

Department of Fire Prevention and Electrical Safety

2006 Annual Report

Results Statement:

- ✚ Wyoming families and individuals living in a stable, safe, supportive, nurturing, healthy environment.
- ✚ A diverse and stable economy that provides a livable income and ensures wage equality.

Our Contribution to Wyoming Quality of Life:

- ✚ Ensure Wyoming children; families, and the public are safe from fire and electrical hazards.
- ✚ Protect the stability of our economic base through effective fire prevention and firefighter training programs.

Department Facts:

The Department of Fire Prevention and Electrical Safety consists of 33 personnel in 4 divisions: Administration (4), Fire Prevention (10), Electrical Safety (11), and Training (8). Our main office is located in Cheyenne with field offices in Riverton, Douglas, Green River, Buffalo, Thayne, and Worland.

Funding: The total operating budget for the department for FY 05-06 is \$6,375,337.00. Of this amount \$5,519,235.00 are General Funds, and \$856,102.00 are Other Funds (electrical licenses and permits).

<u>Division Budgets:</u>	<u>Administration</u> \$1,501,842.00	<u>Fire Prevention</u> \$1,586,432.00
	<u>Electrical Safety</u> \$2,104,405.00	<u>Training</u> \$1,182,658.00

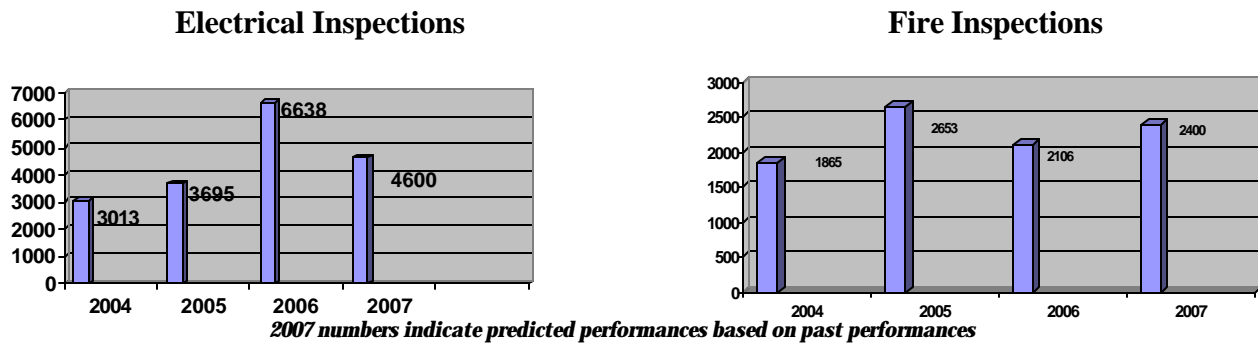
Six primary functions of our Department:

1. **Conduct Fire and Life Safety, and Electrical Inspections** in public buildings such as hotels/motels, schools, day cares, restaurants, and institutions.
2. **Train Firefighters** from across Wyoming in all aspects of fire suppression and fire prevention.
3. **Provide Fire and Safety Education Programs** to the children, families and general public in Wyoming.
4. **Collect and Analyze Fire Data** to identify fire problems and trends so resources are accurately directed towards their mitigation.
5. **Conduct Non-Structural Plan Reviews** for compliance with fire and life safety and electrical codes on public buildings being constructed or remodeled.

6. **License** all electricians working in the state and **issue permits** for electrical work being conducted across the state.

Performance Measure #1:

Percentage of Fire and Electrical Inspections Being Completed.



Story behind the performance:

Electrical: Electrical inspections are initiated by permits, plan reviews, and the public, and are therefore a priority to the Electrical Division in regards to providing better customer service. The Permit Technicians process approximately 3975 permit applications a year. Divide this number by 12 months, the Permit Technicians process 331 permits a month. Divide this number by 7 inspectors and it averages 47 permit inspections a month. However, permit inspections as well as all other inspections are very rarely a one time inspection.

On top of permit inspections the Electrical Inspectors perform approximately 1500 plan review inspections a year. Divide this number by 12 months and then by seven inspectors, each inspector would have 18 plan reviews to inspect each month. Since plan review projects are done in phases, the inspector usually inspects a plan review more than once. Other duties electrical inspectors perform other than plan review and permit inspections are safety inspections and complaint inspections around 250 of these in a year.

Though out the year the inspectors are busy with code interpretation to the public and to electrical contractors, while performing electrical license checks and warning notices. Our monthly records indicate that even though the amount of permits and plans fluctuate between the seasons, inspections show little decrease in any given month.

