

Planning and Financing the Installation  
of  
Fire Sprinkler Systems in Nursing Home Facilities

Report Developed Pursuant to Public Act 03-3, June Special Session

Background

In response to the tragedy of the February 26, 2003 fire at the Greenwood Health Center in Hartford that resulted in the deaths of sixteen residents, the General Assembly established sprinkler system planning and installation provisions and required that a report be developed for alternatives for planning and financing such systems. The 140-bed Greenwood Health Center was a partially sprinklered facility with sprinklers installed only in seven rooms with oxygen services.

On September 26, 2003, a fire at the NHC Healthcare Center in Nashville, Tennessee resulted in the deaths of eight residents and 20 injuries. The NHC Healthcare Center did not have sprinkler system protection.

Prior to the two tragic 2003 fires, three individuals died in a 1995 nursing home fire in Mississippi and three in 1990 in an Arkansas facility. In 1989, twelve residents died in a Virginia nursing home fire that prompted that state to require all nursing facilities to install sprinkler systems.

Section 92 of Public Act 03-3, June Special Session (PA 03-3, JSS) specifies that all nursing home facilities have approved automated fire-extinguishing systems installed by July 1, 2005. "Nursing facilities" or "nursing homes" includes facilities licensed as

Rest Home and Nursing Supervision (“RHNS”) and Chronic and Convalescent Nursing Home (“CCNH”) as defined in Connecticut General Statutes Section 19a-490 and the State of Connecticut Public Health Code Section 19-13-D1(b)(3)(B) & 19-13-D1(b)(3)(C). The law requires that facilities without automatic fire-extinguishing systems must submit plans to local or state fire marshals and apply for a building permit for the installation of such systems by July 1, 2004. The law does not impose any financial penalties or sanctions against facilities not in compliance with this deadline. PA 03-3, JSS, does provide for a civil penalty of up to \$1,000 per day for each day a facility is not in compliance with the July 1, 2005 operational sprinkler requirement.

PA 03-3, JSS, also directed the Connecticut Health and Educational Facilities Authority (“CHEFA”), in conjunction with the Departments of Public Safety (“DPS”), Social Services (“DSS”) and Public Health (“DPH”), to develop, within available appropriations, a strategy for planning and financing the installation of fire-extinguishing systems. This report is presented to the Governor and the Public Safety, Human Services and Public Health Committees of the General Assembly in accordance with PA 03-3, JSS.

#### Congressional Activity Related to Nursing Home Fire Safety

On July 16, 2004, the federal General Accounting Office (GAO) released a report entitled, “Nursing Home Fire Safety - Recent Fires Highlight Weaknesses in Federal Standards and Oversight”. The report was prepared in response to an October 9, 2003 request by Senator Charles E. Grassley of Iowa and Senator Bill Frist of Tennessee following the Nashville fire. Specifically, the Senators asked GAO to report on:

- The rationale for not requiring nursing homes to be sprinklered
- Adequacy of federal fire safety standards for nursing homes that lack automatic systems

- Effectiveness of state and federal oversight of fire safety in nursing homes.

The GAO report may be accessed on the internet ([www.gao.gov](http://www.gao.gov)) and should be reviewed as a supplement to this report. The following extracts from the GAO report are particularly pertinent to the issues facing Connecticut policy makers.

Older homes, such as the Hartford and Nashville facilities (built in 1970 and 1967, respectively), are generally allowed to operate without sprinklers if they are constructed with noncombustible materials that have a certain minimum ability to resist fire. According to CMS (federal Centers for Medicare and Medicaid Services), the decline in the multiple-death fires after adoption of the NFPA (National Fire Protection Association) fire safety standards in 1971 and their subsequent enforcement suggested that the estimated cost to retrofit all older nursing homes nationwide outweighed the benefit. This position is being reevaluated, however, because of the 2003 nursing home fires, and the nursing home industry has indicated its support for requiring older homes to install sprinklers.

The recent nursing home fires in Hartford and Nashville revealed weaknesses in federal fire safety standards and their application in unsprinklered facilities. For example, even in the absence of sprinklers, the standards do not require smoke detectors in most nursing homes, yet investigations of the Hartford and Nashville fires suggested that the lack of smoke detectors in resident rooms where the fires started may have delayed staff response and activation of the buildings' fire alarms.

