

**Neptune Township
Fire District #One
1998
Fire and Emergency
Services Survey**

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Executive Summary

Our firm has devoted the past several months to a study of fire protection services within the area of Neptune Township which is served by the Neptune Township Fire District #One. We have conducted extensive interviews with a wide range of personnel. We have reviewed records in a number of different operational areas. We would like to thank all of the commissioners, officers and members who took the time to meet with us. Your input was invaluable. The time has now arrived to render our opinion on a number of different topics.

We are truly concerned over the centripetal forces which are at work among the four distinctly different fire companies which provide their services to the fire district. Our observation regarding loyalties is that the primary feelings exhibited by the members we queried were for their individual fire company. This is not necessarily a bad thing, but it tends to get in the way of the overall district-level operational efficiency which is now required to cover the township as a whole. It is as though the four companies still considered themselves independent entities.

The time is long past when any individual fire company can adequately protect their operational zone within the township, particularly during the 0700-1700 hr. daytime period. The Board of Fire Commissioners should work to create a true Neptune Township Fire Department, as the primary focus of operational interaction.

We would also recommend that the construction of a fifth fire station be considered. It would be our suggestion that this station be developed in the general area of Wayside Road and West Bangs Avenue. This would provide a timely response in that area. It could also serve as the operational base for a number of our other recommendations:

1. Staff a four-person response from that location. This would require the hiring of additional career staff.
2. Create a township training facility, with a classroom capable of seating 100 personnel. This could also serve as the meeting room for the Board of Fire Commissioners.
3. Additional equipment and apparatus would not be required, as a sufficient number of vehicles exist in the District fleet to cover this new facility.
4. This would be a department facility. Members from any of the constituent companies of the Neptune Township Fire Department could respond to this facility.
5. Facilities could be built into this new station to allow for the creation of a police department substation in this area of the township. Patrol units could stop in to use the facility for breaks, report writing, and bathroom visits. This could be a great service to the community.

We would strongly recommend the creation of a true departmental entity, and the opening of a fifth station. It is our opinion that these actions would allow the fire district to better reallocate resources throughout the community. This would allow for an improved apparatus distribution through the township.

Along with this, we would urge the use of station numbers, rather than company names as the means of identifying each company. We would recommend:

1. Station 34-1 - The current Unexcelled unit
2. Station 34-2 - The current Liberty unit
3. Station 34-3 - The current Hamilton unit
4. Station 34-4 - The current Shark River Hills unit
5. Station 34-5 - The new department facility

Over time, the number and not the name would come to be the definitive term. The use of this numbering system would confirm the Township Fire Department, rather than the individual companies, as the central focus. And it would remain under the command of 34-66, the township chief.

Under our recommendation, the township command staff would be changed. We are recommending that your new command structure be as follows. We feel that you would be better served by having a Township Fire Chief assisted by three Township Assistant Chiefs. We are also recommending that stringent educational requirements be established for gaining access to these new command positions.

The individual stations would operate under the functional command of a Captain. The rank structure supporting the Captain would remain as it currently exists. It is our opinion that this would allow for a stronger command and control operation for the Fire District.

During the course of our many visits to the community, we noted the problems involving daytime EMS response from the first aid squads. On many occasions, we noted in service times in excess of 15 minutes. The fire district can provide an invaluable service to both their own members and the community by creating and staffing a daytime fire department ambulance service. By providing an emergency response of fire and EMS within the township, the fire district can improve the overall response capability.

We understand that this will be a controversial action. Volunteer EMS units have a strong history of independence in New Jersey. However, it can be justified as the next logical extension of the current practice of sending the career staff out on fire apparatus to assist the first aid units. Nationally, EMS is a growing aspect of fire department operations. It might be that this service begins with one unit and later grows to meet the identified needs of the community.

The time has come for the hiring of a full-time fire district administrator. Our interactions with the commissioners and departmental members have convinced us that someone must be at work full time on the following issues:

1. Grants and fund-raising
2. Salary and personnel administration
3. Purchasing
4. Inventory control
5. Maintenance supervision and scheduling

We would also stress the need for a total daytime career force as follows:

Station 50 two (2) personnel

Station 60 two (2) personnel

Station 70 two (2) personnel

Station 80 two (2) personnel

Station (new) One (1) career supervisory fire lieutenant

Three (3) career firefighters

Two (2) career firefighters for ambulance duty

We recognize that this is a healthy increase in your staffing level. We offer the following reasons for this:

1. State mandate for two-in/two-out
2. More effective daytime attack force
3. Current lack of personnel to cover vacancies
4. Better EMS protection for department personnel while responding to fire-related emergencies (Take care of your own)
5. An improved service delivery level for EMS in Neptune Township

The personnel hired to fill these positions should have the following qualifications:

1. New Jersey Division of Fire Safety Firefighter I
2. New Jersey Department of Health EMT-B
3. New Jersey Department of Health EMT-D
4. New Jersey Division of Fire Safety Fire Instructor I

Remember that we are not saying that all of these people should be hired immediately. However, you should give a great deal of thought to enlarging your department over time.

We have a full set of recommendations regarding all areas of operations in Section Nine of this report. We would urge the Board of Fire Commissioners to review them carefully. But remember, they are opinions rendered for your guidance; they are not carved in stone.

We would hope that you use them as the starting point for an intense debate on how you wish to do business in the new millennium, which is but a few months into the future. If they can stimulate you to use them or think of other ways than we have recommended, then our work has not been in vain.

Section One - Organization and Purpose of a Fire Department

Our consulting firm has long believed that every citizen is entitled to feel safe in their pursuit of the American Dream. This has been a generally accepted premise of life in the United States for a long time. People in every community stand exposed to a wide range of risks. The citizens of **Neptune Township** are no different.

These folks look to the fire department as a buffer against the potential for sudden and unexpected emergencies. Every municipal fire protection organization should have the fulfillment of these expectations as its major focus.

The **Neptune Township Fire District # One** has accepted both the legal and moral responsibility for fire protection services in their community. It is now their duty to provide a level of emergency services commensurate with the appropriate codes, standards and accepted professional practices in the field of municipal fire protection. They are obliged to perform to the best of their ability, within the fiscal constraints approved by the citizens living within and protected by the Neptune Township Fire District #One.

Society has long recognized the need to provide for the suppression of fire. The public has come to expect that this service will be provided by some level of government. In order for us to understand just what a fire department is supposed to do, let us outline the various services which a municipal fire department should provide.

A. Fire Suppression Services: The classic fire department task of responding to and extinguishing fires.

B. Fire Prevention and Inspection Programs: The best way to correct fire safety mistakes which might lead to a fire are to engineer them out of a building before it is built and inspect buildings to insure that they are being maintained in a fire-safe manner.

C. Public Fire Safety Education: Programs must be delivered to the various user populations in a community which will equip these people with the essential life-safety skills to avoid exposure to a fire, improve their chances of escaping from a fire or minimize the consequences of their exposure to fire.

D. Emergency Medical Services: Over the past two decades, fire departments all across the United States have come to be recognized as the service best positioned to provide emergency medical services to their communities. An adequate capability must be maintained to allow instantaneous delivery of this critical service on a 24- hour-per-day basis

E. General Emergency Response Capability: A capability must be provided to assist a community during times of natural disaster, or imminent emergency. The fire department has historically been a pillar of support in this important area.

F. Community Consultation: An additional service of the fire department should be to consult with local people and groups who have fire-related problems, questions and requirements. People look to the fire service to answer their questions and allay their fears.

In order to focus its efforts, it is imperative that a fire department have a **Mission Statement** to explain its reason for being. It must then work to build an organizational structure to fulfill all of the operational areas intended to meet the community's need for fire protection.

You can see from the recommendations listed above that EMS is considered a part of the standard service delivery package for a progressive fire department. We use this as support for our recommendation that your district consider the formation of a career-based EMS unit within the district for the protection of fire personnel, and the support of the existing volunteer first aid squads.

Harry R. Carter, Ph.D., a fire protection consulting firm, respectfully suggests the **Neptune Fire Department** adopt the following mission statement as being the focus of their commitment to protect the citizens and taxpayers in their community.

Mission Statement - Neptune Township Fire Department

The Neptune Township Fire Department was formed to provide a critical service to the community. It will strive to provide an adequate level of fire and EMS protection to the citizens of their community.

They will endeavor to afford taxpayers, residents and visitors quality fire and EMS protection at all times and in all areas of the Township.

Once a department decides why it exists, it can then lay out plans for the future. Goals must be developed which will guide you in the development of your mission statement. These can be developed during the organizational **planning retreat** that we are recommending for your fire district. You must organize for success. And that cannot be imposed by an outside consult. It can, however, evolve with the assistance of an organizational development consultant. You should do this.

Section Two- Neptune Township Fire Department

Organizational Culture

We have long held the belief that an outside fire protection observer needs to study the organizational culture of a fire department, and the ways in which it goes about getting its job done. There are a number of areas which should be reviewed and assessed in order to discover how an organization functions. We will look at the following areas:

1. Structure
2. Process
3. Behavior

Throughout this report, we will continually refer to the **Neptune Township Fire Department**. Although no such actual entity exists, we feel that it should. In order to grow and prosper, the four fire companies involved need to alter their focus and loyalties to the overall organization, represented by the **Fire District**.

It has been long been our experience that an improved understanding of how an organization works comes about through an analysis of its organizational structure, its day-to-day operation, and the ways in which its people act within the organizational setting. In this case, we were able to uncover a number of problems through a review of anecdotal information.

As a result of our interviews and investigations, we found that it appears as though four individual factions have developed within the fire department, based upon the history and lineage of the individual fire companies. Anecdotal information strongly suggests that certain of these factions have worked to undermine the integrity of the fire department, as represented by the **Neptune Fire District #One**.

Rather than working toward a common focus, individual company agendas continually came forward. It appears that the present **Board of Fire Commissioners** and the current **Fire Chief** have improved relations between the individual companies. This has allowed them to concentrate on the job at hand, which is the delivery of fire protection services to the township.

However, we felt a certain presence of dissension in the air during many of our visits. Bear in mind that it was nothing which we observed in an overt manner. No, it is the sum total of our group interviews, interactions, data review, and telephonic communications. What we observed was the appearance of two distinct factions at work within this **fire department**.

