

Insurance Facts



METAL BUILDING MANUFACTURERS ASSOCIATION, INC.
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Introduction

This manual presents the basic factors that affect fire and allied lines insurance rates or loss costs on Metal Buildings. Its purpose is to clarify the fundamentals involved in the determination of these rates or loss costs. Comments made herein do not apply to all areas of the country or to any specific area but are general in nature.

Every builder should assume the responsibility of assisting the potential owner in procuring the minimum rates or loss costs for his proposed Metal Building project. This can best be accomplished while the building is in the planning stages. If you are familiar with the information contained herein, you will be in a position to guide the prospect in the design of his Metal Building so as to take advantage of those areas which will reduce his rates or loss costs.

It is to your advantage to ally yourself locally with a competent Insurance Broker or Agent. He will assist you in reviewing rates or loss costs as applied to a specific building project, and in many cases, will be able to advise you of rate or loss cost reducing procedures.

If you have sufficient specific information to indicate that insurance rates or loss costs IN YOUR STATE do not fall into the proper category as described in this manual, you should inform your supplier. The manufacturer can then request the Committee on Fire Protection & Related Insurance Matters of the Metal Building Manufacturers Association to investigate the evaluating procedures of the state rating organization. It is suggested that you NOT take it upon yourself to contact the evaluating organization to effect a more equitable rate or loss cost for Metal Building Construction as a class. Normally, the Metal Building Manufacturers Association Committee will be in a better position to evaluate the problem and initiate action in these broad instances.

The Committee on Fire Protection & Related Insurance Matters of the Metal Building Manufacturers Association should be contacted with reference to fairly broad inequities in rates or loss costs, but should not be contacted on each specific job. In analyzing the rates or loss costs on a particular job, it would be more advisable to contact the Insurance Broker or Agent, or in some cases, the evaluating organization.

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INSURANCE FACTS

WHAT IS INSURANCE?

Insurance is essentially definable as the spreading of risk of economic loss due to fire, windstorm, flood, riot and civil commotion, and various other perils. In order to spread the risk equitably, it is necessary that all elements of the risk be analyzed and that proper weight be attributed to each of these elements. This analysis logically leads to classification of buildings according to their loss potential and the publication of an annual rate or loss cost, or monetary amount per hundred dollars of insurance which reflects this loss potential.

FIRE INSURANCE RATES OR LOSS COSTS¹ consist of three principal sections:

1. **Building rates or loss costs**, which apply to the amount of insurance on the building only.
2. **Contents rates or loss costs**, which apply to the amount of insurance on contents only.
3. **Group II rates or loss costs**, which are rates or loss costs on an endorsement which may be attached to the fire insurance policy covering hazards of windstorm, hail, smoke, riot or civil commotion, aircraft or vehicles, sinkhole collapse and volcanic action, and which apply to the amount of insurance on building and contents.

Group II coverage insurance may not be written separately but must be an endorsement to a fire insurance policy. Hazards covered under this endorsement other than windstorm, are difficult to analyze, and the group II rates or loss costs are, therefore, based essentially upon susceptibility to wind damage, and the class of construction will determine the group II coverage rates or loss costs.

There are three basic features which must be included in all fire insurance rates or loss costs.

First: The rate or loss cost must correctly reflect the hazard involved.

Second: The rate or loss cost must be equitably applied to all similar risks.

Third: The rate or loss cost must be an incentive to providing good fire protection.

This indicates that charges should be included in the rate or loss cost to encourage the owner to maintain his property in the safest possible condition by eliminating the hazards upon which the charges are predicated.

WHO DETERMINES INSURANCE RATES OR LOSS COSTS?

Insurance rates or loss costs for most structures are computed by an office of the Insurance Services Office (ISO) in the majority of states and by an independent rating organization in the other states. Some insurance companies have filed with individual State Insurance Departments for their own rate making authority and, thus, compute their own rates within those states. A list of the ISO offices and independent organizations can be found in the Appendix.

HOW ARE FIRE RATES OR LOSS COSTS COMPUTED?

ISO offices and some independent organizations use the Specific Commercial Property Evaluation Schedule (SCPES). This schedule results in a uniform treatment of buildings regarding construction and occupancy features. This does **not**, however, result in uniform rates or loss costs from state to state. Most states control rates or loss costs through their insurance department, which grants rate or loss cost making authority and issues licenses to insurance companies. The rate or loss cost levels within an individual state are predicated upon the loss experience for each class of risk and type of construction within that state. Thus, while the method of determining the rate or loss cost will be the same from state to state, the ultimate rate or loss cost will vary due to factors and rate or loss cost level adjustments that are established by and applied within each state.

Small (not exceeding 15,000 sq. ft. in total area) mercantile, non-manufacturing and warehouse buildings or frame, noncombustible or joisted masonry construction types, and hotels and motels without restaurants of any construction type are not specifically evaluated under the SCPES. These buildings are evaluated by the insurance company or agent by use of the ISO Commercial Lines Manual. This produces a flat rate or loss cost based on construction type, protection class, and occupancy.

¹ "Loss Costs" are differentiated from "Rates" in that the loss costs do not factor in individual insurance companies overhead costs, profit and long term trended loss experience. These costs are added to the schedule produced loss costs, by the insurance company, to produce a rate.

