MULTI-STORY WINDOW & BUILDING SURFACE CLEANER

APPENDIX A

O*NET CODE 37-2011.00

This training outline is a minimum standard for Work Processes and Related Instruction. Changes in technology and regulations may result in the need for additional on-the-job or classroom training.

WORK PROCESSES

Approximate Hours

A. General Safety on the Job **400**

1. Ensuring all work performed in compliance with OSHA, City, and State rules and regulations, contract, equipment manufacturer's instructions, Code Rule 21, Advisory Standards 101 & 111, ANSI standards, O.S.H.A. 29CFR for suspended power scaffolds, ICED (Industrial and Construction Equipment Division) manual for operators and mechanics and S.I.A. manual (Scaffold Industries Association).

B. Basic Window Cleaning Tools and Supplies **250**

1. Using and caring for tools such as scrubbers, squeegees, scrapers, extension poles, adjustable pole angles, sponge and strip washers.
2. Ensuring all tools are secured with safety attachments where appropriate.
3. Scrubbing windows and building surfaces using recommended equipment.
4. Using squeegees according to proper techniques and types of surfaces.
5. Using extension poles safely.
6. Detailing windows and trim with rags.
7. Mastering special squeegee techniques on unusual shaped surfaces.
8. Operating Tucker Brush System for cleaning windows.
9. Inspecting equipment on site; insuring tools and equipment are maintained in a safe working condition.
10. Protecting self and others when using chemicals.

11. Mixing chemicals with soap and water; using Ammonia safely.
12. Identifying situations appropriate for use of chemicals such as TSP
13. Disposing properly of used cleaning solutions.
14. Applying knowledge of Chemical Hazards Manuals and M.S.D.S. (material safety data sheets).

C. Shop Operations Prior to Cleaning **50**

1. Evaluating work site.
2. Reviewing method of access.
3. Identifying special building features.
4. Assessing surfaces to be cleaned.
5. Reviewing roof plans.
6. Checking method of stabilization.
7. Reviewing installation approvals.
8. Preparing chemicals to be used.
9. Securing tools to be used.

D. Specialty Cleaning Jobs **50**

1. Removing paint on glass and frames.
2. Scraping glass.
3. Cleaning frames and building surfaces with scrubbing pads.
4. Removing glazing sealant.
5. Removing cement or stucco.
6. Removing plaster.
7. Removing tape or decals.
8. Removing pigeon debris.
9. Washing metal and marble building surfaces.

E. Cleaning Specialty Windows **50**

1. Applying appropriate technique and solutions when cleaning:
    a. Solar filmed windows.
    b. Mirrors.
    c. Windows with burglar alarm tape.

d. Plexiglass.

e. Windows with gold leaf.

f. Windows surrounded by freshly painted sills, frames and walls.

g. Hot or cold windows.

F. Belt Work **100**

1. Observing all safety rules, N.Y.S. applications, common sense, weather conditions, window and anchor condition and protecting customer premises.
2. Inspecting and maintaining belts and runners prior to beginning work.
3. Ensuring appropriate exit and entry, cleaning and reach rules as required in Code Rule 21.
4. Applying special considerations such as working around air conditioners and use of a stick to increase reach.

G. Window Cleaning Ladders **100**

1. Using approved ladders safely according to all existing standards, rules and regulations:
   a. Performing safety inspections; removing from service and tagging sections not in safe condition according to existing standards; using safety shoes.
   b. Selecting proper ladder length for the job.
   c. Using only approved design ladders.
   d. Securing, transporting, and storing ladders properly.
   e. Erecting safely: safe base surface, observing maximum heights and working distances; insuring ladder is held by another person when 3 or more sections are used.
   f. Moving erected ladder safely
   g. Maintaining ladders according to instructions.

H. Rolling Pipe Scaffolds for Light Maintenance **100**

1. Observing all OSHA rules, A.N.S.I. guidelines and manufacturers recommendations for safe erection and use; insuring safety of cleaners and public.
2. Performing safety pre-inspections of all components prior to use.
3. Erecting with pedestrian safety, personal safety, and weather considerations in mind, placing danger signs and

barriers; insuring hinge latches locked, ensuring pin connectors and interlocking clips, sprockets, and hooks engaged fully, securing to building out-of-doors; checking for absence of electrical wires in vicinity of scaffold; installing guard rails and toe boards; installing outriggers; using tiebacks in 40 – 100-foot applications.

4. Safely transporting sections on the job site and moving erected systems on site.
5. Setting cribbing in place.
6. Locking all casters.
7. Securing tie-down devices.
8. Assuring all set-ups are level.
9. Assuring gradient is within equipment working limits.
10. Maintaining, transporting, and storing appropriately.

