WINDOW CLEANING BAY AREA

WHITE PAPER

# What Bay Area High-Rise Owners Must Hand Their Window Cleaner

The documents California Title 8 §3282 and §3283 and federal OSHA 29 CFR 1910.27 expect a building owner to provide before a rope descent or suspended crew uses the building's anchors and equipment: written assurance, annual inspection records, an Operating Procedures Outline Sheet and anchorage certification.

Window Cleaning Bay Area · October 2026
windowcleaningbayarea.com · grayson@windowcleaningbayarea.com

## Executive Summary

On a high-rise, the crew brings the ropes, harnesses and training, but the building supplies the anchors, davits, tie-backs and other permanent equipment the crew hangs from. California Title 8 therefore puts specific paperwork duties on the **building owner**, and those documents must be in the employer's hands before the first descent.

### Key Points

- **No Paperwork, No Descent:** Employers may not let employees use building safety devices or equipment before receiving the owner's written assurance and, if required, an OPOS. §3282(p)(2)
- **Written Assurance Before Use:** The owner certifies the building's safety devices and equipment meet Title 8. §3282(p)(1)(A)
- **Inspection At Least Every 12 Months:** For all devices covered by the assurance, and separately for window cleaning anchors and fittings. §3282(p)(1)(B), §3283(e)
- **OPOS Trigger Is 36 Feet:** Owners of buildings 36 feet or more in height need an Operating Procedures Outline Sheet when certain conditions apply. §3282(p)(1)(C)
- **Federal Anchorage Letter:** Rope descent anchorages must be certified in writing for at least 5,000 lb in any direction per attached employee. 29 CFR 1910.27(b)(1)

## Owner Duties Under §3282

Article 5 of the General Industry Safety Orders covers "the cleaning of all windows of all buildings," including windows, frames, curtain wall components and building panels. Its first rule is that windows shall not be cleaned from the outside or inside unless means are provided to do the work safely. §3282, §3282(a)

Most of Article 5 is addressed to the employer: providing conforming equipment, training and supervising crews, and assigning only properly trained employees to scaffolds or boatswain's chairs. §3282(c)–(f) Subsection (p) is different. It speaks directly to building owners, and it is the section a high-rise owner should know best.

## Written Assurance

Building owners must provide the employer written assurance, **before use**, that all of the building's safety devices and equipment meet Title 8. The assurance must consider, but is not limited to:

- Window Anchors And Fittings
- Load-Sustaining Capabilities Of Platforms, Building Components, Hoisting And Supporting Equipment
- Stability Factors For Carriages, Platforms And Supporting Equipment
- Maximum Horizontal Force For Movement Of Carriages And Davits
- Design Of Carriages, Hoisting Machines, Wire Rope And Stabilization Systems
- Design Criteria For Electrical Wiring And Equipment

Source: §3282(p)(1)(A)

## Annual Equipment Inspection

Every safety device and piece of equipment covered by the written assurance, including related building support structures, must be inspected at least every 12 months and, where necessary, tested to determine whether it is safe to use, with tests conducted as required in §3296(b). §3282(p)(1)(B) Window cleaning anchors and fittings carry their own 12-month inspection requirement, and anchors subject to impact loading or possible structural damage must be replaced. §3283(e)–(f)

## Written Operating Procedure (OPOS)

Owners of buildings **36 feet or more in height** must have an Operating Procedures Outline Sheet when the building has no established window cleaning system or procedures meeting Articles 5 and 6, when original procedures changed because of building modifications, or when extreme architectural features require complex rigging or equipment not covered by the orders. §3282(p)(1)(C)1

The OPOS must be developed by someone with knowledge of the design, installation and use of building maintenance equipment (for example, Scaffold Inspection Testing certification under §3296), be readily understood by employers, and contain at least the elements of Appendix A. Structural modifications it requires must be designed by a California-registered mechanical, structural or civil engineer. §3282(p)(1)(C)2–3

## What To Hand The Crew

| Document | What It Covers | Basis |
|---|---|---|
| Written Assurance | Building safety devices and equipment meet Title 8 | §3282(p)(1)(A) |
| Inspection And Test Records | Inspection within the last 12 months; testing where necessary | §3282(p)(1)(B), §3283(e) |
| Operating Procedures Outline Sheet | Required for qualifying buildings 36 ft or taller | §3282(p)(1)(C) |
| Rope Descent Anchorage Letter | Each anchorage identified, tested, certified and maintained for 5,000 lb in any direction per attached employee; annual inspection, certification at least every 10 years | 29 CFR 1910.27(b)(1)(i) |

Under the federal rule, the employer must not let anyone use an anchorage before obtaining this written information, and must keep it for the duration of the job. 1910.27(b)(1)(ii)

### Where The Height Limits Come From

The 36 ft figure in §3282 is the OPOS trigger only. The 130 ft limits come elsewhere: §3295 caps the point of suspension for portable outriggers and ground-rigged davits at 130 ft above a safe surface unless acceptable to the Division, and 1910.27 requires stabilization for rope descents greater than 130 ft. 1910.27 also bars rope descent systems above 300 ft unless other access is infeasible or more hazardous. §3295; 1910.27(b)(2)(i), (x)

## Sources

- Cal. Code Regs., Title 8, §3282. https://www.dir.ca.gov/title8/3282.html
- Cal. Code Regs., Title 8, §3283. https://www.dir.ca.gov/title8/3283.html
- Cal. Code Regs., Title 8, §3295. https://www.dir.ca.gov/title8/3295.html
- 29 CFR 1910.27, Scaffolds and Rope Descent Systems (eCFR). https://www.ecfr.gov/current/title-29/subtitle-B/chapter-XVII/part-1910/subpart-D/section-1910.27

This paper summarizes regulations for general information and is not legal advice. Regulations may change; consult the current text and qualified professionals.

