Pompton Painting Company Procedures and Operations Manual

Written by Jordan Schmidt

Pompton Painting Company

Commercial Fireproofing and Paint Application

Dear Audience,

The president of Pompton Painting Company, Dennis Leaver, has approved of me creating a document that highlights the construction company's operations and procedures. I decided to choose an operations and procedures manual because it can serve as a training manual for new employees. We are always taking on workers, generally freelancers, for short periods to complete jobs that require a bigger labor force. If we had a training manual, it would be easier and quicker to turn these people into effective specialists. We are sometimes offered multiple jobs at once, but we must decline due to already being overbooked. We could expand the company, increase efficiency, and generate more profits to purchase more machinery and equipment for the company and to raise the wages of the full-time employees and laborers. I will also document company operations data into an Excel document that I will use to analyze the data and make improvements.

The operations manual will be given to new and current employees of Pompton Painting. Some of the manual will be useful to print out such as checklists, inventory sheets, and safety advice. *Checklists* can be kept on the door of the van and the shop and would be convenient for new employees to doublecheck that everything is accounted for. There would be one checklist for each machine, and it would include everything needed to operate the machine such as inventory, assembly, use of sprayer, and breaking it down and loading it into the van. *Inventory sheets* could be used at the shop and in combination with digital spreadsheets, to document how much material we have and to keep track of all our important tools and machinery. *Safety notices, warnings, and posters* would also be useful to put up around the shop and van to mitigate injury and liability. The OSHA safety poster, this manual, material safety data sheets, and other safety information will be displayed.

-Jordan Schmidt

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Introduction

What is the one part of the building construction process that you do not want to skimp on, but hopefully you will never have to use? Fireproofing! This is the *Procedures and Operations Manual* for the commercial fireproofing and paint application company called *Pompton Painting Company,* founded in 1973. We spray passive fireproofing onto exposed steel beams using specialized machinery and apply paint onto any type of surface. We complete initial construction, patchwork, renovations, and additions in New Jersey and the New York City metropolitan area. *Dennis Leaver* [1] is the President and Owner of Pompton Painting Company. He started the business with his father and now runs it with his son, *Daniel Leaver* [2], alongside a commercial helicopter business. Throughout the creation of this document, the information was partly sourced and verified by these stakeholders. We have found that productivity can be slowed when training new employees. It is our hope that this manual will serve as an important center point for the training of new employees. We also hope that it will provide an increase in efficiency and productivity for the company's experienced employees. These accomplishments allow easy scalability of company operations. This manual will be given to all new employees of the company. It will provide background about the fireproofing and painting industry. It will elaborate on some definitions and information that a new employee should know. It will introduce them to the way our specific business operates our equipment and manages our jobs and contracts. It will state the specific job descriptions and provide checklists for specific operational procedures.

The term passive fireproofing references the material used to coat the structural steel of a building to reduce heat transfer to the steel during a fire. The thickness of the fireproofing on the steel must reach an hourly rating determined by the *UL Fire Resistance Directory*. This rating determines how long the structure will last when exposed to high temperatures. Fireproofing is generally applied by spray or by hand. The work of the fireproofing application specialist is verified by the fire inspector to meet the building code regulations. The construction project cannot safely continue until this code is met so fireproofing is a crucially timed step in the construction process. It may be necessary to spray some sort

of bonding agent or primer onto the surface beforehand to ensure proper material adhesion. It is also necessary that the material being applied will properly dry and bond within its required temperature range. We are also responsible for the surrounding area to be protected by plastic or other method so nothing will be damaged by any overspray.

We typically apply 3 types of material:

1. *Cementitious fireproofing* [3] can be gypsum, slag wool, portland cement, polystyrene, or vermiculite. It comes in roughly fifty-pound bags and must be mixed with water at the proper ratio and sprayed onto steel beams with specialized machinery. If applied properly, the material sticks to the beam/column and hardens over time and acts as a strong layer of insulation against heat. We usually use Cafco 300/400 material, but we sometimes will use Monokote MK6, Retroguard, Z106, or Z146, depending on requirements or the customer. This type of material needs to be applied and fully adhered in temperatures above 40 degrees Fahrenheit.
2. *Intumescent fireproofing* [3] is a type of fire-resistant paint that is mixed and sprayed onto steel beams with a specialized paint sprayer. When heat is applied, the intumescent sodium silicate expands significantly, forming a layer of insulation which slows down heat transfer to the material underneath. We usually use Cafco Spray Film WB 5 water based intumescent material which comes in five-gallon buckets.
3. *Paint* can be sprayed, rolled, or brushed onto anything from interior walls and trim, exterior paneling or tiling, structures made of wood or steel, or even over fireproofing. We have industry and academic experience to tell what type of paint is right for the job and what the best method of application may be in order or the paint to look good and last for a long time.

