



# NEW FALL PROTECTION LEGISLATION

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# **INTRODUCTION**

## **WHY ARE CHANGES BEING MADE?**

- **The Provincial Government has brought in changes to the fall protection requirements in the General Regulation (91-191).**
- **These changes are the first significant amendments to these requirements since they were first written in 1991, almost 20 years ago.**
- **The old requirements were out of date and made things difficult for workplaces who tried to use modern equipment and practices. The new legislation adopts current industry standards and practices.**



# INTRODUCTION

## LEGISLATION CHANGE PROCESS

- A request for a 'regulation change' is initiated (by stakeholders, government, courts, etc.)
- The request is taken to the Board of Directors. Board approves or denies the request.
- If the Board approves the request for review, they direct that staff set up a technical committee of specialists to review the issues and make recommendations. The Board approves appointments to the technical committee.



# INTRODUCTION

## LEGISLATION CHANGE PROCESS

- The technical committee is made up of stakeholders representing workers and employers. Training and equipment specialists may also be asked to participate. WorkSafeNB staff chair the committee and act as technical and legal advisors.
- Throughout the process, WorkSafeNB co-ordinates an 'external consultation' with the various stakeholder and workplace groups whether or not they have a representative on the technical committee.
- After the technical committee completes the process, any recommendations are taken back to the Board of Directors.



# **INTRODUCTION**

## **LEGISLATION CHANGE PROCESS**

- **The Board of Directors then can approve, deny or modify the proposals as they deem necessary.**
- **Recommendations then go to the Department of Justice for legal drafting. This process can take many months if the proposals are highly technical.**
- **Final draft of changes are reviewed by WorkSafeNB technical and legal staff to ensure accuracy.**
- **Proposed regulation then goes to Cabinet for their approval. Regulation then becomes law.**



# CONSULTATION

## FALL PROTECTION TECHNICAL COMMITTEE

- 8 voting members (3 employee reps, 3 employer reps, 1 trainer, 1 supplier)
- 4 non-voting (WorkSafeNB staff – chair, technical advisor, legal advisor & HSO)
- 23 meetings over 3 years
- 20 consultations over 2 1/2 years



# CONSULTATION

## FALL PROTECTION TECHNICAL COMMITTEE

- **Given the specialized nature of fall protection, technical committee members were given training on fall protection from external experts.**
- **Further, a course in roofing methods and water safety was offered to technical committee members. Four members participated in this training.**
- **Technical committee members viewed a demonstration of roofing work to allow them to see concerns specific to the roofing industry.**



# CONSULTATION

## FALL PROTECTION TECHNICAL COMMITTEE

- **WorkSafeNB staff provided technical assistance to the committee:**
  - Research was conducted on various specific questions
  - Jurisdictional scans were completed
  - HSO provided advice on field enforcement
  - Legal staff provided advice on legal issues





## SUMMARY OF CHANGES TO 91-191

### CATEGORIES OF CHANGE

- New provisions that are silent in existing legislation yet reflect current practice
  - e.g. Allow the use of Control Zones
- New provisions based on industry standards and existing technology
  - e.g. The use of Shock Absorbing Lanyards
- Technical revisions based on industry standards and existing technology
  - e.g. The use of Horizontal Lifelines
- Consequential changes and non-technical revisions to clarify intent
  - e.g. more than 3 m versus 3 m or more



## SUMMARY OF CHANGES TO 91-191

### CATEGORIES OF CHANGE

- Implementation of a “Hierarchy of Intervention”
- Instruction requirement for employees who are required to work at heights and use a fall protection system
- Requirement for a Fall Protection Code of Practice when employees are working from a height of 7.5 metres or more, or make use of a safety monitor as a means of fall protection
- New provisions for roofing and weatherproofing
- The cited standards have been updated and new standards have been added to ensure safety



# SUMMARY OF CHANGES TO 91-191

## CATEGORIES OF CHANGE



- Definitions
  - Revised
  - New
- Fall Protection Systems
  - Hierarchy of Protection
  - New and Revised Standards
  - Instruction
  - Training
  - Code of Practice
  - Water Safety
- Guardrails
- Roofing
- Openings



# SUMMARY OF CHANGES TO 91-191

## CATEGORIES OF CHANGE



- Portable Ladders
- Forklift Platforms
- Elevating Work platforms
- Scaffolds
- Suspended Equipment
  - Fixed Suspended Work Platform
  - Swing Staging & Boatswain Chair
- Aerial Devices