On July 22, 2004, Representative John Larson of the Connecticut First District introduced H.R. 4967, the Nursing Home Fire Safety Act. The bill provides for the installation of sprinkler systems in all federally certified homes within five years and provides for reimbursement of system costs through the Medicare and Medicaid programs.

H.R. 4967 is currently in the Subcommittee on Health within the House Energy and Commerce Committee. Given large federal budget deficits and discussion of block grant funding for Medicaid, it would appear unlikely that this legislation would pass with a full or partial federal funding mechanism.

### Organizational Responsibilities

- The State of Connecticut Health & Educational Facilities Authority (CHEFA) assists Connecticut's eligible health, educational and other qualified nonprofit institutions in gaining access to low-cost, tax-exempt debt financing so they can continue to meet the needs of their clients. While representing a small portion of CHEFA's financing projects, CHEFA has experience financing nursing facilities developed by non-profits, including hospital-affiliated homes. In the 1993 – 1996 period, CHEFA also operated a debt refinancing Special Capital Reserve Fund (SCRF) program that was available to both non-profit and for-profit entities.

- The Department of Public Health (DPH) is responsible for nursing facility inspection, certification and licensure processes, including reviews for compliance with the State Public Health Code and federal Medicare and Medicaid participation requirements.

- The Department of Public Safety (DPS) provides for protection of the public by efficient and effective utilization of resources through education, prevention, technology and enforcement activities.

- The Department of Social Services (DSS) administers the Medicaid program. Among other Medicaid responsibilities, DSS has responsibility for establishing payment rates for nursing facilities and conducting Certificate of Need (CON) reviews relating to licensure changes, bed additions/reductions and major capital projects.

### Nursing Home Industry Overview: 1997 to 2004

With the availability and expansion of community alternatives to nursing facility care such as home care, adult day care and assisted living, there has been a steady decline

in the number of nursing home residents. Since 1997, Connecticut has also experienced a net decrease in both the number of licensed nursing home beds and the number of licensed facilities. Available bed capacity has fallen from 32,027 to 30,490 along with a decrease in nursing homes from 273 to 251 facilities. Overall, 1,537 (4.8%) licensed beds and 22 (8.0%) facilities exited the nursing home industry. Of the 251 nursing facilities now operated in the state, 238 participate in the Medicaid program, eleven are not enrolled in Medicaid and two facilities participate on a limited basis. The non-Medicaid participating facilities are responsible for operating 629 licensed beds. During 2004, seven facilities operated under state receivership and eight facilities were in bankruptcy.

#### Change in Licensed Nursing Beds and Facilities

	1997	2004	Decrease	Percent
Licensed Beds	32,027	30,490	(1,537)	(4.8%)
Licensed Facilities	273	251	(22)	(8.1%)

From 1997 through 2003, the Department of Social Services has processed over 220 Certificate of Need applications relating to the introduction, expansion or termination of a function or service; substantial decreases to the facility's total bed capacity; facility proposals for capital expenditure exceeding certain monetary levels; or proposals to expand the facility by more than 5,000 square feet and bed additions subject to statutory criteria. A total of \$225 million in capital expenditures for facility renovations and improvements, plant expansions including new building additions, and the complete replacement of existing facilities has been approved during this period.

In 2003, Medicaid participating facilities incurred a combined reported loss of approximately \$42.7 million. Reported revenue was \$2.020 billion with \$2.062 billion in reported expenses. Of the 237 facilities, 94 reported a profit while 143 reported a loss. Average licensed bed occupancy rates for the Medicaid participating facilities reporting as of September 30, 2003 was 94.5%. Connecticut nursing facilities employ over 30,000 staff with the majority of employees being Certified Nurses' Aides (CNAs), Registered Nurses (RNs) and Licensed Practical Nurses (LPNs).

Status of Nursing Home Fire Sprinkler Systems

According to the National Fire Protection Association (NFPA), 25% of nursing facilities in the country do not have automatic fire sprinkler systems that provide complete facility coverage. In Connecticut, over 80% of the nursing homes provide complete facility coverage encompassing 78% of available licensed beds.

Connecticut Nursing Facility Sprinkler System Status -2004

<u>Sprinkler Type</u>	<u>Facilities</u>	<u>Percent</u>	<u>Beds</u>	<u>Percent</u>
Complete	200	80%	23,663	78%
Partial	39	15%	5,602	18%
None	12	5%	1,225	4%
Total	251	100%	30,490	100%

The average licensed capacity of nursing facilities in Connecticut is 122 beds. Facilities without sprinkler systems average 102 beds and facilities with partial systems average 144 beds.

