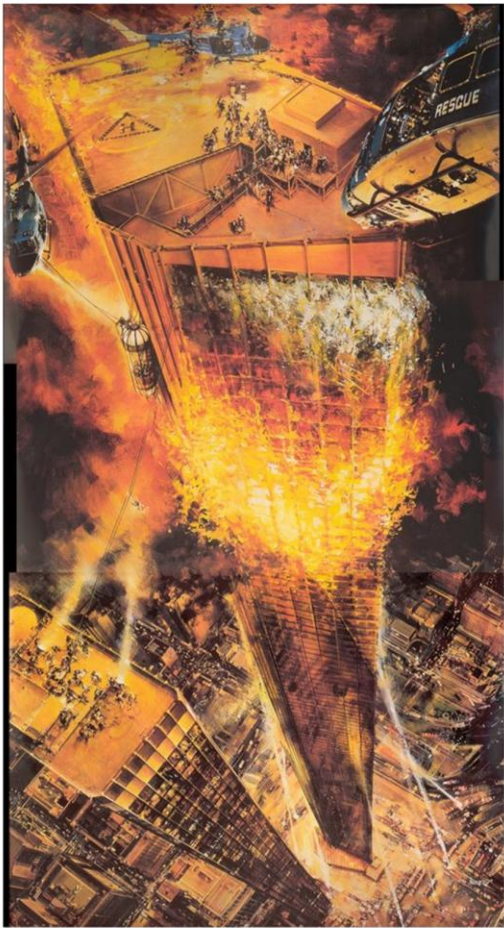


THE TOWERING INFERNO: ART, POLICY, AND LEGACY

A REFLECTION ON THE MOTION PICTURE'S
50th ANNIVERSARY AND IMPACT ON HIGH-RISE FIRE SAFETY



THE TOWERING INFERNO: ART, POLICY, AND LEGACY SCHEDULE FRIDAY, DECEMBER 13, 2024

Time	Topic	Speaker
0930	Welcoming Remarks	Glenn Corbett , PE Assoc. Prof. Public Management, Executive Committee, Christian Regenhard Center for Emergency Response Studies
0945	More Fire: Building the Towering Inferno	Nat Segaloff is a writer-producer-journalist. Author, <i>More Fire: Building the Towering Inferno</i> .
1100	Holding their feet to the findings: Media attention & policy action after fire tragedies	Jarrett Murphy , Freelance Journalist, Registered Nurse
		LUNCH (Provided)
1215	High-Rise Fires: The Towering Inferno's Legacy in Art and Popular Culture of New York City	Charles Jennings , PhD, FIFireE, CFO Dir., Christian Regenhard Center for Emergency Response Studies
1300	Firefighting in Tall Buildings, Past, Present and Future	Jerry Tracy , Battalion Commander FDNY (ret.), co-author <i>High-Rise Buildings: Understanding the Vertical Challenges</i>
1345	Inaugural Jake Pauls Award Presentation	Jake Pauls , PhD (Hon.), International Building Use and Safety Consultant and Advocate Peter Apps , Author <i>Show Me the Bodies; How We Let Grenfell Happen</i>
1400	Ups and Downs of Stairs; Selected, illustrated guidelines for facility users, managers, builders, designers, and fire services.	Jake Pauls , PhD (Hon.), International Building Use and Safety Consultant and Advocate
1445	Structural fire resistance and tall buildings	Ali Ashrafi , PhD, PE Principal, Thornton Tomasetti, Co-Chair American Society of Civil Engineers Fire Protection Committee

The Towering Inferno: Art Imitates Life Imitates Art

Charles R. Jennings, PhD, FIFireE, CFO, Director
Glenn P. Corbett, MSEng, PE, Executive Committee
Christian Regenhard Center for Emergency Response
Studies (RaCERS)



Outline

- The Film
- Cultural Impact
- High-Rise Fires and the National Awareness
- Codes and Politics and Media
- The Path Forward: Closing the Gaps in Existing Buildings

The Film



Critical Reaction

“The *Towering Inferno* is a nearly three-hour suspense film for arsonists, firemen, movie-technology buffs, building inspectors, worry warts.”