# SUMMARY OF CHANGES TO 91-191

## FALL PROTECTION SYSTEMS







# SUMMARY OF CHANGES TO 91-191

## DEFINITIONS



- Revised and repealed definitions include:
  - Aerial Device
    - › Align with CSA C225
  - Fall Restricting System”
    - › Name changed from “Fall Restraint System” to Align with CSA Z259.14-01
  - Guardrail
    - › Excluded Permanent Guardrail System



# SUMMARY OF CHANGES TO 91-191

## DEFINITIONS



- Revised and repealed definitions include:
  - Fall Arresting System
    - › Changed from “Individual Fall Arresting System”
  - Unguarded Edge:
    - › Repealed
  - Warning Line
    - › Marks the edge of a control zone
  - Weatherproofing
    - › To align with industry practice





# SUMMARY OF CHANGES TO 91-191 DEFINITIONS



- New definitions include:
  - Anchor Point:
    - › Are permanent or temporary
    - › Are part of Fall Protection System
  - Body Belt:
    - › Align with CSA Z259.1-05
    - › Also known as “safety belt”
    - › Can only be used in travel restraint
  - Control Zone
    - › Area between unguarded edge and warning line
    - › Similar to other jurisdictions
    - › To align with industry practices





# SUMMARY OF CHANGES TO 91-191

## DEFINITIONS

- New definitions include:
  - Energy Absorber:
    - › Align with CSA Z259.11M92
  - Energy Absorbing Lanyard:
  - Fall Arrester
    - › Mechanical fall arrest device





# SUMMARY OF CHANGES TO 91-191

## DEFINITIONS



- New definitions - continued:
  - Fall Protection System
    - › Excludes permanent guardrails
    - › Either personal or collective
  - Fall Restricting System
    - › Align with CSA Z259.14-01
  - Free Fall
    - › Align with CSA Z259.16-04



## SUMMARY OF CHANGES TO 91-191 DEFINITIONS



- New definitions - continued:
- Full Body Harness:
  - › Align with CSA Z259.10
- Horizontal Lifeline
  - › Allows for more than one user.
- Lanyard:
  - › Align with CSA Z259.13-04
  - › Can also be used with body belts in travel restraint



# SUMMARY OF CHANGES TO 91-191 DEFINITIONS

- New definitions include:
  - Personal Fall Protection System:
    - › Responsibility of user.
  - Safety Monitor:
    - › Requires person to be competent
    - › Can only be used while weatherproofing
    - › Always used in conjunction with a control zone.





# SUMMARY OF CHANGES TO 91-191 DEFINITIONS

- New definitions include:
  - Suspended Equipment:
    - › Definition aligns with CSA Z91-02 & Z271-98.
    - › Align with other jurisdictions
  - Travel Restraint System:
    - › Align with CSA terminology
    - › Align with Industry terminology
    - › Also referred to as “fall restraint”





# SUMMARY OF CHANGES TO 91-191

## DEFINITIONS

- New definitions include:
  - Vertical Lifeline:
    - › Align with CSA Z259.2.1-98
  - Work Positioning System:
    - › Align with CSA Z259.2.3-99
    - › Other “fall protection system” required when using work positioning system.







# SUMMARY OF CHANGES TO 91-191

## FALL PROTECTION SYSTEMS





# PROPOSED CHANGES TO 91-191

## SECTION 50



- Section 50 – Hierarchy of Fall Protection Systems
  - › Guardrails, Travel Restraint or Fall restricting
    - Guardrails not permitted for slopes greater than 6 in 12
  - › Fall-Arresting
  - › Control Zone
    - Control zone not permitted for slopes greater than 3 in 12





# SUMMARY OF CHANGES TO 91-191

## SECTION 49



- 49(1)(a)
  - › Continually use fall-protection system
  - › From 3 m or more above water or nearest safe level
  - › Expanded to include bins and hoppers.
- 49(1)(b)
  - › Expanded to all work areas that may tip or fail.
  - › From 3 m or more above nearest safe level



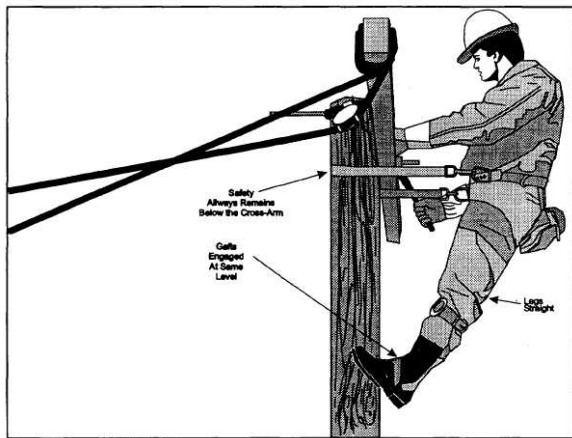
# SUMMARY OF CHANGES TO 91-191

## SECTION 49



- 49(2) and 49(3) - Towers
  - › Continually use fall protection system when at rest and at working level and when ascending or descending

- 49(4) and 49(5) – Wood Poles
  - › Continually use fall-arresting system when ascending and descending
  - › Work Positioning system in addition to fall-arresting at the working level.
  - › Where impractical to use both, then use fall restricting system when ascending and descending and to secure themselves when at rest or at working level.