While there was a great deal of innuendo, the only instance of outright confrontation appeared at one of the fire commissioner's meeting where the **Second Alarm** policy was the topic of discussion. We personally observed an outright verbal battle between the two divergent groups. What we saw was a classic example of that old military maxim: "... there is always someone who never gets the word." This must be addressed by the entire fire district organization: **The Neptune Township Fire Department** we have been discussing.

The encounter retreat we are recommending to your community would appear to be a necessary element in bringing this fire company back on line; working toward a common focus.

STRUCTURE

The fire companies which form what we would like to see become the **Neptune Township Fire Department** are municipally-supported fire companies. All four companies operate under the control and fiscal oversight of the **Neptune Township Fire District #One**. This is a special-purpose district level of government authorized by the laws of New Jersey.

The fire department operates from four fire stations and a satellite station in a first aid property. The daily operations are under the control of the Township Fire Chief, who is supported by a Township Assistant Chief.

These station are under the control of Deputy Fire Chiefs elected by each company. There is a support staff of volunteer officers consisting of Captains, Lieutenants, and Engineers.

The following guidelines exist to help the department conduct its daily operations:

- a. Rules and Regulations
- b. Constitution and by-laws
- c. Standard Operating Procedures (SOP's)

Unfortunately, the SOP's are minimal in number and not well-enforced by the Board of Fire Commissioners. This should be changed. The fire district has to step up to the plate and exercise the powers granted to it by state statute. One glaring example involved the presence of beards on a number of firefighters. This cannot continue, in light of the state and federal regulations. Others exist and should be addressed through the development of a proper set of **General Operating Guidelines (GOG's)**.

During the course of this study, we met with officers from the individual companies within the fire department. We also met with a number of members who shared concerns with us. Other members were kind enough to send us information which we have used to broaden our understanding of the situation in Neptune Township.

It is a good maxim of management to bring people together periodically. In the case of the **Neptune Township Fire Department**, many things were apparently accomplished in the past without a great deal of input from the members. The only time the various company factions seemed to come together was at the bimonthly commissioner's meetings. And then it seemed as though the primary sport was fighting. Whether it was company against commission or company against company, the interactions were most spirited.

While a leader is charged with a great deal of responsibility to get the job done, in a volunteer setting it is critical to solicit and accept the guidance of the members. This can occur formally at fire department meetings, or informally in a wide variety of local settings. But it must occur.

The focus of the Fire District currently appears to lie at the company level. We would suggest that some basic organizational development work needs to occur. The **Neptune Fire Department**, as an entity, must come to the fore. You will still be delivering service from the company-based fire stations, but the emphasis must be on department loyalty and service to the community. This recommended shift would play a strong part in any future-oriented recommendations made by this consultant.

Effort needs to go into developing the actual goals and objectives which can make this organization blossom. This would be another part of the **planning and development retreat** which we have suggested in the executive summary, be held by the fire district. The concept of a township fire department can then be strengthened through the use of proper organizational study techniques.

At this event, the members present can develop a mission statement. It will spell out why they exist and what they need to do. They could then develop the goals, objectives and tasks which would allow them to create an operational plan that would bring their mission statement to life.

A wide range of personalities from all levels the organization should be called upon to participate. The inclusion of all views, however divergent, is critical to the "buying-in" process. We would urge the use of a neutral, outside facilitator in this process.

Since you are moving quickly toward the start of the next century, you might even wish to call this event, **"Neptune 2001"** in honor of the new century. You must create an organization of "stakeholders," people with an abiding interest in the well-being of the agency as a whole.

It is our belief that many members of the organization do not understand that their in-put is really desired, and appreciated. The leadership of the organization needs to work hard to get this idea across. But perhaps some people will never get the message.

Be sure that all of your people are included in **"Neptune 2001."** It is only through the process of inclusion, rather than exclusions, that a more relevant set of goals and objectives can be developed. You should not limit the number of participants, as important ideas might be missed.

ORGANIZATIONAL PROCESSES

There are two basic processes that every organization uses to process the inputs of people, dollars, and time into the outputs off service delivery. They are:

1. Communications
2. Decision-making

Communications

A problem which we have encountered in a number of past consulting assignments has involved people thinking that they are communicating ideas when they really are not. As a matter of fact, we have encountered this in our own life on a number of occasions.

A similar, but slightly different problem comes when leaders are communicating frequently, but not in a manner which can be easily understood. This can occur because the wrong language is used, or inappropriate modes are used for the people concerned. We did not observe this aspect of the communications problem at work in Neptune. There simply is an insufficient number of ways for the agency as a whole to communicate with its members and itself.

There are also those cases where people simply do not want to listen. This usually involves a problem of trust, on one side or the other, usually based on a past problem that is never allowed to die. This is a very difficult dilemma. We have encountered this during our work in Neptune. We think that this part of the organizational difficulties in your fire department can be addressed during the confrontational interaction section of "Neptune 2001".

Our review of the communication's model in your fire and rescue department finds the following:

1. The leaders need to portray to the members where the department is headed.

2. Information is needs to be transmitted in writing.
3. Communications should occur during meetings.
4. Non-emergency organizational decisions need to be made in a more public manner during fire company meetings.

We were able to review the relevant forms of communication. Greater effort is needed to get the word out. Part of the problem seems to be that many times the troops do not want to hear what is being said. Unfortunately that is just tough turkey. However, that is what being in an organization requires. Work at the retreat should be devoted to this.

A district newsletter could begin to address this issue. And the new district-wide computer system offers tremendous opportunities for becoming an integral part of the move toward a departmentally-based thought process. E-mail and video newsletters could be an effective way in which to reach members in every company.

People have to be educated in the need to bend their own personal needs to the requirements of the organization. The old theory of coming together for the greater good. This is a trait no longer taught in our schools or in society in general.

Conversely, the organization must be ever aware of its requirement to understand the needs of its people. An organization can improve its performance by creating as great an overlap of individual and organizational needs as it possibly can.

Decision-making

A decision is an event which requires the choice of a given course of action. One can make decisions in a positive, affirmative manner. They can also occur by default, in the absence of a definite choice. Either way, something will happen. A fire department has a better chance of having influence over the outcomes from a decision if it acts in a rational, deliberate manner.

We wish to assist them in improving their operation, through the organization-wide use of effective decision-making. In order to assist the **Neptune Fire Department** in developing an understanding of the decision making process, we must stress that a decision is rarely a single event. They usually proceed in a chain-like manner, where one choice follows another. Things usually evolve from what was, through what is, and then on to what will be. There are three distinct decision-making chains:

1. Problem-solving
2. Opportunity-exploiting
3. Project-management

Problem solving chains involve specific deviations from expected results. They require that an existing problem must be solved. They usually are found in the form of "what is and what should be." Opportunity exploiting chains are quite creative in nature. They might be stated in the form of "what is and what could be."

Project-management decisions are usually found in the day-to-day operations of an organization. They are routine and best made once with the establishment of operational guidelines. In this way there is a uniformity of organizational operations.

Our review of what we would like to see become the **Neptune Township Fire Department** found a decision-making system that is distinctly pyramidal in nature. Unfortunately , a full and effective set of **Standard Operating Procedures (SOP's)** does not exist. This creates a void in that members do not always know what is expected of them. A number of things step in to fill this void. Individual members do what they think is right. Things are done the way, "they have always been done." These acts can take the organization in directions not intended by the Board of Fire Commissioners.

Given the varying focus of supervision in a volunteer scenario, people in the organization should be trained to make decisions. They should then be empowered to do just this. But these things should be done within the framework of a strong set of **General Operating Guidelines (GOG's)**.

People must know what is expected of them in the situations they will normally encounter. And their training should then equip them to make decisions under abnormal circumstances. These are the people who will accomplish the organizational goals with a minimum of injury and chaos.

During our discussions, we began to evolve a theory as to how the decision-making process might be enhanced. People should not only be trained in how to make decisions, but they should have a written set of policy guidelines which could cover the following:

1. Decisions for use in routine situations.
2. Decisions for extraordinary situations.
3. The procedure for developing solutions to extraordinary situations.
4. What types of decisions can be made by the varying levels in the rank structure of the organization?
5. Situations when a decision should be moved up the chain of command.

All of these items would be contained with a book that would be created, published and distributed throughout the department. It would be used by officers to operate the department on a continuing basis.

This book would be developed by a committee to be chaired by the **Township Fire Chief**. The process for its development would be open to input from all department members. Its final form would be subject to the approval of the fire department. Decision-making is OK, but with just a few modifications, it could be much better.

ORGANIZATIONAL BEHAVIOR

One of the primary problems facing an organization involves its understanding of how its people interact with it. Each person who dons the uniform of the Neptune Fire Department is a unique entity. They arrive pre-formed, and with a great deal of personal baggage. They are a product of:

1. Their home environment
2. Their community environment
3. Their experience within whatever educational system they attended.
4. Their life as they have lived it prior to entering your fire department.

It is important for the organization and the Fire Commissioners to understand the relationship which exists between the needs of the members and the needs of the organization. Many years ago, management expert **Professor Chris Argyris** suggested that the most productive organizations were those where the needs of the individual were met by the requirements of the organization. He spoke of an organization where people worked hard, because they were laboring on behalf of their own values, as espoused by the organization.

This requires us to ask why people join the **Neptune Township Fire Department**. Usually, the list of what people say runs something like this. They wanted:

1. to serve the community
2. excitement
3. wanted to be a firefighter when they were little.

Very few people would say that they joined so that they could be up at all hours doing a dirty and dangerous job, for little or no selfish gain. So it must be the psychological intangibles which keep the troops coming back.

We would suggest that you should work to **uncover these intangibles** during the retreat which we mentioned earlier in this document. Why should we, as consultants, guess at their motives, when they can be ascertained in person?

Further, in those cases where a person leaves the organization, they should be queried as to the reasons for their departure. By exploring the reasons why people leave, the organization can work to eliminate negative detractors and improve recruiting and retention.

It is our suggestion that all of these motives be explored as part of the **retreat exercise** which we have suggested. If you can tie into the psychological reasons for joining and extrapolate them toward reasons for remaining, success in organizational retention may well be the final result.

In closing, we would remind the **Neptune Township Fire District #One** that no organization exists in a vacuum. The Neptune Fire Department is a subset of the community at-large.