Inspections in 2004 and 2005 remained fairly steady. In 2005 and 2006 a new licensing, permit, plan review and inspection program was launched. We have discovered a glitch in the program where the inspector will finish an inspection and write up the violation report. Thinking the inspector is done, he/she closes out of that inspection. Later, the inspector remembers he/she had one more violation or wanted to state something else on his/her report. The glitch in the program is that it is counting this inspection twice. This is the reason for the increase of inspections in 2006. Once the glitch is fixed and we hire two more inspectors we feel confident that the Electrical Inspectors will easily inspect 4000 plus inspections in the year of 2007.

Fire Prevention: Prior to 2004, there had not been an inspection priority list established for the field inspectors. In 2004, the following list was implemented to determine the order and importance of fire prevention inspections and plan review inspections:

Department of Fire Prevention and Electrical Safety

1. Schools/Colleges (in school inspection conducted every 18 months)
2. Day care centers (every 12 months)
3. Hotels/Motels/Senior Housing (every 12 months)
4. State owned/leased buildings (every 12 months)
5. Assembly occupancies (every 12 months – priority given to public bars, lounges, night clubs, lodge halls, theaters, churches, public meeting places)
6. Business occupancies
7. Above ground storage tanks

Inspection numbers have consistently increased from 2004. Part of the reason for this is previously all day-care centers, motel/hotels and public schools were allowed to do self-inspections. Since our records showed little participation from the schools and motel/hotel, the Fire Marshal's office is now doing these inspections.

The number of inspectors has remained fairly constant at five (5) over that period of time with the exception of more than half of the year in 2005. At that time the Fire Prevention Division had six inspectors. This would be the reason for the increase in inspections in 2005.

Since the increase or decrease in the number of inspections per year depend solely on the amount of construction going on, the construction activity in Wyoming looks very positive for the next couple of years. Based on plans already received, these are going to require quite a few inspections. Example would be the Torrington Prison. Therefore, we predict inspections for 2007 will increase not only due to the big projects but with the new Firehouse software program up and running and the new laptops which allows the inspectors to produce an inspection report at the time of the inspection reducing office and report-writing.

What do you propose to do to improve performance in the next two years?

Electrical Inspections:

- Dual assignments for counties where the splitting of a county between two inspectors would allow for shorter travel time to an inspection. No/Low additional cost outside existing budget.
- Hire two more electrical inspectors.

Appendix A:

Once we hire two more inspectors, the areas of the counties needing to be inspected will get smaller and the inspections can be done more in quality rather than quantity.

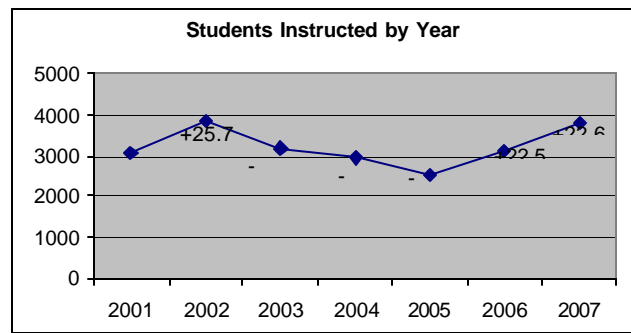
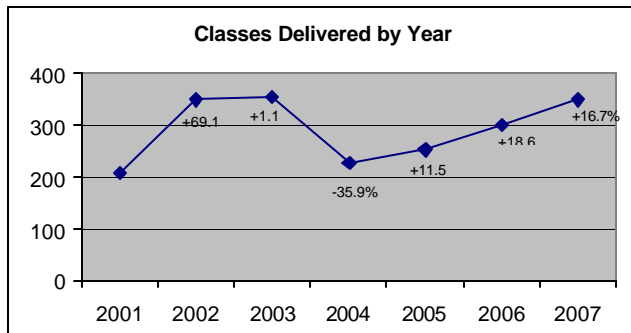
Fire Inspections:

- The continued use of Firehouse software will provide data to improve statistical comparison on inspections and hopefully, more effective results.
- A critical area will be to gather and document narrative data that communicates how reviewers and inspectors have effectively impacted the fire problem that exists today.

Appendix A: By using the Firehouse software it will cut down the inspectors time doing paper work and result in more quality inspections in critical occupancies listed as priorities above, which will result in a reduction of the number of fires, the number of lives lost, and a reduction in property loss.