# SUMMARY OF CHANGES TO 91-191

## SECTION 49



- 49(6) - Exceptions:
  - › **When remaining further than three metres from the unguarded edge of a flat roof (3 in 12 or less),**
  - › When installing, maintaining and removing fall-protection system and other means of fall protection are **impracticable,**
  - › When **impracticable** to use fall-protection system during weatherproofing (e.g. roof area less than 23 m<sup>2</sup>)



# SUMMARY OF CHANGES TO 91-191

## SECTION 49



- 49.1 – Fall-Protection System Components
  - › Owners have additional responsibilities,
  - › Designed in accordance to “Good Engineering Practice”
  - › Must follow “Manufacturer’s Specifications”,
  - › Adopted new or revised CSA Standards,
    - <http://ohsviewaccess.csa.ca/>
  - › Equivalencies are accepted in some circumstances,



# SUMMARY OF CHANGES TO 91-191

## SECTION 49

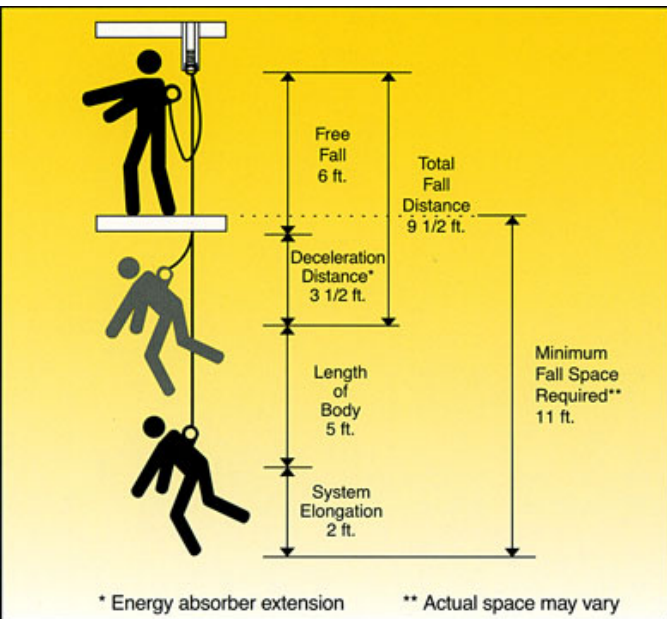


- 49.2 (1)– Fall Arresting System Components
  - › Full body harness (properly fitted and adjusted)
  - › Lanyard
    - Self-retracting,
    - Energy absorbing, or
    - Energy absorber
  - › Horizontal Lifeline or anchor point (22 kN or four times the maximum load)



# SUMMARY OF CHANGES TO 91-191

## SECTION 49



- 49.2(2) and 49.2(3) – Free Fall Distance
  - › Maximum Free Fall Distance of 1.8 m or maximum shock on body 8 kN (provided there is sufficient clearance),
  - › Limit free fall to 1.2 m where using energy absorber is hazardous or impracticable,
    - Lanyard can not be made of inelastic material.





# SUMMARY OF CHANGES TO 91-191

## SECTION 49



- 49.2(4) and 49.2(5) – Rescue Plan
  - › Requirements for Rescue Plan when using fall-arresting system,
  - › Training in Rescue Plan,
- Rescue plans are also required as part of a “Code of Practice” (section 50.2(4)(e))



# SUMMARY OF CHANGES TO 91-191

## SECTION 49

- 49.2(6) – Post Fall

- › Remove equipment from Service
- › Have equipment inspected by competent person
- › Repair to the Manufacturer's specifications
- › Destroy defective equipment when unable to repair.

# Inspection & Maintenance of fall protection equipment

Inspected and maintained at the manufacturer's recommendation should be included not by a single body. Inspection and maintenance must contain the inspection and maintenance of the equipment. The equipment should be inspected and maintained by a single body. Inspection and maintenance should be included not by a single body. Inspection and maintenance should be included not by a single body.

## INSPECTION & MAINTENANCE

Inspection and maintenance of fall protection equipment should be included not by a single body. Inspection and maintenance should be included not by a single body. Inspection and maintenance should be included not by a single body.

