



Workers safely handling scaffold tubes. The photo also shows a cart with sides that keep the scaffold equipment from falling off.

New insights into **preventing falling objects**

Throughout the Ontario utility and construction sectors, falling objects are a high-risk area due to the nature of working at height. That's the case at Ontario Power Generation (OPG), where falling objects can be a hazard because the multi-storey generating plants often require employees to work or move equipment at height.

OPG continually assesses its safety risks and creates focused plans for managing and reducing them. At the top of the list in the past year has been a plan to improve their program for preventing falling objects.

"The focus of this improvement was not to have more procedures. Instead, it was to capitalize on the lessons we've learned from previous incidents and to engage employees to put existing programs into action," says OPG's Director of Corporate Safety, Mary Lou Sinclair. While comprehensive programs for preventing falling objects have been in effect for some time at OPG, senior leaders recognized that some change was needed to reduce this risk.

OPG offers some lessons that may help other employers in the utility and construction sectors tackle this issue in their workplaces.

Get a firm commitment from senior leadership

Commitment from senior leadership is a major impetus for any improvement initiative. In 2011, OPG's balanced scorecard placed falling-object prevention alongside the company's production and financial goals. This prompted improvement plans to be drawn up throughout the company, and progress was monitored and reported up the line. Senior leaders communicated clear expectations to employees on this priority area at every opportunity, including at face-to-face meetings, by video messaging, in e-mails, and in newsletters.

Identify risk areas for falling objects

OPG's records of incident trends showed them that falling objects can be a hazard in a wide variety of situations, each requiring a unique control strategy. Has your company considered falling-object hazards in all of the following situations?

- inadequate control of equipment and tools being used, stored, or moved at height (e.g., on scaffolding, work platforms, hoisting equipment, or storage racks, or of material being moved on carts)
- loose or defective equipment and building structures (e.g., bricks, concrete, cladding, or plant

overhead equipment) that are located at height

- effects of weather, such as a buildup of ice or snow, structures made loose by wind, or overhead rock erosion.

Use past experience to identify key areas for improvement

Given the broad scope of falling-object hazards, you have to base the priorities in your improvement strategy on your own work environment and incident experience. At OPG, a close look at past experience showed where controls would yield maximum results.

Maintenance outages. Special attention is needed to prevent falling objects during these periods of intense work activity when multiple activities are taking place in a small area and at different heights. Pre-job planning is the key to ensuring that barriers to falling objects are in place.

Material handling. Using a cart is an effective way of transporting heavy materials, but plan carefully to prevent anything from falling off. Consider the load, the cart, and the route you will be travelling.

Equipment and building structures.

In addition to having inspection and maintenance programs, let it be known that all employees are expected to report any damaged or loose equipment or structures (e.g., cladding, roof flashing, bricks, spilled concrete, ice, snow, or loose rocks).

Engage the JHSC in the improvement plan

Joint Health and Safety Committees (JHSCs) can play an important role by identifying falling-object hazards during their workplace inspections. OPG's management and unions created a falling-object inspection checklist for JHSC members to use regularly.



Consider falling-object prevention in your pre-job plan

- Controls such as tethers, tool belts, exclusion areas, overhead protection, and containment sheeting can prevent tools from falling and will protect people below.
- Storage of materials in temporary laydown areas at height must be managed to prevent anything from falling. Ensure that the responsibility for these areas is clear and that there are signs or barriers, and daily inspections.
- Housekeeping and continual inspections must be part of the job plan, both during the work and after it is finished. Check dark corners, ledges, and the tops of cabinets for leftover materials that could fall later.

Load-movement checklist

- ❑ **The load.** Know the weight and centre of gravity. Distribute the load evenly, keep it as low as possible, and use tie-down straps.
- ❑ **The cart.** Know the load rating and whether sides are needed.
- ❑ **The route.** Walk the route, looking for open guardrails, stairwells, obstructions, and irregularities in the floor.

Managing scaffold risks—Try this grab-and-twist technique

When scaffolds are being built, there is a constant danger that something may fall. The risk increases when one worker is passing a scaffold tube to another. Here's a way of reducing that risk.

1. Worker #1 picks up scaffold tube and gets a good grip on it.
2. Worker #1 passes tube to Worker #2 while keeping a good grip.
3. Worker #2 takes tube and gives it a twist to ensure a firm grip.
4. Worker #1 notes Worker #2's tube twist and lets go of tube.