Classification of Building Construction

In order to determine a fire insurance rate or loss cost, the building must first be classified as to its construction. Construction classifications for evaluating purposes generally fall into six categories, each of which includes a number of variations. The basic classifications are:

FIRE RESISTIVE (Construction Class 6). These are buildings with masonry walls or assemblies with a fire resistance rating of not less than 2 hours. Floor and roof assemblies with fire resistance rating of not less than 2 hours. Horizontal and vertical load bearing protected metal supports, with fire resistance rating of not less than 2 hours, including pre-stressed or post-tensioned concrete units.

MODIFIED FIRE RESISTIVE (Construction Class 5). These are buildings with exterior walls, floors, and roof constructed of materials described in Construction Class 6 fire resistive, but have a fire resistance rating of less than 2 hours, but not less than 1 hour.

MASONRY NONCOMBUSTIBLE (Construction Class 4). These are buildings with exterior walls of fire resistive construction not less than 1 hour or masonry and with noncombustible or slow-burning floors and roof.

NONCOMBUSTIBLE (Construction Class 3). These are buildings with exterior walls, floors, and roof of noncombustible or slow-burning materials supported by noncombustible or slow-burning supports. Metal buildings would normally fall into this category.

JOISTED MASONRY (Construction Class 2). These are buildings with exterior walls of fire resistive construction not less than 1 hour, or of masonry and with combustible floors and roof.

FRAME (Construction Class 1). These are buildings with exterior walls, floors, and roof of combustible construction, or buildings with exterior walls of noncombustible or slow-burning construction with combustible floors and roof. Also included are buildings with walls and roofs with composite assemblies which include both combustible materials and non-combustible materials.

Schematic sketches of these basic building types can be found in the Appendix.

EVALUATION METHOD

After establishing the class of basic building construction, buildings are evaluated using the ISO Specific Commercial Property Evaluation Schedule by considering the following elements:

1. Basic construction.
2. Secondary construction.
3. Occupancy.
4. Exposure.
5. Protection.
6. Internal protection.

1. Basic Construction

The elements considered under basic construction are walls, floors and roofs, including supports and assembly. The consideration in the walls are the type of materials, the wall thickness, the damageability classification, and the fire resistance rating. The floor and roof materials are analyzed in respect to their basic materials, their damageability type, and their fire resistance rating. Application of the schedule produces a series of charges in points.

2. Secondary Construction

Secondary construction considers the following factors — vertical openings and type of protection for these openings; building area and heights; roof surface whether approved or unapproved; combustible floor and roof spaces; combustible interior constructions; combustible interior finishes or insulation; combustible exterior attachments such as a combustible roof over an exterior loading dock; and the general building condition. Charges in terms of percentage are assessed according to the schedule for the secondary construction items.

3. Occupancy

The hazards of the occupancy have been analyzed within the schedule, and basic occupancy charges are applied in the form of percentages based upon the hazards of each occupant of the building. Additional charges are added for hazards of the occupancy not contemplated under the basic occupancy charge such as spray painting in a metalworking risk.

4. Exposure

Exposure considers the potential harm to the building being evaluated due to external fire (one that originates in another building). This could be a nearby

building or one which actually communicates with the building being evaluated through a fire wall. Things considered here are the wall construction, both of the buildings being evaluated and that of the exposed building, the occupancy hazard of the exposure, the exposure distance, and exposure conditions. This produces an exposure charge in points.

5. Protection

Protection on this survey refers to the classification of the city, community, or zone where the building being evaluated is located as determined by the ISO Protection Schedule. Other terms for this are sometimes used and are known as "town grading class" or "town grading" or "town class". This protection schedule considers such things as quality of public water supply, fire department, building codes, fire alarm, etc., and varies from a first-class town which would have the best protection to a tenth-class town which would be an unprotected area without public water or fire protection facilities. The schedule then has a table of protection class factors which vary depending upon which state you are located in and what your construction class is.

6. Internal Protection

Internal protection considers protective features within the building. Among those are portable fire extinguishers, standpipe and hose systems, watchman service, automatic fire detection systems, partial or substandard automatic sprinkler systems, and limited supply automatic fire protection systems. The automatic sprinkler systems would be of the type that would not qualify the risk for rating under the sprinkler schedule. These protection features produce credits in percentages.

Contents

In order to determine the rate or loss cost being applied to the contents of a building, two elements of the contents are considered once the building rate or loss cost has been established. The combustibility classifications applicable to contents ranges from non-combustible (C-1) to rapid burning or flash burning (C-5). The susceptibility classifications applicable to contents ranges from S-1 minimal damage such as pig iron, marble, and heavy metals to S-5 extreme loss such as animals and birds, explosives, flowers, and furs.

Rate Or Loss Cost Computations

The described points, charges, and credits are used in

a series of mathematical calculations, including application of several factors which vary from state to state. The result of these calculations is an 80% Co-Insurance Building Rate Or Loss Cost for the building and 80% Co-Insurance Contents Rates Or Loss Costs for each tenant. These rates or loss costs are in dollars and cents per \$100 of insurance coverage.

Other Evaluation Methods

The method of evaluation just described using the ISO Specific Commercial Property Evaluation Schedule is the most common. Some jurisdictions that are not ISO members are still using other rate methods, and some mutual companies and others have their own rate schedules filed with the individual state insurance departments. Still others will utilize the loss costs produced by ISO but apply deviations from them. These deviations must be set forth and approved by the state insurance departments of each respective state. However, whatever method is used, it basically considers the same elements of the risk as the Specific Commercial Property Evaluation Schedule.

