

Insurance Services Offices Inc.

www.iso.com
www.isomitigation.com

Fire is the largest single cause of property loss in the United States. In the last decade, fire has caused direct losses of more than \$120 billion and countless billions more in related cost. But that is not all. Ever year, fires injure more than 20,000 people and more than 3,000 Americans die in building fires. In 2002 there were 97 firefighter fatalities and 37,860 fire ground injuries.

A community committed to saving lives and property needs trained firefighters, proper equipment, and adequate supplies of water. Insurance companies consider it good public policy – and good business – to promote and encourage the efforts of individual communities to improve their fire-protection services. That’s why, for almost a century, U.S. property insurance companies have funded key initiatives aimed at fire prevention and fire mitigation.

In the battle against fire losses, one of the insurance industry’s most important weapons is the Public Protection Classification (PPC) program from ISO.

The PPC program provides important, up-to-date information about municipal fire protection services throughout the country. A community’s investment in fire mitigation is a proven and reliable predictor of future fire losses. So insurance companies use PPC information to help establish fair premiums for fire insurance – generally offering lower premiums in communities with better protection.

By offering economic benefits for communities that invest in their firefighting services, the PPC program provides a real incentive for improving and maintaining public fire protection. And that incentive produces results.

The program also provides help for fire department and other public officials as they plan for budget, and justify improvements.

But the most significant benefit of the PPC program is its effect on losses. Statistical data on insurance losses bears out the relationship between excellent fire protection – as measured by the PPC program – and low fire losses.

And in a recent survey of fire chiefs, 97% of the respondents said that the PPC program is important in helping the community save lives and property.

ISO is an independent organization that serves insurance companies, fire departments, insurance regulators, and others by providing information about risk. ISO's expert staff collects information about municipal fire-protection efforts in communities throughout the United States. In each of those communities, ISO analyzes the relevant data and assigns a Public Protection Classification – a number from 1-10. Class 1 represents exemplary fire protection, and Class 10 indicates that the area's fire-suppression program does not meet ISO's minimum criteria.

Virtually all U.S. insurers of homes and business property use ISO's Public Protection Classification in calculating premiums. In general, the price of fire insurance in a community with a good PPC is substantially lower than in a community with a poor PPC, assuming all other factors are equal.

A COMMUNITY'S PPC DEPENDS ON:

- Fire alarm and communications systems, including telephone systems, telephone line, staffing, and dispatching systems.
- The fire department, including equipment, staffing, training, and geographic distribution of fire companies.
- The water supply system, including condition and maintenance of hydrants, and a careful evaluation of the amount of available water compared with the amount needed to suppress fires.

ISO's PPC program evaluates communities according to a uniform set of criteria, incorporating nationally recognized standards developed by the National Protection Association and the American Water Works Association. So, the PPC program provides a useful benchmark that helps fire departments and other public officials measure the effectiveness of their efforts – and plan for improvements.

On average, communities with superior fire protection services – and therefore good Public Protection Classifications – have lower fire losses than communities whose fire-protection services are not as comprehensive.

ISO reviewed the cost of the fire claims per thousand dollars worth of insured property by PPC for communities around the country. A study based on five years of data for homeowners and commercial property

insurance – show that the communities with better classifications experienced noticeably lower fire losses than the communities with poorer classifications.

The dollar value of a better PPC varies by state. But on average across the country, the cost of fire losses for homeowner's policies in communities graded Class 9 is 65 percent higher than in communities graded 5. If a community improved from class 9 to class 5, homeowners could expect their premiums for fire insurance to drop substantially.

A survey, based on telephone interviews with a sample of 501 fire chiefs and other fire department officials from across the country, reveals that the PPC program plays an important part in most communities' decisions on their fire-protection services.

Ninety-two percent of the fire chiefs and other officials interviewed said that in planning for, budgeting, or justifying improvements or changes in their communities' public fire protection, the effect of such changes on the PPC is very or somewhat important.

Fifty-nine percent of the fire chiefs and other officials reported that, in the last five years, they have used ISO's PPC program in planning for, budgeting, or justifying improvements or changes in their communities' public fire protection. And 69 percent said they plan to use the PPC program that way in the next three years.

