

*Risk Control  
Industry Guide Series*

**Printing and Graphic Imaging Industry**



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This study reflects on information derived from insurance claims. These claims form a database that can be analyzed to determine the many and varied causes of loss. CNA Risk Control presents this study of specific CNA claims and industry trends. We begin with a review of exposures inherent to the printing and graphic imaging industry and conclude with suggested practices to manage these risks.

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## Printing and Graphic Imaging Industry Guide

The printing and graphic imaging industry in the United States includes about 35,000 companies with over \$100 billion annual revenue.<sup>1</sup> This study reflects on specific CNA claims and industry trends for the printing and graphic imaging industry and provides an analysis to develop practices to manage risks in this industry segment.

### Printing and Graphic Imaging Industry Defined

For the purposes of this study, printing and graphic imaging companies will be defined to include firms engaged primarily in commercial printing, business forms, book printing, prepress services, quick printing and blank books and binders. They include:

- Book publishing
- Commercial bookbinding
- Magazine publishing
- Printing - commercial
- Printing - quick printers
- Printing operations including digital printing, lithography, and letterpress
- Printing and silk-screening on objects other than paper, i.e., textiles and T-shirts, plastic, metal, glass
- Binding services
- Typesetting and engraving

This study does not include newspaper publishing.

One of the most significant characteristics of the printing industry is the large proportion of small firms. Almost one-half of all printing facilities have fewer than five employees; approximately 84 percent employ fewer than 20.<sup>2</sup> Despite continuing consolidation, the industry is highly fragmented, and the largest 50 companies account for about 30 percent of the market.<sup>3</sup>

Digital technology has changed the competitive landscape of the commercial printing market. Prices for digital color pages are falling below offset printing prices, and companies that fall behind in the shift to digital printing, are at risk of falling behind, especially in the pre-media portion of printing.<sup>4</sup>

Printing facilities typically serve regional or local markets although some firms, such as those producing books and periodicals, serve national and international markets. Facilities are most frequently located in light industrial areas in or adjacent to population and business centers, although smaller operations are somewhat more likely to be located in residential settings.<sup>5</sup>

Printing technology is evolving rapidly. Virtually all prepress work is now done with computers. Business challenges facing this industry segment are the increased use of electronic media, the Internet, and competition from firms with in-house printing systems that rival speed and quality of commercial printing for small runs. Faced by these challenges, the printing and graphic imaging industry must implement strategies that reduce loss exposures and maintain profitability.<sup>6</sup>

### Printing and Graphic Imaging: An Analysis of Loss Exposures in the Printing and Graphic Imaging Industry

Printing and graphic imaging companies face traditional loss exposures, such as employee injuries, automobile accidents, liability claims and property losses, as well as unique exposures

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related to printer's errors and omissions. These are incidents where damages to third parties occur in the course of providing or failing to provide proper printing services.

The following is a review of those exposures based on an analysis of claims incurred by printing and graphic imaging companies insured by CNA between January 1, 2004, and December 31, 2007, and in the industry segments listed above.

## Workers' Compensation Claims

### *Top Five Incidents Causing the Injury, Shown as a Percentage of Total Claims*

<b>Incident Type</b>	<b>Percent of Total Claims</b>
Manual Handling/Physical Stress	26%
Slips/Trips/Falls on Same Level	12%
Struck By	12%
Caught In On Or Between	12%
Repetitive Motion	9%

### *Top Five Incident Types as a Percentage of Total Claim Dollars*

<b>Incident Type</b>	<b>Percent of Total Incurred Losses</b>
Manual Handling/Physical Stress	33%
Slips/Trips/Falls on Same Level	18%
Caught In On Or Between	14%
Repetitive Motion	9%
Struck By	5%

The data indicates that the types of incidents most likely to cause worker injuries in the printing and graphic imaging sector are from manual handling, trips and falls, and struck by incidents caused by poor housekeeping or material movement.