Overview of Medicaid Rate Setting and Capital Reimbursement

Before presenting recommendations concerning sprinkler system planning and financing, it is important to review Connecticut nursing facility rate setting and understand how sprinkler system projects, done separately or as part of a larger renovation, are reimbursed under the current system.

Taxpayer-supported programs, including Medicaid, Medicare and the Veterans' Administration programs, pay for the care for approximately 82% of facility residents. The remaining 18% of the residents pay for services with their own funds or have insurance coverage. Medicaid payments in SFY 2003, after application of resident Social Security and other income applied toward care needs, totaled \$1,023,182,228.

Connecticut Nursing Facility Payer Mix	
Medicaid	68%
Private Pay	18%
Medicare	11%
Other (Veterans/N.Y. Medicaid)	3%

Under the Connecticut Medicaid program, payment rates for nursing facilities are set on a cost-based prospective basis in accordance with Section 17b-340 of the Connecticut General Statutes and Section 17-311-52 of the Regulations of Connecticut State Agencies. The federal government provides states discretion in determining the method used to pay for nursing facility services. The state method, however, must be approved by the Centers for Medicare and Medicaid Services (CMS) within the federal Department of Health and Human Services (HHS).

Under the existing rate setting system, nursing facility costs are categorized into five cost groups as follows:

Direct - Nursing and nurse aide personnel salaries, related fringe benefits and nursing pool costs.

Indirect - Professional fees, dietary, housekeeping, laundry personnel costs and expenses and supplies related to patient care.

Administrative and General - Maintenance and plant operation expenses, and salaries and related fringe benefits for administrative and maintenance personnel.

Capital Related - Property taxes, insurance expenses, equipment leases and equipment depreciation.

Property (Fair Rent) - A fair rental value allowance is calculated to yield a constant amount each year in lieu of interest and depreciation costs. The allowance for the use of real property other than land is determined by amortizing the base value of property over its remaining useful life and applying a rate of return (ROR) on the base value. The ROR is linked to the Medicare borrowing rate and was 6.1% for assets placed in service in 2003 (6.1% applied for the specified useful life period). Non-profit facilities receive the lower of the fair rental value allowance or actual interest and depreciation plus certain other disallowed costs.

Per Section 17-340 CGS, allowable costs in the Direct, Indirect and Administrative categories are capped if the cost per day for a facility is in excess of maximums prescribed per statute. There are no prescribed maximums for the Capital and Property components of Medicaid rates. Fire sprinkler and alarm system costs would generally be categorized under the Property (Fair Rent) component of Medicaid rate setting.

The amount of Medicaid reimbursement a facility receives for a fixed asset project is a function of the project cost, the depreciation period and rate of return applicable in the year the project is completed.

DSS uses the American Hospital Association- Guide for Estimated Useful Lives to determine the depreciation period for fixed assets. The AHA Guide includes the useful lives for fire safety related items:

AHA Guide for Estimated Useful Lives

<u>Item</u>	<u>Useful Life (Years)</u>
Alarms	10
Pump System	20
Detectors	10
Sprinklers/Lines	25
Tank/Tower	25

The following illustrates the Medicaid rate impact of a \$200,000 hypothetical fire detection and sprinkler system project implemented in a ninety bed nursing facility.

Useful Property Life

<u>Item</u>	<u>Cost</u>	<u>Life</u>	<u>Allowance</u>
Alarm/Detection System Upgrade	\$30,000	10	\$4,300
Sprinkler System Extension	<u>\$170,000</u>	<u>25</u>	<u>\$14,600</u>
Project Total	\$200,000		\$18,900

In this case, the nursing facility that expended \$200,000 to install a fire sprinkler system would receive a \$0.60 adjustment to its daily Medicaid rate representing \$18,900 in additional allowable costs divided by annual facility days of 31,500 (90 beds x 365 x 95% occupancy) with application of a 6.1% ROR. The additional \$0.60 per day would be paid for Medicaid eligible residents of the facility.