We typically work with 5 different types of machines:

1. The *Thomsen-Putzmeister S5G* [4] is our largest and fastest spraying gas pump machine for cementitious fireproofing. It is a gas machine with an internal combustion engine that drives the

pump and air compressor. We use this machine for jobs that are outside and that have a large volume of fireproofing to be sprayed.

2. The *Benron V-TEX 350-E* [5] is our larger and faster spraying electric pump machine for cementitious fireproofing. This machine is easily distinguished by its large funnel shaped hopper and is used with the custom mounted air compressor. We use this machine for jobs that are indoors but require large amount of material to be applied and maneuverability is not an issue.
3. The *J&M Pro Mini Sprayer* [6] is our smallest and easiest to maneuver electric pump and compressor machine for cementitious fireproofing. We use this machine for the small to medium sized job that only allows minimum workspace or has limited access.
4. The *Graco TexSpray Mark V* [7] is our larger oil-based paint spraying machine. We use this machine to apply coats of intumescent fireproofing paint to the steel with a paint spraying gun. This machine is electric, simple, and best to leave stationary when in use.
5. The *Titan Advantage 200* [8] is our water-based paint spraying machine. It is used for spraying any type of water-based paint or bonding agent onto any surface. This machine is electric, simple, and best to leave stationary when in use.

We have 50 years of experience in the industry with the experience to execute any job:

- The *UL Fire Resistance Directory* [9] is used to look up the required thickness and hourly rating. The thickness of the material will determine how long the structure will withstand the heat from a fire. The UL Design Code is used to determine the thickness of material required for each specific beam in the structure of the building.
- *Building Blueprints* are used to find the steel dimensions and the UL design codes. The steel dimensions give you width and length. The UL design codes will be used to determine the required material thickness and hourly rating.
- *Material Specifications* can be used to look up the weight of material needed to cover a certain span of beam. This is useful as it allows us to estimate how much material will be needed for a job so

that we can coordinate pickups. We also can figure out how much we can spray per hour using the average volume output of the machine that we ae using to spray the material.

We emphasize safety in everything we do:

- Pompton Painting Company abides by all *Occupational Safety and Health Administration (OSHA) Requirements.* We require employees to complete either a 10- or 30-hour OSHA workplace safety training course online [10]. This course covers a broad range of topics meant to reduce workplace accidents [11]. We comply with all federally mandated safety regulations.
- *Personal Protective Equipment (PPE)* will be used and sometimes mandated. Basic PPE that our company and that most jobsites will require is a hard hat, dust mask, safety glasses, work boots, and protective pants. [12]
- *Safety Information* will be available to our employees to mitigate injury and liability as well as to inform and protect our employees. The mandated OSHA safety poster [13] as well as the Mount Sinai School of Medicine study, “Work Safely with Spray on Fireproofing” [14] are posted in the shop along with the Material Safety Data Sheets (MSDS).

Operational Paperwork, Data, and Estimation

Initially, some basic requirements must be met before submitting a proposal for a job. There MUST be water and electric onsite to complete a job. Some things that may or may not be available, but must be considered, are garbage disposal and cleanup requirements.

Ways We Get Work:

Blue Book: Contractor submits request to everyone for proposals and you only bid if you want to.

New Customer: They will ask for company information and a job proposal.

Old Customer: Usually does not need a proposal and already has company information.

Jersey Fire Stop: Contractor that will hire us specifically to complete jobs for them when needed.

Our Rates:

Our standard rate for two workers and spraying equipment is $1900 a day.

We charge $1100 for a half day. We charge $2400 a day in NYC or out of state.

Add $200-$300 per person for more than 2 people.