### **Manual Handling, Physical Stress and Repetitive Motion Incidents**

These claims are caused by the manual handling a variety of work-related materials including raw paper and finished printed materials. These incidents have occurred throughout the printing process including manual movement of raw materials from the receiving dock, and in the production process to loading of delivery trucks. Although great strides have been made in the use of powered vehicles to reduce the need to manually move raw materials, many smaller firms still move raw paper and finished products manually.

### **Repetitive Motion**

Repetitive motion injuries are common in this industry due to the high degree of computer work done in the prepress area. Attention to office ergonomics can have an enormous payback in reducing the number of incidents and subsequent costs.

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## Slips, Trips and Falls on the Same Level

The printing and graphic imaging industry is vulnerable to slip, trip and fall injuries because of the nature of workflow. To be profitable, orders must be processed and shipped rapidly to meet customer demands necessitating speedy movement of material. Such condition may lead to housekeeping issues that foster slips, trips, and fall incidents.

## Property Claims

### *Top Five Incidents Causing the Loss, Shown as a Percentage of Total Claims*

<b>Incident Type</b>	<b>Percent of Total Claims</b>
Wind Damage	25%
Water Damage	19%
Not Otherwise Classified	10%
Not Available	3%
Electronic Disruption	6%

### *Top Five Incident Types as A Percentage Of Total Claim Dollars*

<b>Incident Type</b>	<b>Percent of Total Claim Dollars</b>
Wind Damage	25%
Water Damage	19%
Not Otherwise Classified	10%
Theft	8%
Lightning (No Fire)	8%

## Wind and Water Damage

Property claims data shows that wind damage and water damage are the most frequent type of loss in terms of incidents and severity. These incidents are almost exclusively tied to damage sustained during hurricanes. Printing and graphic imaging operations are especially susceptible to water damage to paper stock.

## Auto Claims

### *Top Five Incidents Causing the Loss, Shown as a Percentage of Total Claims*

<b>Incident Type</b>	<b>Percent of Total Claims</b>
Rear-ended Other Vehicle	14%
Backed into Claimant	9%
Struck By Object	9%
Iv Struck Parked Car	9%
Not Available	8%

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*Top Five Incident Types, Shown as a Percentage of Total Claim Dollars*

<b>Incident Type</b>	<b>Percent Of Total Claim Dollars</b>
Rear-ended Other Vehicle	251%
Insured Struck Parked Car	9%
Theft Of Vehicle	7%
Not Otherwise Classified	6%
Not Available	6%

Analysis of auto claims reveals one of the most preventable types of accidents; rear-end collisions with other vehicles, as the leader in terms of frequency and severity. The printing and graphic imaging industry exhibits a wide variety of auto claims in every claim category. Due to the diverse nature of this industry, there are no prevalent incident causes other than auto accidents from rear-end accidents.

## **General Liability Claims**

*Top Five Incidents Causing the Loss, Shown as a Percentage of Total Claims*

<b>Incident Type</b>	<b>Percent of Total Claims</b>
Damage Not Otherwise Categorized and Completed Operations	36%
Struck By	11%
Personal Injury	9%
Slips/Trips/Falls on Same Level or Slips/Trips No Fall	9%
Fall From Elevation	7%

*Top Five Incident Types as a Percentage of Total Claim Dollars*

<b>Incident Type</b>	<b>Percent Of Total Incurred Losses</b>
Damage Not Otherwise Categorized and Completed Operations	37%
Fall From	20%
Caught In On Or Between	19%
Slips/Trips/Falls on Same Level	14%
Struck By	3%

## **Damage Not Otherwise Categorized and Completed Operations**

The major two categories, damage not otherwise categorized and completed operations, have produced the most losses for the printing and graphics imaging industry. These two incident categories are combined because the incident descriptions are similar. Most of the incidents in the two categories involve damage to customer products during printing operations or failure of the company to produce goods that meet customer standards.

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## **Struck By**

These incidents involve physical damage to property caused to claimants' vehicles.

## **Completed Operations**

Formal contract and project management procedures must be utilized to control printing errors both in execution of contracts and the printing process.