Assessment of Current Medicaid Reimbursement

In the case illustrated above, the additional allowable annual costs of \$18,900 may or may not cover debt service costs if the facility owner borrowed funds for the project. Since borrowing rates for nursing facilities are presently higher than the 6.1% ROR and loans available would likely be of shorter duration than 10 to 25 years for a small project, it is likely that facility expenses would exceed related Medicaid reimbursement. For example, a \$200,000 loan with an 8% interest rate and a five-year term would require approximately \$50,100 in annual debt service payments.

While some nursing facilities may be able to add new or to expand existing sprinkler systems with no changes to Medicaid reimbursement and without additional state financing assistance, based on the present financial condition of the industry as a whole, it is expected that the majority of facilities would need state support comprised of increased Medicaid reimbursements and/or a special financing program.

### Facility Overview

At the start of 2004, twelve facilities did not have sprinkler systems and thirty-nine had partial coverage. During 2004, two of the thirty-nine facilities with partial coverage closed. The 240-bed Atrium Plaza in New Haven closed in September 2004 and Homestead Health Center, an 87-bed facility located in Stamford, completed closure in October 2004.

Appendix A provides a listing of forty-nine licensed facilities that will need to add new or expand existing sprinkler systems to comply with PA 03-3,JSS. Appendix A includes facility name, location, licensed bed capacity and latest DPH physical plant rating. In addition, it includes occupancy data as of June 8, 2004 and reported profit/(loss) for 2003.

Physical Plant Evaluation: DPH conducts biennial licensure compliance inspections for nursing facilities and an annual federal Medicaid/Medicare certification survey. For the 49 facilities, the most recent inspection reports indicate 18 received a Good rating, 28 received a Fair rating and 3 were categorized as Poor. Ratings are based on the observed condition of the physical plant by DPH Building and Fire Safety inspectors.

The oldest physical plant structure was constructed in the 1880's and the most recent addition to a facility was in 1994. Initial construction, expansion and additions for over 80% of the facilities identified occurred between 1960 and 1980.

Water Source Status: Accessibility to a public water source is obviously beneficial as it generally assures an adequate flow rate. Well sources can prove problematic. Of the

49 facilities that require upgrades, a public water source is available for 46 facilities while 3 facilities obtain water from well systems.

Financial Position: Cost Year 2003 profit and loss information in Appendix A excludes data for the four facilities that were operated under state receivership during the year. The 45 privately operated facilities with standard 2003 filings had a combined loss of \$10.1 million. Fifteen facilities reported profits which totaled \$3.3 million and twenty-eight had losses amounting to \$13.4 million.

Licensed Beds and Utilization Rates: Licensed beds for the 49 facilities total 6,500. Based upon a June, 2004 occupancy survey, there were 5,994 residents in these facilities representing a 92.2% occupancy percentage. Adjusting for four facilities with temporary reductions due to operation under receivership, the average occupancy in 2004 was 93.4%. The statewide occupancy percentage is approximately 94.5%.

Sprinkler System Installation Cost Estimates

The following chart summarizes sprinkler system installation cost estimates provided to the Department of Public Health by 40 facilities and presents estimates for non-reporting facilities based upon the average project costs for those facilities that have provided installation estimates.

<u>Sprinkler System</u>	<u>Number Reporting</u>	<u>Installation Estimates</u>	<u>Estimate Including Non-Reporting Facilities</u>
None	9	\$3,271,000	\$4,361,000
Partial	<u>31</u>	<u>\$8,358,000</u>	<u>\$10,245,000</u>
Total	40	\$11,629,000	\$14,606,000

The average estimated cost to upgrade facilities with partial systems is approximately \$270,000 and projections for facilities with no system approximate \$363,000.

The following presents the estimated impact of rate increases associated with sprinkler system costs on the Medicaid program based upon standard reimbursement for capital improvements (weighted average 20 year life- 10 yrs. detection systems and 25 yr. for sprinklers) and accelerated reimbursement at five and ten years. Total costs to facilities remain uncertain and we have included scenarios based upon total costs of \$12.0 million and \$20.0 million.