Performance Measure #2:

Training Classes provided to the Wyoming Fire Service



Story behind the performance:

In 2002 the Training Division aggressively launched a Hazardous Materials Program with the assistance of outside funding. Much of the increase in student and class counts can be directly attributed to the success of that program, but only provided Hazardous Materials Training and not comprehensive basic firefighter training.

The DFPES hired an additional Fire Service Trainer in 2003. By doing this, the Training Division was able to maintain the level of courses taught in 2002 and actually experienced a slight increase. However, in 2004 one State Fire Trainer was reassigned to coordinate a \$1.5 Million dollar grant program that would provide equipment to our Wyoming Fire Service. The project lasted the majority of the year. At the same time the Division was going through a fundamental change in how we deliver classes to the fire service, from facilitation to instruction. These events, combined with one of the three trainers positions being vacant for a portion of the year, led to the decreased number of classes and firefighters attending classes. By filling the vacant position and through refocusing our efforts on instruction, the Agency conducted 11.5% more classes in 2005 than 2004.

Along with the reduction of fire trainers available in the state, attendance in the existing Hazardous Materials Training Program that was going strong dropped 41% in 2005. The program experienced major changes. Funding sources changed and the Agency took over the payment of all bills and instructor contracts. These policy changes took several months to implement, and as a result the Hazardous Materials classes decreased from 99 in 2004 to 34 in 2005. This program, and several others, are being revitalized and updated with a new course kickoff scheduled in 2006.

The agency also conducted a Training Needs Survey in 2004. This survey was mailed to the fire service asking what they wanted from our agency. The response overwhelmingly pointed towards the need for basic firefighter training. This survey produced the same results as one done by the National Fire Protection Agency in 2004; almost 45% of our firefighters have never received any formal firefighter training.

What we propose to do to improve performance in the next two years?

1. Develop a network of training facilities to provide safe and consistent firefighter and fire officer training throughout Wyoming, in compliance with nationally recognized standards.
2. Utilize new technology and teaching techniques (such as on-line, email or video conferencing) in order to reach more students.

3. Develop local fire department instructors and contract instructors to assist in training firefighters.
4. Develop a standard model for “local fire training programs”.
5. Update curriculum, develop new training courses, and provide different training programs than those offered in the past.

Appendix A: Data Development Agenda. List priorities for new or better data on performance:

1. Develop a baseline to formally measure customer satisfaction. Customer satisfaction in the Training Division was never measured. Thus, the Training Division has no documented data to support how we are doing. A baseline will be established for 2006, and based upon this number appropriate action can be taken to improve upon our deliveries, and a reasonable increase in customer satisfaction can be determined.
2. Develop a method to formally measure hours spent training by Training Division Personnel. In the past, the hours spent teaching a class was recorded on a class roster, but never accumulated for evaluation purposes. A baseline was developed in 2005 and a 15% increase is expected in 2006.

Appendix B: Link to budget. Provide detail on priorities identified above which show in the current or proposed budget:

Priority 1 – Taking over operation of the Wyoming Fire Academy.

The Wyoming Fire Academy Foundation Board, in conjunction with the Wyoming Fire Service, has recognized the advantages for a central facility to provide both basic and advance level training to firefighters and fire officers. In order to provide continuing education for the fire service, they have requested that the DFPES take ownership and operation of, the Wyoming Fire Academy in Riverton, WY. Combined with priority 2, this would allow the state to facilitate basic firefighter training regionally, and basic and advanced level classes at the Riverton facility. As part of the overall plan to deliver training, a method to support travel and lodging for personnel from smaller fire departments should be included. The State of Wyoming will benefit from this program by having a central location to develop the future leaders of the fire service, both career and volunteer.

1. **\$52,300** One year operating expenses for the Wyoming Fire Academy
2. **\$117,312** Lodging and rehab materials for students
3. **\$495,626** 3 Personnel at the Academy (trainer, coordinator, secretary). This number includes salaries, benefits, office equipment and supplies, phone and data services, and job related specialty equipment (firefighting equipment).

Priority 2 – Regional Fire Service Training Facilities

To accomplish the goal of training firefighters, and for this training to be beneficial to all of the fire departments within the State of Wyoming, 12 regional fire service training facilities require improvements to ensure they can delivery adequate and safe firefighter training; in compliance with nationally recognized standards. Each site has been surveyed to determine the individual requirements to bring them in compliance with these national standards. Local communities will benefit by having an upgraded training facility in their area, while ensuring firefighters are available to respond to emergencies as they train for the future. The State of Wyoming will benefit by having firefighters that are equally trained to one nationally recognized standard.

