractor is solely responsible for performing personal air monitoring as specified by the OSHA 29 CFR 1926.1101 and the OSHA Respiratory Protection Standard 29 CFR 1926.134.

2. A minimum of 20% of all workers in each working category (i.e., gross removal, final clearance, etc.) must be monitored each day of asbestos removal activities.

3. Phase Contrast Microscopy may be used to analyze personal air samples. The Contractor shall arrange and pay for all costs of the testing. Laboratories used shall be currently enrolled in the American Industrial Hygiene Association Proficiency Analytical Testing Program or an equivalent recognized program.

B. Post-Abatement Clearance Criteria

A final clearance visual inspection shall be performed by the Contractor and the environmental consultant retained by the Owner. This final inspection shall include a thorough visual inspection of the work site. All identified ACM shall be removed down to the substrate.

Post abatement air testing will be performed to document airborne fiber concentrations following abatement completion. Post abatement air samples will be analyzed using Transmission Electron Microscopy (TEM) for abatement activities involving greater than 160 square feet. For abatement actions less than 160 sf air samples will be analyzed using phase Contrast microscopy (PCM).

Abatement activities will be considered complete if the air test results are equal to or less than 0.010 f/cc by either PCM or less than 70 structures/cm^2 via TEM analysis.

The Contractor shall also request the Owners Engineer to perform the final clearance inspection upon completion of all abatement activities.

1.12 POST-PROJECT CLOSE-OUT

A. The Contractor shall provide all required documentation as required by this specification once his/her work is complete and waste disposed of. This should include but not limited to: bound copy of the daily log containing log of daily work activities, waste shipment records, personal air monitoring laboratory reports and chain-of-custody documentation, and project completion certificate. Final payment shall not be made to the Contractor until all required documentation is submitted and verified.

END OF SECTION

APPENDIX A

CONTRACTOR'S ACKNOWLEGEMENT STATEMENT

CONTRACTOR'S ACKNOWLEDGEMENT STATEMENT

Contractor Name: _____

Re: Abatement of Asbestos Containing Materials

_____
(Project Title)

……..
(Project Location)

In consideration of the following individuals' employment in connection with the abatement, handling, and disposal of asbestos containing materials at the referenced project, I hereby certify that the employees: a) have received the medical examinations required by OSHA 29 CFR 1926.1101; b) have been fit tested specifically for respirators used on the Project; and c) have received training as required by OSHA 29 CFR 1926.1101 in the proper handling of asbestos containing materials, including the health implications and risks involved, as well as the use and limitations of the respiratory equipment to be used.

Employee Name	Asbestos License Number/Expiration Date

Owner/Officer's Signature: _____

Printed Name: _____

Title: _____ (Notary block here)

APPENDIX B

ASBESTOS WASTE SHIPMENT RECORD LOG

WASTE SHIPMENT RECORD LOG

Facility:_____ **Building:**

Project: _____ **Project Number:** _____

Asbestos Contractor: _____ **Environmental Consultant:**_____

Load No.	Hauler		License Plate No.	Size of Container		DATES (Chain of Events) Dptr from Site	Rec'd at Landfill	Manifest Returned

APPENDIX C

ASBESTOS WASTE SHIPMENT RECORD

ASBESTOS WASTE SHIPMENT RECORD - See attached instructions

GENERATOR (Retain copy of form)

1. Work site:
Name:
Mailing Address:
City/State/Zip:

Owner's Name

Owner's Telephone #

2. Remover's name and address:
Name:
Mailing Address:
City/State/Zip
Asbestos Project Permit #

Remover's Telephone #

3. Waste Disposal Site (WDS), meaning the facility that will receive the waste:
Name:
Mailing Address:
City/State/Zip:
Physical Location:

WDS Telephone #

4. Name and address of responsible agency: NJ DEP ASBESTOS SECTION
120 SOUTH STOCKTON STREET, TRENTON, NEW JERSEY

5. Description of waste:

6. Containers:
No. Type

7. Total quantity (sq ft, ln ft, m^3, yd^3):

8. Special handling instructions and additional information (provided by generator):

Emergency Telephone #

9. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described by proper shipping name, and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations. I declare that the waste is adequately wet and will be transported and disposed of by a DEQ-accredited asbestos project contractor supervisor or project worker.