-- Vincent Canby (1974)



Academy Awards

8 Nominations, 3 Awards

‘The Towering Inferno’ First-Rate Visual Spectacle

THE TOWERING INFERNO, directed by John Guillermin; screenplay by Sterling Silliphant, based on the novels "The Tower" by Richard Martin Stern and "The Glass Inferno" by Thomas N. Scott and Frank M. Robinson; produced by Irwin Allen; action sequences directed by Mr. Allen; director of photography, Fred Koehnke; director of action-sequence photography, Joseph Biroc; editors, Harold F. Kress and Carl Kress; music, John Williams; distributed by 20th Century-Fox (domestic) and Warner Bros. (foreign). Running time: 160 minutes. At the National Theater, Broadway at 44th Street, and Trans-Lux East Theatre, Third Avenue at 58th Street. This film has been rated PG.

Michael O'Halloran.....	Steve McQueen
Douglas Roberts.....	Paul Newman
James Duncan.....	William Holden
Susan Franklin.....	Faye Dunaway
Harlee Claiborne.....	Fred Astaire
Patty Simmons.....	Susan Blakely
Roger Simmons.....	Richard Chamberlain
Lisette Mueller.....	Jennifer Jones
Jerrisa.....	O. J. Simpson
Sandra Gary Parker.....	Robert Vaughn
Dan Bigelow.....	Robert Wagner
Lorrie.....	Susan Flannery

By VINCENT CANBY

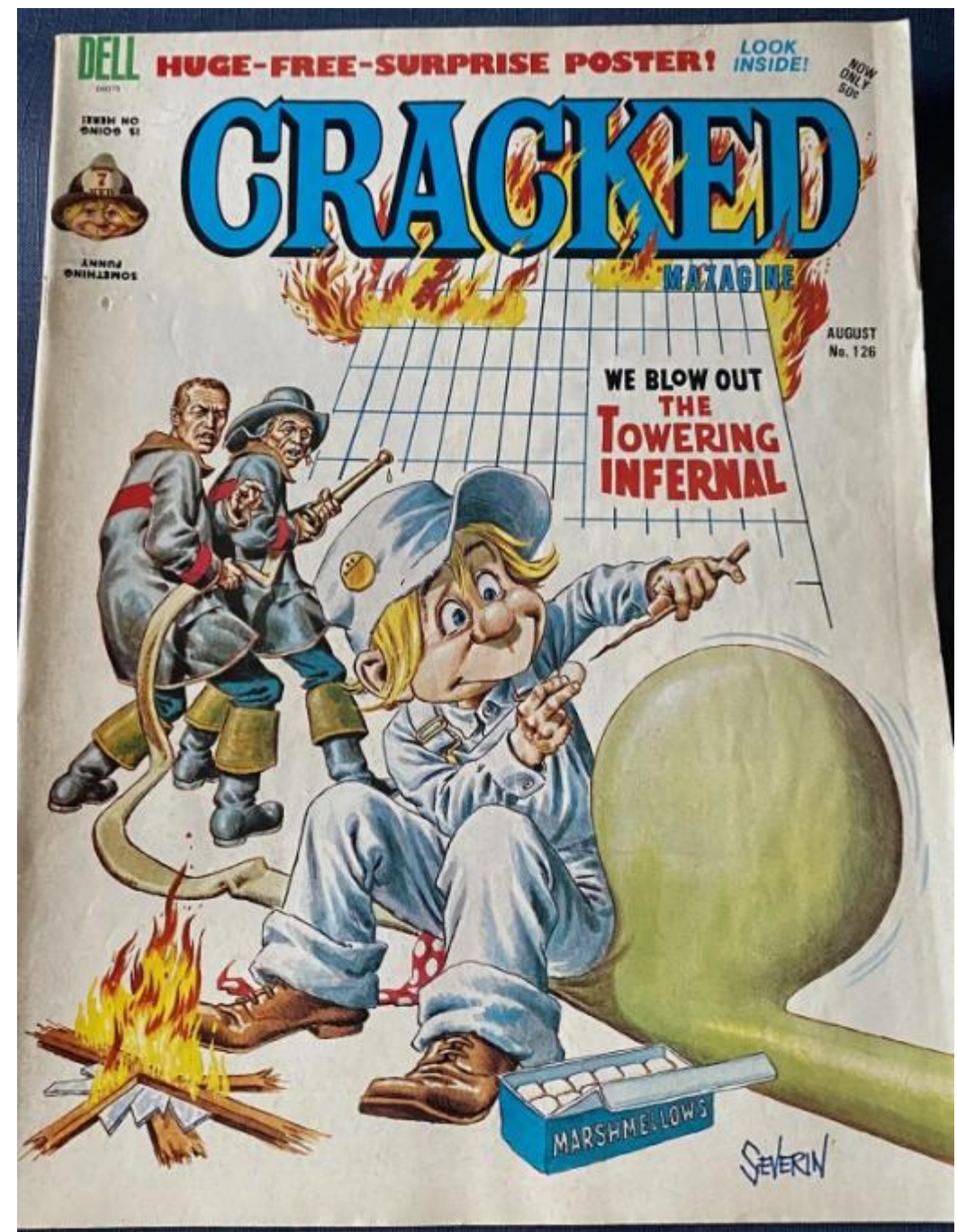
"The Towering Inferno" is a nearly three-hour suspense film for arsonists, firemen, movie-technology buffs, building inspectors, worry warts.