Compliance Cost Estimate \$12,000,000

<u>Useful Life/ Reimbursement Years</u>	<u>Allowable Per Year</u>	<u>Est. Medicaid Share/Utilization (80%)</u>
20	\$1,055,000	\$844,000
10	\$1,638,000	\$1,310,000
5	\$2,857,000	\$2,286,000

Compliance Cost Estimate \$20,000,000

<u>Useful Life/ Reimbursement Years</u>	<u>Allowable Per Year</u>	<u>Est. Medicaid Share/Utilization (80%)</u>
20	\$1,758,000	\$1,406,000
10	\$2,730,000	\$2,184,000
5	\$4,761,000	\$3,809,000

The cost of steel, the basic material used in producing conduit and other components used in fire sprinkler systems, has risen dramatically in 2004. "Members of Associated General Contractors of America (AGC), a construction trade organization, report steel price increases ranging from 20 percent to 196 percent, depending on the product, in the past two months. AGC also reports delays in securing certain steel products, regardless

of price,” reported the Denver Business Journal (Steel prices climb 200%, March 12, 2004).

In addition to steel price increases, the actual cost for a facility could also increase substantially due to other unforeseen problems such as the need for a larger water main connection, asbestos in older buildings, structural considerations, and installation of an underground water tank reservoir.

#### Fire Sprinkler System Financing Options

The development of this report required that various financing options be considered balancing the importance of having nursing facilities equipped with automatic sprinkler systems with the facts that nursing facilities are private entities that are ultimately responsible for meeting licensure requirements and there are Medicaid reimbursement parameters and state budget limitations. The following reviews several options that were considered along with associated positive and negative aspects of the given approach.

#### Option A: No Change to the Current Medicaid Reimbursement Processes:

Although statutes governing Medicaid rate setting have limited year-to-year Medicaid rate increases for nursing facilities to specified percentages, the law provides for additions to daily rates for allowable costs associated with major capital projects. It is standard practice to add fair rent associated with capital improvements to rates issued for new rate periods and to adjust Medicaid rates during a rate period based upon requests for immediate recognition of significant capital investments made by a facility.

The department could continue current practices and adjust rates as sprinkler installation costs are reported in annual cost report filings when new rates are computed for future rate periods and address any requests immediate rate adjustments for costs incurred on a case-by-case basis.

Under this scenario, the fire sprinkler system costs would be amortized over the expected useful life, generally an average of 20 years, and there would be no Medicaid rate adjustment any sooner than project completion. This option would have the least impact on Medicaid spending over the short term. As with all Medicaid nursing facility payments, the state would receive 50% federal reimbursement.

Unfortunately, given the poor fiscal health of many facilities, it is unlikely that ownership would have the cash flow or borrowing capacity to meet installation costs and facilities would be penalized and facility closures could result.

#### Summary of Option A: No Change to Current Reimbursement Practices

Costs	\$844,000 to \$1,400,000 per year beginning in SFY 2006 for 20 Yrs Total costs high due to interest/ROR applied over 20 years
Pro's	Delays state expenditure until completion Spreads costs to state over long period No changes to DSS administrative practices 50% federal share of Medicaid costs
Con's	No funding to facilities until completion of project High likelihood of facilities unable to comply due to lack of funds Facilities must cover non-Medicaid share of costs

Option B: Accelerated Medicaid Reimbursement:

Under reimbursement regulations, the department can waive standard rate setting for good cause. The department would assist facilities by amortizing system costs over an accelerated period of 5 to 10 years.

Given nursing facility experience with comparable capital projects, it is likely private lenders would limit loans to 5 to 10 years. The department could reduce the amortization period for sprinkler costs to closely match the term of loans from private sources. This could increase the likelihood of private lenders approving loans for sprinkler work to some facilities.

From time to time, DSS provides letters to lenders explaining Medicaid rate adjustments related to planned major capital projects by nursing facilities and this can be of assistance to the loan process. DSS could provide such letters with Medicaid rate adjustment and payment increase projections for sprinkler system capital projects. DSS does not guarantee loan payments and lenders obviously consider the facilities' overall credit worthiness when making loan decisions including long and short-term debt, recent financial performance, market competition and management capabilities. Waiving standard reimbursement practices would have a more significant impact on the Medicaid appropriation over the next several years since Medicaid rate increases would be two to three times greater than standard amortization as illustrated in the Cost Estimates section of this report. Again, each facility would be responsible for installation financing. It is expected that some facilities would be successful in obtaining financing by providing lenders with DSS commitments for accelerated Medicaid reimbursement and associated rate changes.

### Summary of Option B: Accelerated Medicaid Reimbursement

Costs \$1,300,000 to \$3,800,000 per year beginning in SFY 2006 for 5-10 Yrs.

