

# Fire protection of cable tray seismic supports



## Overview

Typical supports for piping, trays, and other equipment are designed for the gravity, or vertical, loads but do not take into account the horizontal loading caused by earthquakes. braces) resist the horizontal forces and keep the systems in place. Eaton's TOLCO seismic bracing solutions help protect people and non-structural components during an earthquake. Why is seismic bracing important?

International Building Code. This appendix provides the design criteria for seismic Category I cable trays and their supports. This article will explore the importance of seismic resistance in cable trays, discuss when seismic braces are necessary, and help you understand how to make informed. These were heavily loaded cable trays supported on cantilever bracket supports, which were attached to base-mounted cantilever posts constructed of light metal strut channels. There were no lateral restraints to the posts and they were near capacity just under gravity load. Jeff has an undergraduate degree in Engineering from the University of Cincinnati, and an MBA.



## Article Content

Hot

Seismic fragility analysis of suspended cable trays in civil buildings ...

This study aims to understand the seismic fragility of typical suspended cable trays in civil buildings through full-scale shaking table tests and numerical simulation. Based on the shaking table

Apr 21, 2026 Hot

Vogtle Electric Generating Plant (VEGP) Units 3 and 4 Updated ...

The AP1000 cable tray system design requires no sprayed-on material for fire protection. Cable ties are provided at spacing greater than 4 feet, thereby permitting cable movement within the trays. The

Feb 16, 2026 Hot

Performance-based optimum seismic design of cable tray system

The seismic performance levels of cable tray systems are presented according to current seismic design codes. A performance-based optimum seismic design procedure for cable tray

Dec 08, 2025 Hot

Performance-based optimum seismic design of cable tray system

The results show that the proposed performance index (drift ratio between adjacent supports) for cable tray systems is a reasonable criterion for performance-based seismic design and

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Appendix 3F Cable Trays and Cable Tray Supports

This appendix provides the design criteria for seismic Category I cable trays and their supports. Seismic Category II cable trays and their supports are also designed utilizing the design criteria of this appendix.

Jan 10, 2026 Hot

Appendix 3F Cable Trays and Cable Tray Supports

The AP1000 cable tray system design requires no sprayed-on material for fire protection. Cable ties are provided at spacing greater than 4 feet, thereby permitting cable movement within the trays.

Jan 01, 2026 Hot

## Seismic Bracing of Fire, Mechanical and Electrical Systems

Jeff has served on the MSS 403 Manufacturers Standardization Society Hangers and Support Committee. Jeff spent 6 years in the Ohio Army National Guard as a Carpenter & Mason.

Dec 01, 2025 Hot

### Multi-Directional Bracing For Electrical Conduit, Cable Tray And ...

Typical supports for piping, trays, and other equipment are designed for the gravity, or vertical, loads but do not take into account the horizontal loading caused by earthquakes. Seismic restraints (i.e.

May 10, 2026 Hot

### Cable Tray and Conduit System Seismic Evaluation Guidelines

Guidelines are presented here for conducting in-plant seismic ruggedness review of conduit, cable trays, and their support systems. The in-plant review has two purposes.

Nov 27, 2025 Hot

### Westinghouse AP1000 Design Control Document Rev. 19

The AP1000 cable tray system design requires no sprayed-on material for fire protection. Cable ties are provided at spacing greater than 4 feet, thereby permitting cable movement within the trays. The

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### Seismic analysis and design of electrical cable trays and support ...

Most cable trays in nuclear power plants are classified as seismic category I components. Current safety requirements dictate that all such components be adequately designed in order to

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### Inside the World of Cable Tray Manufacturing

The cable tray manufacturer provides load tables based on standardized testing that considers both the allowable tray deflection and the maximum stress in the material. Environmental factors such as

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### Understanding Seismic Support for Electrical Installations

Understanding Seismic Support for Electrical Installations In the realm of electrical installations, ensuring the safety and integrity of systems during seismic events is paramount. This necessity is particularly

Jan 06, 2026 Hot

Seismic Supports

Seismic Supports Cable trays are systems used for the safe transportation and protection of electrical cables, designed to fit the pathways within buildings and

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EARTHQUAKE PROTECTION

Seismic braces can be flexible using aircraft quality cables, or rigid (solid) using steel sections such as pipe, angles, or strut channels. Braces are typically installed 30-40 ft (10-13 m) apart, at system

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SOLUTIONS

Engineer certified designs and site inspections Ezystrut offers a range of seismic solutions that comply with Australian Standard AS1170.4. Our one-stop solution for seismic bracing, cable tray, pipe

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Seismic Bracing Kit | Seismic Bracing | Wire and Cable Hangers | Wire ...

Kit contains items needed for seismic bracing long cable tray runs. Each kit contains: (4) 11" cables with mounting eyelets (2) Metal brackets for attachment to support members (4) Cable clamp collars (4)

Jan 20, 2026 Hot

Multi-Directional Bracing ForElectrical Conduit, Cable Tray And ...

Multi-Directional Bracing ForElectrical Conduit, Cable Tray And Mechanical Piping Systems INTRODUCTION What is Seismic Bracing? Seismic forces are exerted on a building and its contents

Sep 05, 2025 Hot

SOLUTIONS

Opposing pairs are required to resist seismic loads from both directions, this is known as "2-way" brace An alternative to using "2-way" transverse and longitudinal braces, is to use a "4-way" brace at each

Jan 13, 2026 Hot

## Installing Seismic Restraints for Electrical Equipment

Raceways/Conduits/Cable Trays: Covers the different ways to install raceways, conduits, and cable trays. Attachment Types: Gives instructions on installing equipment in different arrangements known

Jan 19, 2026 Hot

## Rev 7 to Procedure SAG.CP3, "Seismic Design Criteria for Cable Tray ...

A cable tray hanger is classified as a \_ seismic Category I structure, and therefore, it shall be adequately designed for the effect of the postulated seismic event combined with other applicable and"

Sep 30, 2025 Hot

## Understanding the Seismic Resistance of Cable Trays

This article discusses the importance of seismic resistance for cable trays, detailing when seismic braces are necessary, the factors that affect seismic

Dec 27, 2025 Hot

## Seismic MEP Solutions | Eaton

Eaton's TOLCO seismic bracing solutions help protect people and non-structural components during an earthquake. For over 60 years, the mechanical, electrical, and fire protection trades have relied on

Oct 12, 2025

## Contact Us

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