Important Paperwork:

Job Proposal Sheets Folder: Used to contain active job proposals.

Bill Folder: Used to contain bills that we must pay as a company for material, labor, etc.

Ongoing Job Folder: Where we keep the job proposals and information for ongoing jobs.

Future Work Folder: where we keep proposals and information for jobs that are coming up.

Collection Folder: Where we keep unpaid invoices for completed jobs that need to be collected.

Complete Folder: Proposal, Invoice, and Check are stapled together for completed and paid jobs.

Frequently Asked Questions:

What are the length and dimensions of each beam and column and area of deck?

The building blueprints are used to find the steel dimensions and the UL design codes. The steel dimensions give you width and length. The UL design codes will be used to determine the required material thickness and hourly rating. Steel Dimensions: “W1218” Width 12-inch-wide 18 pounds-per-square-foot. The steel deck is simply measured by area.

What is the hourly rating and required thickness?

The *UL Fire Resistance Directory* is used to look up the required thickness and hourly rating. The thickness of the material will determine how long the structure will withstand the heat from a fire. The *UL Design Code* is used to determine the thickness of material required for each specific beam in the structure of the building. They are found in the blueprints and looked up in the UL Directory.

How much material is needed and what will be the cost?

The *Material Product Specifications* can be used to look up the square footage that each bag can cover. This is useful as it allows us to estimate how much material will be needed for a job. We also can figure out how much we can spray per hour using the average output of the machine that we are using to spray the material. Each machine is rated to cover a certain square footage per hour with material.

How do we record company operations data?

Aside from the paperwork that we retain on file for each job that we complete, we need to record data in a way that we can manipulate and analyze it easily. Our company will implement *Microsoft Excel* to record operations data and metrics for this purpose. We will use this data to track our operations and make predictions and adjustments. Each job can very basically be broken down into time, material, and manpower, and we have a large amount of job history to analyze.

Job Descriptions and Responsibilities

Job Description:

We are seeking a hard-working and reliable construction worker to join our team. You will participate in a variety of construction projects and follow construction plans and instructions from the site supervisor. Although experience is not essential, you will have to be physically fit and a fast learner. To be successful in this position, you will work well as part of a team, enjoy working outdoors, and be able to perform strenuous physical tasks.

Job Requirements:

- No formal qualification is required, although a high school diploma may be preferred.
- Similar work experience will be beneficial.
- Willingness to undertake training if necessary.
- Be mild-tempered and a team player.
- Be healthy, strong, and fit.
- Complete OSHA Safety Training.

Technical Information:

Isolatek International is the manufacturer of most of the materials that we use. They have published short form application guides and product specifications for their materials. Two of the most common cementitious and intumescent materials that we spray are Cafco 300 [15] [16] and Cafco SprayFilm WB5 [17] [18], respectively. I have included the manuals for each of these materials in the bibliography.

Job Responsibilities:

General: Preparing construction sites, materials, and tools. Loading and unloading of materials, tools, and equipment. Mixing and spraying material and verifying thickness. Removing debris, garbage, and dangerous materials from sites. Assembling and breaking down barricades, temporary structures, and

scaffolding. Assisting contractors, e.g. electricians and painters, as required. Assisting with transport and operation of heavy machinery and equipment. Following all health and safety regulations.

Material Mixing: The mixer combines bags of fireproofing with water and mixes it together with a drill at the correct ratio to keep the machine full of material at the proper consistency. They must keep the hose straight and untangled and keep the area clear of any obstructions while moving the machine in such a way that allows the sprayer to move freely. Importantly, they must visually assess the material thickness on the beam to ensure no spots are missed.

Spray Application: The sprayer is wielding the gun and controls the valve and pump either by physical switch or by verbal communication with the mixer. They are to utilize the gun and hose to spray fireproofing onto steel beams to a specified thickness and to fill and fix patches where fireproofing has fallen. This will sometimes involve squeezing in tight spaces such as in between ceiling grids. It is best to wear PPE when performing this job.

Protection and Clean Up: The following tasks are generally performed by everyone either before, during, or after the material application process. They must hang plastic before spraying in order not to get overspray onto any sensitive or clean surfaces. They must set up the site initially to mitigate fireproofing dust from entering ventilation ducts or sensitive areas. When cleaning up, they should make sure the machine has been cleaned and all water lines have been emptied. They should reel and pack everything up and into the van in an efficient and organized manner. They should take down all the plastic and scrape/sweep/brush up all the fireproofing off the ground and dispose of it as required by the job.

