TEXAS ADDENDUM TO THE FIRE SUPPRESSION RATING SCHEDULE

ADOPTED AMENDMENTS BY THE TEXAS DEPARTMENT OF INSURANCE EFFECTIVE ON AND AFTER January 2004

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PREFACE

The Schedule to be used for rating a jurisdiction's municipal fire protection in Texas consists of four documents. The foundation document is the 1980 Edition of the Fire Suppression Rating Schedule (FSRS), developed by the Insurance Services Office. This copyrighted document is published by and available from Insurance Services Office (ISO), 7 World Trade Center, New York, New York 10048.

The second document, which is enclosed, is the Texas Addendum to the FSRS. This addendum gives credit for fire prevention, fire investigation, public education, construction code enforcement, and compressed air foam system. Like the FSRS, the Texas Addendum is intended to be a set of "ideal" standards rather than "minimum" standards. The total value of the Texas Addendum will be added to the credit obtained from the FSRS. Prorated credits in the Texas Addendum will be rounded to the nearest 1/10%.

The third and fourth documents, also enclosed, are the Texas Supplements to the FSRS. The third details how credit will be given for volunteer firefighter certification and attendance at Firemen's Training School at Texas A&M University. The fourth indicates where the addendum credit will be applied to the FSRS.

TEXAS ADDENDUM TO THE FSRS

TX-A. FIRE PREVENTION CODE ENFORCEMENT (FPCE), up to…….30%

1. Regulations, up to 10%

For the adoption and maintenance of one of the following model codes:

NFPA 1, *Fire Prevention Code*
BOCA, *National Fire Prevention Code*
ICBO, *Uniform Fire Code*
SBCCI, *Standard Fire Prevention Code*

a. Current Model Code Edition, up to.....8%

- Adoption of the current code will be valued highest, older editions progressively less, and editions more than three publications old will receive no value. A period of one year is allowed from date of publication until adoption to review and amend the appropriate codes and still receive full credit. The credit for current code edition will be prorated as follows:

  Within one year of the most recent edition. (8%)

  Second most recent edition. (6%)

  Third most recent edition. (4%)

  Older. (0%)

b. Past Model Code Editions, up to.....2%

- If model codes were adopted prior to 1960. (2%)

  OR

- If model codes were adopted after 1960 but before 1980. (1%)

2. Personnel, up to 10%

a. Quantity, up to.....5%

- Activity Based Method

  If accurate work load measurements can be substantiated, needed staff may be adjusted as required to handle documented work load. Adequate personnel should be maintained so that all nonresidential structures are inspected on an annual basis. A factor representing the difficulty of a typical inspection will be estimated and adjusted by the ratio of the Basic Fire Flow and 3,500 GPM (the Maximum Basic Fire Flow, "MBFF"). If the Basic Fire Flow is unknown, use 3,500 GPM until one is established. The number of Fire Prevention Inspection Personnel (#FPI) may be calculated according to the following equation:

$$\#FPI = \frac{\text{Basic Fire Flow}}{\text{3,500 "MBFF"}} \times \frac{\text{\# of nonresidential structures}}{\text{480 D.O.I.A.}}$$

To maintain the quality of inspections, the average Daily Original Inspection Activity (D.O.I.A.) should not exceed 2 inspections per day for each inspector for calculation purposes only. D.O.I.A. is based on inspections of entire structures and may include multiple occupancies. Follow-up and code enforcement procedures are not considered as original inspections for this calculation.

D.O.I.A. = 480 inspections
or
= 2 insp./day x 20 days/month x 12 months/year

In-service inspections performed by fire suppression personnel will be considered as fire prevention inspections if they are performed under the supervision of a certified fire inspector. The certified fire inspectors must enforce code violations reported by fire suppression personnel. Pre-fire planning inspections are not considered as an in-service inspection.

An in-service inspection program reduces the required number of full-time fire prevention inspection personnel according to the following ratio:

$$\frac{\text{The \# of in-service inspections}}{\text{The total \# of inspections}} \times \text{\#FPI (based on activity)}$$

Note: The number of full-time fire prevention inspection personnel will not be reduced more than 50%.

- Population Based Method (Use population based method only if accurate records are not available to verify the activity based method).

  Fire prevention inspection personnel for jurisdictions with less than 5,000 population may be volunteer or paid. Fire prevention inspections may be performed by personnel with other responsibilities.