Printing and graphic imaging companies offer products and services that are constantly changing and require rapid innovation to meet customer demands. Every job is different, and a printer's management systems must be flexible enough to meet tough deadlines but robust enough to ensure high quality products. Completed operations incidents arise from unexpected or poorly defined customer expectations.

Errors and omissions incidents typically arise for reasons associated with potential unexpected consequences of utilizing technological innovations, customer expectations, or legal interpretation of obligations. Contracts, license agreements and service agreements can help to define these expectations, provide protection from liability, and limit damages.

Additionally, printers can be liable for damages related to the release of confidential information entrusted to them or to a third party. Examples include release of confidential information in annual reports, and sales figures. Risk transfer techniques with a third party involve management of confidentiality systems that can be used to limit liability in these situations.

## **Suggested Practices**

The analysis of claim data presented in this study suggests a number of practices that could be effective in reducing losses. These practices have been proven by printing and graphic imaging companies determined to reduce claim costs and increase profitability.

Implementation of comprehensive safety programs that addresses employee safety, and the safety of others that may be affected by the company's operations, is key to reducing workers' compensation, liability, auto, and property losses in the printing and graphic imaging industry.

## **Employee Safety**

Manual handling, physical stress and repetitive motion injuries are indicated as loss leaders in our claim analysis for the printing and graphic imaging industry. An ergonomics program can help protect workers from these types of injuries and increase productivity. An effective safety program that raises employee safety awareness and helps to control and eliminate hazards can help minimize the impact of other loss sources such as slips, trips and falls and struck by accidents.

CNA's ErgoPRO is a six-step ergonomic process that provides work method techniques, engineering guidelines and information required to integrate the human factor with the overall production process. This process offers specific solutions to the frequent injuries related to the manual handling of materials in the printing and graphic imaging industry. CNA's "Motion is Money," is a process to enhance worker productivity and reduce risk factors by directly relating ergonomic concepts to measurable improvements in productivity and profitability.

For printing firms, even a minor slip, trip or fall-related injury can result in hefty payouts to injured parties, lost profitability and increased liability insurance premiums. CNA's FallPRO process, a comprehensive method of evaluating and developing business solutions, can help to minimize fall exposures. This study reveals these types of incidents to be one of the most common and expensive for companies in this industry segment. An effective slip and fall prevention program

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can have a positive impact on a management company's bottom line regardless of the size of the business.

CNA's School of Risk Control Excellence offers a printing and graphic imaging boot camp to address a client's major loss drivers and offer solutions that impact their cost of risk.

CNA's other resources include guides and bulletins on worker safety practices and resources for loading dock safety, a major contributor to liability claims.

## Auto

Fleet safety is an essential part of a company's safety program. Even if the company does not operate a fleet of company-owned vehicles, few companies can operate without an occasional business use of hired or non-owned vehicles by their employees.

The claim analysis of the printing and graphic imaging industry indicates that accidents in which the insured driver rear-ended another vehicle as the leading loss source in terms of frequency and severity. To prevent this type of accident, a fleet safety program should include screening driver qualifications, raise driver safety awareness, and implement driver accountability procedures can have a tremendous impact on this type of preventable accident. CNA offers resources to aid in the implementation of a fleet safety program, including guides and bulletins on managing fleet safety, accident prevention and driver safety awareness.

## Property

A program for managing property risks is crucial in the prevention and mitigation of potentially catastrophic property losses. The claim data reviewed in this guide indicates that high-severity claims account for the majority of total incurred property losses for this industry segment. Property protection programs include emergency response plans, self-inspection procedures and other special procedures related to maintenance of fire protection systems and control of ignition sources.

Two areas in which special emphasis for the printing and graphic imaging industry are warranted include emergency response planning and security.

**Emergency Response Planning** — Plans need to be in place to respond to developing situations such as windstorms, earthquake and floods. The plans should encompass immediate action taken to minimize damage as well as well thought out plans to return the company to full production.

To recover from disruptions related to risks that may be natural, technological or human in nature, plan processes should serve to minimize interruptions to operations that can cause loss of business income, liability claims related to damage to property of others, loss of data of others, and interruptions of product delivery to customers.