Machine Operation Checklists

We have prepared inventory checklists and operational procedures for each of the five machines that we use for both fireproofing and painting spray application. For each machine we have described the details of setting up, operating, breaking down, and maintaining them. They are as follows:

Thomsen-Putzmeister S5G Fireproofing Pump and Compressor:

Trailer, Gasoline, 3 Guns, Gun Tips, Black Hose, Airline, 2-4 Barrels, Water Barrel, 3-6 Buckets, 2 Mixing Drills, Water Hose Reel, Electric Cord Reel, Toolboxes, Ladders, Scrapers, Brooms, Carts, Cones, and Shovel; always. Antifreeze, Vacuum, Generator, Fans, Ramps, Ladders, and Heaters; as needed.

Set Up: Clear the machine of any debris, foreign objects, or dry material. Check the oil level, fill the machine with gas, and grease it as directed. Attach the material hose, airline, and toggle cord to the machine at one end and gun at the other. Fasten the drain plug and fill the machine with water. Start up the engine with the ignition key and then engage the pump. Run 15-20 gallons of water through and then fill the machine with mixed material and keep pumping until no water and only material is coming out. Each machine has a different sized tip! Attach the proper tip to the end of the gun and spray away using verbal communication for control of the pump.

Operation: Always turn on air before the material pump to eliminate material back flow into air holes. Keep the machine full of material and prevent it from sucking air so as not to burn out the pump. Keep foreign debris and dry material from entering the machine and clogging the tip of the gun.

Break Down & Washout: Pump out all the fireproofing material onto a beam or into a bucket and flush the machine and hose with 15-25 gallons of water. In winter months, run antifreeze through the machine with the last gallon of water to prevent freezing. Undo all hoses and attachments and repack the machine and supplies neatly into the trailer/van.

Maintenance: Grease the machine with 4-5 pumps before each use. Grease the swivel on gun with 2-3 pumps as needed. Change pump on the machine when output starts to decrease. Change the oil and oil filter once every 6 months.

- Weight: 800 lbs.
- Output: 21 bags per hour
- Output: 3.4 yd^3 per hour
- 18 HP Honda gas engine
- 99” L x 27” W x 36” H
- Max Pressure: 360 psi

Benron V-Tex 350E Fireproofing Pump:

Hopper, Air Compressor, 2 Guns, Gun Tips, Green Hose with Airline and Toggle Cord, 2-4 Barrels, 3-5 Buckets, 2 Mixing Drills, Water Hose Reel, Electric Cord Reel, Toolboxes, Scrapers, Brooms, and Carts; always. Antifreeze, Vacuum, Generator, Fans, Ramps, Ladders, and Heaters; as needed.

Set Up: Clear the machine of any debris, foreign objects, or dry material, shift it into neutral and grease it as directed. Attach the air compressor to the pump machine with the custom bracket. Attach the material hose and toggle cord to the machine and gun and attach the airline to the compressor and gun. Attach the 17-gallon hopper to the machine securely with the rubber grommet and clamp. Fill the hopper with water to check for leaks. Plug in power cord, shift the machine to forward, and pump 5-10 gallons of water through the machine, hose, and gun for lubrication. Fill the hopper with mixed material and keep pumping until no water and only material is coming out. Each machine has a different sized tip! Attach the proper tip to the end of the gun and spray away using the air and pump toggle switches for control.

Operation: Always turn on air before the material pump to eliminate material back flow into air holes. Keep the machine full of material and prevent it from sucking air so as not to burn out the pump. Keep foreign debris and dry material from entering the machine and clogging the tip of the gun. Sometimes clogs can be removed, or the gun can be cleared of material, by briefly setting the machine to pump in reverse.

Break Down & Washout: Pump out all the fireproofing material onto a beam or into a bucket and flush the machine and hose with 10-15 gallons of water. In winter months, run antifreeze through the machine with the last gallon of water to prevent freezing. Undo all hoses and attachments and repack the machine and supplies neatly into the van with the ramps.