  Jurisdictions with population greater than 5,000 must employ at least one full-time paid fire prevention inspector.

  One additional full-time, or equivalent, fire prevention inspector is required to be employed for each additional 20,000 population above the initial 5,000 population requirement.

- The credit for needed fire prevention inspection personnel may be calculated according to the following ratio:

$$\frac{\text{Total \# of existing fire prevention inspectors}}{\text{Total \# of fire prevention inspectors needed}} \times 5\%$$

b. Qualifications and Certification, up to.....3%

- All full or part-time paid personnel assigned to perform fire prevention inspections must be certified, or capable of being certified within one year, as Fire Inspector through the Texas Commission on Fire Protection.
- All volunteers appointed to perform fire prevention inspections should be certified, or capable of being certified within one year from date of appointment, as a Volunteer Fire Inspector through the Texas Commission on Fire Protection or as a Volunteer Fire Prevention Specialist through the State Firemen's and Fire Marshals' Association. If this exceeds one year, credit will be prorated based on the current amount of recognized training completed.
- The credit for qualifications and certification will be prorated according to the following ratio:

$$\frac{\text{Total \# of existing certified inspectors}}{\text{Total \# of existing inspectors}} \times 3\%$$

Note: In-service suppression personnel that perform fire prevention inspections will not be considered in this ratio.

c. Ongoing Training, up to 2%

- All fire prevention inspection personnel, both paid and volunteer, should receive at least 40 hours of additional fire prevention inspection training every year.
- The credit for additional training (averaged over the past 3 years) will be prorated according to the following ratio:

$$\frac{\text{The average \# of hours of fire prevention training}}{\text{Total \# of fire prevention inspectors}} \times 2\%$$

Note: In-service personnel that perform fire prevention inspections will not be considered in this ratio.

3. Enforcement and Inspection Activity, up to 10%

a. Plan Review, up to 2%

- All construction plans for new nonresidential construction, additions, remodeling, etc., must be reviewed for compliance with adopted codes.

b. Certificate of Occupancy Inspections, up to.....1%

- A fire prevention inspection must be made of all new residential construction prior to issue of the Certificate of Occupancy. (0.5%)

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- A fire prevention inspection must be made of all new nonresidential construction prior to issue of the Certificate of Occupancy. (0.5%)

- Certificate of occupancy (or certificates of compliance) inspections must be made as specified by the code in effect.

c. Fire Prevention Inspection Frequency and Record Keeping, up to 3%

- Fire prevention inspection frequency will account for 2% of this credit. Fire prevention inspection frequency will be based on inspections performed during the previous year. A thorough fire prevention inspection of all nonresidential structures should be performed at least once a year. Hazardous properties and properties with high loss-of-life potential should be inspected more frequently.

  The average Daily Original Inspection Activity (D.O.I.A.) should not exceed 2 inspections per day for each inspector. D.O.I.A. is based on inspections of entire structures and may include multiple occupancies.

  D.O.I.A. = 480 inspections
  or
  = 2 insp./day x 20 days/month x 12 months/year

  In-service inspections performed by fire suppression personnel will be considered as fire prevention inspections if they are performed under the supervision of a certified fire inspector. The certified fire inspectors must enforce code violations reported by fire suppression personnel.

- Record keeping will account for 1% of this credit. Records of all fire prevention inspections must be used to document and track activity. These efforts are needed to substantiate the adequacy of the community's fire prevention code enforcement program.

d. Quality Control of Enforcement and Inspection Programs, up to.....1%

- Fire prevention enforcement and inspection programs must be carried out in an organized fashion. Follow-up inspections must be made on all violations to verify compliance.

e. Inspections of Private Fire Protection Equipment, up to.....1%

- All private fire protection equipment must be inspected on a routine basis. The frequency of these inspections is dependent on the type of equipment according to the adopted codes.

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f. Enforcement of Fire Prevention Ordinances, up to.....1%

- Ordinances governing fire lanes, fireworks, wood shingle roofs,

hazardous material routes, and weeds & trash shall be adopted and enforced.

g. Coordination with Fire Department Training and Preplanning Programs, up to.....1%

- Fire prevention activities must follow a defined procedure to share information and coordinate with training and preplanning programs.