Printed/typed name & title	**Signature**	**Month**	**Day**	**Year**

TRANSPORTER (Retain copy of form)

10. Transporter 1 (Acknowledgment of receipt of waste):

Printed/typed name & title	Address and telephone #	**Month**	**Day**	**Year**
Signature				

11. Transporter 2 (Acknowledgment of receipt of waste):

Printed/typed name & title	Address and telephone #	**Month**	**Day**	**Year**
Signature				

DISPOSAL SITE (Retain copy of form & return original to 2 above)

12. Discrepancy indication space:

Rejected:
Yes ☐ No ☐

Destination

13. Waste disposal site owner or operator: Certification of receipt of asbestos waste covered by this manifest except as noted in item 12.

Printed/typed name & title	**Signature**	**Month**	**Day**	**Year**

WASTE SHIPMENT RECORD INSTRUCTIONS

Generator Section (Items 1 - 9)

1. Enter the name of the facility at which the asbestos waste is generated and the address where the facility is located. In the appropriate spaces, also enter the name of the owner of the facility and the owner's phone number.

2. Enter the name and address of the authorized entity or individual that performed the asbestos removal. In the appropriate space, also enter the remover's phone number. Also include the asbestos project permit number issued by the Department of Environmental Quality.

3. Enter the name, address, and physical site location of the waste disposal site (WDS) that will be receiving the asbestos waste. In the appropriate spaces, also enter the phone number of the WDS.

4. Provide the name and address of the local, state, or EPA regional office responsible for administering the asbestos NESHAP program. In Montana it is the Department of Environmental Quality.

5. Indicate the types of asbestos waste generated. If from a demolition or renovation, indicate the amount of asbestos that is:

- Regulated asbestos waste
- Non-friable asbestos waste

6. Enter the number of containers used to transport the asbestos waste listed in item 5. Also enter one of the following container codes used in transporting each type of asbestos material (specify any other type of container used if not listed below):

DM - Metal drums, barrels
DP - Plastic drums, barrels
BA - 6 mil plastic bags or wrapping

7. Enter the quantity of each type of asbestos material removed (square feet, linear feet, cubic meters or cubic yards).

8. Use this space to indicate special transportation, treatment, storage or disposal or bill of lading information. If an alternate waste disposal site is designated, note it here. Emergency response telephone numbers must be included here, (i.e., telephone number that is manned on a 24-hour basis by a person able to provide asbestos information.)

9. The authorized agent of the waste generator must read and then sign and date this certification. The date is the date of receipt by transporter.

NOTE: The waste generator must retain a copy of this form.

Transporter Section (Items 10 and 11)

10. Enter name, address and telephone number of each transporter used. Only an accredited Asbestos Project Contractor/Supervisor or Project Worker may transport regulated asbestos waste. Print or type the full name and title of person accepting responsibility and acknowledging receipt of waste as listed on this waste shipment record for transport. Enter the date of receipt and signature.

11. Same as above.

NOTE: The transporter must retain a copy of this form.

Disposal Site Section (Items 12 and 13)

12. The authorized representative of the WDS must note in this space any discrepancy between waste described on this waste shipment record and the waste actually received, as well as any improperly enclosed or contained waste. Any rejected waste should be listed and the destination of those waste provided. In any discrepancies must be reported to the Department of Environmental Quality.

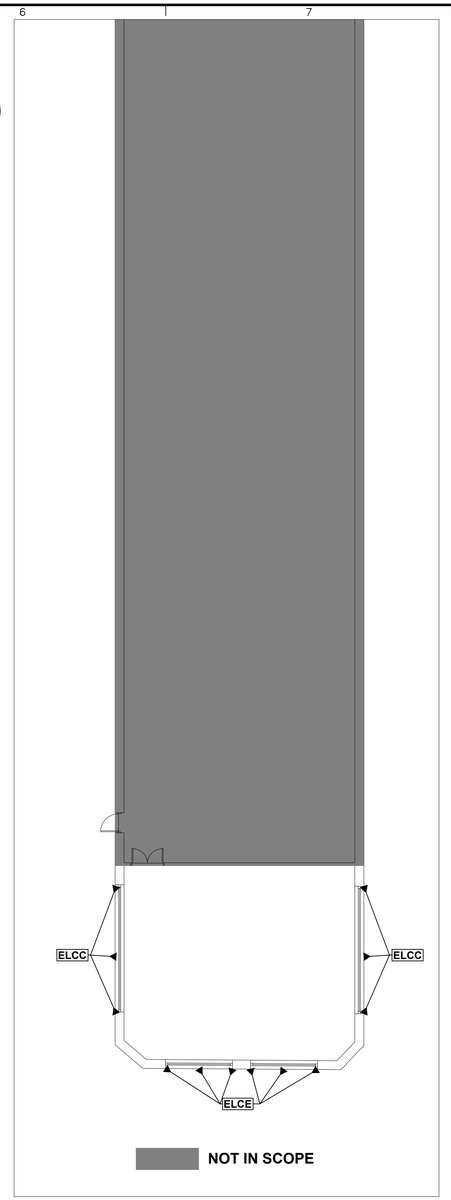
13. The signature (by hand) of the authorized WDS agent indicates acceptance and agreement with statements on this waste shipment record except as noted in item 12. The date is the date of signature and receipt of shipment.