Maintenance: Grease the machine with 4-5 pumps before each use. Grease the swivel on gun with 2-3 pumps as needed. Change pump on the machine when output starts to decrease or if it stops working.

- Capable of 2-3 square yard coverage per minute.
- With 1 ¼” or 1 ½” pump hose, material hose & gun.
- Peristaltic pumps use rotating rollers pressed against flexible tubing to create a pressurized flow.
- Hydraulic system with speed and pressure control.
- Pump works in forward, neutral & reverse.

J&M Pro Mini Sprayer Fireproofing Pump and Compressor:

3 Guns, Gun Tips, Red Hose with Blue Air Line and Cord, 2-3 Barrels, 3-4 Buckets, 2 Mixing Drills, Water Hose Reel, Electric Cord Reel, Toolboxes, Scrapers, Brooms and Carts; always. Antifreeze, Vacuum, Generator, Fans, Ramps, Ladders, and Heaters; as needed.

Set Up: Clear the machine of any debris, foreign objects, or dry material and grease the machine as directed. Attach the material hose, airline, and toggle cord to the machine and gun using the pipe wrench, plyers, and hands respectively, add water to machine, check for leakage. Plug in power cord and pump 5-10 gallons of water through the machine, hose, and gun for lubrication. Fill machine with mixed material and keep pumping until no water and only material is coming out. Each machine has a different sized tip! Attach the proper tip to the end of gun and spray away using the air and pump toggle switches for control.

Operation: Always turn on air before the material pump to eliminate material back flow into air holes. Keep the machine full of material and prevent it from sucking air so as not to burn out the pump. Keep foreign debris and dry material from entering the machine and clogging the tip of the gun.

Break Down & Washout: Pump out all the fireproofing material onto a beam or into a bucket and flush the machine and hose with 10-15 gallons of water to remove the material. In winter months, run antifreeze through the machine with the last gallon of water to prevent freezing. Undo all hoses and attachments and repack the machine and supplies neatly into the van.

Maintenance: Grease the machine with 4-5 pumps before each use. Grease the swivel on gun with 2-3 pumps as needed. Change pump on the machine when output starts to decrease. Fix anything else on the machine as it breaks.

- Weight: 153 lbs. Dimensions: 32” L x 30” H x 14” W
- 18-gallon hopper fabricated from stainless steel for strength.
- 1L3 Rotor and Stator Pump delivers 1-2 gallons per minute.
- ¾ HP single phase 110-volt electric pump motor with reset button.
- Gast ¾ HP single phase 110-volt rotary vane air compressor.
- 25’ x ¾” material hose assembly with airline and remote cord.
- Nozzle comes with ¼”, 5/16”, 3/8”, 7/16”, and ½” orifice tips.

Graco TexSpray Mark V Airless Sprayer:

Inventory: Intumescent Supplies, Bucket Mixer, Water Hose Reel, Electric Cord Reel, Toolboxes, Ladders, Scrapers, Water Sprayer, Brooms, Rags, Mineral Spirits

Set Up: Set up the bucket mixing drill on a bucket of intumescent paint and let it run for 10-15 minutes to ensure that the material is properly mixed. Plug in the machine to the electric and pump through the intumescent until it is coming out in solid streaks and begin to apply the intumescent paint.

Operation: Apply intumescent paint in long continuous streaks in short, quick bursts. Go over a certain spot until you have given it a solid first coat and make sure to apply more coats if needed until the required thickness is achieved.

Break Down: Run mineral spirits through the machine to clean it. Turn off and disconnect the machine. Seal up the intumescent paint and pack away all materials and equipment.

- 20 Amp
- 2.8 HP
- 3/8” Outlet
- 50’ Hose
- 50/60 Hz

Titan Advantage 200 Airless Paint Sprayer:

Inventory: Painting Supplies, Water Hose Reel, Electric Cord Reel, Toolboxes, Ladders, Scrapers, Water Sprayer, Brooms, Rags, Mineral Spirits

Set Up: Open and mix the paint/material with a painter stick or drill. Put the end tip of the machine into a container of paint/material and connect the machine to power. Turn the machine on and pump through the paint/material until it is coming out in solid streaks and begin to apply the paint..

Operation: Apply paint/material in long continuous streaks in short, quick bursts. Go over the area until you have given it a solid first coat. After drying, make sure to apply more coats if needed to achieve a satisfactory finish/coating.