Co-Insurance

As indicated, the rates or loss costs produced by application of Specific Commercial Property Evaluation Schedule are 80% co-insurance building rates or loss costs and 80% co-insurance contents rates or loss costs. The term co-insurance means that the policy holder has agreed to maintain insurance to the extent of at least 80% of the value of the property being insured. If, at the time of a loss, the policy holder has failed to maintain this level of insurance, he will become a co-insurer for the difference between the amount carried and the amount required by the agreement. Higher co-insurance limits may be carried, such as 90% and 100%, which result in a rate or loss cost reduction to the policy holder which is computed by taking a percentage credit of the 80% co-insurance building or contents rate or loss cost.

HOW DO METAL BUILDING RATES OR LOSS COSTS COMPARE?

Loss costs produced under the Commercial Fire Rating Schedule application descend as you go from Construction Class 1, frame, to Construction Class 6, fire resistive. A frame building would contribute fuel to the fire; and in a fire, the building could possibly be totally destroyed. Thus, the rates or loss costs on frame buildings are quite high. On the other end of the scale, it is assumed that a fire resistive building adds no fuel to the fire and would survive even a rather severe inter-

nal contents fire and, thus be usable again after the fire. Quite naturally then, full fire resistive Construction Class 6 does receive quite a low insurance rate or loss cost.

The typical metal building is classified as non-combustible, Construction Class 3. While, for the most part, a metal building does not contribute additional fuel to the fire, it, however, can be severely damaged in the event of a large fire and require replacement. Therefore, metal buildings are evaluated higher than fire resistive, but considerably lower than frame.

Under some previous evaluation treatments, metal buildings normally were classified as "brick" buildings which, in the parlance of the Specific Commercial Property Evaluation Schedule, would be joisted masonry, Construction Class 2. The Specific Commercial Property Evaluation Schedule, however, has recognized superiority of a metal building over one with combustible floors and/or roof. The loss costs produced under the schedule for metal buildings are usually lower than joisted masonry Construction Class 2 buildings.

A word of caution here, please. While the Specific Commercial Property Evaluation Schedule does produce very favorable loss costs for metal buildings, these loss costs are subject to state-by-state modifications. These modifications are for two purposes; one, to bring the loss cost levels up to the historic levels for that state and two, to reflect the actual loss experience in that state for each construction class and occupancy code. It is obvious, therefore, that rates or loss costs will vary from state to state even though the evaluation method used is the same.

HOW TO REVIEW INSURANCE RATES OR LOSS COSTS FOR THE CUSTOMER

In discussing insurance rates or loss costs with a prospective customer, you should first suggest to him that you be allowed to contact his Insurance Broker. A well informed Broker would have a letter of record or authority filed with the respective ISO Office or Rating Bureau authorizing him to discuss insurance matters for his Assured with the authority in an effort to maintain rates or loss costs at a minimum.

The ISO Office or Rating Bureau will furnish the Broker with estimated rates or loss costs, applying to any proposed building. The Bureau will also advise as to how such a rate or loss cost could be held at a minimum. If, for any reason, you do not desire to call in the customer's Insurance Broker, you can discuss

the rates or loss costs which would apply to the proposed building with the ISO Office or Bureau. This discussion may only be general in nature unless the customer has authorized the ISO Office or Bureau to discuss the rates or loss costs in detail. In order to obtain this authorization, you must file a "letter of authorization" with the ISO Office or Bureau. Forms for these letters are available through most of the insurance authorities offices. This procedure is followed by all ISO Offices and Rating Bureaus in order to protect the Broker who is currently writing the insurance.

These discussions should, wherever possible, take place during the planning stages of the building.

Insurance Information Check Sheet

To assist in recognizing some of the basic elements included in an insurance rate or loss cost, and to facilitate discussion of insurance rates or loss costs, the MBMA "INSURANCE INFORMATION CHECK SHEET" has been developed (see Appendix for example of this sheet). Prior to discussing insurance rates or loss costs with the customer's insurance agent or insurance broker, or with the ISO Office or Rating Bureau, it would be advisable to complete the MBMA "INSURANCE INFORMATION CHECK SHEET" to cover the building involved. This will assure the availability of necessary information for a meaningful discussion and may also provide guidance as to possible problem areas. In the event comparisons are to be made between a metal building and another type of building, sheets should, of course, be completed on both buildings.

Factors Affecting Schedule Rates Or Loss Costs of Metal Buildings

Metal building rates or loss costs can vary up or down and can even be classified in a different construction type than Class 3, noncombustible, depending upon some of the features you may incorporate into the building. The following are some factors that should be considered.

1. The use of fire resistive (not less than one hour) exterior wall columns and other structural wall frame members results in lower rates or loss costs and makes the building more competitive with masonry noncombustible buildings (Construction Class 4).

MBMA worked closely with Underwriters Laboratories, Inc., and after a series of tests,

obtained one-and two-hour listings for columns typically used in metal buildings. This was a breakthrough in fire protection research as previously, the minimum size column eligible for listing was a W10 by 49. Additional testing resulted in the listing of a one-hour column with "3-sided" protection. The fourth side, adjacent to the exterior wall panel, must be protected only by glass fiber or mineral wool insulation material.