The film, which opened yesterday at the National and Trans-Lux East Theaters, is a gigantic cautionary tale for

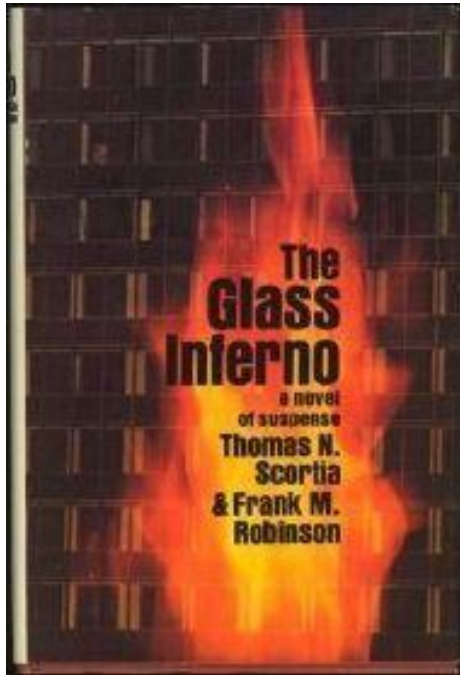


A battle for a rescue car in "The Towering Inferno"

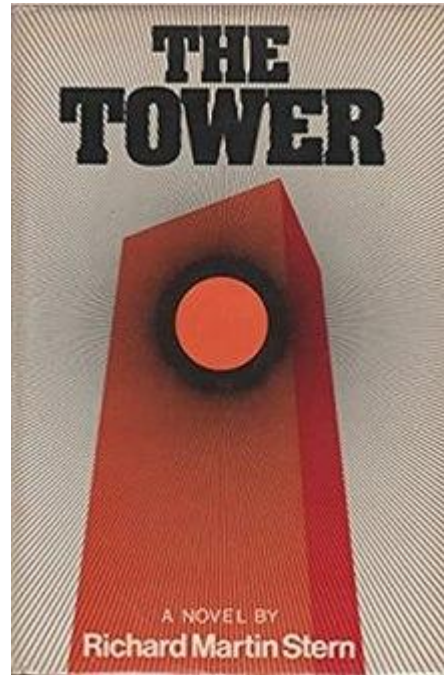
Cultural Impact



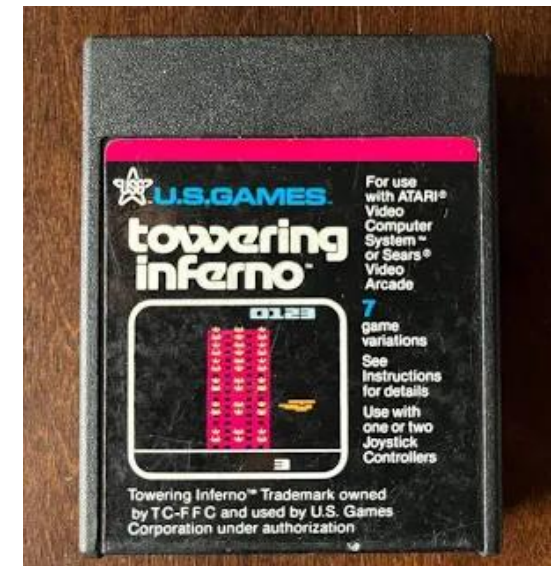
Tall Building Fires/ Towering Inferno in Popular Culture



The inspiration (later rebranded)