Break Down: Run mineral spirits or water through the machine to clean it. Turn off and disconnect the machine. Seal the paint and pack away all materials and equipment.

- 3000 psi
- 5/8 HP
- 47.6 lb.
- 25’ Hose
- 0.33 GPM

Job Safety and OSHA Requirements

OSHA Training:

Pompton Painting Company will require all employees to complete ether a 10- or 30-hour Construction OSHA workplace safety training course online. Our company uses 360training.com to complete our training and to get our certificates and OSHA construction cards.

10-hour card: Students who attend the 10-hour course receive this card. The 10-hour course is intended for entry level workers. This course provides information about worker rights, employer responsibilities, and how to file a complaint and provides basic awareness training on the recognition, avoidance, abatement, and prevention of workplace hazards.

30-hour card: Students who attend the 30-hour course receive this card. The 30-hour course is intended for supervisors or for workers with some safety responsibility. It provides a greater depth and variety of training on an expanded list of topics associated with workplace hazards than the 10-hour course.

OSHA Course Topics:

- General Safety and Health Provisions
- Occupational Health and Environmental Controls
- Personal Protective and Lifesaving Equipment
- Fire Protection and Prevention
- Signs and Signals
- Hand and Power Tools
- Welding and Cutting
- Electrical
- Scaffolds
- Fall Protection
- Mechanized Equipment
- Motor Vehicles
- Steel Erection
- Underground Construction
- Power Transmission and Distribution
- Stairways and Ladders
- Diving
- Hazardous Substances
- Confined Spaces
- Cranes

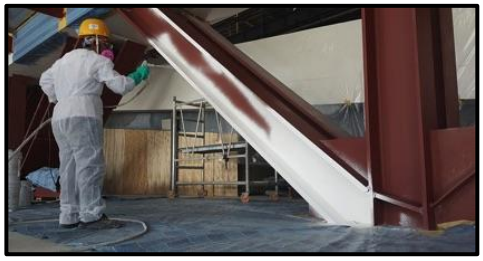
Personal Protective Equipment:

Required:

Hard hat, dust masks, safety glasses, work boots, and protective pants.

Recommended:

Skin protection (Tyvek suit), gloves, headlamp, sound/ear protection, and high-visibility clothing.



Safety Information:

Information will be available to our employees to mitigate injury and liability as well as to inform and protect our employees. This procedures and operations manual will be distributed to each employee. The information that will be actively and assuredly available to the employees is as follows:

1. The OSHA mandated poster will be posted in the shop area. It informs employees of their rights as workers and of the employer requirements that must be complied with such as providing a workplace that is free from hazards and to comply with all OSHA standards.
2. Material Safety Data Sheets (MSDS) contain information about handling the many different types of fireproofing material that we use. As required by OSHA, these are available in a secure accessible location. The most common type of material we spray is Cafco 300.
3. The researchers at the Center for Occupational & Environmental Medicine put together a very informative guide about safely working with and applying fireproofing material that will be displayed. They sourced several research papers from reputable sources and had their work fact checked by experienced industry professionals. It explains what spray-on fireproofing is used for, is made from, health concerns, and safety considerations to take when working with the material. It highlights specific legal rights that the worker holds and various recommendations for PPE usage.

Conclusion

The research I have done to create this document has resulted in an extensive bibliography. This list is fundamentally important to the operations of this company. I have interviewed Dennis and Daniel Leaver, two of the most experienced fireproofing industry professionals in New Jersey who have managed and completed jobs at MetLife Stadium, Newark Airport, Times Square Tower, and numerous office buildings, hospitals and residential structures [1-2]. I have cited a scientific journal dedicated specifically to the research and study of fire protection engineering [3]. I have compiled the manuals and specifications for each machine that our company uses for spray application [4-8]. I refenced the UL Fire Resistance Directory used to determine material thickness [9]. I have compiled every relevant and up to date piece of information from OSHA on safe workplace practices as pertains to our business [10-13]. I have found, and even printed and hung up, a very informative research study on safely working with spray on fireproofing by the Mount Sinai School of Medicine [14]. Lastly, I have included the application guide and product specifications for two of our most common materials [15-18]. It will be useful to be able to reference this document and bibliography for information whenever it is required.

