

Fall Protection: Elevated Surface Work Plan Form

Department: Field Safety and Building Inspection Office

Program: Fall Protection

Owner: Program Manager

Authority: [ES&H Manual, Chapter 45, Fall Protection](#)

The preparation and approval of an elevated surface work plan (ESWP) is required before you access an unprotected elevated work platform or area. An unprotected elevated work platform or area is any elevated work surface, including roofs, not surrounded by a fixed barrier such as conforming guardrails or protective parapet.

Exceptions

1. If using ladders, this requirement does not apply as long as you are using them properly and according to manufacturer's instructions.
2. For access to low-slope roofs (a maximum pitch of 4 vertical to 12 horizontal), this requirement does not apply as long as you stay at least six feet away from the unprotected roof edge at all times. You must immediately proceed from the ladder, away from the edge, to the work area. If at any other time you must access within six feet of an unprotected roof edge (besides getting on and off the ladder), you must develop an ESWP.

Approval

The ESWP must be approved by a SLAC competent person and the building/area/facility manager or designee before you access the area.

Rescue Plan

A rescue plan (last page) must be developed whenever fall arrest systems are in use and when personnel would not be able to self-rescue should a fall occur.

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Project Information

Project name	Access Sector 10 Off-Axis Injector No 2	Project location (bldg, floor, grid)	002/S10 RF Klystron shop
Specific equipment involved		Project dates	From 11/5/2010
			To
Project description	Opening and closing door in floor to access sector 10 off-axis injector No 2 and install railing		
Work plan author (print)	Georg Gassner	Pager/cell: x3689	
Work plan author (sign)			
Competent person (print)	Jim Healy	Pager/cell: x4989 650 940 5798	
Competent person (sign)			
Building/area/facility manager or designee (print)	Paul Miller	Pager/cell: x2939 650-335-5620	
Building/area/facility manager or designee (sign)			

Elevated Surface Work Plan

Questions to Consider	Answers or Solutions
Does the job safety analysis (JSA) and/or Activity and Training Authorization (ATA) address this type of work involving <u>unprotected elevated locations</u> ?	
What is the job to be done?	Opening and closing door in floor to access sector 10 off-axis injector No 2 and install railing
What's the location? How high is it?	RF Klystron shop sector 10
What is the working or walking surface like?	Metal plates
Are there any environmental factors to consider? (heat, cold, slippery, wet, wind, glare, etc.)	No
Are there any hazards nearby or underneath that are exposed or could become exposed in an impact (plumbing lines, electrical exposures, protruding or impalement hazards, etc.)?	No
Will the work require special PPE (besides fall protection)?	Steel toed boots
Who will I be working with (buddy system)?	Mike Gaydosh

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Questions to Consider	Answers or Solutions
How will I get equipment and tools to the work location?	The work surface is at ground floor level
Do I need to prevent my activities from resulting in hazards to those below by following appropriate barricading methods to keep non-essential personnel away?	No
Can I work from the ground level instead by bringing the work down?	Yes
Can I work safely from a ladder instead?	No
Can I use an aerial (boom) lift or scissors lift instead (and am I qualified to operate one?)	No
If not, can we install portable guardrails for the job?	Part of the job, yes
If not, can I use fall restraint?	No
If not, will I use fall arrest?	If yes, see following pages for Fall Hazard Analysis for Fall Arrest and Rescue Plan
Other?	

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Fall Hazard Analysis for Fall Arrest

Are there any existing approved anchorage points I can use? Where?	Yes, bldg beam above work area, 10 feet up
Is it labeled as an approved anchorage point or obviously capable of holding 5000 lbs or more as determined by a designated SLAC qualified person?	
If not, can approved pre-manufactured or engineered anchorages be installed?	
Have the anchor point(s) been inspected?	Yes
Do I have the right equipment (full body harness, minimum length lanyard, shock absorber, connecting hardware, I-beam strap, self-retracting lifeline, etc.)?	Yes, harness, fall limited
What is the clearance or distance I may fall into?	40 feet
Is there at least 15-18 feet of clear space from anchorage point before the next level down? (calculate fall distance to include lanyard length, deceleration distance of 3.5 feet, your height, one foot of harness slack, elongation factor, and a safety factor).	Yes, 30 feet
What is between me and the ground or floor below?	Stairway
What will I hit on the way down?	Edge, smooth sides of shaft, then ladder @ 30 feet
How would I be rescued if I fall and am suspended in the harness? (Develop rescue plan)	

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Rescue Plan

A rescue plan must be developed whenever fall arrest systems are in use and when personnel may not be able to self-rescue should a fall occur.

What is the emergency contact information of professional rescue services available, such as the local Fire Department, and what are the instructions for summoning immediate assistance?	911
Is rescue equipment immediately available for this location? (Ladders, aerial devices, elevating work platforms, tripods, additional harnesses, controlled descent devices, winches, pulleys, etc.)	Yes, clamp on retraction for SRL with operator on fall restraint
What obstructions are in the way reaching the suspended worker?	None
How will rescue be assured within 15 minutes of the occurrence of a fall to minimize the risk of further injury or death due to suspension trauma?	Yes, equipment will be prepositioned
How will the safety of the rescuers be assured as well as that of the suspended worker?	Yes, rescuers will be on fall restraint
What communication systems will be used between the suspended worker and rescue team?	verbal