Item	Inspection Frequency	Notes
1. Fall arrest equipment	Before each use	Check for damage, wear, and proper function.
2. Fall arrest equipment	Before each use	Check for damage, wear, and proper function.
3. Fall arrest equipment	Before each use	Check for damage, wear, and proper function.
4. Fall arrest equipment	Before each use	Check for damage, wear, and proper function.
5. Fall arrest equipment	Before each use	Check for damage, wear, and proper function.
6. Fall arrest equipment	Before each use	Check for damage, wear, and proper function.
7. Fall arrest equipment	Before each use	Check for damage, wear, and proper function.
8. Fall arrest equipment	Before each use	Check for damage, wear, and proper function.
9. Fall arrest equipment	Before each use	Check for damage, wear, and proper function.
10. Fall arrest equipment	Before each use	Check for damage, wear, and proper function.

## PRODUCT LIFE

Product life of fall protection equipment should be included not by a single body. Product life of fall protection equipment should be included not by a single body. Product life of fall protection equipment should be included not by a single body.

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# SUMMARY OF CHANGES TO 91-191

## SECTION 49



- 49.3 – Responsibilities of the Owner of a Place of Employment with respect of anchor point
  - › Applies when fall-arresting system is used
  - › Provide and ensure the use of permanent or temporary anchors,
  - › Provide and post sketches of permanent anchors,



# SUMMARY OF CHANGES TO 91-191

## SECTION 49



- 49.3 – Responsibilities of the Owner of a Place of Employment
  - › Ensure Inspection of every anchor:
    - Being used for the first time,
    - Every 12 months or as recommended,
    - After any event or maintenance and repair
  - › No one shall allow the use of defective anchors.



# SUMMARY OF CHANGES TO 91-191

## SECTION 49



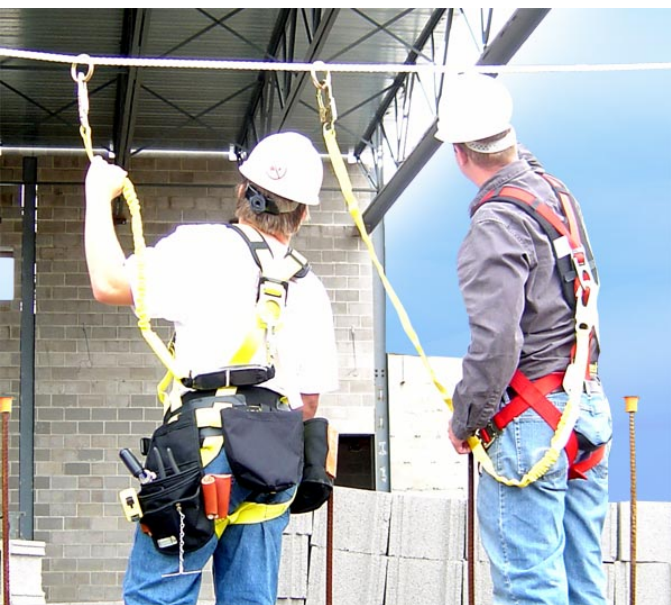
- 49.4 – Vertical Life Lines
  - › Detailed description of vertical life lines used in a fall-arresting system,
  - › Can only be used by one employee at a time.
  - › Complies to CSA Standard Z259.2.1-98 or Z259.2-M1979 (section 49.1(2)(b))





# SUMMARY OF CHANGES TO 91-191

## SECTION 49



### - 49.5, 49.6 and 49.7 – Horizontal Life Lines

- › Definition for “Maximum Arrest Force” aligns with CSA Z259.16
- › Engineered Systems, designed to meet CSA Standard Z259.16-04,
- › Pre-engineered systems,
- › Regulation defined system, (Section 49.6)
- › Engineered System that does not meet CSA Standard Z259.16-04 but was installed prior to the Legislation change



# SUMMARY OF CHANGES TO 91-191

## SECTION 49



- 49.8 – Safety Nets
  - › Provides clarification on proper installation and use.
    - **Employee cannot contact other surface when arresting fall,**
    - **Splice / joints of equal or greater strength,**
    - **No obstructions between work area and net**
  - › References ANSI A10.11-1989



# SUMMARY OF CHANGES TO 91-191

## SECTION 50

- Section 50.1 – Instruction to Employees
  - › In Fall Protection System
  - › Post-fall Rescue, where necessary.