In conclusion, I have created a master document that outlines the operations and procedures of the spray application company, Pompton Painting. From this document, I hope we can pull useful information such as job descriptions or material specifications and use the manual to train workers and help the business grow. The company could expand significantly by utilizing its current industry reputation to scale up its operations with more workers and equipment. A transition to where we can work on multiple jobs at a time would require cooperation and increased efficiency and organization. I hope that my efforts will allow us to easily transition this business into a modern industry by drawing on its heritage to outperform its competitors and increase the company’s size and revenue over the long term.

Bibliography

APA Format Citations:

1. Dennis Leaver, President and Owner of Pompton Painting. (2020). Interview About the Creation of a Pompton Painting Operations Manual.
2. Daniel Leaver, Manager of Pompton Painting. (2020). Interview About the Management and Documentation of Company Equipment.
3. Science Direct. (2019). Fireproofing. Handbook of Fire and Explosion Protection Engineering Principles for Oil, Gas, Chemical, and Related Facilities (Fourth Edition). Retrieved from https://www.sciencedirect.com/topics/engineering/fireproofing.
4. Thomsen-Putzmeister. (1996). S5G Technical Manual (1st ed.). Anaheim, CA: Putzmeister America.
5. Benron Equipment & Supply, Inc. (2018). V-TEX 350 Operational Specifications. Retrieved April 7, 2020, from https://www.benron.com/v-tex%20350.html.
6. J&M. (2018). Pro Mini-Sprayer. Retrieved April 7, 2020, from https://www.jandmservice.net/pdf/j1.pdf.
7. Graco. (2020). TexSpray Mark V Standard Series Electric Airless Sprayer. Retrieved May 4, 2020, from https://www.graco.com/us/en/contractor/product/17e605-texspray-mark-v.html
8. Titan. (2020). Advantage Series Operation Manual. Retrieved May 4, 2020, from https://www.homedepot.com/p/TITAN-Advantage-200-Airless-Paint-Sprayer-0552078/202601289.
9. Underwriters Laboratories (Ed.). (2016). Fire Resistance Directory (Vol. 1). Northbrook, IL: UL Directory Listings and Classifications.
10. United States Department of Labor. (2016). Outreach Training Program Card Hierarchy for OSHA Classroom Training. Retrieved May 4, 2020, from https://www.osha.gov/dte/outreach/cardhierarchy.html.

11. U.S. Department of Labor. (2015). Training Requirements in OSHA Standards. Retrieved April 7, 2020, from https://www.osha.gov/Publications/osha2254.pdf.
12. U.S. Department of Labor. (2004). OSHA Personal Protective Equipment. Retrieved May 10, 2020, from https://www.osha.gov/Publications/osha3151.pdf
13. United States Department of Labor. (2020). OSHA Free Workplace Poster. Retrieved May 4, 2020, from https://www.osha.gov/Publications/poster.html
14. Mount Sinai School of Medicine. (2004). Work Safely with Spray on Fireproofing. Retrieved April 7, 2020, from http://contegointernational.com/wp-content/uploads/2018/04/nyc-coem-spray-on-fire-proofing-fact-sheet-003.pdf.
15. Isolatek International. (2000). Cafco 300 Short Form Application Guide. Retrieved May 11, 2020, from https://www.isolatek.com/storage/Applicationguides/CAFCO%20300%20AC%20Short%20Form%20-%20Dual%20Branding%20Final%20-%2010-9-19.pdf
16. Isolatek International. (2000). Cafco 300 Product Specifications. Retrieved May 11, 2020 from https://www.isolatek.com/storage/tds/CAFCO%20300%20HS_C-TDS_10-19.pdf
17. Isolatek International. (2000). Cafco SprayFilm WB5 Short Form Application Guide. Retrieved May 11, 2020 from https://www.isolatek.com/storage/Applicationguides/WB5%20Short%20Form%20-%20Dual%20Branding%20-%2010-24-19.pdf
18. Isolatek International. (2000). Cafco SprayFilm WB5 Product Specifications. Retrieved May 11, 2020 from https://www.isolatek.com/storage/tds/CAFCO%20Spray%20Film%20WB%205_C-TDS_10-19.pdf