They must continue their willingness to marshal the resources to support all three aspects of their organization:

1. Structure
2. Process
3. Behavior

Section Three - Demographics

The Township of Neptune is a mature suburban community located in Eastern Monmouth County. It has a land mass of approximately eight square miles. It is home to a culturally diverse community of approximately 28,980 citizens.

It is bounded to the north by Ocean Township. To the east lies the Atlantic Ocean, as well as the Borough of Belmar for a small area in the south-eastern quadrant of the community. It is bounded on the south and east by Wall Township and to the West by Tinton Falls. The southern area can only be reached by traveling through Neptune City, or Wall Township.

A review of the community's master plan indicates that the bulk of the residential growth occurred between 1960 and 1970. Population has increased only minimally since 1970. As a matter of fact, anecdotal information indicates that the high school population has dropped to the extent that they now compete in a smaller Group level in the athletic arena.

POPULATION

<u>1960</u>	<u>1970</u>	<u>1980</u>	<u>1990</u>	<u>1997</u>	<u>2005</u>
21,487	27,863	28,366	28,148	28,979(est.)	29,761(est.)

Please note that there was a drop in actual population between the 1980 and the 1990 census figures. The increase in population projected for 1997 comes from figures provided by the Monmouth County Planning Board. It is an estimate.

The township planning documents indicate that the township is built-out to approximately the 90th percentile. There is not a great deal of open land to develop for homes, with a few exceptions in the western end of the township.

A historic review of the housing stock indicates that there are three distinctly different areas of housing development. They are listed as:

1. The older sections of Whitesville and Bradley Park
2. The newer post-World War II subdivisions, generally west of Route 35
3. The Ocean Grove area, with its historically significant structures.

These units are, for the most part, well maintained. Our review of the community confirmed our research, in that Neptune Township is, for the most part, a low density community. There are newer townhouse and apartment complexes, but the bulk of the community is single-family in nature. The majority of these units were built prior to 1960. The majority of the housing stock is owner-occupied. The **Master Plan** indicates that the number of housing units doubled between 1950 and 1980.

Growth Rates

1950-1960

1960-1970

1970-1980

52%

21.5%

11.9%

We can only approximate the 1980-1990 growth rate, as no new figures were available. If one were to look at the drop in population, a particular view might come to mind. However, given the townhouse developments in the central area of the community, we would speak in favor of an overall upward growth rate in the actual population. This will have to be verified after the census is completed in 2000.

There are areas of the community where the housing stock appeared to be somewhat deteriorated. There were also areas of largely vacant land which is available for future use. How this land is developed will have an influence on fire protection service delivery.

A critical element in the township's plan for the future involves keeping the existing housing stock in good condition. The Township's Code Enforcement program plays an important element in this regard. By continually reviewing the conditions of housing in the community, this agency can stave off problems which could exacerbate the exposure to fire-related problems in the township.

The data which was reviewed indicated an upward trend in the number of persons in the 15-24 years of age. This provides a positive base from which to recruit potential fire department members. Unfortunately many of these people commute to work. The average time to commute is approximately 22 minutes. This would place these people out of the immediately able to respond to emergencies category, even if their employers would consent to release them to attend fire calls.

The population increase in the 15-45 years of age groups mirrored the figures for Monmouth County. This should stimulate recruiting for future fire service membership. If the pool of people grows, the potential to garner new members can also improve.

A review of the road network in the township indicated some serious flow-related problems. These can require important considerations which impact the ability of the fire department to respond and deploy in a timely fashion. The Master Plan update in 1996 found that there were network deficiencies with the major roadways, Routes 33 and 35, along with a number of county highways. Since these are under the control of other levels of government, their improvements are beyond the ability of township to do anything more than request changes.

The township has provided the necessary cleared land to widen Route 33 between Route 35 and Main Street. All of the efforts in this area are being coordinated with state and county authorities.

In addition, road improvements have been proposed for a number of local roads and streets:

1. Neptune Boulevard
2. Jumping Brook Road
3. Green Grove Road
4. Old Corlies Avenue

Improvements to each of these roads could have a positive impact on the movement of emergency vehicles. Our travels through the community indicated that each of these is a critical element in the movement of fire vehicles throughout the community.

Concerns were expressed by the Master Plan update in the area of fire protection in the western portion of the community. We tend to agree, noting that much of the available land for proposed development is in that area. Further, there was a great deal of commentary about the commercial growth which will soon arrive in the Route #66 corridor.

The intent of the township in this area has been made evident by the rezoning of the Jumping Brook Golf course for further residential development. The combination of commercial and residential growth in this area will have a distinct impact upon the deployment strategies of the fire district.

Further, there are parts of the township which lies outside of the standard 1.5 miles service delivery area of the existing fire stations. It may be that an additional station, the closing or relocation of one or more stations may have to be considered.

The township has wisely amended its zoning codes to provide better guidance and control of development in the township. This has provided a stable growth environment. The fire district will be better able to protect a community whose growth rate has been controlled, and whose property is well-maintained.

Our projections for fire protection-related improvements will be based upon this stable community growth rate. Should a sudden burst of growth occur, our recommendations would need to be revisited.

Section Four - The Fire Organization

The **Neptune Township Fire District #One** is responsible for fire protection within all of Neptune Township, except for the Ocean Grove section, which is served by **Neptune Township Fire District #Two**. Fire protection in Neptune Township is delivered through the joint efforts of four separate fire companies, operating under contract to the fire district. These units are:

- Unexcelled Fire Company
- Liberty Fire Company
- Hamilton Fire Company
- Shark River Hills Fire Company

Station Locations

Each unit maintains a station in their area of the township. We must note that these stations are not well-placed for the delivery of a township-wide deployment pattern. However, this phenomenon is easily explained by the fact that these stations are located in the population centers which supported their founding.

We noted that there are areas in the township which lie beyond the one and a half (1.5) mile response distance recommended by the **Insurance Services Office (ISO)**. We are referring to the area located in the Route #66 corridor, in the vicinity of Wayside Road. This area is a candidate for a new fire station.

Each station is responsible for first-due fire protection services in a designated segment of the community. We would recommend that fire protection might be better delivered by the addition of the new station mentioned above and the combination of the Unexcelled and Liberty Fire Companies into a new, more centrally-located facility.

Command Structure

There is a **Township Fire Chief** and a **Township Assistant Fire Chief** who head up the overall township-wide command structure. These positions are rotated through the individual fire companies on an annual basis. Each individual fire company has a Deputy Fire Chief who reports to the township officers. However, the actual day-to-day operation of the individual fire companies appeared to rely heavily on the Captain in each company.

It became quite apparent during the course of our study that the focus of each fire company was inward. This is to say that the primary loyalties of the individual units appeared to be at the company, and not at the fire district level. This is the opposite of most fire departments we have reviewed. While there might be a strong affinity for the individual fire company, the primary loyalty should be to the overall organization, which in the case of **Neptune Township** is the fire district.

To this end, we would strongly recommend that a new entity be created. This organization would be known as the **Neptune Township Fire Department**. This department would be administered by the **Board of Fire Commissioners**.

It would operate under a new command structure. (This structure will be detailed in an Appendix organizational chart.) There would be a Township Fire Chief, supported by three Assistant Fire Chiefs. Each of the four companies would contribute a chief-level officer to the command structure. The initial choice of chiefs would require some form of lottery to select the command rotation.

The command of each individual fire company would then be vested in its Captain. The roster of company officers under that level would remain as currently constituted.

Individuals desirous of becoming candidates for the position of chief-level officer would be required to meet all existing requirements specified for the position of township-level fire chief, as supplemented by the following criteria:

1. State-certified Firefighter I
2. Completion of the new Monmouth County Fire Officer Training program.
3. Fire Instructor I certification to insure a commitment to the proper delivery of knowledge throughout the department.
4. Incident Management Certification (Level II)
5. An annual continuing education record which lists active participation in such training opportunities as County Fire Academy, State-level seminars, education meetings such as Fire/Rescue International, Fire Department Instructor's Conference, Firehouse EXPO (PIP programs), etc. A minimum of number of acceptable hours should be developed by the Board for this requirement.

6. Such additional requirements as the Board might deem necessary and appropriate

We realize that our recommendations are a departure from the current operational posture. However, it is our opinion that this new structure will improve the deployment of your command and control staff during emergencies.

Fire Department Records

It is incumbent upon us, as your consultant, to report that your over-all record-keeping system is in chaos. Our staff reviewed the individual response records of your companies. We could not come to a consensus, because each was a bit different, there were gaps, and not every company had every year's responses in the records.

Some company records were better maintained than others, however, it is not our policy to point fingers at people. Maintenance records were also spotty, as were the whole host of necessary documents. They might well exist, but they are not in an easily accessed, central file.

Quite simply, the fire district must develop an all-encompassing data reporting system. The ideal time to do this will come with the implementation of the new district-wide computer system. We would suggest the following as a minimum requirement:

1. Response to emergencies (completed by first-due company only) This will include all other township units which respond as a part of the total.

Quite simply, the fire district must develop an all-encompassing data reporting system. The ideal time to do this will come with the implementation of the new district-wide computer system. We would suggest the following as a minimum requirement:

1. Response to emergencies (completed by first-due company only) This will include all other township units which respond as a part of the total.
2. Maintenance checklists (Daily, weekly, monthly, specialized services)
3. Pump tests (annual)
4. Hose tests (annual)
5. Aerial devices (annual)
6. Hose tests (annual)
7. Training records (all types and kinds in a centralized file)
8. Public fire safety educational visits
9. Personnel files (career and volunteer) in a secure environment
10. The **General Operating Guidelines (GOG's)** which we are recommending be created by the fire district should be available on line so that members can be aware of the latest changes at all times.
12. Equipment inventory of all units and companies in the district
11. All fire prevention bureau records
12. Any other records which you deem necessary
13. Policy book should be developed for career operating staff

Equipment

We reviewed your equipment inventory and found that the following issues should be addressed in the not-too-distant future:

1. Your pumper fleet should be equipped with five-inch, large-diameter supply hose. This will allow you to shrink your pumper fleet and reallocate your funding for other types of apparatus.
2. You should begin a study of your self-contained breathing apparatus needs to see if there is a better, lighter weight unit which could meet your needs
3. Should you chose to acquire the new rescue vehicle we are recommending and convert the brush firefighting pumper at Hamilton to a rescue unit, you should plan on acquiring a proper array of rescue tools, including hydraulic tools, and an air bag system

Personnel Response to Emergencies

As we stated earlier in this section of the report, the status of your record-keeping system in the individual companies precludes us from making specific findings about response to emergencies. In general, we have found that when your fire forces respond in the **Second Alarm** mode, a sufficient number of personnel arrive at the emergency scene.