# SUMMARY OF CHANGES TO 91-191

## SECTION 50



- Section 50.2 – Code of Practice
  - › Required for:
    - **Work at 7.5 metres or above (approximately 25 feet),**
    - **Making use of Monitor**
    - **Officer Requires**
  - › Readily available at the workplace,
  - › Developed in conjunction with JHSC or health and safety representative.
  - › Elements of the Code of Practice are outlined in the Regulation, Section 50.2(4)



# SUMMARY OF CHANGES TO 91-191

## SECTION 50



- Section 50.3 – Training
  - › Competent person provides training,
  - › Written records of training are required,
  - › Annual review of training requirements, with JHSC or H&S Rep where applicable,
  - › Training not required where fall protection system is a guardrail
  - › Section comes into affect, July 1, 2011 (Section 47(2) of Regulation 2010-159)





# SUMMARY OF CHANGES TO 91-191

## SECTION 50



### Section 50.4 and 50.5 – Fall Protection System Inspection (Collective or Personal)

- › By the employee, visually before use
- › By a competent person before initial use and as recommended by the Manufacturer, installer or engineer
- › Use not permitted when defective
- › Components are compatible and fit for environment



# SUMMARY OF CHANGES TO 91-191

## SECTION 51



- Section 51(1) – Water Safety - Definitions:
  - › “Automatically Inflatable Personal Floatation Device” – automatic inflation with oral inflation as back-up. Supports in upright and backward leaning position but does **NOT** turn person to face-up position.
  - › Meets UL1180-95
  - › Bright yellow, orange or red and have retro-reflective material above water line.
  - › Inspected and maintained as per Manufacturer’s specification.



# SUMMARY OF CHANGES TO 91-191

## SECTION 51



- Section 51(2) – Water Safety – Standards
  - › “Personal Floation Device” - Inherently buoyant device. Supports in upright and backward leaning position but does **NOT** turn person to face-up position.
  - › Conforms to CGSB standard CAN/CGSB-65.11-M88
  - › Bright yellow, orange or red and have retro-reflective material above water line.



# SUMMARY OF CHANGES TO 91-191

## SECTION 51



- Section 51(2) to 51(6) – Need to Wear buoyant device / Working on ice
  - › Working over water, less than 3m in height and where a fall protection system is not in use.
  - › When transported by boat
  - › Working Alone (life jacket only)
  - › Insufficient resources (life jacket only)
  - › If working on ice with water depth of more than 1 m, the ice needs to be tested



# SUMMARY OF CHANGES TO 91-191

## SECTION 51

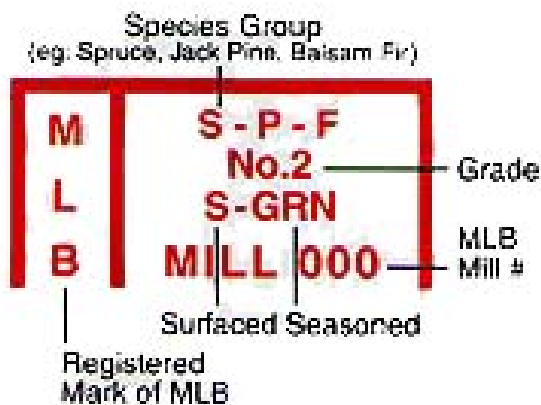


- Section 51(8) to 51(12) – Water Rescue
  - › Around water or any other liquid
  - › Written and posted emergency procedure
  - › Competent person to operate emergency equipment.
  - › Consideration for temperature, depth, water flow, distance to rescue boat, weather conditions, visibility...
  - › “Life Jacket” or personal floatation device worn during rescue,
  - › Motorized boat in rough or swift water

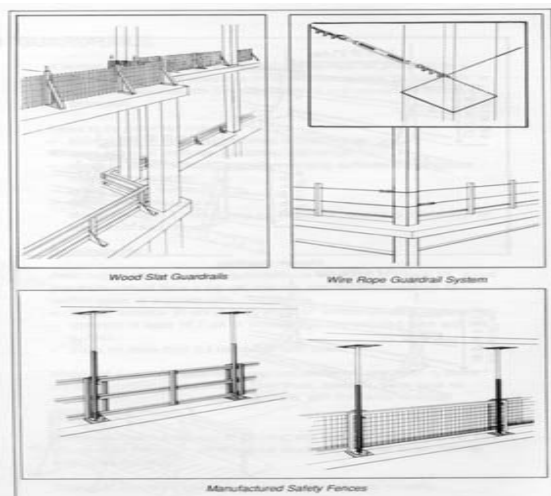


# SUMMARY OF CHANGES TO 91-191

## SECTION 97



- Section 97 – Guardrails
  - › No. 2 grade lumber acceptable
  - › New provisions for pre-engineered guardrails
  - › Requirements for strength and rigidity are defined and are based on slope of surface
  - › Not permitted for slope 6 in 12 and greater