### About Window Cleaning Bay Area

Window Cleaning Bay Area provides commercial window cleaning, pressure washing and solar panel cleaning across the San Francisco Bay Area. High-rise rope descent work is performed by a vetted partner crew. Contact: grayson@windowcleaningbayarea.com

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# Contractor Prequalification For High-Rise Work

A checklist for vetting high-rise window and facade contractors, built from federal and California training, emergency plan and workers' compensation requirements.

Window Cleaning Bay Area · October 2026
windowcleaningbayarea.com · grayson@windowcleaningbayarea.com

## Executive Summary

Owners and property managers hiring for high-rise window cleaning or facade work should prequalify contractors before they reach the roof. The rules for rope descent and powered platform work set clear training, planning and insurance duties. Those duties map directly to documents an owner can request. This paper turns them into a prequalification checklist.

### Key Points

- **RDS Training:** Each employee using a rope descent system must be trained per §1910.30. 1910.27(b)(2)(iii)
- **California Training:** Only properly trained employees may work from scaffolds or boatswain's chairs. §3282(f)
- **Platform Proficiency:** Working platforms may be run only by persons proficient in that platform, trained by a competent person. 1910.66(i)(1)
- **Emergency Plan:** A written emergency action plan is required for each kind of platform operation. 1910.66(e)(9)
- **Workers' Comp:** Every California employer except the state must secure workers' compensation. Lab. Code §3700

## Why Prequalification Matters

Several duties are split between owner and employer. Before RDS use, the employer must obtain the owner's written anchorage information and keep it for the duration of the job. 1910.27(b)(1)(ii) A contractor that asks for these documents is showing it knows the rules.

# Safety Program And Training Records

### Rope Descent

RDS must be used per manufacturer instructions or under a qualified person's direction, each user must be trained per §1910.30, and the system must be inspected at the start of each workshift. 1910.27(b)(2)(ii)–(iv) Ask for training records for the specific crew.

### Powered Platforms

Training must cover task hazards, platform hazards, emergency action plan procedures, work procedures and personal fall arrest inspection and use. It must be done by a competent person, and written work procedures must be provided. 1910.66(i)(1)(ii)–(iv) The emergency plan must explain the procedures for events such as a power failure. 1910.66(e)(9)

### California

Only properly trained employees may be assigned to scaffolds or boatswain's chairs. §3282(f) On buildings 36 ft or taller, check whether an Operating Procedures Outline Sheet (OPOS) is required and on file. §3282(p)(1)(C)

## Insurance And Bonding

California employers must be insured for workers' compensation by an authorized insurer or hold a DIR certificate of consent to self-insure. Lab. Code §3700 Request a certificate of insurance, and see G4 for COI review. Liability limits and bonding amounts are business choices; this paper does not recommend figures.

## Prequalification Checklist

| Request | Basis |
|---|---|
| RDS Training Records (Per Crew Member) | 1910.27(b)(2)(iii); 1910.30 |
| Platform Operator Training By A Competent Person | 1910.66(i)(1) |
| Written Work Procedures | 1910.66(i)(1)(iv) |
| Written Emergency Action Plan | 1910.66(e)(9) |
| Proof Of Trained Scaffold/Chair Workers | §3282(f) |
| Workers' Comp Certificate | Lab. Code §3700 |
| Acknowledgment Of Owner Anchorage Letter | 1910.27(b)(1)(ii) |

WCBA does not perform high-rise rope or suspended work with its own crews; that work is done by a vetted partner crew that is held to this checklist.

## Sources

- 29 CFR 1910.27 and 1910.66. https://www.ecfr.gov/current/title-29/part-1910
- Cal. Code Regs. Title 8 §3282. https://www.dir.ca.gov/title8/3282.html
- Cal. Labor Code §3700. https://leginfo.legislature.ca.gov

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# Rope Descent Anchor Certification

What federal OSHA requires of building owners before rope descent work begins: a written statement covering 5,000 lb anchorages, annual inspection and certification at least every 10 years, plus California §3283 anchor rules.

Window Cleaning Bay Area · October 2026
windowcleaningbayarea.com · grayson@windowcleaningbayarea.com

## Executive Summary

Before any rope descent system (RDS) is used on a building, federal OSHA requires the building owner to tell the employer in writing that every anchorage has been identified, tested, certified and maintained to hold 5,000 lb. This paper explains that rule in 29 CFR 1910.27(b)(1), the difference between the annual inspection and the 10-year certification, and the California Title 8 anchor rules that sit on top of it.

### Key Points

- **Written Owner Statement First:** No RDS may be used until the owner informs the employer in writing about every anchorage. 1910.27(b)(1)(i)
- **5,000 Lb Per Employee:** Each anchorage must support at least 5,000 lb in any direction for each employee attached. 1910.27(b)(1)(i)
- **Annual Inspection:** The statement must be based on an annual inspection by a qualified person. 1910.27(b)(1)(i)
- **Certification At Least Every 10 Years:** Each anchorage must be certified by a qualified person as necessary, and at least every 10 years. 1910.27(b)(1)(i)
- **California Overlay:** Only Division-approved anchors and fittings may be used, and they must be inspected at least every 12 months. T8 §3283

## Federal RDS Rules (1910.27)

The rule reads: "Before any rope descent system is used, the building owner must inform the employer, in writing that the building owner has identified, tested, certified, and maintained each anchorage so it is capable of supporting at least 5,000 pounds (2,268 kg), in any direction, for each employee attached." 1910.27(b)(1)(i) The employer must not let any employee use an anchorage before getting that written information and must keep it for the duration of the job. 1910.27(b)(1)(ii)