Treatment of such walls varies from jurisdiction to jurisdiction, and individual rulings should be obtained for each project.

2. MBMA has developed and obtained a listing from Underwriters Laboratories, Inc. for fire resistance rated exterior walls. The use of these walls can result in the metal building being reclassified as masonry noncombustible (Construction Class 4) in some jurisdictions and in all cases, result in rates or loss costs that are competitive with Construction Class 4.
3. MBMA has also obtained a one-hour fire resistance rated roof system listing from Underwriters Laboratories, Inc. By combining the fire resistance rated columns described in 1. and the fire resistance rated wall systems described in 2. with the fire resistance rated roof system, the metal building can be reclassified as modified Fire Resistive Classification (Construction Class 5). This combination will result in the lowest possible metal building system rate or loss cost.
4. The use of a combustible insulation material or combustible interior finish material can dramatically affect the rate or loss cost. The Specific Commercial Property Evaluation Schedule defines combustible as wood or other materials which will ignite and burn when subjected to fire including materials with a listed flame spread rating greater than 25.* Some materials such as foam plastics can be classified combustible even though the flame spread is less than 25.*

The effect of the use of such materials can vary from percentage charges under secondary construction to reclassifying the building as Construction Class 1, frame, which carries a substantially higher rate or loss cost.

The use of highly efficient insulating materials (such as foam plastics) to meet energy conservation requirements of building codes resulted in conflicts with the insurance industry as these

materials were unilaterally classified combustible. The Fire Protection and Related Insurance Matters Committee of MBMA actively worked with insulation manufacturers and insurance interests to resolve this conflict.

As a result of this, the Specific Commercial Property Evaluation Schedule has altered the treatment of foam plastic. Foam plastic materials may be eligible for rating as Slow Burning, provided that they have a listed flame spread rating of not greater than 25* and also meet one of the following:

- a. The material is covered by an acceptable thermal barrier consisting of 1/2 inch or more of noncombustible material such as plaster, cement, or gypsum board, or covered by a listed thermal barrier of minimum 15 minute finish rating, or
- b. The material or composite assembly is listed as having passed one of the acceptable wall or ceiling panel tests.

By being eligible for rating as Slow Burning, the building can continue to be classified Construction Class 3, noncombustible. Without this change, if this material was used in the exterior walls, the building would have been Class 1, frame.

5. The installation of automatic sprinkler systems in a property materially reduces the rate or loss cost. It would be well to discuss comparable costs between an unsprinklered fire resistive building and a metal building with an approved system of automatic sprinklers. In this case, it can be pointed out to the customer that the installation of the automatic sprinkler system materially reduces his overall fire risk and minimizes the chances of his being put out of business by a disastrous fire.

Occupancy Factors Affecting Rates Or Loss Costs Applied to Metal Buildings

As previously mentioned, the hazards of the occupancy result in a series of percentage charges applied to the building rate or loss cost. While the hazards are, in many cases, inherent to your customer's business and, therefore, cannot be totally eliminated, the charges assessed to them can be mitigated.

One of the more common ways to mitigate the

* See flame spread definition in the Glossary.

charges is by isolation of the hazards of occupancy by erecting enclosed fire resistance rated rooms within the building to house the hazardous operation or storage. Depending upon the degree of fire resistivity of the enclosure, any charges for the hazardous operation are multiplied by factors of from .5 to .9.

Another method for reducing these charges is the installation of automatic fire extinguishing devices to protect the hazards. These extinguishing systems can result in a reduction of the charge by as much as 50%.

Where occupancy features involve heat producing appliances such as cooking equipment, charges can be kept to minimums by providing the required clearance between the heated surfaces and any combustible materials. The required clearances are outlined in the Specific Commercial Property Evaluation Schedule. Proper clearances are also required for exhaust systems connected with cooking and dust collection refuse removal systems connected with such occupancies as woodworkers.

Percentage charges can be assessed to the occupancy and, therefore, the building rate or loss cost, due to a lack of administrative controls in such things as controlling of smoking in hazardous areas and maintaining proper housekeeping. Percentage charges may also be assessed for other reasons such as defects in the electrical equipment or heating equipment.

Credits for Protection Features Affecting Metal Building Rates Or Loss Costs

The previous two sections talked about some building factors and occupancy factors that can affect the rates or loss costs. Another group of considerations over which your customer does have control are the internal protection systems for which credits are granted in the schedule.

These credits, which are not necessarily accumulative, include the following:

1. Installation of a standard complement of portable fire extinguishing equipment in accordance with NFPA 10 would result in a 3% credit.
2. Installation of a standpipe and fire hose system in accordance with NFPA 14 would result in a 5% credit.
3. Provision of approved portable clock watch service with hourly rounds during all idle hours would result in a 7% credit.