# SUMMARY OF CHANGES TO 91-191

## SECTION 105



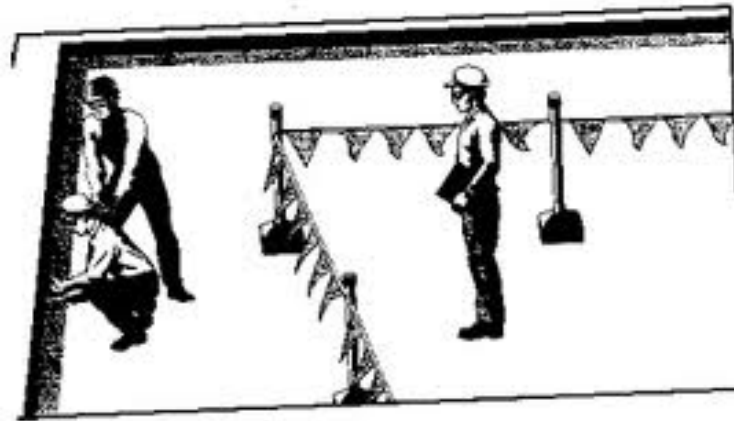
- **Section 105(1) to 105(3) and 105(7)– Warning Lines and Control Zones**
  - › Allowed for non-weatherproofing work, not less than 2m from the edge, weatherproofing work, still 1m from the edge.
  - › Additional method of fall protection is required when working within the control zone (warning line to unguarded edge),
  - › Snow removal, 2m for roof area and 1m at the dump zone.
  - › Only authorized employees in control zone
  - › Can not be used for slopes greater than 3 in 12 (section 50(4)).



# SUMMARY OF CHANGES TO 91-191

## SECTION 105

- Section 105(4) to 105(6) – Safety Monitor
  - › Continue to allow the use of monitors as a means of fall protection while weatherproofing (only when used in conjunction with warning lines)
  - › Experienced in work being overseen and trained in their duties
  - › Ensure work is performed in accordance with Code of Practice.
  - › Be present at all times





# SUMMARY OF CHANGES TO 91-191

## SECTION 105



- Section 105(4) to 105(6) – Safety Monitor
  - › As complete authority to prevent falls
  - › Able to communicate with employees without yelling,
  - › Be instantly distinguishable,
  - › Not engage in other duties
  - › Can monitor a maximum of eight workers



# SUMMARY OF CHANGES TO 91-191

## SECTION 105



- Section 105(8) – Travel Restraint
  - › Formerly referred to as fall restraint,
  - › Rigged to prevent the employee from reaching the unguarded edge,
  - › For sloped roofs of 3 in 12 or less, attached to anchor capable of supporting two time the maximum load,
  - › For sloped roofs of more than 3 in 12, attached to anchor capable of withstanding 22 kN force.

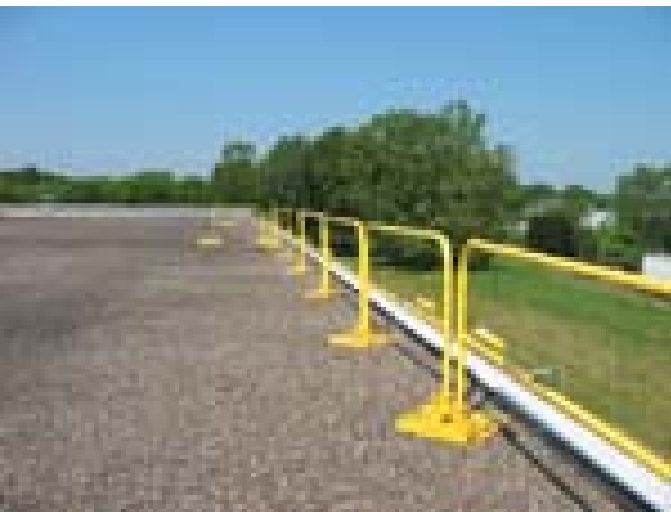


# SUMMARY OF CHANGES TO 91-191

## SECTION 106

### - Section 106.1 – Perimeter Work

- › Perimeter Work:
  - **Defined as work performed at edge of roof**
- › Toe boards are not required when using a guardrail.