It has been our observation throughout the nation that most volunteer fire companies are overstating their "active" fire fighting personnel availability by much as 70%. Further, all personnel are not available during the working day (Monday to Friday) so the number consistently available during these times is even less.

There is a problem, however, with the timeliness of this response. This is particularly true in following areas:

1. Route #66 corridor as you move toward the area of Wayside Road
2. The region known as the Island (where you pass through Neptune City)

We noted a great reluctance on the part of the fire companies in Neptune Township to use mutual aid on an automatic, first-due basis. This should be corrected. The time is long past when departments could have the luxury of a "we can take care of our own business" attitude. We would recommend that the following relationships be established, at least during the 0700-1700 hr. time frame:

1. Neptune City - joint first call to island area and border areas to be determined by Board of Fire Commissioners
2. Ocean Grove - joint first call as appropriate
3. Asbury Park - joint first call as appropriate
4. Tinton Falls - joint first call as appropriate
5. Glendola - joint first call as appropriate

Career Staff

We reviewed your existing staffing patterns for career personnel. We find the intent of having career staff to drive and operate the equipment to be laudable. However, your staff is not large enough to provide all of the necessary support we would envision for the 0700-1700 hr. time frame.

Even with no additions in stations and apparatus, we feel that an increase in staffing is warranted. We would offer the following as our recommendations:

1. Hire four more career fire personnel to provide an actual four-person crew on a fire department pumper.
2. Retain a driver in each station as currently constituted.
3. Consider hiring additional career staff to operate a daytime EMS unit for fire department personnel. On a number of occasions we noted long delays in EMS response. Such a unit could provide a much-needed service for your personnel, and could assist the volunteer EMS on an as-needed basis. This is a logical extension of your existing policy of dispatching a career driver with his unit to support the volunteer EMS groups.
4. With the increase in career staff, the need then arises for a career supervisor.

Should you decide to co.-locate companies in consolidated stations, or build new stations, the career staff could then be adjusted. This increase in staffing could assist you in meeting the upcoming New Jersey Department of Labor mandate to use the "Two-in/Two-out" rule, beginning in 1999.

Training

It is our opinion, based upon state and federal guidance, that the definition of fully trained, medically fit, fire fighting personnel means personnel who are:

1. Firefighter Level 1(New Jersey A.C. 5:18c, Subchapter 4)
2. Active participants in fire company drills
3. Hazardous Material Operational trained
4. Responding to fire calls on fire apparatus
5. Participating in structural fire fighting and live fire training
6. Are medically evaluated by a physician annually
7. Receive OSHA mandated training such as, Right-to-Know, infectious disease awareness, Self-contained Breathing Apparatus (SCBA).
8. Have the necessary personnel and training records to prove all of these.

Each year the following should be completed by each structural firefighter:

1. Mandatory annual smokehouse drill for all structural firefighters
2. Mandatory live fire drill annually for all structural firefighters to include:
 - a. Burn building operation
 - b. Flammable liquids fire training
3. Simulated aircraft emergency drills:
 - a. Small plane
 - b. Large aircraft
4. Use of standardized lesson plans for all drills and training.

5. All new personnel must complete a state-accredited Firefighter I program prior to participation in actual emergency response operations.
6. All emergency response personnel shall be trained to at least the First Responder Operational Level for hazardous materials operations. This also requires annual refresher training.
7. All officer personnel trained to comply with the New Jersey State Police Hazardous Materials Incident Command course
8. Provide Right-to-Know training for all personnel as mandated by the state.
9. Use a fire department safety program to include the following:
 - a. Establish a safety committee
 - b. Develop a statement of commitment to firefighter safety
 - c. Develop a safety chain of responsibility
 - d. Review all unsafe acts or accidents by members and from bulletins
 - e. Appoint a fire department safety officer and include same in your table of organization, constitution and by-laws.

AND THEN USE YOUR SAFETY PROGRAM AT ALL TIMES!!

It is crucial to expose people to the information available at conferences and fire training schools. Without the influence of new ideas, a fire department can grow stagnant and fail to meet changing operational conditions with the most modern operational methods and equipment.

We would suggest the following as a minimum for the supervisory staff of the department. This exposure to outside ideas has a tremendous broadening effect on the thinking process of the people involved. These are in addition to any existing arrangements.

FIRE DEPARTMENT INSTRUCTORS CONFERENCE

Fire Chief

Assistant Fire Chief

Training Officers

FIRE RESCUE INTERNATIONAL

Fire Chief

Assistant Fire Chief

Deputy Fire Chiefs

NATIONAL FIRE ACADEMY

New Jersey Weekend

Volunteer Personnel for Specialized Four-Day Programs

FIREHOUSE EXPO

A bus excursion for all members who might wish to travel to Baltimore

Water Supply

Water for municipal fire protection purposes is provided by the New Jersey American Water Supply Company. Our review of the community indicates that the fire hydrants are spaced too far apart in just about every area of the community.

We attribute this to the fact that the Board of Fire Commissioners has to pay a rental fee for each hydrant in service. Like many other communities of which we are aware, the Board appears to have attempted to save money by limiting the number of hydrants it maintains in service.

It is our professional opinion that this is a false economy. It also has the effect of increasing the fire risk level in those areas where the hydrants are widely dispersed. It has been our experience that the limiting factor in firefighting success in communities such as Neptune Township, is the water supply system. Given the spacing of fire hydrants in your community, such a potential shortfall seems also to be the case in certain areas of Neptune. It would appear that the hydrant network in many parts of your community has the individual hydrants spaced too far apart.

In a number of areas, we thought there were no hydrants. Upon further review, we discovered that they are spaced so far apart that it just seemed that some streets, or neighborhoods did not have a fire protection water supply. This needs to be remedied.

There are also certain areas of your community where the water supply is difficult to tap into. Our discussions with fire department members indicate that certain improvements have been made in the last decade. Most importantly, your fire officers are aware of their problem areas and are working to upgrade their deployment options.

We would urge your community to continue working to improve the size of your water mains and the addition of hydrants. Your people can use what you have, but you should consider following their recommendations for certain street areas. The **Fire Official** can also serve as an excellent guide in making recommendations in this operational area.

Municipal Annexes

We were asked to review the Neptune Township Fire/Rescue and Hazardous Materials Annexes which are submitted to the New Jersey State Police Office of Emergency Management. We found the fire/rescue annex to adequately reflect the manner in which operations are conducted in the township. This one appeared to be in good order.

However, our review of the Hazardous Materials Annex indicated a flawed approach to the delivery of fire department response to such emergencies. It has been our personal experience that the lead agencies for such situations is best performed by the fire service. We state this for the following reasons:

1. Ongoing training
2. Familiarity with hazards in the community
3. Level of equipment and staff necessary to evacuate citizens and protect surrounding areas.
4. Rapid response

We would suggest that this annex be rewritten to provide for the immediate, first-due dispatch of fire and EMS personnel to the scene of such incidents. The Office of Emergency Management (OEM) in any community is supposed to function in a support role for other emergency responders. When they have resource requirement beyond their needs, they call for assistance from OEM. We would suggest that you adopt this procedure in your community.

Fire District Operations

The time has come to make the following improvements in your district-level operation:

1. Full-time administrator
2. Full set of General Operating Guidelines (**ENFORCED BY THE COMMISSIONERS**) On-line when capability exists
3. Preventive maintenance program for the entire apparatus fleet
4. Disciplinary procedures to control the operation of all activities funded by the fire district (**ENFORCED BY THE COMMISSIONERS**)
5. Monthly newsletter
6. Use administrator to research potential for grant programs
7. Library of fire service texts for every station
8. Subscriptions to appropriate fire service periodicals for each station

Section Five - Potential Incidents Which Might Occur in Neptune Township

In order for us to properly assess the hazards that need to be protected in any community, we must decide what might occur in that place. We can study the community, and the hazards to be protected. But to truly serve the needs of the client, we must assess the potential for those emergency events that a community might experience.

There are a variety of emergencies which can occur. They come in a wide range, and every community in the United States must face, the fact that they could encounter any one of them on a given day (or night). When conducting future-related emergency services planning, these considerations must be factored in. A failure to give them due consideration will limit your ability to respond and diminish your overall protection. And you shortchange the people who are expecting you to be there for them when things start to go bad.

Neptune Township should consider adopting a pro-active approach to planning for those potential incidents which could occur in the future. There are a number of variables which serve as the basis for various potential emergency scenarios. They must be consciously considered as a part of the planning process. They are as follows:

- population
- geography and topography

- demographics
- transportation mediums
- level of industrial development
- level of residential development
- level of commercial development
- construction type
- available water supply

Let us look quickly at each of these.

1. Your population will continue to grow to some extent. While it will not be heavy growth, it will maintain the increase in the demand for services which you have experienced.
2. Your road network allows for apparatus movement throughout the community.
3. People may not be familiar with living in a close-proximity setting, viz. townhouse and condominiums. These people need the assistance of the fire department to understand the unique safety skills of living in a suburban setting.
4. Each of the following transportation mediums were observed during our visits. They are:
 - a. Roads and highways
 - b. Aircraft over head

The impact of the transport mechanisms must be a part of your planning for future emergency service needs.

5. Multiple dwelling residential development continues on the upswing. This will increase the number of fire responses. More people means an increased demand for service.
6. Commercial development usually follows on the heels of residential development.
7. The new construction is of the modern variety. This creates structural integrity problems, as standards have been diminished by the new building code minimums. This problem can be partially attenuated through an increased emphasis on installed alarms, and automatic suppression devices.

After giving each of these criteria a due level of review and concern, we offer the following for your guidance. We believe there to be four basic scenarios which are important enough to merit additional thought on the part of fire department planners in Neptune Township.

- A multiple-dwelling fire
- An aircraft crash
- A major transportation/haz-mat accident
- A large-scale, multiple-casualty emergency medical response.