TX-B. FIRE INVESTIGATIONS (FI), up to……10%

1. Organization and Staffing, up to..... 4%

a. Organization, up to.....2%

- There must be an office within the civil jurisdiction with responsibility to conduct fire cause investigations. The office performing fire cause investigations must have authority established by a well-defined ordinance adopted by the civil jurisdiction. (1%)
- All structure fires must receive a cause and origin investigation. Of the structure fires considered incendiary (averaged over the past 3 years), at least 25% should be referred for criminal prosecution by the civil jurisdiction. The civil jurisdiction must have an established record of successful prosecution of these cases. If the rated jurisdiction is not incorporated, or if there is no legal authority to investigate cases, the frequency of use of the State Fire Marshal's Office to investigate suspicious fires will be considered. (1%)

b. Personnel, up to.....2%

- Fire investigation personnel for jurisdictions with less than 5,000 population may be volunteer or paid. Fire investigation responsibilities in these jurisdictions may be performed by personnel with other responsibilities.
- Jurisdictions with population greater than 5,000 must employ at least one full-time, or equivalent, paid fire investigator.
- One additional full-time, or equivalent, fire investigator is required to be employed for each additional 40,000 population above the initial 5,000 population requirement.
- The credit for needed fire investigation personnel will be prorated according to the following ratio:

$$\frac{\text{Total \# of existing fire investigators}}{\text{Total \# of fire investigators needed}} \times 2\%$$

2. Personnel Qualifications and Training, up to..... 3%

a. Qualifications and Certification, up to 2%

- All paid personnel assigned fire cause investigation duties must be certified, or be capable of being certified within one year, as Basic Fire and Arson Investigator or higher through the Texas Commission on Fire Protection.
- All volunteer personnel assigned fire cause investigation duties must be certified, or be capable of being certified within one year at one of the following levels:

  Volunteer Fire Investigator, Texas Commission on Fire Protection

  Volunteer Fire Investigator, State Firemen's and Fire Marshals' Association

  Volunteer Arson Investigator, State Firemen's and Fire Marshals' Association
- The credit for qualifications and certifications will be prorated according to the following ratio:

$$\frac{\text{Total \# of existing certified fire investigators}}{\text{Total \# of fire investigators needed}} \times 2\%$$

b. On-going training, up to.....1%

- All personnel, both paid and volunteer, must receive at least 40 hours of additional fire investigation training each year.
- The credit for additional training (averaged over the past 3 years) will be prorated according to the average fire investigation training per investigator.

3. Use of the Texas Fire Incident Reporting System (TEXFIRS), up to…….3%

One percent credit will be granted for each year of satisfactory reporting using TEXFIRS for the three years prior to the inspection, up to 3%

- Reports should be submitted monthly in the approved format. Reports must be submitted for each month of the twelve-month period to receive credit for the twelve months.
- Reports must use an acceptable TEXFIRS format and meet all required data submission requirements as outlined by the Texas State Fire Marshal's Office.
- Summary data of records received is kept by the Texas State Fire Marshal's Office and is available upon request.

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TX-C. PUBLIC FIRE SAFETY EDUCATION (PFSE), up to……..30%

1. Public fire safety education personnel qualifications and training, up to 6%

a. All public fire safety education personnel must complete a course

based on the document entitled "Public Fire Education Planning, a five step process", published by the U.S. Department of Commerce United States Fire Administration Public Education Office, or a 40-hour course on the Methods of Teaching. (3%)

- Additional training programs may be recognized by the Texas Commission on Fire Protection in the future.

b. All public fire safety education personnel must participate in continuing education in public fire safety education techniques and processes. They must receive at least 10 hours of additional work-related training each year. (3%)

- The credit for training personnel (averaged over the past 3 years) will be prorated based on the number of personnel receiving adequate training.

2. Programs for public fire safety education, up to 24%

a. Residential fire safety program, up to 8%

- The residential fire safety program must reach 100 percent of all residences in high-risk neighborhoods as identified by annual fire-loss analysis. This program may include residential fire safety inspections, smoke detector testing or installation, in-home or neighborhood fire safety education or arson awareness education.
- The credit for the residential fire safety program (averaged over the past 3 years) will be prorated based on the percentage of high-risk neighborhoods reached each year. If high-risk neighborhoods are not identified, the effectiveness of the residential fire safety program will be based on the percentage of the entire community population reached annually.

b. Fire safety education in schools (private and public, early childhood education through grade 12), up to ……..8%

- Records of fire safety education and exit drills will be kept by the School District and shall be available upon request.
- One fire exit drill shall be conducted each month (or portion of month longer than 10 class days that the campus is in session).