NOTE: The WDS must retain a completed copy of this form. The WDS must also send a completed copy to the remover identified in item 2.

1 H-101 MAINTENANCE BUILDING - GROUND FLOOR

SCALE N.T.S

ACM/ASSUMED ACM FINDINGS				
MATERIAL	SURVEY RESULTS	ESTIMATED QUANTITY	LEGEND	COMMENTS
MAINTENANCE BUILDING				
12-INCH FLOOR TILE AND ASSOCIATED MASTIC	ACM	2,460SF		---
BASEBOARD MASTIC AND CONTAMINATED BASEBOARD	ACM	140SF		---



2 H-101 PUMP HOUSE GENERATOR ROOM - GROUND FLOOR

SCALE N.T.S

ACM/ASSUMED ACM FINDINGS				
MATERIAL	SURVEY RESULTS	ESTIMATED QUANTITY	LEGEND	COMMENTS
PUMP HOUSE - GENERATOR ROOM				
EXTERIOR LOUVER CAULK	ACM	80LF	ELCE	---
EXTERIOR LOUVER CAULK ESTIMATED TO BE CONCEALED)	ACM	100LF	ELCC	---

NOTES:

1. THIS PLAN IS PROVIDED TO SHOW APPROXIMATE LOCATIONS OF ACM TO BE REMOVED. THE ACTUAL LAYOUT OF THE BUILDING AND EQUIPMENT MAY BE SLIGHTLY DIFFERENT THAN SHOWN.
2. THE MAGNITUDE AND LOCATIONS OF ACM TO BE ABATED ARE APPROXIMATE AND PROVIDED AS A REFERENCE. ACTUAL QUANTITIES AND LOCATIONS MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO BIDDING.
3. THE ABATEMENT CONTRACTOR SHALL BE FAMILIAR WITH THE WORK IN ITS ENTIRETY AND SHALL FIELD VERIFY THE CONDITIONS OF ALL ACM TO BE REMOVED FROM THE IDENTIFED BUILDING AREAS, EXPOSED AND/OR CONCEALED. THE CONTRACTOR'S PRE-BID MEETING ATTENDANCE AND BID SUBMISSION AFFIRMS HIS/HER ACCEPTANCE OF THE WORK, SITE AND STRUCTURAL CONDITIONS AS IS.
4. THE QUANTITIES OF ACM INDICATED ON THE ASBESTOS REMOVAL DRAWING AND THE TECHNICAL SPECIFICATIONS ARE FIELD ESTIMATED AND, THEREFORE, ARE APPROXIMATE AND SHALL BE USED ONLY AS A GENERAL GUIDANCE AS TO THE PRESENCE AND THE ORDER OF MAGNITUDE OF ACM IN THE IDENTIFIED BUILDING AREAS.
5. THE ASBESTOS CONTRACTOR MUST ASSUME THAT ALL COMPONENTS IN DIRECT CONTACT WITH CONCEALED AND EXPOSED ACM/ASSUMED ACM IS CONTAMINATED AND IS TO BE DISPOSED OF AS ACM-CONTAMINATED WASTE. IN LIEU OF DISPOSING OF THESE MATERIALS SUCH, THE ASBESTOS CONTRACTOR MAY OPT TO DECONTAMINATE THESE COMPONENTS AND DISPOSE THEM AS REGULAR C&D WASTE, AT NO ADDITIONAL COST TO THE OWNER.
6. PRIOR TO FILING ABATEMENT NOTIFICATION, ASBESTOS CONTRACTOR SHALL PREPARE DETAILED ABATEMENT WORK PLAN INDICATING LIMITS OF EACH WORK AREA INCLUDING LOCATIONS OF DECONTAMINATION UNITS, EMERGENCY EGRESS ROUTES, ETC.