THE FIRE CHIEFS AND OFFICIALS SAID THEY HAD USED THE PPC PROGRAM:

- For planning or other economic purposes
- As a guide for making improvements in their community fire services
for justifying expenditures and improvements
- In building a new fire station or to help determine the location of a new station
- In buying or upgrading equipment
- In increasing staff or training of staff.

If a fire district improves its PPC, homeowners and businesses in the community often save money on their insurance premiums. If property owners spend their savings in the community, the extra cash can help improve the local economy. And community with improved fire protection may find it easier to attract new business, increasing jobs and boosting the economy even more.

In 2000, the Rural Fire Protection Work Group, a committee appointed by Arkansas Governor Mike Huckabee, quantified the economic

benefits of improved fire protection for the state. The work group considered a series of measures designed to improve the Public Protection Classifications of rural Arkansas communities. In its final report, submitted to Governor Huckabee in August 2000, the work group estimated the statewide cost of those projects at about \$150 million – or \$15 million a year for 10 years.

Next, the work group projected the reduction in property insurance premiums when each of 839 rural fire departments has improved its PPC to Class 7. According to that analysis, the statewide savings would total more than \$100 million per year. More than 425,000 homeowners would share the benefits, with an average annual savings of \$235 per household.

The Arkansas work group projected increased economic activity at more than \$2 billion over a period of 13 years. According to the work group's analysis, that economic activity would generate additional state and local sales-tax revenue more than offsetting the cost of improvements.

You might think that insurance companies could use loss statistics from a particular community to determine the effectiveness of the community's public fire protection. But past statistics don't reflect recent improvements. If a community upgrades its fire protection today, the loss statistics insurer's use in determining premiums will not reflect the full value of the improvements for many years. That's why insurers rely on ISO to provide an objective evaluation of the current capabilities of communities all over the country.

And that's why ISO has an aggressive outreach program to identify changes that may affect a community's PPC or the insurance premiums of individual homeowners and businesses. ISO works with fire departments, state agencies, state and local fire associations, and insurers to gather information about such changes.

Under ISO's program, more than 16,000 fire districts have provided up-to-date information about changes in fire-districts boundaries, automatic-aid agreements, fire station locations, and access to water. ISO uses that information in scheduling visits to communities to reevaluate their firefighting capabilities.

More than half the communities ISO reevaluates in any year receive better Public Protection classifications. Only about 2% receive worse classifications. So it pays for a community to let ISO know about any change that may affect the PPC. As an added service, ISO staff members routinely review with local fire officials the factors that went into

a PPC grading. ISO provides that service at no charge to the community, and ISO staff can also advise community officials about how particular investments or other efforts may improve the grade.

For more information on the PPC program – and on ISO's community outreach efforts- fire officials and others can visit ISO's special public protection website, ISO Mitigation Online, at www.isomitigation.com.

The PPC accurately measures the quality of public fire protection. Better fire protection as measured by the PPC program leads to lower fire loss and it is an incentive for communities to improve the quality of their fire protection. By having a lower PPC rating, the entire community can benefit economically.

The Insurance Services Offices Inc. began rating Texas cities commercial structures in 1988 and residential structures in 1994 and they determine the insurance Public Protection Classification (PPC) and the Outside Protection Classification (OPA) for all businesses, multi-family, and residential dwellings. The State Board of Insurance is the regulating authority over ISO. Prior to 1994 we were graded under the Key Rate and Fire Prevention Bureau. The rating is grading the cities fire department (50%), water department (40%), dispatch (10%), and the Texas Addendum which was (5%) is now (6.5%). The Texas Addendum covers the Fire Department, Fire Marshal Department, and Building Inspection Department.

The City of Rockwall was graded in 1988 and received a class 6 PPC. In 1992 we filed the Texas addendum and we were lowered to a class 5 PPC. In March 2003 we were re-graded and the city public protection classification rating was determine will be lowered to a class 3 PPC effective July 01, 2004. Of the PPC rating, 10 is the worst and 1 is the best PPC rating.