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- Developmentally appropriate classroom instruction must be presented on fire safety to all students in early childhood education.
- The credit for fire safety education in all schools will be prorated according to the level of participation averaged over the past 3 years.

c. Juvenile firesetter intervention program, up to.....4%

- The juvenile firesetter intervention program should refer 100 percent of all juveniles identified as being involved in fire-play or fire-setting behavior for educational intervention and/or to other intervention services (may be within department or in conjunction with public or private social service agencies).

- The credit for the juvenile firesetter intervention program (averaged over the past 3 years) will be prorated based on the percentage of juveniles identified as being involved in fire-play or fire-setting behavior that are referred for intervention services.

d. Fire safety education program for occupancies having large-loss-potential or hazardous conditions as identified by annual analysis of large-loss fire risks, up to 4%

- Fire safety education must be presented in all occupancies that have large-loss-potential or hazardous conditions (such as high-rise buildings, hospitals, nursing homes, industrial facilities, other large commercial structures or community risk from wildfires).

- The credit for fire safety education in occupancies that have large-loss-potential or hazardous conditions (averaged over the past 3 years) will be prorated based on the percentage of the occupancies reached each year. If these occupancies are not identified, the total number of nonresidential buildings for the rated area will be used.

TX-D. CONSTRUCTION CODE ENFORCEMENT (CCE),up to..... 30%

1. Regulations - Local Construction Codes, up to 10%

For the adoption and maintenance of one of the following families of model building codes, the NFPA 70, *National Electrical Code* and local construction ordinances:

SBCCI, *Standard Building Code and family of codes*

ICBO, *Uniform Building Code and family of codes*

BOCA, *National Building Code and family of codes*

ICC, *International Building Code and family of codes*

a. Current Model Code Edition or Ordinance in use, up to.....8%

- For adoption of a model building code. (1%)
- For adoption of the National Electric Code, NEC. (1%)
- For adoption of a model mechanical code. (1%)

- For adoption of a model gas and plumbing code. (1%)
- For adoption and maintenance of a model substandard building abatement code. (1%)
- Adoption of the current code will be valued highest, older editions progressively less, and editions more than three publications old will receive no value. The credit for current code edition (sum of 5 previous bullets) will be prorated as follows:

  Within one year of the most recent edition (100% of value).

  Second most recent edition (75% of value).

  Third most recent edition (50% of value).

  Older (0%).
- For adoption and maintenance of a comprehensive sprinkler ordinance applying to all nonresidential structures. (1%)
- For adoption and maintenance of a comprehensive household fire warning equipment ordinance according to NFPA 74 standards. (0.5%)
- For adoption and maintenance of an ordinance requiring new roof coverings to be fire resistant. (0.5%)
- For adoption and maintenance of a zoning ordinance (fire limits ordinance may be used). (0.5%)
- For adoption and maintenance of a comprehensive residential sprinkler ordinance according to applicable NFPA standards. (0.5%)

b. Past Model Code Editions, up to.....2%

- If codes were adopted prior to 1960. (2%).

  OR
- If codes were adopted after 1960 but before 1980. (1%).

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2. Personnel, up to 10%

a. Quantity, up to.....5%

- The Ideal Yearly Inspection Activity by one full-time inspector should not exceed 2,400 inspections, i.e.[(10 inspections/day) **x** (20 days/month) **x** 12 months/year)].
- Full-time building inspectors should average no more than 10

inspections per day based on model code inspection procedures.

- There should be 15 inspections per building permit based on model code requirements.
- There should be an inspector for every 160 building permits issued.
- The credit for quantity of inspection personnel will be prorated according to the following equation. The number of building permits and number of inspectors is the average over the last three year period.

$$\frac{\text{Number of building permits issued}}{\text{Number of Inspectors X 160}} \times 5\%$$

b. Qualifications and Certification, up to 3%

- Inspectors must be certified through a recognized building authority or have a minimum of 5 years work-related experience and be working toward certification. (2%)
- Plan reviewers must be certified through a recognized building authority. (1%)

c. Ongoing Training, up to.....2%

- Building inspectors and plan reviewers must receive 40 hours per year of continuing education. Credit will be prorated on 40 hours per year per person. No additional credit will be given for hours in excess of 40 per person.