I. Permanent and Temporary Powered Suspended Scaffolds **1,500**

1. Performing safety inspections and using safe operating practices for suspended support and personal fall protection equipment systems.
2. Inspecting wire ropes, electrical connections, steel cable winding drums, personal body harness and related hardware, independent lifelines, communications equipment; completing log book.
3. Using personal fall protection equipment:
    a. Securing personal life lines properly, protecting and insuring integrity of lines
4. Using body harness
5. Placing rope grabs and shock absorbing lanyards properly.
6. Attaching to OSHA approved anchorage points.
7. Maintaining and inspecting all scaffold and other personal safety equipment:
    a. Ensuring equipment is currently inspected by a professional
    b. Storing and protecting harnesses, ropes; logging ropes; insuring potential free fall distance meets federal OSHA requirements.
    c. Inspecting all components of suspended scaffolding including support systems and personal fall protection systems before and after each use; storing properly, covering electrical controls and related equipment.

d. Following procedures for removing, labeling and reporting worn or damaged equipment.

8. Ensuring rope grab is locked and positioned properly
9. Limiting use of knots, checking knots regularly; protecting ropes and cables from excessive heat, prolonged exposure to elements and other damaging conditions.
10. Using good judgement in daily performance of duties.
11. Observing changing weather conditions and scheduling work, accordingly, avoiding cold and heat related hazards.
12. Operating three basic systems:
    a. Skyclimbers (traction hoist)
    b. Spiders (drum hoist)
    c. Swing stages (level wind)
13. Erecting and operating various support systems safely such as: outriggers, socket and davit, roof hook/parapet clamps, carriage systems and ground rigged systems; insuring safe lifting and swinging techniques.
14. Caring for wire and fiber ropes; performing regular safety inspections, replacing every 18 months.
15. Hoisting: manual and mechanical, electrical, hydraulic.
16. Ensuring integrity of all anchor components, labeling where appropriate.
17. Troubleshooting problems.
18. Maintaining cable and hoist components.
19. Rigging davits, tiebacks, swinging cranes.

J. Rope Scaffolds and Boatswain Chairs **200**

1. Performing all work in compliance with Code Rule 21.
    a. NYC rigger license required when working in NYC.
2. Using required fall protection.
3. Following general safety rules.
4. Applying knowledge of rope: size required, storage, weight capacity, working load, inspection procedures, type used, knots and hitches used for specific application.
5. Applying knowledge of blocks and pulleys: proper size for the job at hand, rope tackle layout, method of reeving line for two-block to one-block systems.

6. Rigging and operating rope scaffolds or platforms with block and tackle setup on each side of platform, two-person operation.
7. Rigging and working from boatswain chairs, requiring two-person operation: working from chair, assisting with ground operations.

K. Ariel Platforms **200**

1. Operating extendable ariel platforms.
2. Operating self-propelled scissor lifts.
3. Operating truck and track mounted self-propelled booms.
4. Operating denka lifts.
5. Operating one person telescoping lifts.

Approximate Total hours **3,000**

Apprenticeship work processes are applicable only to training curricula for apprentices in approved programs. Apprenticeship work processes have no impact on classification determinations under Article 8 or 9 of the Labor Law. For guidance regarding classification for purposes of Article 8 or 9 of the Labor Law, please refer to *https://dol.ny.gov/public-work-and-prevailing-wage*.

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APPENDIX B

RELATED INSTRUCTION

Safety

1. General: Workplace Hazards
2. First Aid – minimum 6.5 hours every three years
3. Trade Safety: including handling and disposal of cleaning chemicals, ladder safety, belt, fall protection, full body harness, fall arrest equipment, safety shoes, hard hats, gloves, goggles, etc., hypothermia, heat and sun exposure hazards, electrical shock, NYS Code Rules 21, ANSI Standards, O.S.H.A. 29CFR City of New York regulations and required licenses, ICED manual for Aerial Platform (Industrial and Construction Equipment Division), S.I.A. Code of Safe Practices for Suspended and Powered Scaffolds
4. Sexual Harassment Prevention – must comply with Section 201-g of the Labor Law

Labor Relations

1. History and Background
2. Current Laws and Practices
3. Contract
4. NYS Department of Labor
5. Building Owner
6. Employer
7. Fellow Workers
8. Conflict Resolutions

Trade Theory and Science

1. Science of Window Cleaning, Tools of the Trade
2. Glass and Galzing Systems, surface corrosion
3. Terminology
4. Ladders: Extension, Sectional, Step and “A” Frame
5. Types of Windows: Belt Work, Double Hung, Push Out, Pivot, Tilt-In and Sliders
6. Pipe Scaffolds

7. Permanent Scaffolds: Power, Balance, Gravity, Support, Suspended, Personal Fall Protection Systems
8. Temporary Scaffolds, Manual and Powered Suspended Scaffolds
9. Fiber Ropes: Natural and Synthetic, Knots, Cordage Institute Information Study, Rigging, Life Lines, Suspension Lines
10. Boatswain Chair Operation
11. Rope Scaffolds
12. Electric Scaffolds
13. Tucker Brush System
14. Portable Powered Vertical Aerial Platforms
15. Self-Propelled Scissor Lifts
16. Extensible Aerial Platforms
17. Denka Lifts
18. Self-Propelled Lifts
19. Truck Mounted Boom
20. Track Mounted Boom Lifts
21. Power Cleaning and Automated Systems (optional)
22. Licensing exam preparation
23. Commercial driver's license preparation (optional)

Other Related Courses as Necessary

A Minimum of 144 Hours of Related Instruction are Required for Each Apprentice for Each Year.

Appendix B topics are approved by New York State Education Department.