Document 3

LANGAN
300 Kimball Drive, Parsippany, NJ 07054
T: 973.560.4900 F: 973.560.4901 www.langan.com
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan CT, Inc.
Langan International LLC
Collectively known as Langan
NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

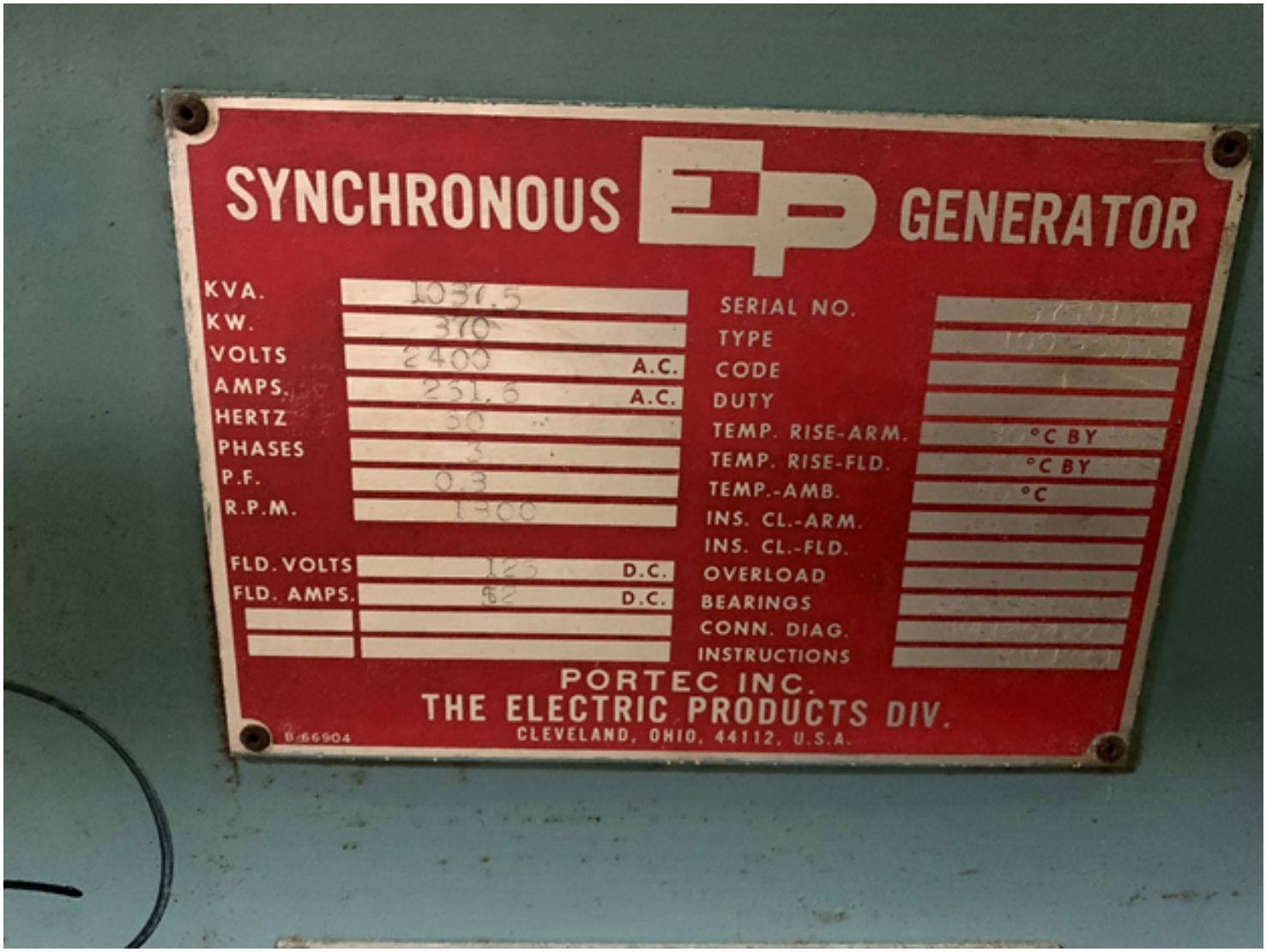
Project
MEADOWLANDS SPORTS COMPLEX
MAINTENANCE BUILDING & POWER HOUSE GENERATOR ROOM

EAST RUTHERFORD NEW JERSEY

Drawing Title
ACM IDENTIFICATION PLAN

Project No. 100952902	Drawing No. H-101.00
Date 5/12/2022	
Scale AS NOTED	
Drawn By MB / Checked By VP	
Submission Date –	Sheet 01 of 01