## 5,000 Lb Anchor Requirement

The 5,000 lb figure appears throughout the federal rules. All RDS components except seat boards must sustain a minimum rated load of 5,000 lb. 1910.27(b)(2)(vii) Anchorages for personal fall protection systems must also support at least 5,000 lb, and each worker on an RDS must use a separate, independent personal fall arrest system. 1910.140(c)(13); 1910.27(b)(2)(vi)

## Annual Inspection

The owner's written statement "must be based on an annual inspection by a qualified person." 1910.27(b)(1)(i) Separately, the employer must inspect the RDS itself at the start of each workshift it is used. 1910.27(b)(2)(iv)

## 10-Year Recertification

Certification of each anchorage by a qualified person is required "as necessary, and at least every 10 years." These requirements had to be implemented no later than November 20, 2017. 1910.27(b)(1)(i), (iii)

| Item | Inspection | Certification |
|---|---|---|
| Frequency | Annual | As necessary, at least every 10 years |
| Who | Qualified person | Qualified person |
| Purpose | Supports owner's written statement | Confirms 5,000 lb capacity per employee |
| Source | 1910.27(b)(1)(i) | 1910.27(b)(1)(i) |

## Cal/OSHA Overlay

In California, Title 8 §3283 requires that "only those anchors and fittings granted approval by the Division shall be used," with anchors and fittings inspected at least every 12 months. §3283(b)(1), (e) Anchor placement is specified too, such as anchors located 42 to 51 inches above the sill. §3283(d)(1) Owners should satisfy both sets of rules: Division approval and 12-month inspection under Title 8, plus the federal written statement, annual inspection and 10-year certification.

## Owner Document Checklist

- **Written Anchorage Statement:** Give it to every employer before any RDS use.
- **Annual Inspection Report:** From a qualified person.
- **Certification Records:** Dated within the last 10 years.
- **Division Approval Documentation:** For the anchors and fittings.

At Window Cleaning Bay Area, rope descent work is performed by a vetted partner crew, not WCBA crews.

## Sources

- 29 CFR 1910.27. https://www.ecfr.gov/current/title-29/section-1910.27
- 29 CFR 1910.140. https://www.ecfr.gov/current/title-29/section-1910.140
- Cal. Code Regs. Title 8 §3283. https://www.dir.ca.gov/title8/3283.html

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# Window Cleaning Anchors And Fittings Under Cal/OSHA §3283

What California §3283 requires of window cleaning belt anchors and fittings: Division approval, A39.1 compliance, placement 42 to 51 inches above the sill, no expansion shields, inspection every 12 months and records.

Window Cleaning Bay Area · October 2026
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## Executive Summary

Title 8 §3283 is California's rule for window cleaning anchors and fittings: the anchors beside a window that a window cleaner's safety belt clips into when working from the sill or from inside an openable window. It covers approval, placement, installation details and a 12-month inspection. Roof anchorages for rope descent are a separate topic under federal 1910.27 (see H2). This paper summarizes §3283 for owners and facility teams.

### Key Points

- **Approved Anchors Only:** "Only those anchors and fittings granted approval by the Division shall be used." §3283(b)(1)
- **Built To A39.1:** Anchors and fittings must comply with Section 4.5 of ANSI/ASME A39.1-1991. §3283(b)(1)
- **42 To 51 Inches:** Anchors go 42 to 51 inches above the sill, with an exception for short windows. §3283(d)(1)
- **12-Month Inspection:** Anchors and fittings must be inspected at least every 12 months. §3283(e)
- **Replace After Impact:** Anchors subject to impact loading or possible structural damage must be replaced. §3283(f)

## §3283 Scope

An installed anchor "shall not be used for any purpose other than attachment of window cleaner's belt terminals." Anchors are required on the inside of windows washed from the inside where there is a hazard of falling through to the outside, as defined in §3282(g)(2). §3283(a)(1)–(2) Windows cleaned from the sill must be structurally suited to anchors, and the rule sets minimum openings and maximum widths for sill work. §3283(a)(3)–(7)

# Placement And Approved Anchors

## Approval

Manufacturers must submit test data to the Division, and only Division-approved anchors and fittings may be used. Window units for new construction or remodeling must show the complete installation passed the A39.1 drop test without frame failure. §3283(b)

## Location And Clearance

Anchors attach to the window side frames or the building "no less than 42 inches nor more than 51 inches above the window sill." For windows under 48 inches tall that are normally cleaned from outside, the anchor goes at about two-thirds of the window's height. §3283(d)(1) The anchor head needs at least one inch of side clearance, and the 4 to 5 inches above and below it must be kept free for belt terminals. §3283(c)(1)–(2)

## Installation

Detailed bolt, washer and edge-distance rules apply by substrate, and "the use of expansion shield anchors is prohibited." §3283(c)(3), (d)(2)–(9) A series of fixed panels with no openable panels between them needs a continuous tie-off method, such as double-headed anchors or an overhead trolley. §3283(a)(8)

## 12-Month Inspection

"Inspection of window cleaning anchors and fittings on buildings shall be conducted at least every 12 months." §3283(e) Separately, §3282 requires owners to give employers written assurance, before use, that the building's safety devices (including window anchors and fittings) meet the orders, and those devices must also be inspected at least every 12 months. §3282(p)(1)

## Records

| Anchor Inspection Log Field | Basis |
|---|---|
| Anchor Location / ID | Tracking per §3283(e) |
| Manufacturer And Division Approval | §3283(b)(1) |
| Height Above Sill Verified (42–51 In.) | §3283(d)(1) |
| Inspection Date (Within 12 Months) | §3283(e); §3282(p)(1)(B) |
| Damage Or Impact Noted / Replaced | §3283(f) |
| Written Assurance Provided To Employer | §3282(p)(1)(A) |

## Sources


- Cal. Code Regs. Title 8 §3283. https://www.dir.ca.gov/title8/3283.html
- Cal. Code Regs. Title 8 §3282. https://www.dir.ca.gov/title8/3282.html
- 29 CFR 1910.27. https://www.ecfr.gov/current/title-29/section-1910.27


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# Rope Descent Systems On Bay Area Towers

How federal 1910.27 and California §3295 govern rope descent work on taller buildings: the 300 ft limit, stabilization over 130 ft, rescue, weather and what owners provide.