Satire Magazines

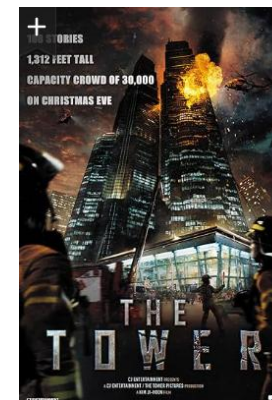
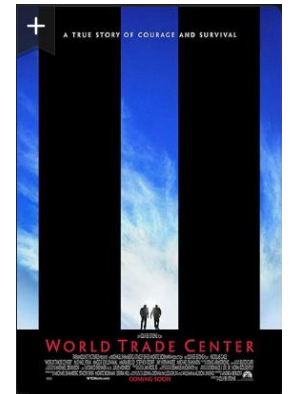


Video Game

Referenced in nearly 100 other TV shows, reviews, or parodies.

Tall Building Fires in Cinema

- Towering Inferno (1974)
- Emergency! Steel Inferno (1978)
- Die Hard (1988)
- Fire: Trapped on the 37th Floor (1991)
- Skyscraper (1996)
- World Trade Center (2006)
- The Tower (Korea) (2012)
- Inferno: Skyscraper Escape (2017)
- High-Rise Rescue (2017)
- Skyscraper (2018)



High-Rise Fires and the National Awareness



919 Third Avenue 1970



This new Third Avenue building met New York City's building code, yet three died and 20 were injured in the fire.



3 dead when elevator opened on fire floor,
multi-story extension

One New York Plaza Plaza 1970

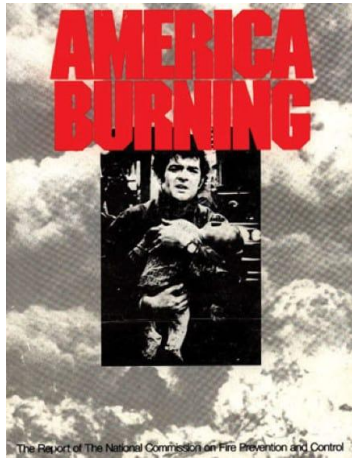
DIVISION



2 dead when elevator stalled at fire floor,
Multi-story extension

America Burning Report Issued 1974

- Highlighted challenges of high-rise fires.