# SUMMARY OF CHANGES TO 91-191

## SECTION 111



- Section 111 – Openings
  - › Additional responsibilities placed on owners
  - › Define requirements when using protective coverings

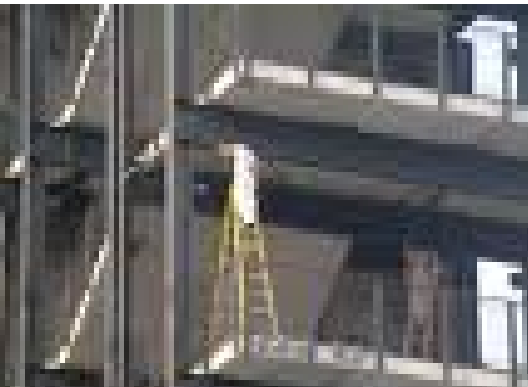






# SUMMARY OF CHANGES TO 91-191

## SECTION 124



- **Section 124 – Portable Ladders**
  - › **Sets-out limitations for working more than 3m from ground or floor level without fall protection:**
    - **Light duty work only,**
    - **Maintain centre of gravity between side rails,**
    - **One hand available to hold ladder, and**
    - **Not positioned near edge or opening**



# SUMMARY OF CHANGES TO 91-191

## SECTION 129.1

- Section 129.1 – Forklift Platforms
  - › Hierarchy of Fall Protection is in effect,





# SUMMARY OF CHANGES TO 91-191

## SECTION 130



- Section 130 – Elevating Work Platforms
  - › Travel restraint or fall-arresting is required except:
    - **On firm flat surface,**
    - **Guardrails and chains are in place and**
    - **Not moving horizontally or vertically**
  - › Comes into effect on July 1, 2011

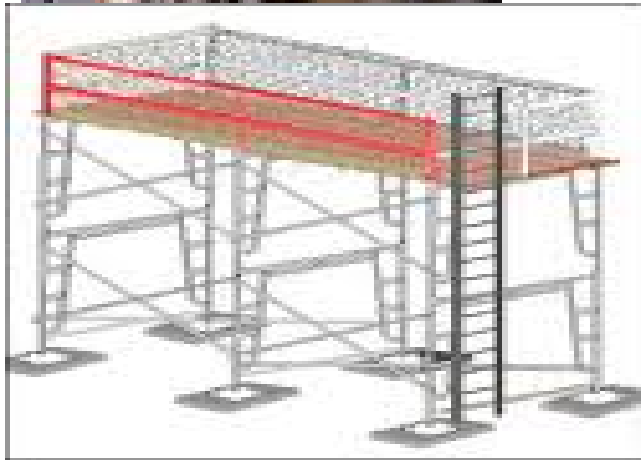


# SUMMARY OF CHANGES TO 91-191

## SECTION 131



- Section 131 – Scaffolds
  - › Requires a guardrail, including a toe board, when 3m or more in height (Section 97).





# SUMMARY OF CHANGES TO 91-191

## SECTION 140.1



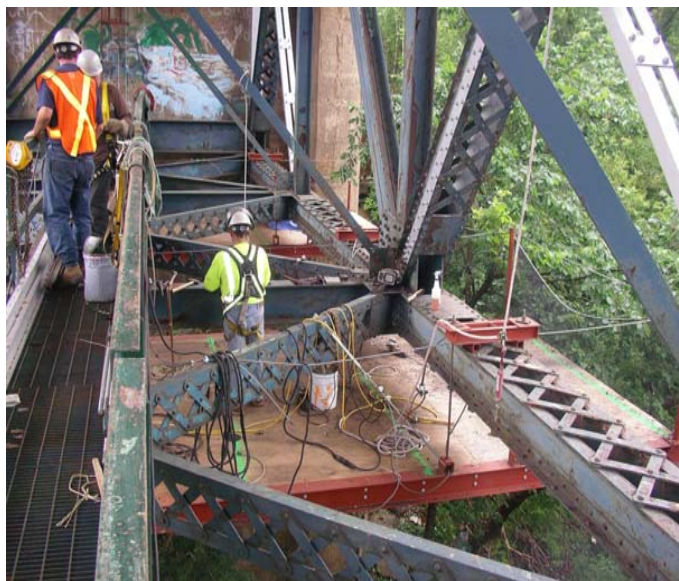
- Section 140.1 – Suspended Equipment
  - › New section
  - › Apply to “suspended work platform”, “swing staging” and “boatswain’s chair”,
  - › Set-out requirements for owners
  - › Requirements when working from suspended equipment, (section 140.1(1))
  - › Inspection requirements (section 140.1(2) and 140.1(3)) and
  - › Anchor point requirements (section 140.1(4)) and component compatibility.





# SUMMARY OF CHANGES TO 91-191

## SECTION 141



- › Section 141 – Fixed Suspended Work Platform
  - **Clarification regarding "fixed" suspended work platform**
  - **Additional responsibilities placed on owners**
  - **Failure of one support will not upset the work platform,**
  - **Design sets out specifications of components and maximum live load,**
  - **Where guardrails are impractical, use hierarchy of fall protection.**



# SUMMARY OF CHANGES TO 91-191

## SECTION 142 - 143



### Section 142 - 143 – Swing Staging and Boatswain's Chair

- › Provisions apply to Boatswain's Chairs
- › Provision for preventing movement of hooks and thrust-outs (142(2)(a)(ii) and 142(2)(b)(ii))
- › Rope can be wire or synthetic ((143(3)),
- › Provision for minimum rope size is amended to 13mm in all swing staging applications,
- › To meet manufacturers specifications regarding the number of rope turns on drum or minimum of three turns.