1. **\$3,003,624** Improvement to 12 regional fire service training facilities.
2. **\$60,000** Usage contracts and maintenance.

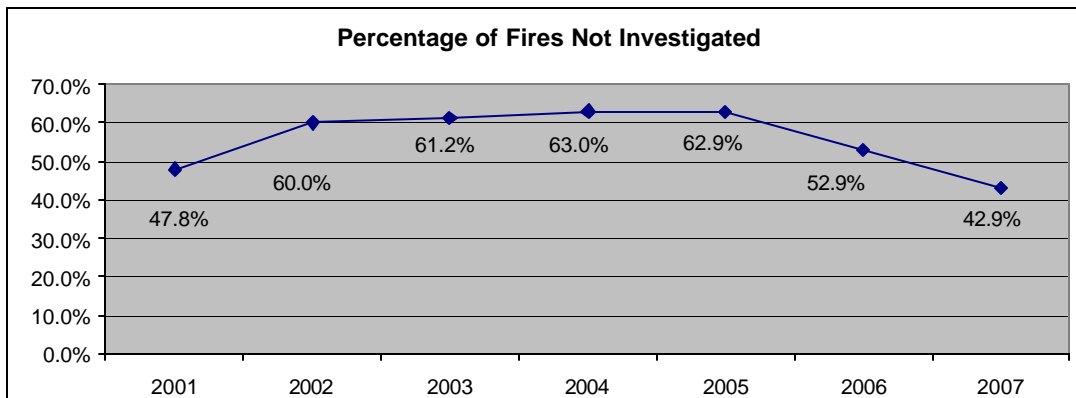
Priority 3- Continuing support of Training Division Functions

Recognizing that many of the programs that were being delivered by our agency were aging, the department developed several new programs to enhance and support its deliveries. The benefits to the fire service are twofold; firefighters enhance their marketability to be hired as a paid firefighter and a pool of Wyoming resources is created to hire from. The second benefit for the Wyoming Fire Service is safety and cost savings for the public. Trained and tested firefighters perform the skills needed to suppress fires more efficiently than firefighters not similarly trained. Cost savings equate to reduced property losses, injuries, and insurance premiums for our citizens and positively impact our economy.

1. **\$60,000** Contract instructors.
2. **\$22,860** Continued support of the Fire Service Library, and on-line training programs.
3. **\$10,500** Providing statewide testing for nationally accredited programs

Performance Measure #3:

Percentage of Fires Not Investigated



Story behind the performance:

The Training Division collects detailed specifics on all fires in the state. Fire departments are required by Wyoming Statute 35-9-109 to investigate the cause of all fires and report them to the State of Wyoming on the forms provided by the DFPES. However, the erroneous belief is that all fire departments capture the proper cause and area of origin on all fires.

Our fire reporting form, as well as the national fire incident reporting form, allows fire departments to select “not reported,” “undetermined” or in many cases leave the cause of ignition and are of fire origin blank. The statistics revealed that these two fields of information are not being reported.

In 2001 a concerted effort was made by the DFPES to get fire departments to report all fires occurring within their jurisdiction as well as the circumstances surrounding their origin and cause. In that time fire incident reporting (but not proper fire incident reporting) became a requirement for many grants. Since the initial launch of this program, and the effort combined with it, each year the percentage of properly reported fires has decreased, with the exception of a small increase in 2005. Additionally, fewer and fewer fire departments have reported fire incidents since 2003.

The circumstances of reporting cannot be controlled; however, they can be improved. It is only when our data collection improves in quality, can we truly address why we are having fires. By monitoring the trend in these deficiencies, we can begin to correct the problems. With this information we can keep the

fire service informed on the deficiencies we are experiencing. Only by correcting this problem can we begin to develop appropriately target educational programs for fires.

Better reporting of a fire's cause and point of origin will enhance the local community's fire prevention and education efforts thus saving tax dollars. Better fire reporting also leads to quicker product recalls, thereby saving many homes from the threat of fire. Fire Data may also be reviewed to see what in a home is burning. Once determined the most common fire hazards could be removed or replaced thus preventing fires from occurring and saving taxpayer dollars.

What we propose to do to improve performance in the next two years?