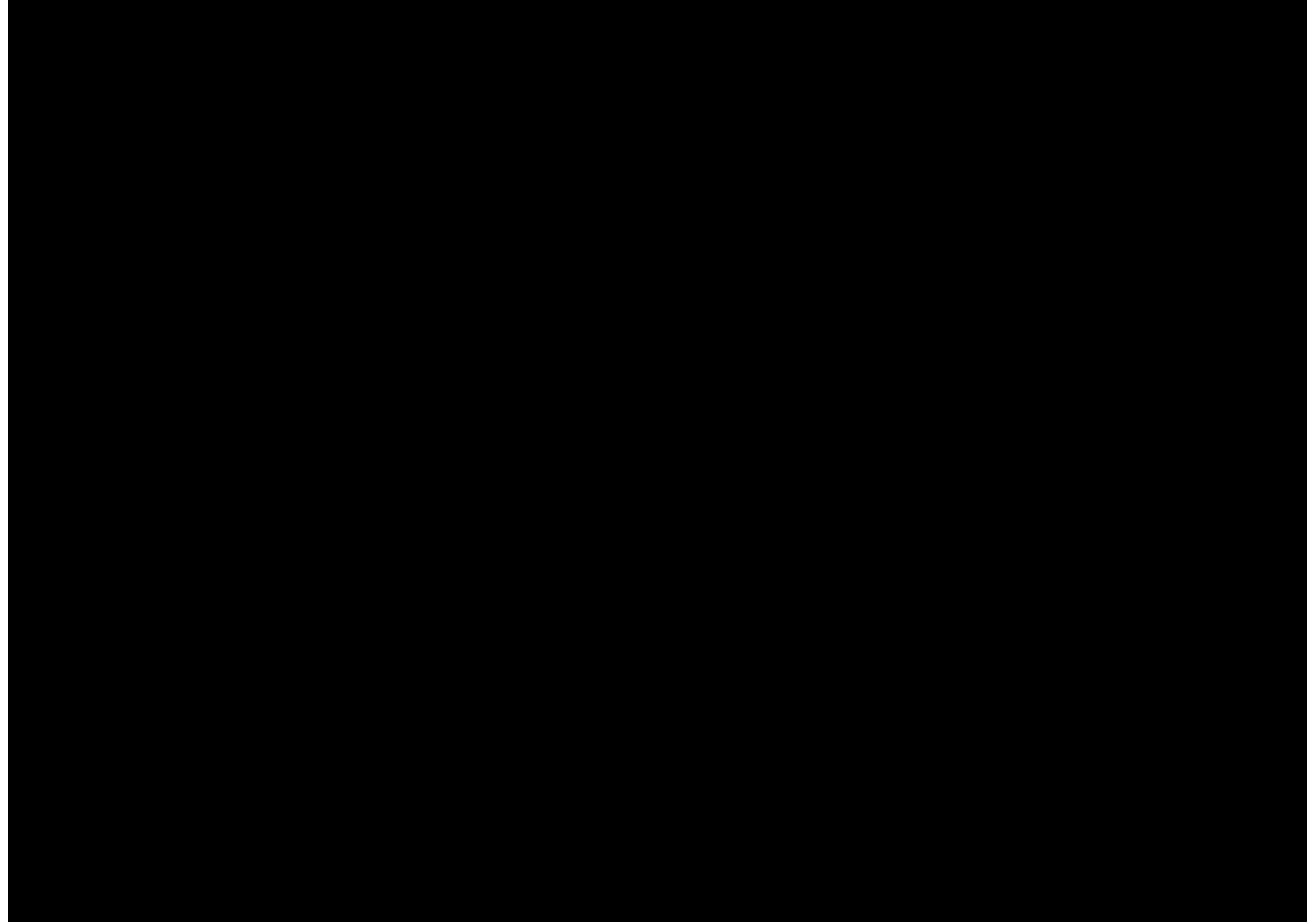
Documentaries

- Incendio
(Brazil) 1974
 - Joelma
Building
 - Produced by
NFPA
 - 14 Minutes
of horrific
video, music,
and analysis

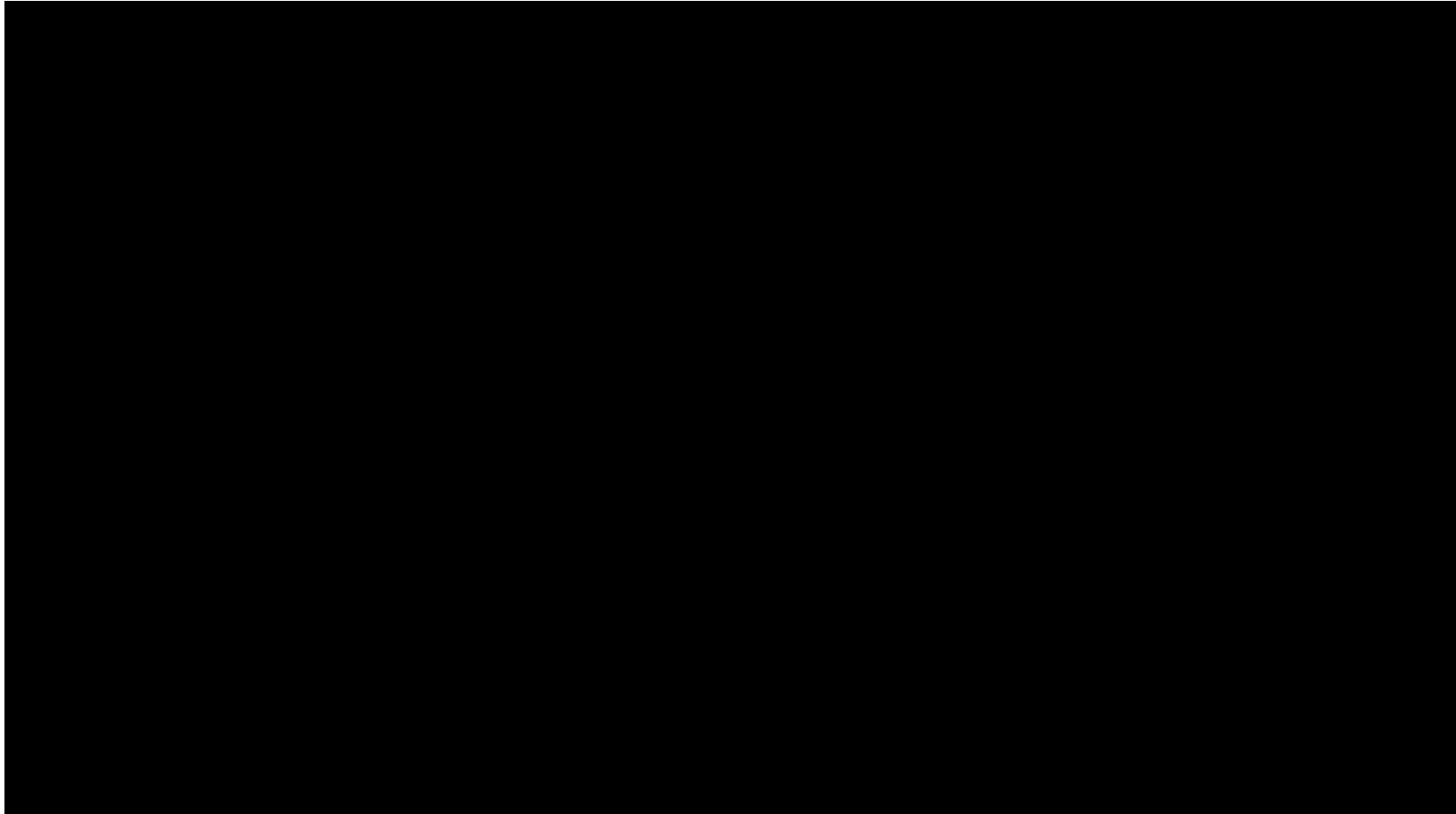
https://www.youtube.com/watch?v=q6oC_QX3-G4