Lower total cost than standard reimbursement as less interest/ROR.

Pro's No DSS costs until project completion by facility.

Spreads costs to state over 5 to 10 years.

Moderate changes to DSS administrative practices.

50% federal share of Medicaid costs

Improves likelihood of facility compliance.

Since owners responsible for non-Medicaid share of costs there is an incentive to contain expenses due to financial stake.

Con's No funding to facilities until completion of project.

Facilities must cover non-Medicaid share of costs.

Medicaid reimbursement may not cover proportionate share of costs, as

ROR percentage may be lower than loan interest rate.

### Option C: State Grants to Nursing Facilities:

An appropriation or bond authorization of between \$9.6 and \$20.0 million could be made available to nursing facilities to cover either the full cost of systems or a share based upon Medicaid utilization. DSS would have the lead administrative role with assistance from DPH and the local or state fire marshal as applicable. Grant payments would be released on a construction progress basis.

Generally, grant payments are not reimbursable under Medicaid. DSS would need to request approval from the Federal Centers for Medicare and Medicaid Services (CMS) to receive 50% funding.

### Summary of Option C: Grants to Nursing Facilities

Costs	\$9,600,000 to \$20,000,000 in SFY 2006
Pro's	Lowest total cost compared to other options as no interest/ROR. Improves likelihood of facilities compliance.
Con's	Significant DSS grant administrative burden. Unclear whether grant payments would be matched by federal CMS. Since facility owners not responsible for costs, scope of projects and costs may increase.

### Option D: CHEFA Revenue Bonds:

As may have been contemplated with the passage of this legislation, CHEFA could develop a loan program for nursing facility sprinkler projects. There are a number of variations in the types of programs that could be established under CHEFA ranging from loans guaranteed by the State of Connecticut to establishing a capital loan pool in conjunction with banks. The program structure and extent of Treasurer and/or Medicaid payment or loan guarantees will affect the loan interest rate and related financing fees. The greater the risks to bond holders the higher the interest charged on the loans.

DSS could employ accelerated Medicaid reimbursement for sprinkler projects funded through CHEFA.

CHEFA is now assessing the feasibility of establishing a pooled revenue bond program to finance the costs associated with the installation of new or upgraded sprinkler systems. A part of this feasibility analysis includes the potential acceptance of these

bonds at a reasonable rate of interest by the public finance markets and the availability of credit enhancement.

This pool would be issued in tranches based upon the timing of the sprinkler system installations and will include both tax-exempt and taxable bonds. The tax-exempt proceeds of the pool will be made available to non-profit facilities and the taxable proceeds will be made available to for-profit facilities. Depending upon the maturity date of the bonds, for example five years or less, the bonds could be issued on either a variable or fixed rate basis.

The total amount of bonds issued will be based upon the amount of funds required for the installation or upgrade of the sprinkler system plus approximately ten percent to cover costs of issuance, and a debt service reserve fund for each tranche approximately equal to one year's maximum principal and interest payment on the tranche.

Repayment of principal and interest will be accomplished by a voluntary intercept mechanism that captures a portion of monthly Medicaid payments to a facility representing the property reimbursement/fair rent component of the Medicaid rate associated with the sprinkler installation costs. This assumes that the total cost of the installation is prorated on the basis of Medicaid patient days. For example: if the total cost of the installation is \$200,000 and Medicaid patient days are 70% of the total patient days, \$140,000 would be eligible for financing by the bond pool and the \$60,000 balance would have to be financed from other sources. Should the financial condition of the nursing facility be so weak as to preclude the financing of the balance of costs associated with the non-Medicaid sources of payment from other lenders, in order for these costs to be included in the pool, an additional voluntary intercept of a "fair rent

equivalent” amount must be established to repay the principal and interest due on the additional bonds.

At no time will the maturity of the bonds exceed the period over which the related property reimbursement/fair rent on the sprinkler system is payable.

CHEFA will retain the right to exclude any facility from the pool, which in the opinion of CHEFA, has insufficient financial strength to maintain its operation at reasonable census levels over the life on the bonds. CHEFA loans will include all practical protections of principal loan amounts including provisions associated with facility closures and/or defaults. CHEFA and the State of Connecticut will enter into negotiations to reach a mutually agreeable solution so as not to jeopardize the pool.

The aspects of the pool will be governed by federal and state laws and regulations and subject to approval by CHEFA Board of Directors and bond counsel.