1. Encourage better fire reporting through training and better marketing of existing data.
2. Develop and initiate quality control measures for those fire departments that have a high percentage of reports that do not completely document the cause of a fire.
3. State Fire Trainers will provide Fire Cause & Origin education for all fire departments.
4. Implement an "Incentive Award" program to recognize local fire departments, i.e. "best overall quality, most improved fire reports, on-time award," etc.

Reform the Wyoming Fire Incident Reporting system Advisory Committee, with the goal of improving the fire incident reporting throughout the state.

Appendix A: Data Development Agenda. List priorities for new or better data on performance:

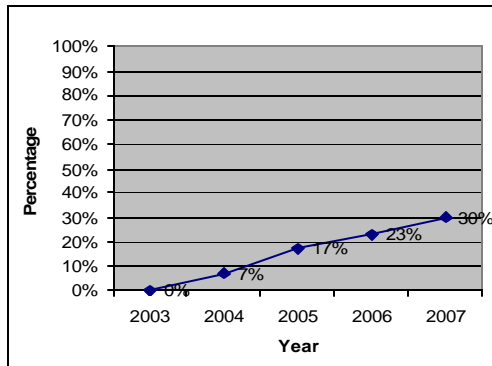
1. Track fire incident reporting quality as incident reports are received, and contact those departments who do not properly report the cause and origin of a fire.
2. Begin aggressively seeking out fire departments that are not reporting incidents, to determine why they are not reporting and what assistance they require.
3. Reform the WFIRS Advisory Committee with a new goal of improving incident reporting quality and quantity throughout the state.

Appendix B: Link to budget. Provide detail on priorities identified above which show in the current or proposed budget:

- 1) \$3,000 Added printing costs associated with cause and origin student manuals as well as printing brochures on the importance of "accurate fire investigations and reporting" is important to get the message out. Better fire reporting and investigations ensures the appropriateness of "fire educations programs".

Performance Measure #4:

Percentage of fire departments engaged in fire prevention and public education programs through our Department.



Story behind the performance:

Prior to late 2004 there had not been a position or resources dedicated to fire prevention education targeting locales and people at the greatest risk to fire. The years of 2005 and 2006 have been dedicated to providing programs that are applicable to local needs and programs developed because of the need within those communities. Additionally, the Department of Fire Prevention & Electrical Safety has made a concentrated effort to get a fire prevention message out to the media for their help in disseminating.

We believe the best way to protect the public and property from fire is through a comprehensive educational programs that emphasizes fire prevention and using the concept that fire prevention begins “One Household at a Time”. There has also been a focus on fire prevention and fire safety concentrating on governments - local, county and state - to fully realize the positive economic potential of having quality fire prevention programs and the use of fire protection systems in their businesses and in their educational facilities.

What do we propose to do to improve performance in the next two years?

1. Expand the Smoke Alarm Placement Program to include more communities concentrating on homes of the elderly and low income families with children. Expansion will be sought by partnering with state and local agencies, as well as community fire departments, to identify households needing adequate protection provided by working smoke alarms and grant funding sources to acquire additional funding. See budget explanation below.
2. Continue the grant funded Juvenile Firesetter Intervention Program (initiated June 2004). Expand education on juvenile firesetter problem to mental health providers, law enforcement personnel and the Wyoming fire service to provide opportunities for early intervention and education. No/Low cost.
3. In partnership with local fire departments, continue to target occupancy types that are showing the highest frequency of fires, property loss and lives lost for increased education and assist the local fire departments organize and implement an educational program that addresses this. No Cost.
4. Continue to utilize new and exciting methods of providing fire prevention and fire safety education. See budget explanation below.
5. Expand and develop new relationships with other State agencies and other likeminded agencies outside of State government to provide additional avenues for fire prevention education. No Cost.