World Trade Center – 1975 Fire (originally constructed without sprinklers)



Unsprinklered Residential High-Rises Continue to Experience Significant Fires



Local Law 5 -- NYC

- 1970 Fires spurred examination of failures and a systems approach was used to craft a legislative approach.
- Unprecedented “golden era” of applied scientific research guided by FDNY under leadership of Comm. O’Hagan.
- Local Law 5 addressed key issues:
- Delayed alarm, excessive smoke and fire spread via openings and HVAC, large, well-developed fires beyond capability of manually-operated hoselines, no information available to firefighters in status of building systems, no control of occupants, elevators operating during fire

Real Estate Industry Fights Back

- Lawsuit filed in 1973
- NY Supreme Court Threw the Law Out (1977)
- City took case to Appellate Court and Prevailed (1978)
- The real estate industry has opposed every significant fire improvement directed at existing buildings

REAL ESTATE

Sunday, February 10, 1975

Compliance With New Fire Code Lagging Drastically

By ERNEST DICKINSON

New York City's Local Law 5, the most stringent high-rise fire safety law in the nation, is in trouble. Unlike other cities, which require major innovations in new construction only, New York has ordered the upgrading of all office buildings, old or new, that are more than 100 feet tall. The law affects 971 structures, and the cost of the work it requires will run to hundreds of millions of dollars.

The success or failure of Local Law 5 will have a nationwide impact, for other cities are considering whether to use New York's ordinance as a model to restructure their own.

But the measure is beset by problems:

- Key provisions that require spending are being adhered to only slowly and reluctantly. This is in part because of confusion, but also because of foot-dragging by building owners.
- Some owners are asking for relief. They say that if they don't get it several older, marginal office buildings will have to be abandoned, thus adding to the city's woes. Government, they contend, owes them proof that it is technologically and economically feasible to do something before the city makes it a criminal offense not to do it.
- Some electronics contractors, for whom Local Law 5 should have meant a boom, criticize it. They say it leans too heavily on new technology and is hard to understand, too detailed and needlessly expensive.
- And in Federal Court, the constitutionality of the ordinance faces a challenge.

Its critics say the law's requirements are hard to understand, too detailed, too costly and lean too heavily on new technology

Of all these problems, the most immediate one may be the snail's pace at which building owners have begun to lay out the large sums required for communications, smoke detection and elevator-recall systems. The provision is now more than two years old—the law was adopted in January, 1973—and the deadline for completing systems in all 971 buildings is next January.

Yet, as far as can be learned, not a single owner of a high-rise building has finished the installation. The 20-story Cushman & Wakefield Building at 330 Fifth Avenue is expected to become later this month the first existing structure to conform.