The fire companies which constitute the service provided by the Neptune Township Fire District # One display the capabilities necessary for handling a residential structural fire scenario. We base this upon our review of their personnel and apparatus response. However, their service delivery capability may vary based upon the time of day when a fire might occur.

Sufficient equipment, and staffing is normally available during the evening hours to begin a rapid initial fire attack, which can escalate as needed. The same does not always hold true during the 0700-1700 hr. time frame. However, the Township has a number of mutual aid fire agencies in close proximity. We are suggesting that a closer working arrangement be created with mutual aid communities. This will improve the overall response and impact the risk level of the community in a positive manner.

The Fire Protection Handbook 18th ed., suggests that a volunteer fire department may be reasonably expected to arrive at the scene of an incident within 12 minutes of its discovery. This allows for a turnout time of six minutes and a variable response of approximately six minutes. It has been our observation that this usually falls within the 1.5 mile pumper response requirement of the Insurance Services Office (ISO).

As the turnout time increases, or the response time increases, so does the total on scene time. This is a given, when dealing from a fixed set of facilities. While these stand as recommendations, rather than mandates, they could be granted standing in any legal action which might be taken against the fire department, owing to an adverse tactical response and deployment scenario.

Our support for this response level, and all derivative comparisons comes from both textual references and personal experience. The support available from surrounding communities varies by the time of day, as supplemented by operations ongoing in their jurisdictions at any given time. It may be difficult to mount a large-scale, daytime fire attack.

As we stated above, thought should be given to the use of mutual aid and automatic aid. This will allow for an adequate first alarm response for the community as a whole, as specified in **National Fire Protection Association** recommendations. In general, we are referring to the response of 12 fire personnel under the command of a chief officer, operating a force of two engine companies, and one truck company. Your records indicate that you normally surpass this staffing level. However, you should deploy a mutual aid aerial unit, in an automatic response mode to cover all of the appropriate bases.

To be of greatest effect, mutual aid must respond automatically, on a regular basis. There is no way to make up for lost time in not requesting help. Automatic aid assignments should be explored with neighboring fire departments. We feel that there is more that could be accomplished by working together on an even greater scale.

We would urge you to consider holding quarterly, large-scale inter community and mutual aid drills, along with periodic classroom briefings. This could improve the working relationships with all of your neighbors in both Union and Somerset counties. The building of operational bridges is critical if you are to succeed in handling large-scale incidents.

A review of Neptune Township's hazardous materials response capability suggests that they are capable of handling small spill and leak scenarios found in residential occupancies. However, the system in place does not allow for the immediate dispatch of fire personnel. This should be changed.

Unfortunately, road and air transport incidents are not out of the question. This consultant would urge Neptune Township to maintain their relationships with other agencies, as currently constituted.

The ability currently exists to handle such possibilities as a small propane leak or a minor gasoline spill. Many toxic materials pass through your community which could sorely tax the ability of even so dedicated a group as the Neptune Township Fire Department.

The keys to successfully handling an incident of this type lie in the areas of planning, training, and continual interaction during drills and daily operations. You should continue work to assume primary responsibility for haz-mat operations in your community. A General Operating Guideline should be established which involves the county haz-mat team in actual drills with your personnel. You must take those steps necessary to train your personnel and prepare your emergency service system. It should include:

1. Fire
2. EMS
3. Police
4. OEM
5. The county hazardous materials group
6. A private hazardous materials firm to support the over all operation.

As our next recommendation, we would suggest that an aircraft crash can occur anywhere in the populous northern areas of a densely populated state such as the one in which we live all live. Several steps could be undertaken which can help to improve Neptune Township's capability in this area of fire fighting and EMS expertise.

Training should be undertaken to develop an understanding of what to expect in the event of a plane crash. Neptune should continue work as an integral part of the existing regional efforts which provide a pre-positioned stock of firefighting foam. Equipment availability and product location are a part of your preplanning considerations for this type of emergency. These facts are known ahead of time so that they can be deployed effectively and instantaneously in time of crisis.

Given the number of vehicles which pass through Neptune Township on the local, county, and states roads, there is the potential for a major, multiple-casualty emergency medical incident. In such a scenario, the forces of many different communities might have to be marshaled under the operational control of an EMS commander.

The working relationships you have within your community stand you in good stead to participate successfully in such a major undertaking. It should be expected that surrounding communities would provide the appropriate mutual aid EMS backup to support such a large scale operation.

These matters are in place and working and should be reviewed periodically as a part of your every day operations. Determination of roles and responsibilities and the development of operations coordination are critical, on-going activities.

Neptune Township has moved toward the utilization of the Incident Command System (ICS). Large- scale, multiple-agency, multiple Jurisdictional emergencies will flow more smoothly, if people are familiar with ICS. This emphasis is most appropriate for command and control in EMS as well as fire and hazardous materials incidents. It is the on-going joint training of all involved agencies in a community that leads to success in the delivery of emergency services during a time of crisis.

The key to success in any emergency is quite simple. You must continue to apply equal parts knowledge, planning, and training. It is in the acquisition of these attributes where frequent short falls occur. The means of preparation are simple and straightforward:

1. Know what might happen.
2. Acquire the skills to deal with these potential emergencies.
3. Drill as a group on them.
4. Review and revise your plans periodically.

You need to remember that training for things which may happen at some future time is just as important as training for those events you see on a daily basis. They might even be more important owing to the fact that you do not see them as often.

If you do not train, you may be subjected to an unwanted surprise at the wrong time. If you do all of these things, you should be successful. And in the emergency service world, success translates into lives saved.

Section Six - Neptune Township Municipal Risk Analysis

As part of our analysis of the Neptune Township Fire District #1, we reviewed the hazards which this agency is required to protect. It is critical to develop an understanding of what a given community demands of its fire department. We must establish these requirements before we can ascertain whether sufficient fire protection exists in Neptune Township or any other community.

We reviewed the fire risk potential for those occupancies which we felt met the criteria for being labeled a **Target Hazard**. Long ago, we discovered that the best people to question are the fire personnel who live in a community. During our visits, we queried various personnel as to their choice for this list.

A Target Hazard is defined as those occupancies which pose an undue risk of life loss, personal injury, or property damage. Hospitals, nursing homes, lumber yards, schools, shopping malls and garden apartment complexes are some of the more common examples of Target Hazard occupancies.

We chose those buildings in Neptune Township which best fit the criteria for being the Target Hazards and developed this list:

1. The Grove
2. The Lodge
3. Jersey Shore Medical Center
4. Sebastian Village

5. Neptune High School
6. Ridge Avenue School
7. Kings Manor
8. Townhouse Complex out in the Island Area
9. TSNS Manufacturers
10. Sansone Car Dealership Complex

We looked at each of these occupancies in terms of the demands which they would make upon the fire companies in Neptune. We grouped these demands into two classifications.

These two classifications were:

- o Potential for initial fire attack flow problems
- o Potential for sustained attack flow problems

Initial attack fire flow is that amount of water which must be delivered through department hoses to control a fire through an aggressive interior firefighting attack. A ten minute period is allowed for the fire Department to perform those tasks necessary to achieve this flow.

Sustained attack fire flow is that amount of water which must, hypothetically, be delivered by fire department pumpers to control a fire in the involved occupancy and limit its spread to surrounding structures. There is a period of thirty minutes allowed for in the process to assemble that equipment necessary to supply this flow.

There are two limiting factors in the ability of any community to meet the required flow:

- o number and size of fire department pumper apparatus
- o available fire flow from the water system

As part of our risk analysis we assessed local fire department attack capability. We reviewed the apparatus fleet and the staffing levels to see if there were sufficient people available to support the 150 gallons required to be delivered from a single attack hose line. It would appear that under most circumstances, the fire department would be able to get a single 1-3/4" hose line into service fairly quickly.

However, the amount of time it might take them to stretch and staff a second attack hose line would vary by the time of the day. It is our opinion that that it would be difficult to provide more than one initial attack line to be deployed by the limited daytime staffing levels existent within the Neptune Fire Department.

We would not expect to encounter the same problems during the 1700-0700 hr. time frame. This tells us that you risk level, community-wide, varies by the time of day.

Results of our assessment indicate that the fire Department has a minimum potential for delivering an initial daytime attack capability of approximately 150 gallons-per- minute. This could be improved if the department chose to upgrade to 2"- attack hand lines, which is our suggestion.

This can vary based on the number of people who can respond during the target time frame. There are two ways to improve:

1. More people
2. Bigger hoselines

In each **Target Hazard** case, we saw a risk potential which appeared to be in excess of what the fire department can readily deliver. Your department has sufficient pumper equipment. However, the staffing levels are marginal during the 0700-1700 hr. time frame, for a proper fire attack on those occupancies larger than a one-story, single family residential occupancy. This requires the implementation of an automatic mutual aid program. This will quickly muster a force capable of handling incidents in your larger structures.

This means that the basic initial attack capability of the Neptune Fire Department should be expected to supply in the vicinity of 150 gallons-per-minute. We must add a word of caution at this point.

The department can flow this amount of water, provided a sufficient number of personnel are immediately available to deploy the attack and supply hose lines. An increased reliance should be placed on mutual aid support to augment the initial Neptune attack force.

It is, therefore, extremely important to recognize the value of installed, automatic fire suppression in your community. The state fire codes have helped you. The newer, larger occupancies in Neptune have complied with the requirements for automatic fire sprinkler systems.

These devices sound the alarm and begin to suppress the fire, at the same time that your fire department receives notification of an incident. These devices work to limit your exposure to large fires. Your **Fire Official** and his team are working diligently to insure that these devices are maintained in proper operating condition.

The Sustained Attack Fire Flow requirements are reviewed in a slightly different manner. Our research indicates that there are sufficient numbers of apparatus available within a 30-minute radius of Neptune Township to supply the added pumping capability to support the necessary flows.

The variable in each of these cases will be water supply availability. The best way to determine Sustained Attack Fire Flow delivery capability would be to conduct a major, area-wide drill. Only in this way can the water supply system and the mutual aid delivery system taxed to approximate a major fire. It would be worthwhile to schedule such a drill, however, it would take the time and cooperation of a great many people from a number of different fire departments in neighboring communities.

For this reason, we usually perform a theoretical study of the available pumping capacity in a reason and then factor in the available water supply in the area. This is a sufficient measure for our planning and research purposes.