Window Cleaning Bay Area · October 2026
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## Executive Summary

A rope descent system (RDS) lets a worker descend a facade on a seat board suspended from roof anchorages. It is common on mid- and high-rise buildings because it needs no permanent platform. Federal OSHA regulates RDS use in 29 CFR 1910.27(b), and California's §3295 sets limits for suspended equipment. This paper summarizes the height limits, stabilization, rescue planning and weather rules owners should understand before rope work starts on their tower.

### Key Points

- **300 Ft Limit:** No RDS above 300 ft above grade unless other access is infeasible or more hazardous. 1910.27(b)(2)(i)
- **Stabilization Over 130 Ft:** Required at the work location for descents greater than 130 ft. 1910.27(b)(2)(x)
- **Prompt Rescue:** The employer must provide prompt rescue of each employee in the event of a fall. 1910.27(b)(2)(viii)
- **Weather:** No RDS use in storms or gusty or excessive wind. 1910.27(b)(2)(xi)
- **Partner Crew:** At WCBA, rope descent work is performed by a vetted partner crew, never by WCBA crews.

## What An RDS Is

Federal rules treat an RDS as suspended equipment that must be used according to the manufacturer's instructions, warnings and design limits, or under a qualified person's direction. Each user must be trained under §1910.30 and must wear a separate, independent personal fall arrest system. All components except the seat board must sustain 5,000 lb, and the seat board must support a 300 lb live load. 1910.27(b)(2)(ii), (iii), (vi), (vii) Anchorages need the owner's written certification first (see H2). 1910.27(b)(1)

## 300 Ft Limit

The employer must ensure "no rope descent system is used for heights greater than 300 feet (91 m) above grade unless the employer demonstrates that it is not feasible to access such heights by any other means or that those means pose a greater hazard." 1910.27(b)(2)(i) Above that height, building maintenance units or other powered platforms are the usual alternatives to consider (see H4).

## Stabilization Over 130 Ft

"Stabilization is provided at the specific work location when descents are greater than 130 feet (39.6 m)." 1910.27(b)(2)(x) In California, §3295 also limits portable outriggers on ground-rigged working platforms to a suspension point no more than 130 ft above a safe surface unless acceptable to the Division. T8 §3295

### Other Use Rules

- **Per-Shift Inspection:** The RDS is inspected at the start of each shift, and damaged gear is removed. (b)(2)(iv)
- **Rigging And Tiebacks:** Especially with counterweights or cornice hooks. (b)(2)(v)
- **Rope Protection:** Ropes are padded at edges and kept from flames, hot work and corrosives. (b)(2)(ix), (xiii)
- **Tool Lanyards:** Squeegees and buckets are secured against falling. (b)(2)(xii)

## Rescue Planning

The rule requires "prompt rescue of each employee" after a fall but does not prescribe a method. 1910.27(b)(2)(viii) Owners should ask the rope crew how a suspended worker would be reached, and make sure roof access and building contacts are available during work.

## RDS Requirements Summary

| Requirement | Rule | Source |
|---|---|---|
| Owner Anchorage Statement | 5,000 lb per employee, written, before use | 1910.27(b)(1) |
| Height Limit | 300 ft unless no feasible alternative | 1910.27(b)(2)(i) |
| Stabilization | Descents over 130 ft | 1910.27(b)(2)(x) |
| Fall Arrest | Separate, independent system | 1910.27(b)(2)(vi) |
| Weather | Not in storms or gusty or excessive wind | 1910.27(b)(2)(xi) |
| Outriggers (CA) | 130 ft unless Division accepts | T8 §3295 |

## How The Vetted Partner Crew Works

Window Cleaning Bay Area coordinates rope descent jobs through a vetted partner crew that is trained and equipped for suspended work. WCBA crews handle ground, ladder and pole work. Owners should expect to provide anchorage documentation before the partner crew rigs.

## Sources

- 29 CFR 1910.27. https://www.ecfr.gov/current/title-29/section-1910.27
- Cal. Code Regs. Title 8 §3295. https://www.dir.ca.gov/title8/3295.html

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# Building Maintenance Units, Davits And Swing Stages Under Cal/OSHA §3295

How California §3295 and federal 1910.66 regulate powered platforms, davits, carriages and outriggers: engineering, design loads, stability, inspections and owner assurance.

Window Cleaning Bay Area · October 2026
windowcleaningbayarea.com · grayson@windowcleaningbayarea.com

## Executive Summary

Tall buildings are usually cleaned from suspended equipment: building maintenance units (BMUs) on roof carriages, davits that suspend a platform over the edge, or outrigger-rigged platforms often called swing stages. In California, Title 8 §3295 ("Powered Platform Installations—Equipment," in Article 6 of the General Industry Safety Orders) sets design rules for that equipment. Federal 29 CFR 1910.66 covers permanent powered platforms. This paper compares the two for owners planning or maintaining access equipment.