The owners of 175 high-rise structures have filed the required drawings, but many of them are only partial. Probably no more than 50 or 60 jobs have gone to contract. Communications-industry suppliers say that substantial, citywide compliance cannot be achieved in 11 months.

"Not even if everyone made the decision to go ahead today," said Leonard Goldstein, a protection systems specialist for Honeywell, Inc., in New York. "Bids have to be taken, design work done. Delivery would require three or four months. And the installation takes a lot of time."

The city officials charged with seeing that the law is enforced are Jeremiah T. Walsh, the commissioner of the Department of Buildings, and Fire Commissioner John T. O'Hagan.

Both officials argue that the ordinance is necessary. "New York's office buildings are safe," said Commissioner Walsh.

Continued on Page 12, Col. 1

New York City High-Rise Fire Law Is Reinstated by Appellate Division

By CHARLES KAISER

The Appellate Division of State Supreme Court in Manhattan yesterday reversed a lower-court ruling and reinstated all provisions of Local Law 5, the fire law for high-rise office buildings that landlords contend would cost hundreds of millions of dollars to implement.

A spokesman for the ad-hoc committee of landlords that brought the suit challenging the law's constitutionality said the group would appeal the decision to the Court of Appeals, the state's highest bench, and up to the United States Supreme Court if necessary.

"Unbelievable," Seymour Durst, president of the Durst Organization and chairman of the Real Estate Board of New York, said when he was informed of the Appellate Division's ruling. Implementation of the law, he said, "certainly would be a disaster."

The law was passed by the City Council in 1973 after five persons died in two high-rise fires in 1970 that caused property damage of more than \$12 million.

Smoke-Control Required

The law required installation — in stages between 1973 and 1979 — of stairway signs at elevators as part of building evacuation plans, elevator-recall systems, building intercoms, and smoke-control systems for most of the city's 900 high-rise office buildings.

The smoke-control system was by far the most expensive of the law's requirements. Under it, every centrally air-conditioned office building must have a complete sprinkler system or a system of smoke control in pressurized stairwells to insure evacuation. A third alternative offered by the law is installation of fire-retardant room dividers.

In January 1977, Justice Irving Kaufman of State Supreme Court denied most provisions of the law unconstitutional, including those requiring smoke-control systems. He also ruled that the City Council had provided too little time to comply with the required complex alarm and communication systems, including command stations for every building's lobby.

The only major structural change required by the law that Justice Kaufman left standing was for elevator recall systems, which must include smoke detectors on every floor in front of every elevator bank.

As soon as smoke is detected, the recall system is supposed to send the elevator immediately to the ground floor. Acting Buildings Commissioner Irving H. Minikoff said all offices required to have such a recall system installed by next Sept. 28.

He added that he would have to consult with the city's Corporation Counsel before deciding whether any of the law's other provisions would be entered pending the outcome of further appeals.

Mr. Durst said the final regulations were "desirable and not costly at all for new buildings," but he contended that "it's a catastrophe for existing ones."

The Real Estate Board of New York has estimated it would cost \$10 million to implement the law's provisions, not including the additional cost of smoke-control systems.

Real-estate owners negotiated the provisions of the law with the City Council with the understanding it would apply only to new construction, according to Mr. Durst. He said they were shocked when the law was written to apply to existing buildings as well.

Basis of the Ruling

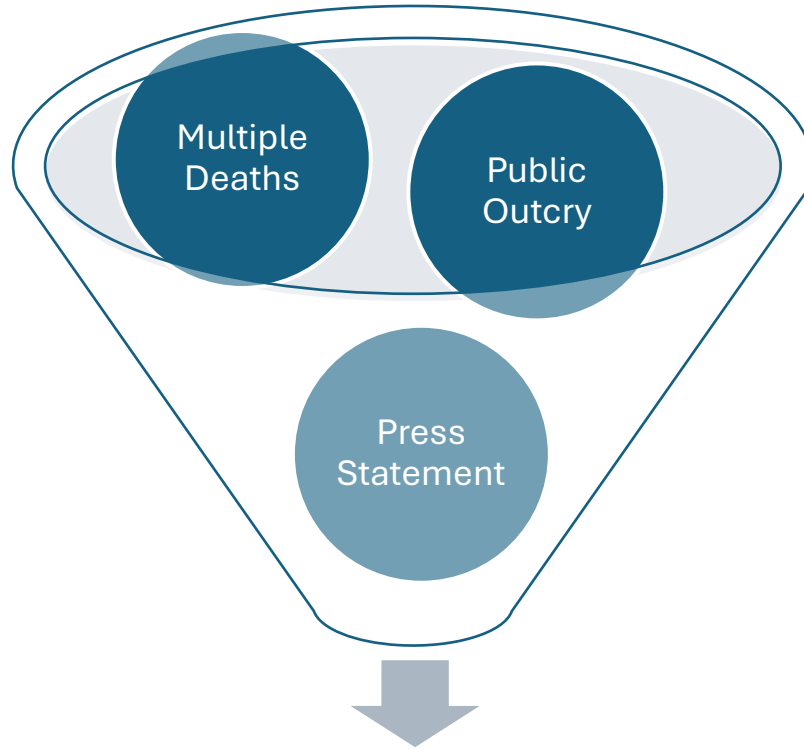
The Appellate Division ruled that Local Law 5 "is the product of a reasonable exercise of the police power" and therefore constitutional.