The claim analysis shows high-severity losses for this industry segment are from a variety of causes, including fire, snow and ice, and wind damage due to hurricanes.

**Security** — Managing physical security should be a priority for the printing and graphic imaging industry that deals with confidential information. Security covers access control, and carefully crafted policies and procedures can address these exposures and are especially effective when coupled with relatively inexpensive security monitoring equipment.

CNA offers a variety of resources for the management of property risks. These tools include guides and bulletins on emergency response planning, property protection and guidelines addressing both physical security and information risks.

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## Liability

The printing and graphic imaging industry in the United States is characterized by its rapid pace in fulfilling orders and growing dependence on computer technology.<sup>7</sup> With this emphasis on speed and customer demand for quality, progressive printing and graphic imaging industry firms have adopted formal procedures to manage contracts for orders and control printing errors.

Printing error incidents begin with unexpected or poorly defined customer expectations that are created early on in the engagement. A formal contract creation and management program is important so that order contracts are crafted to clearly define these expectations and should include:

- Delivery dates
- Final review authority
- Printing stock or material characteristics
- Color definition and customer final review authority
- Expected life of the printed material on the product
- Environmental exposures
- Adhesive specifications and characteristics
- Confidentiality agreements

Quality control and project management techniques should be employed during printing to ensure compliance with customer expectations.

CNA resources can help to assist our clients in the printing and graphics imaging industry and control exposures and develop effective programs to improve profitability and cut costs.

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## School of Risk Control Excellence

### Courses applicable for the Printing and Graphic Imaging Industry:

- Building Your Business Continuity Plan (BCP)** – Covers elements necessary in a BCP strategic plan to help restore and keep critical business functions going within the first 72 hours of a disaster
- Case Management – A Partner With Workers’ Compensation** – Addresses techniques that can help to maximize the delivery of healthcare and return-to-work outcomes
- Dock Safety Overview** – Identifies overall risks of dock work, the lines of insurance that can be affected, and controls to put into place to minimize these exposures
- Drug and Alcohol Prevention** – Identifies ways to properly manage the work risks and legal issues of drug screening with pre-employment, post-accident, reasonable suspicion and random testing.
- Emergency Planning** – Provides guidelines for developing and implementing emergency plans at various facilities
- Flammable Liquids** – Discusses classification of liquids, storage requirements including Maximum Allowable Quantity (MAQ) in various occupancies and fire prevention techniques
- Infrared (IR) Thermography** – Explains the science behind IR, potential benefits that can help reduce costs by reducing losses
- Lower Back Pain and Manual Material Handling** – Covers symptoms, characteristics and risk factors that contribute to the development of lower back pain
- Manage Chemical Health Risks to Protect Your Employees and the Company’s Liability** – Explains the effect that chemicals in a product might have on the health of employees
- Managing Your Hearing Loss Trends** – Identifies risk management steps to limit further loss of hearing claims
- Printing and Graphic Imaging Boot Camp** – Addresses industry loss drivers from a safety and industrial practice viewpoint
- Return-to-Work Process** – Explores elements of the return-to-work process and workers’ compensation requirements
- Warehousing – Controlling Your Property Exposures** – Analyzes sprinkler systems to help make informed business decisions to maximize the ability of the fire prevention system

To find out more about these classes, go to: [www.cna.com/riskcontrol](http://www.cna.com/riskcontrol)

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## Resources

<sup>1</sup> First Research, Commercial Printing, Quarterly Update July 14, 2008

<sup>2</sup> EPA Office of Compliance Sector Notebook Project, Profile of the Printing and Publishing Industry, September, 1995

<sup>3</sup> First Research, Commercial Printing, Quarterly Update July 14, 2008

<sup>4</sup> Id.

<sup>5</sup> Id.

<sup>6</sup> Id.

<sup>7</sup> Id.

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To learn more about how CNA Risk Control can work with you to help you mitigate risks, please speak with your local independent agent, call us toll-free at 866-262-0540, or view our Risk Control tools online at [www.cna.com/riskcontrol](http://www.cna.com/riskcontrol).

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