Document 4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KW. 370
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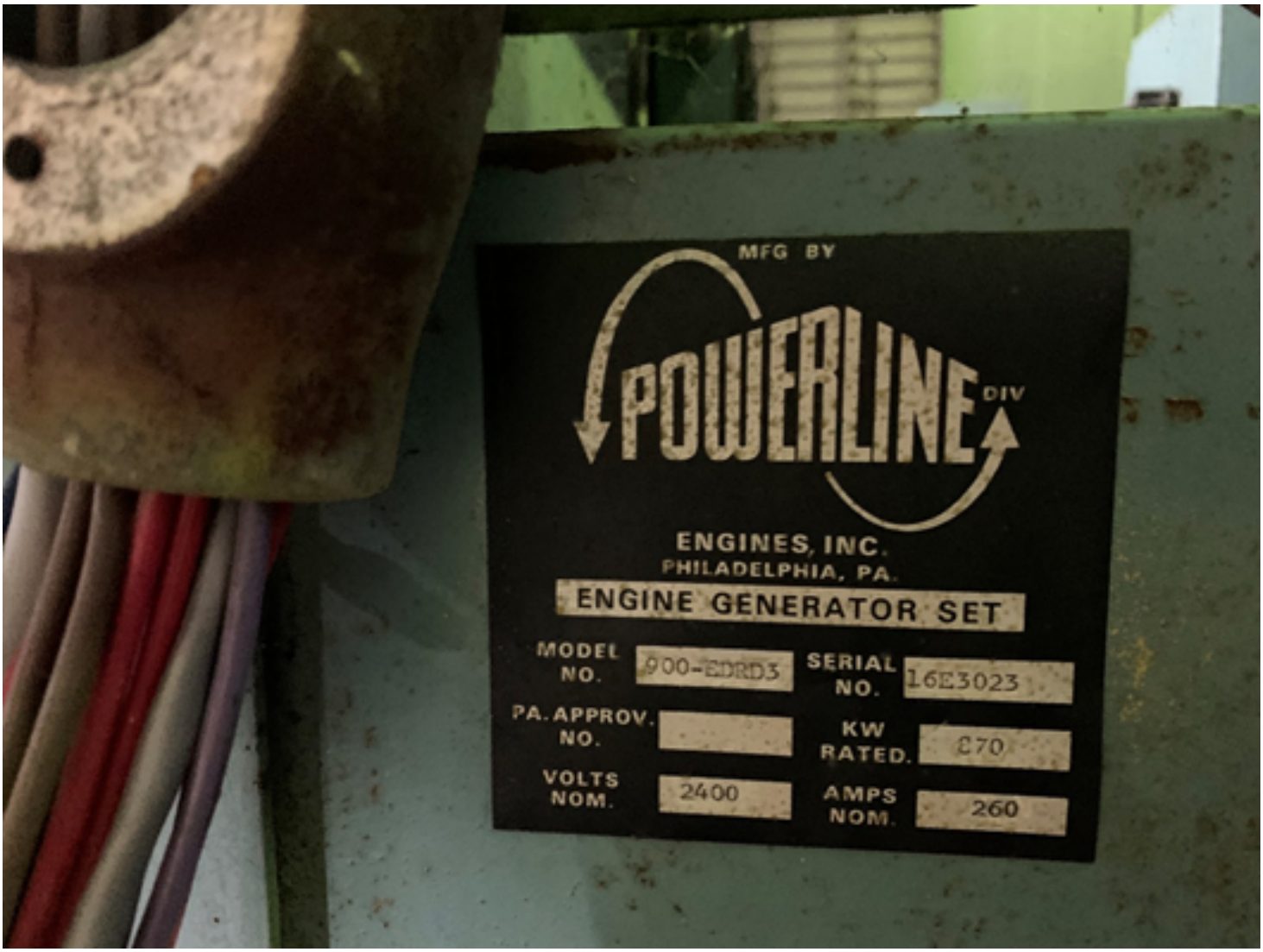
AMPS. 231.6 A.C.
HERTZ 60
PHASES 3
P.F. 0.3
R.P.M. 1800
FLD. VOLTS 125 D.C.
FLD. AMPS. 62 D.C.
SERIAL NO.
TYPE
CODE
DUTY
TEMP. RISE-ARM. °C BY
TEMP. RISE-FLD. °C BY
TEMP.-AMB. °C
INS. CL.-ARM.
INS. CL.-FLD.
OVERLOAD
BEARINGS
CONN. DIAG.
INSTRUCTIONS
PORTEC INC.
THE ELECTRIC PRODUCTS DIV.
CLEVELAND, OHIO, 44112, U.S.A.
B-66904


1AE0003023
SO-3402783
UNIT 1AE0003023 MODEL 91437305 SPEC 2513


MFG BY
POWERLINE DIV
ENGINES, INC.
PHILADELPHIA, PA.
ENGINE GENERATOR SET
MODEL NO.
900-EDRD3
SERIAL NO.
16E3023
PA. APPROV. NO.
KW RATED.
270
VOLTS NOM.
2400
AMPS NOM.
260