"Courts should be wary of substituting their economic and business judgment for that of legislative bodies," the court said.

The opinion noted that, while Justice Kaufman had repeatedly stated that implementation of the law would be "extremely costly," the judge had made no attempt to compare the cost of compliance with the value of the buildings involved. The opinion cited a number of cases in which safety requirements had cost as much as 38 percent of a property's assessed valuation, yet they were still deemed to be constitutional.

Yesterday's majority opinion was supported by Justices Samuel J. Silverman, Arnold L. Fein and Joseph P. Sullivan. Justices Francis T. Murphy, Jr. and Vincent A. Lippincott dissented in part.

Political Economy of Fire Codes Improvements



Legislation Introduced?

Outcomes

Legislation dies on Committee

Legislation fails

Do-nothing legislation

Deck chair legislation

Bad legislation

Media attention dissipates

FDNY Cowardly Lions



Twin Parks as an Exemplar of Challenges

Twin Parks Fire January 9, 2022

- 19-story buildings constructed by NY State as low an moderate-income housing
- Fire started daytime
- 17 Fatalities
- 32 Hospitalized
- Self-closing door failed, smoke spread throughout the building
- No sprinkler
- No public address capability

Post-Twin Parks Legislation?

- Sprinklers – NO
- Public Address Systems – NO
- Fire alarms – NO
- Federal legislation to enable US Fire Administration to investigate fires (authorities already existed)
- Increase fines for self-closing doors (HPD admitted they didn't have staff to enforce for over a year)
- Require self-closing doors in federal housing?
- Chase space heaters

Leadership Needed in NYC

- Building Occupants must come before
 - Real Estate Profitability
 - Fire Union pleading for staffing
- Elected officials must be lobbied with objective data
 - Cost-benefit studies
 - Life cycle costing
 - Fire service needs to step up and lead
 - Make partnerships with housing advocates
- Innovate on intermediate steps
 - Other technological solutions
 - Partial systems (need to be evaluated)



Link to “Towering Inferno at 50” Event

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ART, POLICY, AND LEGACY**
A REFLECTION ON THE MOTION PICTURE'S
50TH ANNIVERSARY AND IMPACTS ON HIGH-RISE FIRE SAFETY

ONE TINY SPARK BECOMES A NIGHT OF BLAZING SUSPENSE.



The Towering Inferno (1974) is an Academy Award-winning blockbuster that ignited international interest in high-rise fire safety. The film, featuring an all-star cast and the outstanding special effects, both reflected emerging hazards in newly-constructed lightweight buildings and brought attention to fire codes and firefighting procedures.

This event features speakers addressing historic, journalistic, engineering and policy aspects of fire safety, and also features a forward-look at cutting edge firefighting and occupant safety strategies and prospects for super-tall buildings under development. The conference will also focus on New York's slow road to updating safety systems in existing high-rises.

Nat Segaloff, Author *More Fire: The Building of the Towering Inferno*
Jarrett Murphy, Journalist Ali Ashrafi, Structural Engineer
BC Jerry Tracy (FDNY, ret.) Jake Pauls, Evacuation Expert
Charles Jennings, Professor

JOHN JAY COLLEGE OF THE CITY OF NEW YORK

Friday, December 13, 2024
524 West 59 Street, Room 9.64
9am-4pm In-person and via Zoom



CUNY