#### Summary of Option D: CHEFA Revenue Bonds

Cost \$1,625,000 to \$4,750,000 per year beginning in SFY 2006 for 5-10 Yrs.

Projected costs reflect estimated increase of 25% over accelerated reimbursement option costs to account for issuance costs and debt reserve funds.

Pro's No DSS costs until project completion by facility.

Spreads costs to State over 5 to 10 years.

50% federal share of Medicaid costs

Improves likelihood of facility compliance.

Since owners responsible for non-Medicaid share of costs there is an incentive to contain expenses due to financial stake.

Con's Facilities must cover non-Medicaid share of costs.

Loan issuance and debt reserve costs may be higher than private financing.

Depending upon CHEFA bond structure, the state debt exposure may increase.

### Recommended Strategies for the Installation and Financing of Fire Sprinkler Systems in Nursing Homes

It is clear based upon communications with affected facilities that many face difficulty meeting the July 1, 2005 installation deadline due to constraints in obtaining private financing and normal design and construction delays. Further, delays in completing this report and developing a state financing strategy have left facilities in an uncertain position as many are relying on the development of state financing alternatives and/or associated Medicaid rate adjustments.

Consequently, it is recommended that the July 1, 2005 deadline per PA 03-3,JSS, be extended to July 1, 2006 for facilities without any system and include authority in the law for the local or state fire marshal, as applicable, in consultation with DPH, to extend the deadline for an additional year if installation delays are for reasons beyond the control of the facility, exclusive of financing problems.

As a result, the state is recommending option D, the issuance of revenue bonds through CHEFA with funds to be used as loans to homes for the installation of sprinkler systems. It is recommended that the authorizing legislation specify that extensions not be available to facilities that do not apply for and/or do not qualify for financing programs

made available through CHEFA or for Medicaid rate increase adjustments associated with system costs. It is important that facility owners assume primary responsibility for assuring that their facilities meet state licensure and Medicare/Medicaid certification requirements.

For facilities with partial systems, it is recommended that officials be provided with authority to extend the deadline for installation of a complete coverage system past July 1, 2006 but no later than July 1, 2007. Responsible local and state officials would consider the extent of the facility's current system coverage when determining whether a delay presents an acceptable or unacceptable risk to residents. Lack of financing for system expansion would not be an acceptable reason for the granting of an extension.

Extending the compliance period provides facilities with more time to plan for financing and installations including the ability to obtain three cost estimates. The time extension may prevent excessively high sprinkler installation demand and avoid unnecessary increases in cost.

The extension of installation dates will enable the participating state agencies to operationalize a CHEFA loan program and fully develop Medicaid rate adjustment parameters.

#### Immediate Action to Assist Facilities with System Planning

Since passage of PA 03-3, JSS, a number of facilities have made inquiries to DSS on the reimbursement methodology for the costs associated with the submission of sprinkler design documents to their local fire safety and building officials. Due to the financial hardship that may occur at individual homes as they incur costs for engineers,

architects and consultants and pay local zoning permit fees, DSS believes that these costs should be handled separately in order to remove any impediments to the eventual sprinkler installation.

Section 17b-340 of the Connecticut General Statutes authorizes DSS to adjust Medicaid payments to reflect nursing facility costs necessary to comply with changes in federal or state laws. Although costs are not budgeted for SFY 2005, the agency received approval from the Office of Policy and Management (OPM) to provide expedited Medicaid reimbursement to facilities for costs associated with sprinkler system planning and assessment work including associated permit and zoning filing costs and architectural and engineering fees. On September 14, 2004, facilities were notified of the process to request expedited reimbursement of planning costs. A copy of the DSS notification letter is included in Appendix B. To date, seven facilities have received Medicaid payments totaling \$78,000.

#### Individual Facility Request Assessments

DSS, DPH and CHEFA, in consultation with responsible local and state fire safety officials, would review sprinkler system assistance requests from facilities on a case-by-case basis.

Facility request reviews would consider the following among other factors: Area bed need/utilization; long-term financial viability, estimated costs of fire sprinkler system installation in relation to facility value; need for additional Medicaid rate relief to maintain short-term and long-term viability; cost associated with any additional required renovations; impact of any room closures, relocations or admission suspensions during

system installation; physical plant condition; the need for a larger water main connection; asbestos in older buildings; structural considerations; installation of an underground water tank reservoir and other data deemed necessary for assessing each facility.