### Key Points

- **Engineer-Designed:** California powered platform equipment must be designed by or under a California-registered professional engineer. T8 §3295(a)(1)
- **Design Loads:** 250 lb live load per occupant; designed for 100 mph wind out of service and 50 mph in service. §3295(a)(2)–(4)
- **Davit Stability:** Every davit installation must have a stability factor of at least four. §3295(c)(3)(A)
- **Federal 12-Month Cycle:** Building supports and equipment are inspected at intervals not exceeding 12 months, with owner certification records. 1910.66(g)(2)
- **Owner Assurance:** Owners of new installations must inform the employer in writing before each use. 1910.66(c)(1)

## Access Equipment Types

§3295 lists the components of a powered platform installation: "platforms, stabilizing components, carriages, outriggers, davits, hoisting machines, wire ropes and electrical components." Elevated building maintenance equipment "shall be suspended by a carriage, outriggers, davits or an equivalent method." §3295(a), (c)

# §3295 Requirements

### General Design

Installations must be designed by or under a California-registered professional engineer experienced in such design. They must provide a 250 lb minimum live load per platform occupant and withstand winds of at least 100 mph at 30 ft above grade when out of service and 50 mph at all elevations when in service. Equipment may not be cascaded between levels by craning without prior Division approval. §3295(a)

### Carriages

Powered carriages may not traverse faster than 50 ft per minute, need structural stops, and may not traverse until the suspended platform is at its uppermost position and clear of the facade. §3295(c)(1)

### Davits And Outriggers

Davit installations need a stability factor against overturning of at least four, and roof-rigged davit access must be from a safe surface. §3295(c)(3) Portable outriggers for ground-rigged platforms are limited to a suspension point no more than 130 ft above a safe surface unless acceptable to the Division. §3295

# Federal 1910.66 Powered Platforms

1910.66 covers "powered platform installations permanently dedicated to interior or exterior building maintenance," including window cleaning, but not temporary suspended scaffolds. 1910.66(a) Owners of new installations must give the employer written assurance before each use, and the building owner keeps certification records of the periodic inspections. 1910.66(c), (g)(2)(iii)

## Equipment Comparison

| Equipment | Key Rule | Source |
|---|---|---|
| Roof Carriage / BMU | 50 ft/min max traverse; stops; platform up before traversing | §3295(c)(1) |
| Davits | Stability factor of at least 4 | §3295(c)(3) |
| Outrigger Platforms | 130 ft limit for portable outriggers unless Division accepts | §3295 |
| Angulated Roping Stabilization | Only where suspended portion is 130 ft or less above a safe surface | 1910.66 |
| All Permanent Installations | Inspected at intervals of 12 months or less | 1910.66(g)(2) |

## Choosing Equipment

The choice depends on building height, roof layout and facade geometry, and in every case the system is engineered. Owners planning new towers should involve a facade access consultant early (see H7). Owners of existing systems should keep inspection and certification records current (see H8). At Window Cleaning Bay Area, suspended work is performed by a vetted partner crew, never WCBA crews.

## Sources

- Cal. Code Regs. Title 8 §3295. https://www.dir.ca.gov/title8/3295.html
- 29 CFR 1910.66. https://www.ecfr.gov/current/title-29/section-1910.66

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# Annual Inspection And Load Testing Of Building Maintenance Equipment

Owner duties for davits, roof cars and powered platforms: field tests before service, inspections every 12 months, 30-day maintenance checks, written assurance to the employer and signed certification records.

Window Cleaning Bay Area · October 2026
windowcleaningbayarea.com · grayson@windowcleaningbayarea.com

## Executive Summary

Davits, roof cars, powered platforms and the building structures that support them are owner equipment. Federal and California rules require owners to have that equipment inspected, tested where necessary and documented on a fixed schedule. They also require owners to give the cleaning employer written assurance before the equipment is used. This paper lays out the schedule and records from 29 CFR 1910.66 and Title 8 §3282.

### Key Points

- **Before First Use:** Every completed installation must be inspected and tested in the field before initial service and after any major alteration. 1910.66(g)(1)
- **Every 12 Months:** Supporting structures and all equipment parts are inspected by a competent person at intervals not exceeding 12 months. 1910.66(g)(2)(i)–(ii)
- **Every 30 Days:** Each platform installation gets a maintenance inspection every 30 days, or before each work cycle if cycles are shorter. 1910.66(g)(3)(i)
- **Owner Keeps Records:** Owners keep signed, dated certification records. 1910.66(g)(2)(iii)
- **California Too:** Safety devices and equipment are inspected at least every 12 months, with tests per §3296(b). §3282(p)(1)(B)

## Why Annual Inspection Matters

Under both rules, the owner, not the cleaning contractor, is responsible for confirming that the building's equipment is fit for use. Before each use, owners of new installations must tell the employer in writing that the installation meets the design requirements. 1910.66(c)(1) California requires the same written assurance, before use, covering anchors, platforms, hoists, wire rope and electrical design. §3282(p)(1)(A)

# What Gets Inspected

### Initial And Alteration Tests

Field inspection and testing confirm that all parts conform and that safety and operating equipment work. "No hoist in an installation shall be subjected to a load in excess of 125 percent of its rated load." 1910.66(g)(1)

### Periodic Inspection

Building supporting structures are inspected at intervals not exceeding 12 months. All equipment parts, including control systems, are inspected and tested where necessary at the manufacturer's interval, also not to exceed 12 months. Wear parts such as "wire ropes, bearings, gears, and governors" are checked specifically. 1910.66(g)(2) Employers also inspect working platforms for visible defects before every use. 1910.66(g)(2)(iv)

### Maintenance

Equipment must be kept in proper working order and "taken out of service when it is not in proper working order." Hoisting ropes with poured socket fastenings are resocketed at intervals not exceeding 24 months. 1910.66(h)(1), (h)(3)