During the grading we had several deficiencies. We are required to have 3,750 gallons per minute pumping capacity, which means four pumper trucks and two reserve pumper trucks. Due to the number of three story buildings and number of buildings with a needed fire flow of greater than 4,500 gallons per minute, we are required to have two ladder companies. Other requirements include the addition of fire station # 3 immediately and # 4 by the end of 2003, proper pre-planning of all existing businesses, replacement of the radio system and providing monitoring for integrity, maintaining three dispatchers on duty twenty-four hours a day, inspection and maintenance of fire hydrants on a semi-annual basis, adopting the most recent fire and building codes, increase of training to 20 hours a month for all personnel, and building a training facility which

will consist of a four story burn structure, drill tower, flammable liquid pit, drafting pit, driving course, training room. Also required are on duty personnel so that at least one is on duty at each station twenty-four hours a day of a minimum, and an increase in personnel to 24 on duty twenty-four hours a day for total maximum credit.

Under the I. S. O. rating schedule, the Fire Department would be required to have the following manpower to get full credit and not be penalized for volunteers. Each engine company would have to be staffed with 4 men under the new NFPA staffing requirements. This would give us one captain, one driver and 2 fire fighters for each required pumper. The ladder company would be staffed with 4 men. This would give us one captain, one driver, and two firefighters for the required aerial devices. We would also be required to have at least one chief for each structure fire response. This means we would need 24 men per shift. When considering a firefighter vacation, sick time and continuing education time, you would lose 2 men on each shift. Technically, this means you would only have 22 men on duty most of the time during a shift. When you add time off and working 24/48 hour shifts, the City would have to hire 72 men plus 6 men to fill in for sick time, vacation time, and continuing education time. This means you would need to have 18 captains, 18 drivers 36 firefighters and the fill in personnel would consist of 1 captain, 1 driver, four firefighters. The other staff would be chief, training lieutenant, administrative assistant, secretary, maintenance person, fire marshal, two fire inspectors / investigators. The total cost to the City taxpayers would be approximately \$6,515,809.00 per year. The current cost to the taxpayers for a volunteer department with the current paid staff is \$1,007,650.00. The savings for having a volunteer department is \$5,508,159.00 which equates to \$0. 27.4 cents per hundred dollars at today's assessed tax values.

Because of the staffing requirements and costs, Rockwall will always need volunteers. If you had a full paid department, you would still have to maintain volunteers because the only mutual aid available to Rockwall is Fate, Heath, McClendon Chisholm, and Royse City which are volunteer departments and it is uncertain how many men would be available during the day. Currently Rockwall and Royse City are under an automatic aid agreement with Fate, Heath, and McClendon Chisholm to respond to structure fires because of the shortage of manpower during the day within their cities. With the size of homes and businesses in Rockwall, a minimum of 24 men are needed to handle structure fires because of the mutual aid problem.

How we compare to other cities? Listed below are other cities I. S.O. rating as of October 1, 2003:

Plano 1

Dallas 2

Farmers Branch 3

Arlington 3	McKinney 4	Forney 5/9
Irving 2	Ennis 4	Balch Springs 6
Garland 2	Grapevine 4	Heath 5/9
Richardson 2	Allen 2	Mc Clendon Chisolm 7/9
Rowlett 3	Frisco 1	Royse City 5/9
Mesquite 3	Terrell 5	Fate 6/9
Ft. Worth 3	Wylie 1/9	
Grand Prairie 4	Sachse 6/9	

With the new PPC rating for the City of Rockwall we encourage homeowners to check with their insurance carrier as to when their insurance policy can have the new class 3 PPC rating applied. The savings can range from \$56.00 to \$300.00 per year. The factors are based on the type construction of your home, age of your home, and who your insurance is with. If you have any questions or need a copy of the letter from Texas Department of Insurance showing the PPC rating and effective date please contact Mark Poindexter, Fire Chief at 972-771-7770.

Listed below are definitions related to ISO.

Compressed Foam System - This is a system that mixes Class A foam and water under pressure and it is delivered through a nozzle at high pressure. This system uses a small amount of water/foam volume to extinguish a fire more quickly.