It has been our experience that the limiting factor in communities such as Neptune Township, is the water supply system. Given the spacing of fire hydrants in your community, such a potential shortfall seems also to be the case in certain areas of Neptune. It would appear that the hydrant network in many parts of your community has the individual hydrants spaced too far apart.

In a number of areas, we thought there were no hydrants. Upon further review, we discovered that they are spaced so far apart that it just seemed that some streets, or neighborhoods did not have a fire protection water supply. This needs to be remedied.

There are also certain areas of your community where the water supply is difficult to tap into. Our discussions with fire department members indicate that certain improvements have been made in the last decade. Most importantly, your fire officers are aware of their problem areas and are working to upgrade their deployment options.

We would urge your community to continue working to improve the size of your water mains and the addition of hydrants. Your people can use what you have, but you should consider following their recommendations for certain street areas.

Your pumping capacity is sufficient for most fire scenarios. The water system should be maintained, and upgraded wherever possible. Improvements in the water supply system will lead to improvements in the sustained attack flow capability.

In our opinion, your fire department should prove capable of handling most fire scenarios in your community. Risk can be lowered in the following ways:

1. Move to a 2" fire attack hoseline, with the appropriate new nozzles to match.
2. Consider use of Class A foam system on future apparatus
3. Enter into automatic mutual aid agreements with surrounding departments to provide support in the way of firefighting personnel.
4. Seek input from the fire department, and the Fire Official, as to those areas where additional hydrants should be installed.
5. Continue your commitment to installed automatic fire protection.
6. Consider an increase in the daytime career staff.

Section Seven -Neptune Township Fire Prevention Bureau

During the course of our study visits, we met with Fire Official Ken Northrup. We posed a number of questions that helped us to evaluate the fire prevention bureau as it is currently constituted.

The Fire Prevention Bureau is located within the Neptune Township Municipal Building. This appears to have been done to allow for the co-location of the fire sub-code and fire safety code work performed by the bureau. This allows for the necessary interplay between Mr. Northrup, the appointed fire sub-code official for Neptune Township, and the Construction Office Staff.

Mr. Northrup holds an interesting dual appointment. He is the fire sub-code official for Neptune Township, but he is also the Fire Official for the Neptune Township Fire District #One. Apparently the decision was made to roll both of these positions into the same individual. This is somewhat unusual, in that the enforcing agencies are separate, but the individual performing the function crosses government jurisdictional lines.

Even more interesting is the manner in which these two joint positions are co-funded by the use of life hazard fees and fire district salary funds. These two amounts flex so that the salaries remain the same, but the percentages of the salary vary by the year. The fire inspector and secretary are funded by the fire district.

The fire prevention staff consists of three individuals who operate under a standard 8-hour-per-day business week, five days per week. They are assigned as follows:

- Fire Official/Fire Sub-Code Official
- Fire Inspector
- Secretary

The New Jersey Uniform Fire Code is enforced by the Fire Official, as assisted by the Fire Inspector. The same individual enforces the Fire Sub-Code of the New Jersey Uniform Construction Code. For this function, he reports through the Neptune Township Construction Official.

Currently there are 186 Life Hazard use occupancies registered in the township. The following number of inspections were performed by the bureau for the years indicated:

1996	1997	1998 (To date)
605	605	495

It should be noted that while 12 of the facilities being inspected require a quarterly inspection visit, most are visited annually.

The Fire Official stated that public education visits are limited to the October time frame surrounding Fire Prevention Week. It is our opinion that the public fire safety education be broadened to a year-round basis and be expanded to include the following target groups and topics:

- Middle school students
- High school students
- Senior citizens
- Baby-sitter training
- The National Fire Protection Associations 's Risk Watch program
- Residential courtesy inspections

The Fire Official stated that he would respond to complaints or requests for residential visits. However, he stressed that those were the only times that he would visit a private residence. This is not an uncommon approach. However, we would suggest that courtesy inspections could improve the customer service interaction of the Fire District within the township. An increase in staff would be necessary to do this.

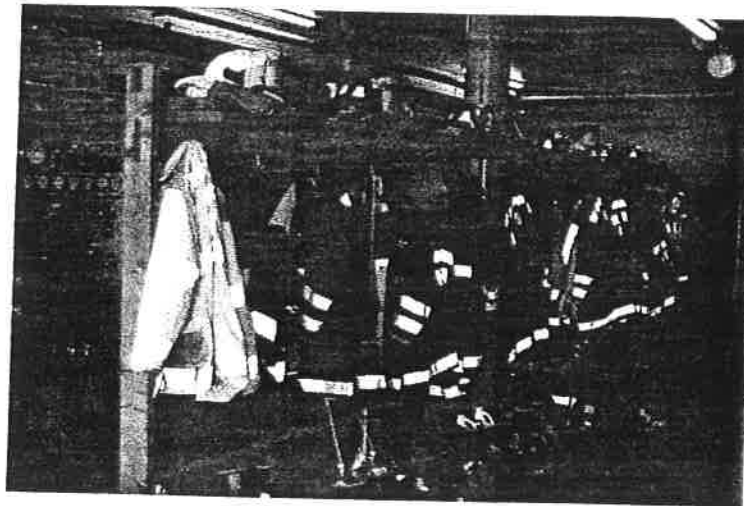
The Fire Official is conducting fire investigations, as provided for in the appropriate state legislation. He interacts well with the township police department. He calls in the County Fire Marshal's Office, in those cases where the County Prosecutor's Protocols mandate a county-level response.

Mr. Northrup spoke well of his staff and stated that his agency was functioning well. He felt that his staff was appropriate for the existing work load, but expressed a desire to see the Fire Inspector cross-trained into the Fire Sub-Code side of the operation. He stated that delays have occurred while he was away from the community for educational opportunities and vacations. He also felt that the duties of the secretary could be expanded in a similar fashion. In our opinion, these do not seem to be unreasonable requests.

Section Eight - Fire Apparatus

In this section, we will list the results of the inspections which were performed by our apparatus associate, Mr. John Peltier of the Fire-Tech Group, Inc., of Marlboro, Massachusetts. His review of the existing fleet was thorough, and his recommendations are sound.

You will find the apparatus replacement schedule located at the end of this section. There will also be certain fleet adjustment recommendation. It is our opinion that your fleet is over-loaded in the direction of pumpers. We have made a number of recommendations to assist you with correcting this.



TURNOUT GEAR	
MANUFACTURED BY: Coats - Globe	Pants - Cairns
MODEL #:	YEAR: 1990 +
MATERIAL: Nomex (7.5 oz.)	
COAT: Globe	Some of these coats are in need of washing and repair
PANTS: Cairns	
HOOD: 1 PBI	
BOOTS:	1 pr. PULL-UP the rest are SHORT
GLOVES: Yes	
HELMET: Cairns Classic 1000	
HANDLIGHTS:	
PASS DEVICE:	
ACCOUNTABILITY TAGS: Yes	



PUMPER		
VIN #: 1M2A152C8KM001362	NJ PLATE: MG40N	
MANUFACTURED BY: SAULSBURY		
MODEL #: CF688FC	YEAR: 1989	
SERIAL #:		
CHASSIS MANUFACTURER: MACK		
AXLE:	SINGLE	TANDEM
PUMP SIZE: 1,000 GPM WATEROUS MODEL CM		
PUMP VIN #:		
WATER TANK SIZE: 750 GALLON		
LAST PUMP TEST:		
REHABBED:		
GROUND LADDER LENGTH: 24' 10' FOLDING		YEAR TESTED:
ROOF LADDER LENGTH: 12'		YEAR TESTED:

ENGINE 71
HAMILTON FIRE COMPANY
NEPTUNE, NJ

The driver's seat is torn at the piping.

The paint is cracked in the cab and the jumpseat area.

The rain gutter on the driver's side has a crack in it thus causing the white paint to flake off and the metal to rust.

The paint is chipped on the door of the first compartment on the driver's side.

The paint is also chipped in the compartment that contains the chock blocks on the driver's side.

The hose compartment at the pump panel does not secure properly.

The air horns should be moved from the roof to the front bumper to minimize damage to the firefighter's ears.

Secure all SCBA in the holders with a safety strap.

Seatbelts should be worn by all passengers at all times.

The paint is chipped on the rear compartment and the edge of the door on the driver's side.

The paint is chipped in the hose reel compartment and on the door.

The pike pole compartment on the passenger's side of this piece is also in need of paint.

The hose in the top compartment is bundled with a piece of tape. This could be held more securely with an old seatbelt.

The paint is also chipped on the generator compartment door.

The battery is not tied down in the battery compartment. This should be repaired ASAP.

The paint is cracked between the jumpseat and the cab.

Secure the bag and board in the cab and the book and case on the officer's seat.

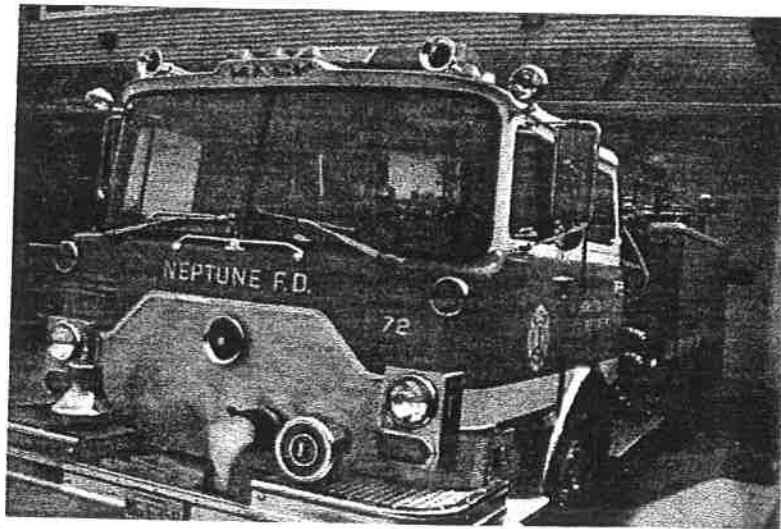
The outside dual tire on the driver's side has a large screw in the tread. The outside wall of the tire is marked to show the location of this screw.

The main tank drain is leaking. The plumbing is extremely corroded and is in need of replacement as soon as possible as it could break at any time.

The rear tires are showing signs of wear and should be replaced.