Appendix A: Data Development Agenda

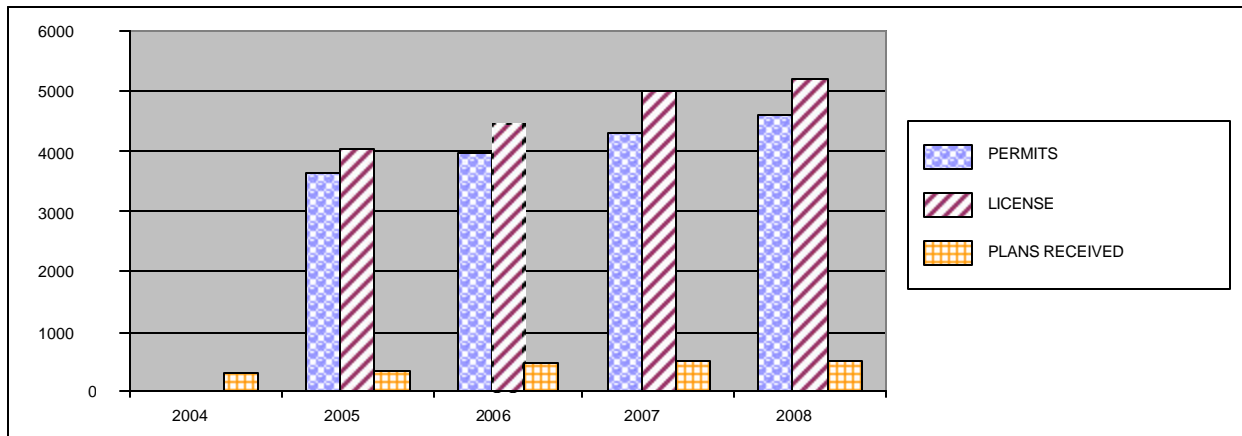
1. Continue to collect and better analyze existing data to correctly identify fire problems with specific focus on fire deaths, type of occupancy in which the deaths occurred, fire cause, dollar loss, and what can be done to prevent such occurrences again.
2. Collect data from Smoke Alarm Program to gain understanding of the fire safety education level of low-income families with children or elderly. Use surveys at public opportunities to determine level of basic fire safety actions in the homes of Wyoming citizens.
3. Conduct analysis of the direct/indirect economic losses to the communities of Wyoming when a fire occurs in commercial properties. Use of this data will enable the development of educational programs detailing the benefits of fire protection systems, code enforcement, etc.

Appendix B: Link to budget.

1. If the public education program continues to be effective, it will require dedicated biennial funding of approximately \$33,000 not including personnel costs for the position. Included in this total is \$15,000 for travel, \$600 for membership in fire prevention organizations, \$400 for subscriptions to trade publications, \$2000 for public education equipment upgrades, and approximately \$15,000 for printing costs of fire prevention materials to be distributed across the State.

Performance Measure #5:

Projected increase in construction plans reviewed, increase in permits issued, and increase in electrical licenses issued/renewed.



Story behind the performance:

Of five major business processes we conduct in the department we have selected the above three measures to illustrate a trend within our department and one for which we must plan now if we are to maintain the same level of services and improve on timeliness in the future.

Department of Fire Prevention and Electrical Safety

We cannot control the number of electrical licenses or permits issued each year, or the number of construction project plans we review for code compliance, but the trend has been, and continues to be increasing. Construction across the state is projected to continue to increase which directly impacts us in carrying out our responsibilities. We cannot, in a meaningful way, alter the time it takes to complete any of the processes without integrating technology into them. Without streamlining the process and employing a system where we reduce redundant data entry, manual record searches, and staff time “triaging” via phone and mail our service will be decreased.

The current business process’ we use are labor-intensive with each requiring manual processing by staff, extensive use of phone and letters, and manual searches of numerous databases and hard files for application accuracy and information. The result is without advanced technology we are slow in processing applications and plan reviews, which in turn negatively impacts our constituency’s ability to conduct their business. With the current process’ we cannot accurately measure our effectiveness because the information is housed in unconnected databases and paper files.

All of our major business processes are interconnected in some way. If a fire occurs and an investigator is dispatched to help determine the origin and cause as part of their investigation they need access to plan reviews, electrical wiring permits pulled for the property as well as any fire or electrical inspections that have taken place. To check on any property or occupancy that we have been part of as far as reviewing, permitting or inspecting is currently impractical because the information is stored in numerous systems, none of which are connected and easily accessible. There is no way to develop reliable data to increase our efficiency with the current process’ to collect the information and to assimilate it in a manner which is retrievable by personnel in various job functions located across the state in satellite offices.

What we propose to do to improve performance in the next two years?

The business case has been adopted and now we will implement the business case to re-engineer our 5 major business processes in order to increase efficiencies within the department and increase service to our constituency. Through the use of on-line application processes for electrical licenses and permits, electronic building plan submittals and review, fire investigation management and inspector assignments being integrated in a comprehensive data management system we can reduce turnaround time to minutes rather than weeks and in some cases a month or more. This business process re-engineering will optimize the use of our personnel for use in other functions of the department while greatly improving service. Total expected cost of this project is \$790,000 in fiscal year 2007-2008.