Those nursing facilities that do not qualify for CHEFA loans and/or Medicaid rate adjustments and are not expected to comply with installation deadlines would be strongly encouraged to make their facility available for sale or consider filing a Certificate of Need for facility closure. DSS would consider Medicaid rate relief for cases of facility closure to assist with high phase-out costs.

It is recognized that facility work to comply with sprinkler system requirements may trigger additional building improvement requirements by local and state building and licensure authorities. Related costs would be considered as part of the request review by DSS, DPH and CHEFA.

It is expected that there will be cases when there is a need for a facility in a town or region but the costs associated with sprinkler installation, required renovations and plant improvements are prohibitive. Consequently, it is recommended that the CON statutes be amended to permit an owner to build a new facility in the municipality in which the facility is located. Further, the CON law should be modified to allow DSS to establish a bid process for the addition of beds to existing facilities in an area to meet needs no longer met due to a facility closure.

DSS would have the responsibility to review and compare the costs of a new replacement facility with the estimated costs of renovations and determine the most cost effective approach in meeting the regions health care needs.

### Penalties for Non-Compliance:

PA 03-3, JSS, provides for a civil penalty of up to \$1,000 per day for each day a facility is not in compliance with the July 1, 2005 sprinkler requirement. As previously indicated it is recommended that the full system requirement date could be amended to July 1, 2006 with extension available to July 1, 2007 for facilities with partial systems subject to approval by responsible officials.

### 2004 – 2007 Interim Fire Safety Recommendations

This report recognizes delays to date in planning and implementing sprinkler system installations. The Department of Public Safety proposes certain measures to improve nursing facility resident safety pending system completions. These proposed measures are only intended to reduce the level of risk to occupants before sprinkler installation can be accomplished. The alternative safeguards should not be considered an equivalent level of protection as provided by an automatic sprinkler system.

When conducting a facility risk analysis the overall goals and objectives of the fire safety code should be considered. The goal in health facility fire safety is to limit the development and spread of a fire. By keeping a fire and its by-products to the room of origin, the need for occupant evacuation is reduced, better known as the “defend in place” concept. The subsequent objectives are (1) prevent the ignition, (2) detect the fire, (3) control its progression and (4) extinguish the fire.

A cooperative and coordinated approach to conducting the risk analysis for facilities not meeting the legislation could be performed by local fire marshals with input from DPH and the state fire marshal.

The following is a list of factors to be considered when determining the level of risk at each facility. This list is not meant to be all-inclusive.

Type of construction

Number of stories

Number of residents\*

Other safeguards in place

Operational records/history

Types of patients: ambulatory, non-ambulatory or high risk patients\*

Travel distances to exits

Arrangement of the means of egress

\*To include identification of the number of resident who are bed-ridden, incapable of self-preservation, physical or mentally disabled, non-ambulatory, incapable of self-movement or impaired judgment. Once the degree of danger is established then a hazard mitigation plan can be developed and implemented on a facility-by-facility basis.

The following are possible safety alternatives:

- Resident room smoke detectors
- Smoke activated resident room doors
- Change in staffing levels
- Continuous supervision of smoke compartment (prompt response)
- Assigning critical functions (redundancies)
- Upgrading fire alarm system - Installation of smoke alarms in rooms, hallways, dining area-throughout the facility within recommended distances
- Restricting "rated furniture" in these areas

- Notifying local fire department as to areas of risk
- Additional fire drills (higher awareness & familiarization) to include

Fire isolation procedures

Fire extinguishment procedures

Fire department participation

Transfer of residents

The measures listed are not intended to be all-inclusive. There may be others that can be used. The facility risk analysis would be used as the basis in determining the number of alternatives to be incorporated in a plan. Each alternative should address the appropriate fire code objective identified in the risk analysis as a weakness.

#### Concluding Comments

DSS expresses its gratitude to DPH, DPS and CHEFA for their input, assistance and cooperation in the preparation of this report. The statutory authority for protecting the residents of nursing facilities rests primarily with state agencies; however, the responsibility for improving safeguards through the installation of complete sprinkler systems in nursing facility must include actions by the General Assembly and local fire safety authorities.

The state agencies, CHEFA and the administration look forward to the passage of the legislation and appropriation of funding necessary implement the recommendations of this report.