4. Provision of approved proprietary watchman service in accordance with NFPA Standards would produce a 10% credit.
5. Provisions of central station watchman service in accordance with NFPA Standards would produce a 15% credit.
6. Credits from 15% to 25% are applicable when automatic heat, smoke or products of combustion detection systems are installed throughout in accordance with NFPA Standards and connected to an approved central station. The amount of the credit depends upon the grade of the system and the degree the system is in accordance with the applicable standards.
7. Installation of partial automatic sprinkler systems meeting the requirements of NFPA 13 can produce credits of from a minimum of 4% to a maximum of 30% with acceptable water-flow alarms connected to an approved central station or a fire alarm headquarters, or maximum of 25% without such remote alarm service.
8. Credits can also be obtained for installation of a limited supply automatic fire protection system which is defined as other than automatic sprinklers and includes systems such as Halon, CO₂, and high expansion foam. This credit is from 3% to 24%.
9. The installation of a standard automatic sprinkler system can result in credits from 15% to 70% depending on the equipment grading, the building construction class, and the building combustibility class. The determination of the equipment grading is based on such factors as water supply, piping, automatic sprinklers, alarm, valves, maintenance, testing, and extent of unsprinklered areas.

OTHER RELATED INSURANCE COVERAGES

The preceding discussion has dealt exclusively with fire coverages. There are other allied and related insurance coverages of interest to the metal building customer. Two of these are windstorm rates and earthquake rates. The metal building enjoys favorable rates or loss costs in both categories, as compared to other construction.

Windstorm Rates Or Loss Costs

Windstorm rates, which are a part of the group II coverage rates or loss costs, are not based upon the detailed analysis outlined above for fire but are based

upon a general classification of the construction of the building. Group II rates or loss costs are not under a uniform manual but are covered separately by each rating organization and state within their commercial lines manual. Buildings are normally classified as either ordinary, semi-wind resistive, or wind resistive, however, other terms are used by some jurisdictions.

Metal buildings have been classified wind resistive, semi-wind resistive, or ordinary with the ordinary classification being the predominant. Some jurisdictions recognize metal buildings with U.L. 30, 60, and 90 wind uplift roof systems. ISO recognizes U.L. 90 wind uplift roof systems. These classifications result in an improved treatment of the metal building upgrading it to semi-wind resistive by ISO or, in the case of some jurisdictions, wind resistive.

MBMA has also worked with Underwriters Laboratories, Inc. to obtain a generic test for use in qualifying re-roof applications to obtain a U.L. 90 wind uplift rating. When such assemblies are erected, the insurance interests should be made aware of this wind uplift rating.

Earthquake Rates

Insurance coverage is available for the earthquake peril which will reimburse the owner for building and contents damage due to earthquakes. ISO provides Commercial Earthquake Classifications, Rates, and Territories within their Commercial Lines Manual. The country is divided into five earthquake zones with Zone 1 having the highest potential for damage and Zone 5 the lowest potential for damage.