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3. Enforcement and Inspection Activity, up to 10%

a. Inspection Activity, up to 4%

- The credit for inspection activity will be prorated according to actual inspections performed compared to model code procedures.

b. Plan Review, up to 2%

- All construction plans for new nonresidential construction, additions,

remodeling, etc., must be reviewed for compliance with appropriate codes. (1%)

- All plan reviews must be coordinated with fire marshal. (1%)

c. Inspection procedures, up to.....1%

- Multiple inspections must be made throughout the construction process or no credit is given. There must be on-site inspections for specific construction elements such as foundation inspection, slab inspection, frame inspection, and final inspection.

d. Record Keeping, up to 1%

- The inspection process must be documented and records kept on each construction project. (0.5%)
- Building permits must be required for all construction. (0.5%)

e. Quality Control of Enforcement and Inspection Program, up to 1%

- There must be a tagging procedure in place that provides a mechanism to stop construction if code is not complied with.

f. Public Information up to 1%

- Information brochures that explain the permit process and inspection procedure to the public must be available. (0.5%)
- Seminars for local architects, contractors and builders for construction code education must be presented twice a year. (0.5%)

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TX-E. COMPRESSED AIR FOAM SYSTEM (CAFS) 30%

Compressed Air Foam System, when carried and used in the extinguishment

of all structure fires 30%

To be eligible for points for compressed air foam systems the following criteria shall be met:

- Apparatus meets general criteria in NFPA 1901 for use for structural fire fighting (Class A Pumper);
- Apparatus has a minimum 500 gpm fire pump;
- Apparatus has a minimum 120 scfm air compressor, permanently mounted;
- Apparatus has a minimum 2.5 gpm Class A foam concentrate pump;
- Apparatus has a minimum 20 gallon foam tank for Class A Foam;
- At least one apparatus equipped with CAFS unit must respond on all structure fires on first alarm assignment

Note: Where multiple apparatus are assigned to respond to a structure fire on the first alarm assignment, this means that out of 3 (or more) apparatus initially responding from the assigned area, at least one of the apparatus must be equipped with CAFS unit;

- All applications of Class A Foam must be in accordance with manufacturer's specifications

TX-F. TEXAS ADDENDUM CREDIT (CTX), up to…….6.5 points

Prorated Addendum Credit (6.5 points) applied to Total FSRS Points.

$$CTX = \frac{FPCE + FI + PFSE + CCE + CAFS}{130\%} \times 6.5 \text{ .....}$$

TEXAS SUPPLEMENT TO THE FSRS

CERTIFICATION AND FIREMEN'S TRAINING SCHOOL (FTS)

NOTE: In Texas, the following grading criteria will be in addition to the criteria of the FSRS.

580A. SUPPLEMENT CREDIT FOR TEXAS STATE TRAINING (CTT):

This item provides specific recognition for fire department training conducted by the State Firemen's and Fire Marshal's Association, Texas A & M University and the Texas Commission on Fire Protection.

Item 580 applies only to local training activities.

$$\text{CTT} = \frac{\text{CERT + FTS}}{\text{TOTAL \# IN FIRE DEPT.}} \times 3.26$$

CERT = Total number of volunteers certified through either:
The State Firemen's and Fire Marshals' Association of Texas as basic, intermediate, or advanced firefighter. (This excludes the introductory certification)
OR
The Texas Commission on Fire Protection as a volunteer firefighter.

FTS = Total number of firefighters in attendance of a prevention or suppression course at Firemen's Training School at Texas A & M University within the last 3 years.

TOTAL # IN FIRE DEPT. = Total number of firefighters (paid and/or volunteer) in the fire department.

MAXIMUM VALUE OF CTT = 3.26

590. CREDIT FOR FIRE DEPARTMENT (CFD):

CFD=CEC+CRP+CPC+CLS+CRLS+CD+CCP+CT+CTT

MAXIMUM VALUE OF CT+CTT = 9.00

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NOTE: In Texas, the following grading criteria will be in lieu of the criteria of the FSRS.

TOTAL CREDIT AND CLASSIFICATION

700. GENERAL: TEXAS FSRS ADDENDUM.

This item develops the Public Protection Classification number by summarizing the credits developed in Items 400 through 640 plus TX-F, and by adjusting for the difference in credit between Items 590 and 640.

701. PUBLIC PROTECTION CLASSIFICATION (PPC):

$$PPC^{*} = \frac{100 - [\{CFA + CFD + CWS + CTX\} - 0.5\{|(CWS) - 0.8(CFD)|\}]}{10}$$

*Raise any decimal to the next higher whole number; i.e. 5.12 = 6