## Owner Responsibilities And Records

| Item | Frequency | Source |
|---|---|---|
| Field Inspection And Test | Before Initial Service; After Major Alteration | 1910.66(g)(1) |
| Supporting Structures | ≤ 12 Months | 1910.66(g)(2)(i) |
| Equipment And Controls | Manufacturer Interval, ≤ 12 Months | 1910.66(g)(2)(ii) |
| Platform Maintenance Inspection | Every 30 Days Or Each Work Cycle | 1910.66(g)(3)(i) |
| Poured Socket Resocketing | ≤ 24 Months | 1910.66(h)(3)(i) |
| CA Safety Devices And Equipment | ≥ Every 12 Months | §3282(p)(1)(B) |

The certification record includes the inspection date, the inspector's signature and the identifier of the structure or equipment inspected. It is kept available to OSHA and to the employer. 1910.66(g)(2)(iii) Inspection and testing are done by a competent person. WCBA does not perform equipment certification; owners should use qualified inspectors. Suspended work on WCBA jobs is performed by a vetted partner crew.

## Sources

- 29 CFR 1910.66. https://www.ecfr.gov/current/title-29/section-1910.66
- Cal. Code Regs. Title 8 §3282. https://www.dir.ca.gov/title8/3282.html

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WINDOW CLEANING BAY AREA

WHITE PAPER

# Wind Limits For High-Rise Window Cleaning: What The Rules Actually Say

What federal and California rules actually say about wind: the 25 mph powered platform limit, the RDS rule against gusty or excessive wind (no number given), §3295 design loads and manufacturer limits.

Window Cleaning Bay Area · October 2026
windowcleaningbayarea.com · grayson@windowcleaningbayarea.com

# Executive Summary

Wind is the most common reason high-rise window cleaning is postponed. Owners often ask what wind speed is "too windy." The answer depends on the equipment. Federal rules set one firm number, 25 mph, for permanent powered platforms. For rope descent systems they set a qualitative standard with no number. California's §3295 sets wind *design* loads, not operating limits. This paper lays out exactly what the rule text says, using only the wind numbers that appear in it.

### Key Points

- **Powered Platforms, 25 Mph:** A platform shall not be operated in winds over 25 mph, except to move it to storage. 1910.66(i)(2)(v)
- **Anemometer Required:** Exterior powered platforms need an anemometer mounted on the platform. 1910.66(i)(2)(vi)
- **Rope Descent, No Number:** No RDS use when "storms or gusty or excessive wind" are present. 1910.27(b)(2)(xi)
- **Design Loads Are Not Work Limits:** §3295 requires equipment designed for 100 mph out of service and 50 mph in service. T8 §3295(a)(3)–(4)
- **Manufacturer Limits Apply:** An RDS must be used within the manufacturer's instructions and design limits. 1910.27(b)(2)(ii)

# What Regulations Say About Weather

### Permanent Powered Platforms

"The platform shall not be operated in winds in excess of 25 miles per hour (40.2 km/hr) except to move it from an operating to a storage position. Wind speed shall be determined based on the best available information, which includes on-site anemometer readings and local weather forecasts." 1910.66(i)(2)(v) On exterior installations, an anemometer (it may be a portable unit mounted temporarily) must be on the platform before and during use. 1910.66(i)(2)(vi)

### Rope Descent Systems

The employer must ensure "no employee uses a rope descent system when hazardous weather conditions, such as storms or gusty or excessive wind, are present." 1910.27(b)(2)(xi) The rule gives no wind speed, so the decision rests with the crew's qualified person, the equipment limits and conditions on site. Stabilization is also required for descents over 130 ft. 1910.27(b)(2)(x)

### California Design Loads

Title 8 §3295 requires powered platform equipment exposed to wind when not in service to withstand winds of at least 100 mph at 30 ft above grade, and equipment exposed to wind in service to withstand at least 50 mph at all elevations. §3295(a)(3)–(4) These figures set how strong the equipment must be. They do not say it may be operated in 50 mph wind.

## Equipment Manufacturer Limits

An RDS must be used "in accordance with instructions, warnings, and design limitations set by the manufacturer or under the direction of a qualified person." 1910.27(b)(2)(ii) If a manufacturer publishes a lower wind limit than the regulation, the lower limit governs in practice. This paper does not cite any manufacturer's specific number.

## Weather Factors

| Equipment | Wind Rule | Source |
|---|---|---|
| Permanent Powered Platform | No operation over 25 mph except moving to storage | 1910.66(i)(2)(v) |
| Exterior Powered Platform | Anemometer on platform | 1910.66(i)(2)(vi) |
| Rope Descent System | Not in storms or gusty or excessive wind | 1910.27(b)(2)(xi) |
| All RDS | Manufacturer limits | 1910.27(b)(2)(ii) |
| CA Powered Platform Equipment | Designed for 100 mph out of service / 50 mph in service | §3295(a) |

## Bay Area Wind Patterns And Why Jobs Get Rescheduled

Wind at roof level and along a facade can differ from what is felt at the street. Because the RDS rule is qualitative and platform rules call for on-site readings, a crew may stop or postpone work even when the street feels calm. Owners can help by allowing flexible scheduling, such as morning starts and backup dates. On WCBA jobs, rope and suspended work is performed by a vetted partner crew that makes these weather calls on site.

## Sources

- 29 CFR 1910.66. https://www.ecfr.gov/current/title-29/section-1910.66
- 29 CFR 1910.27. https://www.ecfr.gov/current/title-29/section-1910.27
- Cal. Code Regs. Title 8 §3295. https://www.dir.ca.gov/title8/3295.html

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WINDOW CLEANING BAY AREA

WHITE PAPER

# Glass And Curtain Wall Care On High-Rises

Published glass industry care guidance for tall buildings: cleaning frequency, the pencil test for coatings, heat-treated glass, rundown staining, glazing pockets and a maintenance schedule.