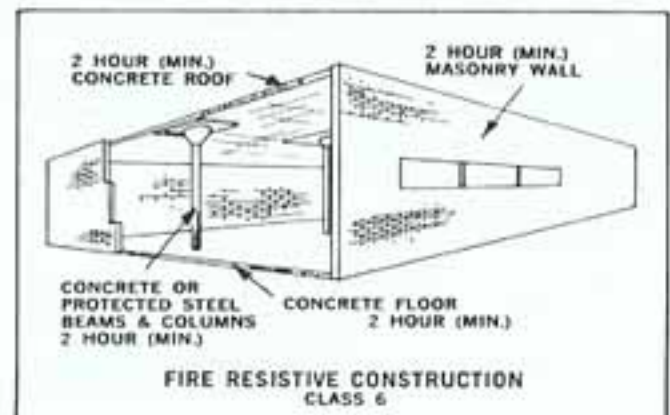
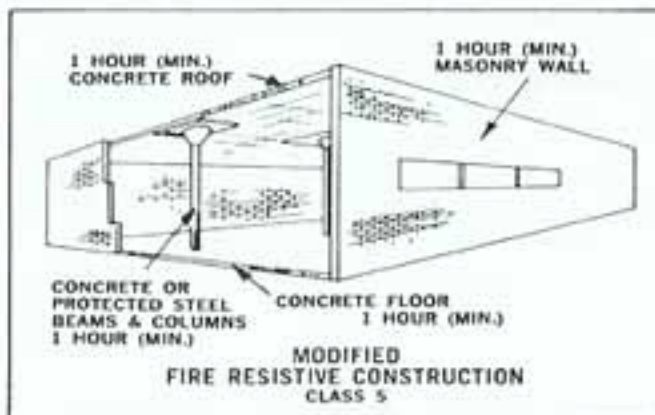
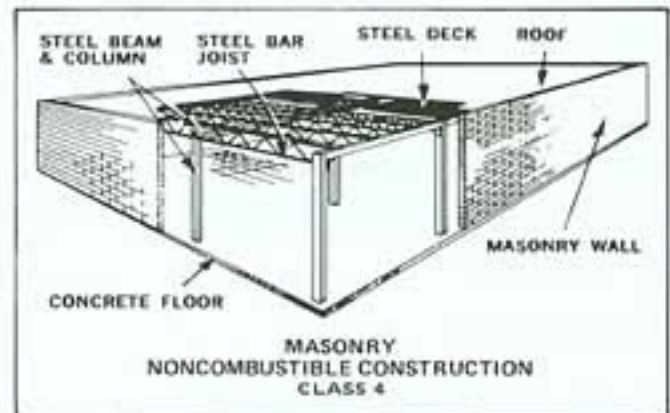
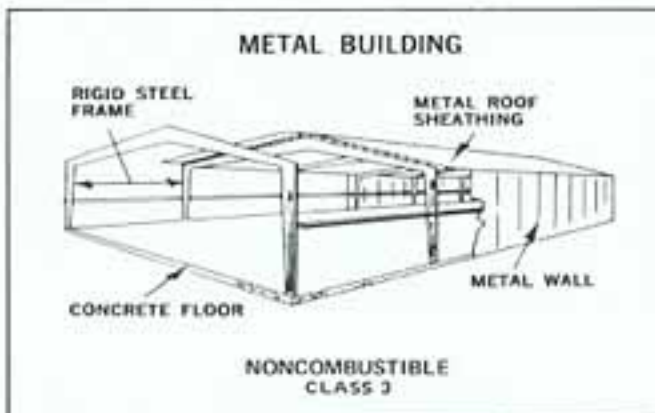
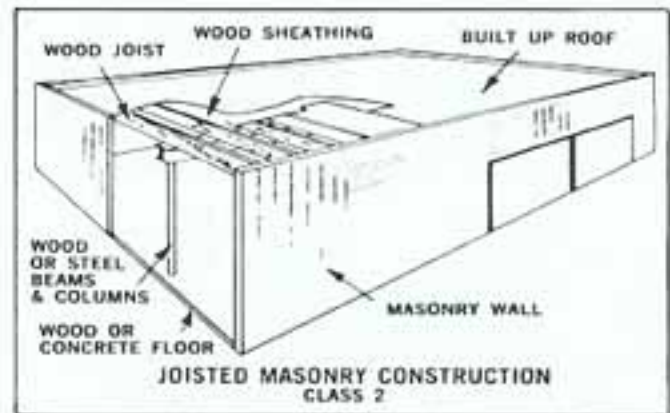
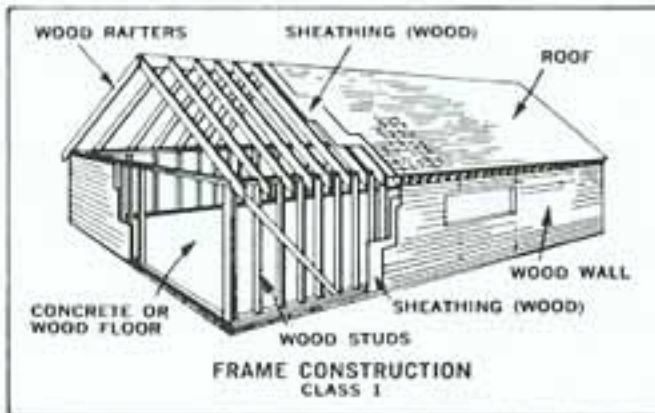
Based on construction type, and in particular, the construction features that make the building more resistant to or more susceptible to earthquake damage, ISO has established fifteen (15) different building classifications. The rates granted metal buildings in the zones most susceptible to earthquake damage are 2 to over 3 times lower than rates provided for steel frame concrete block or pre-cast concrete buildings. This favorable rating for metal buildings is based upon documented good performance in past earthquakes.

CONCLUSIONS

It is easy to realize from the above outlined information that the insurance rating or loss costing problem is quite involved and complicated. The matter of individual interpretation of rules, charges, and credits by the jurisdictions can materially affect the picture. As time goes by, we are hopeful that with the trend towards uniform rating schedules, metal buildings will be receiving the same treatment (but not necessarily the same rates or loss costs) in all jurisdictions. Any gross inequities should continue to be pointed out to the MBMA so that they can be dealt with by the Fire Protection and Related Insurance Matters Committee.

In order that you might effectively counter insurance related claims made by your competitors, you should familiarize yourself with the general aspects of fire insurance. When you encounter specific insurance evaluation problems, you should discuss the problems with the insurance agent or broker or directly with the insurance evaluation organization. If these problems cannot be resolved, they should then be brought to the attention of your building supplier, who can, in turn, inform the MBMA.

APPENDIX



GLOSSARY

BUILDER'S RISK INSURANCE — Insurance against loss to buildings, including machinery and equipment, in the course of construction.

CO-INSURANCE — An arrangement by which the insured agrees to carry an amount of insurance equal to a percentage of the total value of the property insured. In most cases, 80% co-insurance is now mandatory, and reduction in rates are granted for 90% and 100% co-insurance.

ENDORSEMENT — An attachment to an insurance policy to broaden the coverage to include perils other than the specific general coverage. (Where the basic policy is a fire insurance policy, an endorsement would include perils other than fire — for example, see definition of Group II Endorsement.)

GROUP II ENDORSEMENT — An endorsement attached to a fire insurance policy which extends the coverage to include the perils of Windstorm, Hail, Smoke, Riot or Civil Commotion, Damage by Aircraft or Objects Falling from Aircraft, Damage by Motor Vehicles, Sinkhole Collapse and Volcanic Action.

FIRE RATING — A term used indicating the ability of a material to withstand the effects of a specified test fire exposure with temperatures developed in accordance with the ASTM Standard time-temperature curve. These ratings are expressed in terms of hours or minutes (e.g., a two [2] hour protected column or a one [1] hour rated fire door).