There are two large cuts in the sidewall of the passenger side outside duals.

The shock absorbers are worn and should be replaced.



PUMPER		
VIN #: CF686F1358		NJ PLATE #: MG635H
MANUFACTURED BY: MACK		
MODEL #: CF	CHASSIS #1358	YEAR: 1979
SERIAL #:		
CHASSIS MANUFACTURER: MACK		
AXLE:	SINGLE	TANDEM
PUMP SIZE: 1,000 GPM 2 STAGE		
PUMP VIN #:		
WATER TANK SIZE: 600 GALLON		
LAST PUMP TEST:		
REHABBED:		
GROUND LADDER LENGTH: 24' 10' FOLDING		YEAR TESTED:
ROOF LADDER LENGTH: 12'		YEAR TESTED:

ENGINE 72
HAMILTON FIRE COMPANY
NEPTUNE, NJ

The seat on the driver's side is torn on the edge.

The weather-stripping around the door of the cab is cracked.

The steering wheel turns $\frac{1}{2}$ turn before the front wheels turn. The steering box should be checked as soon as possible.

The air horns should be moved from the roof to the bumper to minimize ear damage for the firefighters.

The paint is chipped at the rain gutter and around the door on the driver's side.

The paint is cracked at the jumpseat near the window on the driver's side.

All SCBA should be secured with a safety strap.

Seatbelts should be used by all passengers.

Secure the axes and Halligan tools in the jumpseat. They should be secured with a pin type holder to prevent them from coming loose in an accident.

The Mansaver Bar should have the cover replaced. The old one is torn.

There is a screw missing in the diamond-plate below the Mansaver Bar.

The paint is chipped in the jumpseat area, both inside and outside.

There is a screw missing on the right side pump panel near the shift override.

The paint is chipped on all compartments.

The doors on the rear step compartment are sprung at the top and the bottom.

The double door rear compartment should be vented in order to remove the gasoline vapors coming from the saw and gasoline can in this compartment.

There should be a sign on the rear step stating the dangers of riding the rear step.

Remove the safety straps from the rear step to discourage riders.

Secure the pressurized water extinguisher in the rear compartment on the passenger's side.

Remove the section of hose from the generator compartment to prevent contamination from gasoline vapors.

The paint is chipped on the doors to the generator compartment. These doors should also be realigned.

The cover should be replaced on the Mansaver Bar on the jumpseat. There are two screws missing in this area. One above and one below the bar.

The body paint is scraped between the jumpseat and the ladders. The paint is chipped on both sides of the jumpseat. The passenger's side door is also showing signs of paint damage.

Secure all loose items in the cab.

Secure all axes with pin holders to prevent them from coming loose during an accident or a sudden stop.

The floor area under the cab is rusting through at the welds.

The shock absorbers should be replaced.

The front leaf springs are bottoming out and should be replaced.

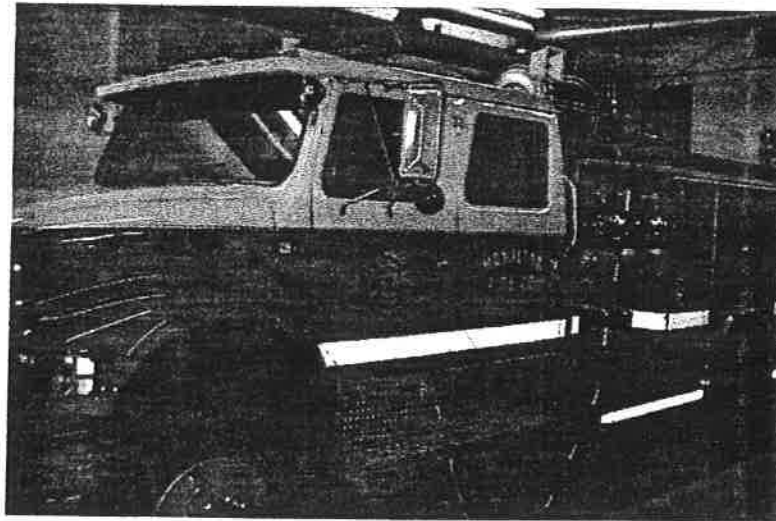
The rear leaf springs are weak and should also be replaced.

There is a water leak in the front of the fire pump.

The air breather for the generator compartment has fallen off and was caught in the frame rails.

This pumper is twenty years old and is in need of repairs.

This unit should be replaced rather than spending a large number of dollars to repair it.



PUMPER	
VIN #: 1HTSFAANOSH669712	NJ PLATE#: MG8545
MANUFACTURED BY: E-ONE	
MODEL #: CHASSIS #4800 DT 466	YEAR: 1994
SERIAL #:	
CHASSIS MANUFACTURER: NAVISTAR INTERNATIONAL	
AXLE:	SINGLE TANDEM
PUMP SIZE: 500 GPM	
PUMP VIN #:	
WATER TANK SIZE:	
LAST PUMP TEST:	
REHABBED:	
GROUND LADDER LENGTH: 24' 14'	YEAR TESTED:
ROOF LADDER LENGTH:	YEAR TESTED:

ENGINE 73
HAMILTON FIRE COMPANY
NEPTUNE, NJ

The seatbelts should be worn by all passengers at all times.

The chain saw and gasoline container should not be stored in the rear compartment on the driver's side with the SCBA. This can and will cause contamination of the breathing air.

Remove the gasoline and the generator from the rear step compartment and store it in an outside top area. The rear step compartment is open all the way to the front compartment. The gasoline fumes have contaminated the drinking cups and the water containers.

There is a large paint chip above the rear wheels on the passenger's side.

The paint is also chipped on the door of the driver's side rear compartment.

The tank-to-pump valve and line are rusted at the connection and is leaking. This could break off at any time and must be replaced as soon as possible.



AERIAL APPARATUS		
VIN #:	C686FAP1210	NJ PLATE #: MG72BL
MANUFACTURED BY: BAKER		
MODEL #:	CF600	YEAR: 1977
SERIAL #:		
CHASSIS MANUFACTURER: MACK		
AXLE:	☒ SINGLE	☐ TANDEM
AERIAL DEVICE TESTED BY: DATE:		
# OF GROUND LADDERS:	8	YEAR TESTED:
TYPE OF LADDERS:	☐ WOOD ☐ ALUMINUM ☐ FIBERGLASS	
LADDER PIPE	☐ PRE-PIPED ☐ REMOVABLE	
LOAD: 900 LBS. PLATFORM		

TOWER LADDER 74
HAMILTON FIRE COMPANY
NEPTUNE NJ

This unit is slated for rehab in two to three months.

The gasoline for the saw is stored in the rear compartment in the driver's side compartment. This compartment also contains SCBA cylinders. The cylinders should be moved in order to prevent contamination of the breathing air.

The outrigger pads should be replaced.

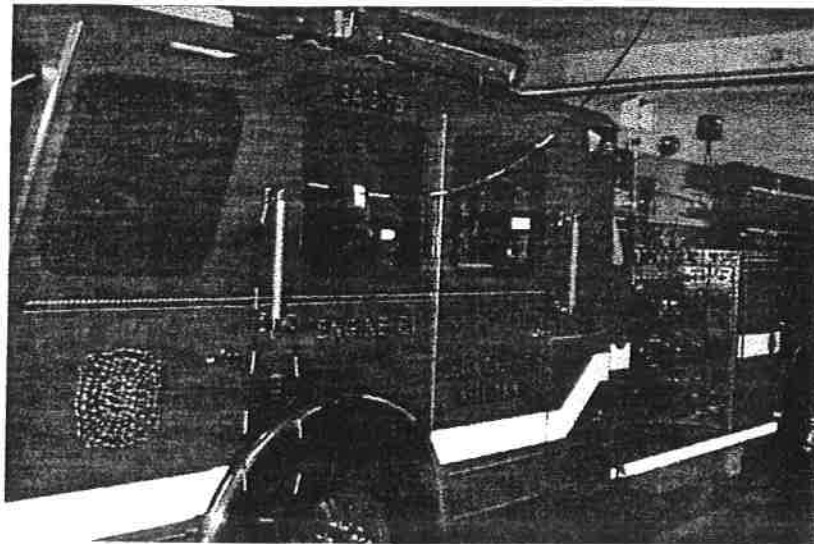
Secure the 2½ gallon pressurized water extinguisher on the passenger's side.

There is corrosion building up on the battery tie-downs in the passenger side battery compartment.

The front springs are weak and should be replaced.

There is a small transmission leak.

The cab is rotted through at the area of the jumpseats.



PUMPER		
VIN #: 4ENDAAA89S1005449		
MANUFACTURED BY: E-ONE		
MODEL #: CYCLONE II	YEAR: 1995	
SERIAL #:		
CHASSIS MANUFACTURER: E-ONE		
AXLE:	SINGLE	TANDEM
PUMP SIZE: 2,000 GPM 2 STAGE		
PUMP VIN #: 15445 TYPE QG200-23		
WATER TANK SIZE: 500 GALLON		
LAST PUMP TEST: 1997		
REHABBED: NO		
GROUND LADDER LENGTH: 24'		YEAR TESTED: ANNUALLY
10' FOLDING		
ROOF LADDER LENGTH: 12'		YEAR TESTED:

ENGINE 81
SHARK RIVER HILLS
NEPTUNE NJ

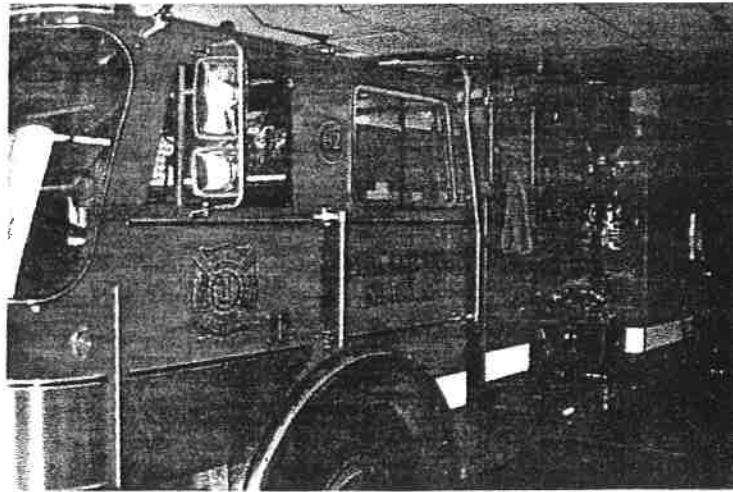
The seat on the driver's side is worn on the edge.