# SUMMARY OF CHANGES TO 91-191

## SECTION 142 - 143

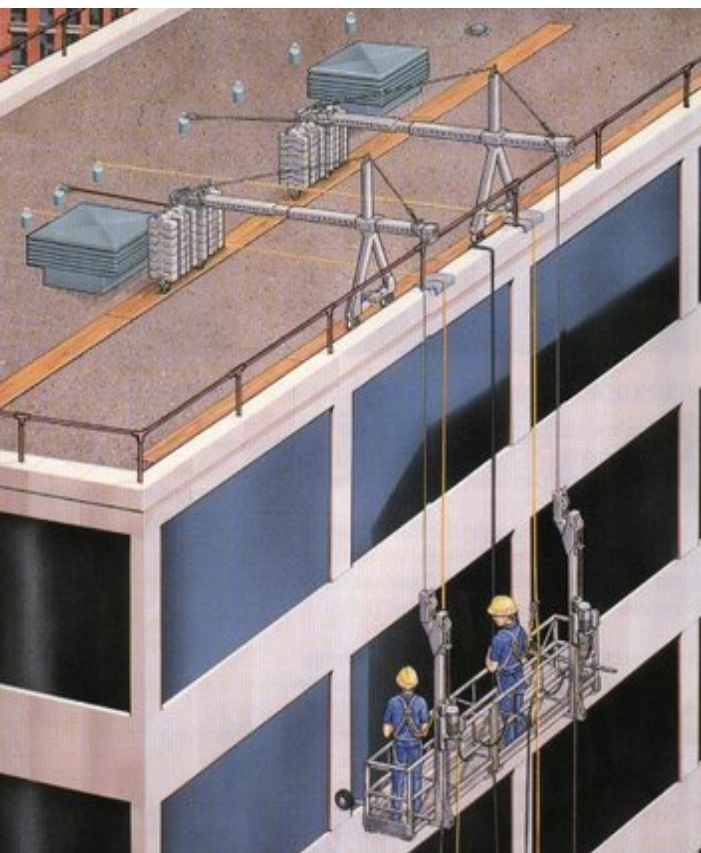


- Section 142 - 143– Swing Staging and Boatswain's Chair
  - › Requirement to remove rope from service based on manufacturer's specifications,
  - › Dimensions for wire rope used for Boatswain's Chair provided, 9mm.



# SUMMARY OF CHANGES TO 91-191

## SECTION 144



- Section 144 – Swing Staging and Boatswain's Chair
  - › Provisions include Boatswain's Chairs,
  - › Requirement to use fall-arresting equipment while on swing staging,
  - › Sets out requirements for anchor points for personal fall-protection system on a swing stage:
    - **Two independent means of support**
    - **Failure of one support will not upset the swing staging**



# SUMMARY OF CHANGES TO 91-191

## SECTION 145 – 145.1



- Section 145 – 145.1 – Boatswain's Chair
  - › Sets out dimensions for the Boatswain's Chair,
  - › Allows for manufactured system providing equivalent protection,
  - › Carry out work within arms reach,
  - › Requirement to use fall-arresting equipment with Boatswain's Chair, and
  - › Descent control mechanism to meet CSA Standard Z259.2.3-99





# SUMMARY OF CHANGES TO 91-191

## SECTION 145.2



- Section 145.2 – Suspended Equipment
  - › Owner to provide or ensure the use of permanent or temporary anchors,
  - › Provide and post sketches of permanent anchor points,
  - › Inspect anchors
    - **Being used for the first time,**
    - **As recommended or at least every 12 months**
    - **After any event or maintenance and repair**
  - › No one shall allow the use of defective anchors



# SUMMARY OF CHANGES TO 91-191

## SECTION 232



- Section 232 – Aerial Devices
  - › Requirement to continually use fall-arresting system when working from a moving aerial platform,
  - › Requirements for anchor points.





## SUMMARY OF CHANGES TO 91-191 Consequential Change



- Substituting “individual fall arresting system” with “fall arresting system”,
  - › Section 121(2) and 374
  - › Underground Mining Regulation 96-105
    - **Section 14, 15, 39(2), 214(1)(c) and 215(2)(c)**

NO QUESTIONS?  
GREAT!!