(Continued on Page 9)

GLOSSARY

FLAME SPREAD* — The relative rate of propagation of flame over a surface of a material being tested based on ASTM E-84 or U.L. 723 test method. This method establishes an arbitrary rating scale assigning zero to inorganic reinforced cement board and 100 to red oak timber. Other materials are assigned a comparison flame spread rating based on the results of their tests.

INSURANCE AGENT OR BROKER — An individual concerned with placement of insurance coverage with an insurance company.

INSURANCE RISK — A building or its contents, or both, covered by an insurance policy.

LETTER OF RECORD OR AUTHORITY — A letter from

the insured (building owner) to the Rating Bureau or ISO authorizing the Bureau or ISO to discuss his insurance rates or loss costs with a particular individual (usually an Insurance Agent or Broker).

RATE OR LOSS COST — Cost of insurance, usually expressed in dollars per \$100 of insurance coverage.

EVALUATION SCHEDULE — A collection of basic rates or loss costs, charges, and credits used in arriving at an insurance rate or loss cost.

* This numerical flame spread rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

OCCUPANCY INFLUENCES INSURANCE RATES



EXAMPLES OF THE EFFECT OF CO-INSURANCE

Example A — Where insurance is carried to the amount of 80% of value or more.

Value of property	\$10,000
Insurance required by 80%	
Co-insurance clause	8,000
Insurance carried	8,000
Amount of loss suffered	4,000
Amount of loss paid by insurance company	4,000

Example B — When the loss equals or exceeds 80% of value no matter what the insurance is.

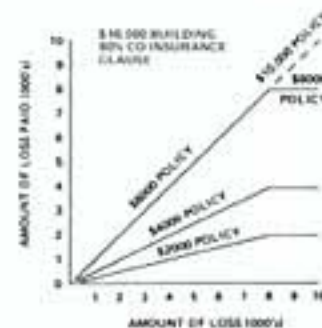
Value of property	\$10,000
Insurance required by 80%	
Co-insurance clause	8,000
Insurance carried (6/8 of requirement)	6,000
Amount of loss suffered	8,000
Amount of loss paid by insurance company	6,000

Example C — When the loss and amount of insurance fall below 80% of the value.

Value of property	\$10,000
Insurance required by 80%	
Co-insurance clause	8,000
Insurance carried (7/8 of requirement)	7,000
Amount of loss suffered	5,000
Amount of loss paid by insurance company (7/8 of 5,000)	4,375
Amount of loss paid by policyholder (1/8 of 5,000)	625

This relationship can be expressed by the formula

$$\frac{\text{Insurance carried}}{\text{Insurance required}} \times \text{loss} = \text{insurance company's proportion of loss, limited to the amount of the loss.}$$





INSURANCE INFORMATION CHECK SHEET

From time to time problems arise with regard to either the fire or theft insurance rates or loss costs applying to buildings. In some cases these problems are related to rates or loss costs on a metal building whereas in other instances the problems arise in comparing rates or loss costs on a metal building with a building of another type of construction. In order to provide intelligent help and guidance, the attached Insurance Information Check Sheet has been devised.

To help assist individuals or companies involved in any possible insurance problem areas, it is intended that a Check Sheet be filled out on the buildings in question. Where problems arise, they may be in comparing the rates or loss costs on a metal building with another building of a different class of construction or possibly a different location. In these cases a Check Sheet will be necessary on each building involved. It is intended that these Check Sheets be used as a communication tool in discussing insurance rates or loss costs with insurance agents or brokers, with city offices or with state rating bureaus. When a satisfactory answer cannot be obtained, the Check Sheet with all pertinent comments, should be forwarded to the manufacturer for review. When the manufacturer feels an industry-wide problem is involved, he will refer the matter to the MBMA Committee on Fire Protection and Related Insurance Matters. If, on the other hand, an individual problem is involved, the Insurance Committee will not be contacted.

LOCATION: _____ City: _____ State: _____
 _____ (Street Address)
 OWNER: _____

 TENANT: _____

Reproduction of 4-Page,
8½" x 11" Check Sheet

5. **CEILING**
 (1) Remastered ceiling _____
 (2) Heavy ceiling _____
 Remarks _____
 (3) Ceiling _____ (material)
 (1) Remastered ceiling _____
 Remarks _____
 6. **HEAT** (How building heating system, e.g., gas fired ceiling unit heaters would be indicated as gas-fired and a note could be written after this portion - unit heaters.)
 Heat _____ (1) Oil _____ (2) Gas _____ (3) Other _____
 Hot water _____ (1) Hot air _____ (2) Steam _____ (3) None _____

B. OCCUPANCY

1. (Description of the basic use of the building)
 OFFICE _____ (1) WAREHOUSE _____ (2) for storage of _____
 FACTORY _____ (1) manufacturing _____
 SALES _____ (1) merchandising _____
 OTHER _____
 2. (Size of flammable liquids which might be of a hazardous nature, indicate quantities and storage facilities if possible)
 Any use of flammable liquids - Yes _____ (1) No _____ (2)
 Describe _____

C. PROTECTION

1. **AUTOMATIC FIRE ALARM SYSTEM** (Manual fire alarm systems consisting of pull boxes only are not to be considered.)
 None _____ (1)
 Connected to local fire department _____ (2)
 (Name of alarm company) _____
 Connected to Central Station _____ (3)
 (Name of alarm company) _____
 Name of Central Station (if different from alarm company) _____