Window Cleaning Bay Area · October 2026
windowcleaningbayarea.com · grayson@windowcleaningbayarea.com

## Executive Summary

A high-rise curtain wall has a lot of glass, much of it coated, tinted or heat-treated, and it is hard to reach. Glass industry guidance warns that infrequent or improper cleaning can permanently damage glass. This paper summarizes the published care practices from the National Glass Association (NGA) and Vitro Architectural Glass that matter most on tall buildings.

### Key Points

- **Damage Can Be Permanent:** "Glass products can be permanently damaged if infrequently or improperly cleaned." NGA FB01-00
- **Twice A Year As A Baseline:** "Generally, twice per year cleaning is sufficient," with more often in some regions. NGA FB01-00
- **Exposed Coatings Need More:** Vitro advises cleaning exposed coatings at least 3–4 times a year. Vitro TD-142
- **Top Down, Out Of Direct Sun:** Start at the top and avoid cleaning tinted or reflective glass in direct sun. NGA FB01-00
- **Test First:** Test clean a small area and inspect it in daylight before the full job. NGA FB01-00

## Curtain Wall Systems

Insulating, laminated and decorative glass is glazed with sealants, gaskets and/or tapes. NGA warns that "glazing materials do not provide a sufficient barrier to prevent cleaning agents from entering the glazing pocket and damaging the edge of the glass product." NGA FB01-00 Cleaning methods on a curtain wall should limit solution running into joints.

# Coatings And Special Glass

## Find The Coating

NGA describes a pencil test: touch a pencil point to the glass. "If the reflection of the pencil point meets the real pencil, the coating is exposed on that side." A gap means the coating is not on that surface. NGA FB01-00 Damaging an exposed reflective coating can remove it and visibly change light transmittance.

## Heat-Treated Glass

Tempered and heat-strengthened glass can carry surface fines and roller-wave marks from heat treating. These raise the risk of scratching when blades are used. NGA FB02-02 NGA advises against razors or metal scrapers in routine cleaning. NGA FB01-00

## Rundown And Staining

Vitro calls out rundown from metals and masonry, such as concrete and stucco, as material to clean from glass. On heat-strengthened or tempered glass, it warns that "even a plastic scraper may dislodge" very small debris fused to the surface during heat treating and damage the glass. Vitro TD-142 Do not use acids. NGA FB01-00

## Maintenance Schedule

| Practice | Guidance | Source |
|---|---|---|
| Routine Frequency | Generally Twice Per Year; More Where Needed | NGA FB01-00 |
| Exposed Coatings | At Least 3–4 Times Per Year | Vitro TD-142 |
| Sequence | Top Of Building Down | NGA FB01-00 |
| Sun | Avoid Direct Sun On Tinted/Reflective Glass | NGA FB01-00 |
| Tools | No Razors Or Metal Scrapers In Routine Cleaning | NGA FB01-00 |
| Trial Area | Test Clean And Inspect In Daylight | NGA FB01-00 |

NGA also lists "do nots": do not trap abrasive particles against the glass, do not let other trades lean tools against it, and do not let splashed materials dry on it. NGA FB01-00 On high-rise exteriors, WCBA coordinates rope or suspended access through a vetted partner crew.

## Sources

- NGA/IWCA FB01-00 (2023), Proper Procedures for Cleaning Architectural Glass Products. https://www.agm-inc.com/images/Architectural_Glass.pdf
- NGA FB02-02 (2023), Heat-Treated Glass Surfaces Are Different. https://www.glass.org/sites/default/files/2023-10/FB02-02_2023_Heat-Treated_Glass_Surfaces_Different.pdf
- Vitro Architectural Glass TD-142, Glass Cleaning Recommendations. https://www.vitroglazings.com/media/ycnpjcpn/tech_doc_142.pdf

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WHITE PAPER

# San Francisco Facade Inspection Ordinance For High-Rise Owners

San Francisco's facade program for high-rise owners: comprehensive and supplemental reports for 15+ story buildings, deadlines by tier, licensed inspector requirements and why cleaning is not an inspection.

Window Cleaning Bay Area · October 2026
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## Executive Summary

San Francisco's Building Facade Inspection and Maintenance Program covers every building five or more stories tall, and buildings 15 or more stories tall have extra requirements. Owners of high-rises need to track two report types and two sets of deadlines, the next of which falls on December 31, 2026 for the oldest buildings. This paper summarizes the program as published by the Department of Building Inspection (DBI).

### Key Points

- **Who Is Covered:** Buildings 5 or more stories tall of Type I, II, III or IV construction. SF.gov, DBI Facade Program
- **Comprehensive Reports:** Required for all covered buildings, then every ten years. SF.gov, DBI Facade Program
- **15+ Stories:** Also need a supplemental facade inspection report. SF.gov, DBI Facade Program
- **Licensed Professional:** Inspections must be done by a California-licensed architect or engineer. SF.gov, DBI Facade Program
- **Cleaning Is Not Inspection:** Window cleaning does not satisfy the program; only a licensed professional's report does.