Phone Listings - The phone listing shall have the emergency listing on the first page. It must have a listing under the heading "Fire Department" (1)"To report fire call 911" (2) "For all other purposes"- "business number". It must also have a listing under the heading "City of Rockwall" (1)"To report fire call 911" (2) "For all other purposes". Do not list station numbers.

Single Company Drills – Each required engine company and ladder company along with the personnel that staffs the engine and ladder company must have eight training sessions per year and the drill must be three hours long per drill.

Multi Company Drills – Each required engine company and ladder company along with the personnel that staffs the engine/ladder companies must have four joint training sessions per year and the drill must be three hours long per drill.

Night Drills – Of the single company and multi-company drills, you must have two training sessions per year, which must be completed at night and these drills must be three hours long each.

Company Training – Each firefighter must complete twenty hours of training per month at the station.

Officer Training – Officers within the department must have two days of training per year.

Driver/Operator Training – Each driver/operator must have four half day training session each year.

Radioactivity Training – Each member must receive one half day training session each year.

Recruit Training – Each recruit must receive 240 hours of training.

Fire Pre-Planning – Each building must have a pre-plan and it must be updated twice a year. The pre-plans must be studied by the firefighters twice a year.

Supervision Dispatch Circuits / Monitoring for Integrity – This means that all communication equipment must be able to notify dispatchers if any part of the system fails prior to using the equipment. This also includes the back up communication equipment.

Fire Hydrant Test – Fire hydrant testing has several inspection items that must be completed and documented twice a year. They include large outlet (steamer) facing the street, all outlets 12” to 18” off the ground, checking for obstructions around hydrants within 36”, checking for standing water in barrels, checking for leaks in the packing/seals, checking caps and gaskets, flushing drain holes, testing isolation valves, flushing to remove foreign materials, inspecting threads, lubricating threads/stem/nut, and flow testing for pressure and volume.

Service Company – This is a rescue type vehicle which carries the same equipment as a ladder company with a few exceptions. The exceptions are the service company is not required to have the elevated ladder, elevated master stream device, pump, water tank and the complement of ground ladders.

Texas Addendum - The Texas Addendum grades several different areas. They include fire prevention code, enforcement of the fire code, number of fire inspectors, type of certifications the fire inspector holds, amount of yearly training the fire inspectors receives, number of fire inspections completed over last three years, and the number of follow up fire inspections. Also covered are the number of non-residential structures within the city, number of certificate of occupancy fire inspections completed, record keeping of fire inspections, percentage of plan review under the fire code, what type of ordinance governs fire lanes/ fire works/ wooden shingle roofs/weed and trash/ hazardous material routes, as well as fire investigation ordinances. In addition the number of fire investigators, investigator’s certification levels, amount of training for investigators, number of structure fires over the past three years, number of investigations over the past three years, number of incendiary fires over the past three years, number of criminal prosecutions over last three years, and number of convictions over the past three years are included. The number of fire safety prevention personnel, training and certifications of fire prevention personnel, and the issues of whether personnel are trained in Methods of Teaching, receive 40 hours of continuing education per year, are also addressed. The percentage of residential fire safety programs taught, percentage of at risk neighborhoods which receive fire prevention training, presence of an active Juvenile Fire Setter Program, percentage of juveniles referred to counseling, percentage of fire safety taught to kindergarten through high school, and percentage of fire safety taught to private schools are also addressed. The latest codes adopted by fire and building departments, ordinances in effect for non-residential and residential fire sprinkler systems, ordinances governing the household fire warning equipment, ordinance adopted to regulate zoning issues are addressed. The number of building inspectors, type of certifications held by inspectors, amount of continuing education inspectors receive, the number of inspections performed

over the last three years and what the inspections included are outlined. The issue of whether building permits are required and all buildings receive a plan review, as well as the records kept on each project are reviewed. The availability of brochures for the public on procedures of constructing a project, and seminars for local builders/architects on code regulations provided by the building department are addressed. The status of whether the fire department has a compressed air foam system on one of the front line pumper trucks, the size & capacity of CFS, and whether all the firemen attend Texas A & M fire school at least once every three years is included and finally, what are the totals for volunteers who are certified firefighters, and the number who are paid firemen.