A. CONSTRUCTION

1. **HEIGHT** (This is to be measured to the high point of the building.)
 _____ stories, with _____ (1) without _____ (2) basement
 Height in feet _____
 2. **AREA** (If more than one floor is involved, the square foot area of each individual floor should be noted along with total area.)
 _____ sq. ft. 1st floor _____ sq. ft. basement
 _____ sq. ft. 1st floor _____ sq. ft. basement
 3. **FLOOR CONSTRUCTION** (This is basic floor construction, e.g., a concrete floor with wood or tile overlay would class as concrete.)
 Concrete _____ (1) Wood _____ (2) Earth _____ (3) Other _____
 4. **ROOF CONSTRUCTION**
 (1) **Roof Covering**
 Wood shingle _____ (1) Tar and gravel _____ (2) Composition _____ (3) No roof covering _____ (4)
 Other _____
 (2) **Basic Roof Deck Construction**
 Concrete _____ (1) Steel deck _____ (2) Wood deck _____ (3) Other _____
 (3) **Roof Supports**
 Building Walls _____ (1) Steel bar joist of steel beams and joists _____ (2) Wood joist, beam and columns _____ (3) Other _____
 (4) **Wind Uplift Rating (if any)**
 U.L. rated for wind uplift - Yes _____ (1) No _____ (2) Rating _____
 Certified for wind loading of _____ by registered engineer or state in which building is erected - Yes _____ (1) No _____ (2)
 5. **WALL CONSTRUCTION** (Where exterior wall construction Where a masonry construction such as 8" cement block - 4" brick face is used, this should be so indicated. Where walls are masonry open walls with metal or glass doors, or other construction which is not specifically indicated below they should be described in detail under the caption "Other". Where walls are of mixed construction, the percentage of the perimeter of each should be indicated.)
 (1) Wood _____ (2) Masonry _____ (3) Brick _____ (4) Block _____ (5) Tile _____ (6) Combination _____ (7) Other _____
 (2) The engineered metal wall system _____ (3) Composite assembly _____ (4) Padded full scale corner fast test _____ (5) Padded exterior from the test _____
 6. **INTERIOR FINISH** (Description of structural sheathing, ceiling tile and insulation material. The U.L. Remastered rating should be provided whenever this information is available. Where U.L. hourly rated ceiling or wall assemblies are used, this should also be noted.)
 (1) Walls or Partitions - _____ (material)

2. AUTOMATIC SPRINKLER SYSTEM

None _____ (1)
 Throughout building _____ (2)
 Covers _____ % of building area
 3. **FIRE EXTINGUISHERS** (If actual number and type is not known, indicate either "assumed adequate" or "assumed inadequate")
 None provided _____ (1)
 Number and type installed _____

4. FIRE DEPARTMENT

(a) Field _____ (1) Volunteer _____ (2) None _____ (3)
 (b) Town Protection Grading
 (The RFP, AIA or rating bureau protection grading may be attached either directly from the state rating bureau, or in some cases from a local insurance agent or broker.)

D. EXPOSURE

(This refers to buildings facing or adjoining the structure being reported on. The distance is the distance in feet from the nearest portion of the building being reported on the exposed building. It is important to indicate whether or not there are windows or door openings in the wall of the exposed building facing the building being reported on. Any unusual features such as gutter yards, oil tanks, gasoline tanks, etc., should be covered under "Comments".)

	NEAREST ADJACENT BUILDING INFORMATION			
	DISTANCE (FT.)	WALL CONSTRUCTION (Material & with or without openings)	OCCUPANCY	SPRINKLERED OR UNSPRINKLERED
NORTH				
SOUTH				
EAST				
WEST				

COMMENTS: _____

E. REMARKS

Proposed insurance carrier - Stock _____ (1) Mutual _____ (2) Other _____
 Any approximate rates or presently published rates - Building _____ Comments _____
 Extended Coverage _____

RATING OR EVALUATION ORGANIZATIONS
ISO OFFICES
Offices To Contact

Insurance Services Office, Inc.
111 North Canal Street
Suite 950
Chicago, IL 60606-7270
1-800-444-4554

Texas Only

Insurance Services Office, Inc.
3000 South Interstate 35
Austin, TX 78704-6536
1-800-444-4554

Insurance Services Office, Inc.
4B Eves Drive
Suite 100
Marlton, NJ 08053-3112
1-800-444-4554

Puerto Rico Only

Insurance Services Office, Inc.
331 Recinto Sur Street
San Juan, PR 00901-1920
1-800-444-4554

ISO FIELD OFFICES

Insurance Services Office, Inc.
2525 Cabot Drive – Suite 105
Lisle, IL 60352

Insurance Services Office, Inc.
Quakerbridge Executive Center – Suite 101
Trenton, NJ 08648

Insurance Services Office, Inc.
17300 Dallas Parkway – Suite 3150
Dallas, TX 75248-1157

Insurance Services Office, Inc.
400 Crown Colony Drive – Suite 201
Quincy, MA 02169

Insurance Services Office, Inc.
3100 Breckinridge Blvd. – Suite 700
Duluth, GA 30136-4985

Insurance Services Office, Inc.
450 Sansome Street – Suite 1500
San Francisco, CA 94111

Universal Customer Service Number
1-800-888-4476