## Ordinance Overview

Requirements are set out in San Francisco Existing Building Code Chapter 5F and Administrative Bulletin AB-110. Noncompliant conditions found in the report must be addressed. SF.gov, DBI Facade Program

## 15+ Story Requirements

A comprehensive report is "a general and detailed inspection of all building facades." A supplemental report, required for buildings 15 or more stories, "is a general inspection of all facades." SF.gov, DBI Facade Program Buildings built after 1997 submit a supplemental report every five years until their initial comprehensive report. After that they alternate every five years between supplemental and comprehensive reports. SF.gov, DBI Facade Program Historic resources must follow the Secretary of the Interior's Standards and use a professional with historic preservation expertise. SF.gov, DBI Facade Program

## Report Deadlines

| Tier | Built | Comprehensive Due | Supplemental Due |
|---|---|---|---|
| 1 | Before 1910 | Dec 31, 2021 | Dec 31, 2026 |
| 2 | 1910–1925 | Dec 31, 2023 | Dec 31, 2028 |
| 3 | 1926–1970 | Dec 31, 2025 | Dec 31, 2030 |
| 4 | 1971–1997 | Dec 31, 2027 | Dec 31, 2032 |
| 5 | After 1997 | Dec 31 Of 30th Year After CFC | April 30, 2024 |

Source: SF.gov DBI Facade Program page, retrieved October 2026. Check the page for current dates.

## Access And Coordination

The licensed architect or engineer leads the inspection and writes the report. They must follow AB-110, whose Attachments C and D list report contents. SF.gov, DBI Facade Program Facade inspections on tall buildings often need rope or suspended access. Where WCBA coordinates that access, it is performed by a vetted partner crew, not WCBA crews. Scheduling cleaning before an inspection can make the glass and frames easier to see, but the cleaning crew does not inspect the facade or certify its condition.

## Submitting

Reports can be emailed to dbi.facade@sfgov.org with "Facade Inspection Report" in the subject line, or delivered to the Permit Center, DBI Technical Services Division, 49 South Van Ness Avenue, 2nd floor. DBI Technical Services can be reached at (628) 652-3720. SF.gov, DBI Facade Program

## Sources

- SF.gov, DBI Facade Inspection And Maintenance Program. https://www.sf.gov/reports--june-2024--dbi-facade-inspection-and-maintenance-program
- SF Existing Building Code Chapter 5F; DBI Administrative Bulletin AB-110 (cited by name).

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WINDOW CLEANING BAY AREA

WHITE PAPER

# Designing New Bay Area Towers For Facade Access

Design-stage rules for facade access on new towers: engineered platform equipment, design loads, 5,000 lb RDS anchorages, approved window anchors and field testing before service.

Window Cleaning Bay Area · October 2026
windowcleaningbayarea.com · grayson@windowcleaningbayarea.com

## Executive Summary

How a tower's facade will be reached for cleaning and inspection is best decided at design, when anchors, davit bases, roof tracks and window types are still being laid out. This paper lists the design-stage requirements in California and federal rules that architects, developers and owner's reps should coordinate early.

### Key Points

- **Engineer-Designed Equipment:** California powered platform installations must be designed by or under a California-registered professional engineer. §3295(a)(1)
- **Design Loads:** Minimum live load of 250 lb per platform occupant; wind design of 100 mph out of service and 50 mph in service. §3295(a)(2)–(4)
- **Roof Anchorages:** RDS anchorages must support 5,000 lb in any direction per attached worker, inspected annually and certified at least every 10 years. 1910.27(b)(1)(i)
- **Window Units:** New window installations with anchors must pass the A39.1 drop test. §3283(b)(2)
- **Tested Before Service:** Completed installations are field-tested before initial service. 1910.66(g)(1)

## Access Planning At Design

Early choices decide whether a building can be cleaned by rope descent, by a building maintenance unit (BMU) or powered platform, or from the sill with belt anchors. Each method carries its own rules. Under federal rules, RDS may not be used above 300 ft above grade, and descents over 130 ft need stabilization. 1910.27(b)(2)(i), (x)

# Anchor And Davit Integration

## Roof Anchorages

Before any RDS is used, the owner must tell the employer in writing that each anchorage is "capable of supporting at least 5,000 pounds (2,268 kg), in any direction, for each employee attached," based on annual inspection and certification at least every 10 years. 1910.27(b)(1)(i) Platform anchorages must also meet 1910.140(c)(13). 1910.66(c)(3) The industry standard ANSI/IWCA I-14.1 (Window Cleaning Safety Standard) also addresses window cleaning safety; this paper cites it by name only and does not summarize its contents.

## Powered Platforms And Davits

§3295 covers platforms, stabilizing components, carriages, outriggers, davits, hoisting machines, wire ropes and electrical components, and it requires engineered design. §3295(a) Owners of new installations must give the employer written assurance about load capacities, stability, carriage forces, hoists, wire rope, stabilization and electrical design. 1910.66(c)(1)

## Window Belt Anchors

Where windows are cleaned from the sill, anchors must be Division-approved and placed 42 to 51 inches above the sill, and expansion shield anchors are prohibited. §3283(b), (d)(1), (d)(9)

## Coordinating With Facade Engineers

| Design Item | Requirement | Source |
|---|---|---|
| Platform Equipment Design | CA-Registered PE | §3295(a)(1) |
| Platform Live Load | ≥ 250 lb Per Occupant | §3295(a)(2) |
| Wind Design | 100 mph Out Of Service / 50 mph In Service | §3295(a)(3)–(4) |
| RDS Anchorage | 5,000 lb Any Direction Per Worker | 1910.27(b)(1)(i) |
| Window Anchors | Approved; 42–51 In. Above Sill | §3283(b), (d)(1) |
| Commissioning | Field Test Before Initial Service | 1910.66(g)(1) |

Coordinate the access plan with the facade, structural and roof designers so that anchors, davit sockets and tracks land on structure and stay clear of waterproofing details. Ask for the written assurance and test documentation to be part of the turnover package. On WCBA jobs, rope and suspended work is performed by a vetted partner crew.

## Sources

- Cal. Code Regs. Title 8 §3295 and §3283. https://www.dir.ca.gov/title8/3295.html
- 29 CFR 1910.27 and 1910.66. https://www.ecfr.gov/current/title-29/part-1910

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