There is corrosion building on the battery tie-downs on both sides of this piece.

Seat belts must be worn by all passengers at all times.

The paint is worn on the outside corner of the jumpseat and also on the cab door.

There is water leaking from the main pump. This should be checked as soon as possible.



PUMPER		
VIN #: HCP122071010		
MANUFACTURED BY: HAHN		
MODEL #: HCP12	YEAR:	
SERIAL #: HCP12 2071010		
CHASSIS MANUFACTURER:		
AXLE:	SINGLE	TANDEM
PUMP SIZE: 1250 GPM 2 STAGE		
PUMP VIN #: OF12521 MODEL 50095		
WATER TANK SIZE: 750 GALLONS		
LAST PUMP TEST:		
REHABBED: 1991 BY RD MURRY		
GROUND LADDER LENGTH: 24'		YEAR TESTED: 1997
10' FOLDING		
ROOF LADDER LENGTH: 12'	YEAR TESTED: 1997	

ENGINE 82
SHARK RIVER HILLS
NEPTUNE NJ

The air horns should be moved from the roof to the front bumper.

All passengers must use Seatbelts at all times.

Secure the two hooks in the jumpseat with a pin locking device to prevent injuries during sudden stops.

Secure the 2½ gallon pressurized water extinguisher in the first compartment on the driver's side.

The door is chipped on the spare SCBA cylinder compartment.

There is a large segment of paint missing on the rear compartment on the driver's side.

A sign should be placed on the rear step prohibiting riders.

There is an area of body rot under the rear taillight.

The floor is lifting in the jumpseat area due to rusting.

The paint is blistering on the passenger's side under the stoplight.

The rear chrome fender is bent.

The paint is scratched on the first compartment after the jumpseat on the passenger's side.

The floor of the jumpseat is lifting due to rust.

The passenger's side shows signs of "orange peel" in the paint.

The paint is blistering badly under the white reflective stripe near the jumpseat fender.

The seat on the passenger's side is torn.

Secure all SCBA with a safety strap in all passenger areas.

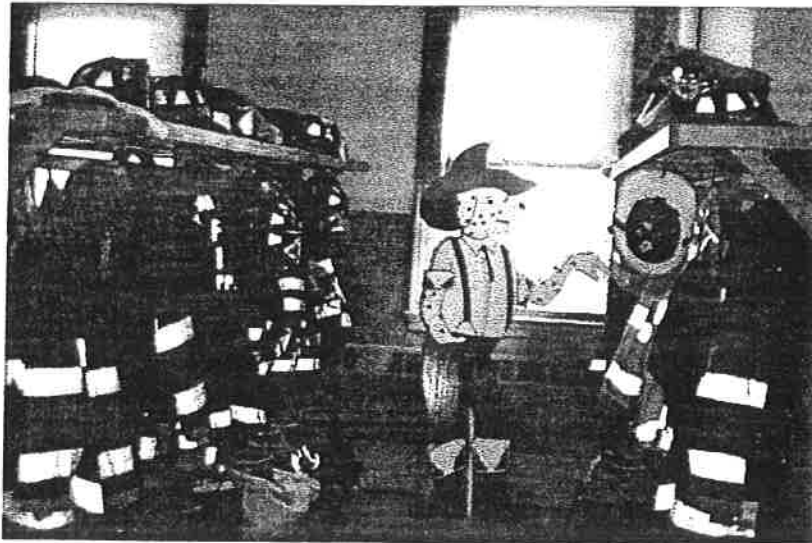
Secure all items in the cab to prevent injuries during sudden stops.

The passenger's side windshield is not mounted properly. There is an open area between the windshield and the cab.

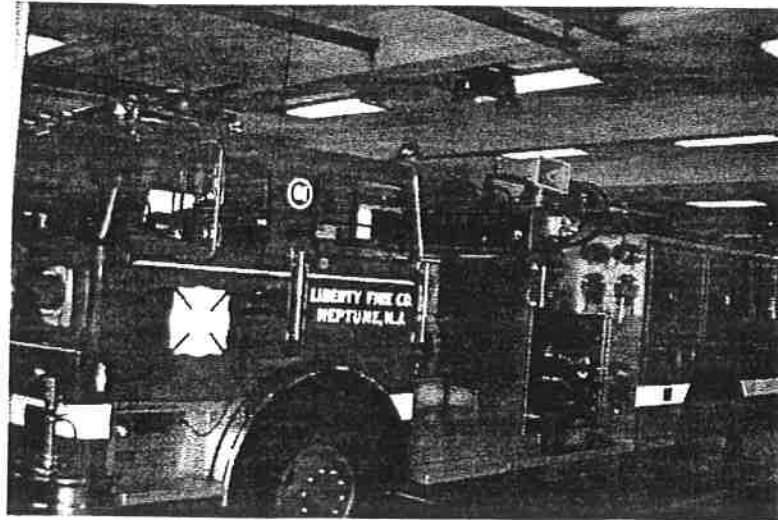
There is a small water leak from the fire pump.

There is a small motor oil leak from the rear of the motor.

The shock absorbers are worn and should be replaced.



TURNOUT GEAR		
MANUFACTURED BY: GLOBE and CAIRNS		
MODEL #:	YEAR: 1989 - 1994	
MATERIAL: NOMEX (6.0 & 7.5 oz.)		
COAT:	☐ LONG	☐ SHORT
PANTS: CAIRNS		
HOOD: FBI		
BOOTS:	☐ PULL-UP	☐ SHORT
GLOVES: TEMPO and FIREDEX		
HELMET: CAIRNS CLASSIC 1000 and CAIRNS LEATHER		
HANDLIGHTS: ORANGE LIGHTBOX ON TRUCKS		
PASS DEVICE: ON SCBA		
ACCOUNTABILITY TAGS: YES		



PUMPER		
VIN #:	NJ PLATE #: MG340K	
MANUFACTURED BY: PIERCE		
MODEL #: 18710	YEAR: 1980	
SERIAL #: 14755		
CHASSIS MANUFACTURER: HENDRICKSON		
AXLE:	SINGLE	TANDEM
PUMP SIZE: 1,000 GPM		
PUMP VIN #:		
WATER TANK SIZE: 750 GALLONS		
LAST PUMP TEST: ANNUALLY		
REHABBED:		
GROUND LADDER LENGTH: 24'	YEAR TESTED:	
	10' FOLDING	
ROOF LADDER LENGTH: 12'	YEAR TESTED:	

ENGINE 61
LIBERTY FIRE COMPANY
NEPTUNE NJ

The seat is torn on the driver's side.

The paint is chipped near the window.

The door latch on the cab door is worn and hangs down. This should be repaired before it fails.

Secure the SCBA in the jumpseat and cab with a safety strap.

There is corrosion building up in the battery compartment.

The paint is chipped in the jumpseat area.

The paint is chipped on the top compartment and inside the compartment door.

The fire extinguisher mounted on the rear beavertail is blocking the registration plate.

Remove the straps and metal grips from the rear step to discourage riders.

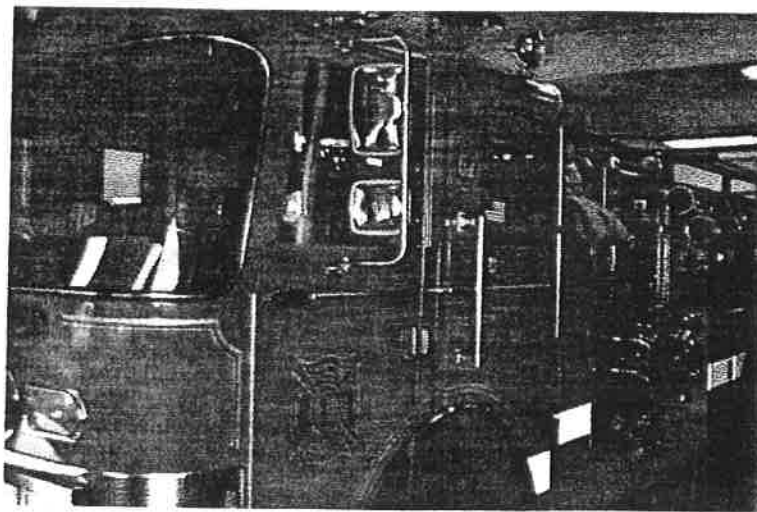
The paint is chipped on both the inside and outside of the rear compartment.

The left front compartment is also showing signs of paint damage.

The door to the cab on the passenger's side is also chipped near the window and along the edge.

The front shocks are worn.

The Ross Valve from the pump is capped. This valve should be repaired or replaced in order to prevent pump damage due to excessive pressure in the lines.



PUMPER	
VIN #:	NJ PLATE #: MG12880
MANUFACTURED BY: PIERCE	
MODEL #: DASH	YEAR: 1984
SERIAL #: 1P9CT01D4EA040613	
CHASSIS MANUFACTURER: PIERCE	E2187
AXLE:	☒ SINGLE ☐ TANDEM
PUMP SIZE: 1,000 GPM	
PUMP VIN #: 4173W MODEL CMYBX	
WATER TANK SIZE: 500 GALLONS	
LAST PUMP TEST:	
REHABBED:	
GROUND LADDER LENGTH: 35' 10' FOLDING	YEAR TESTED:
ROOF LADDER LENGTH: 12'	YEAR TESTED:

ENGINE 62
LIBERTY FIRE COMPANY
NEPTUNE NJ

The paint is chipped on the front corner of the cab near the directional light on the driver's side.

The bottom of the driver's seat is ripped.

The paint in the jumpseat area is chipped.

Safety belts must be worn by all passengers at all times.

There is corrosion in the battery compartment on the driver's side.

Secure all axes in the jumpseat in order to prevent injuries in the event of a sudden stop.

The paint inside the compartment doors on the driver's side is chipped.

Secure the SCBA in the rear step compartment or place it in a case to prevent damage to the unit.

Place a sign on the rear step prohibiting riders.

Remove safety straps from the rear step to discourage riders.

The paint is chipped on the passenger's door on top of the window and at the side of the cab.

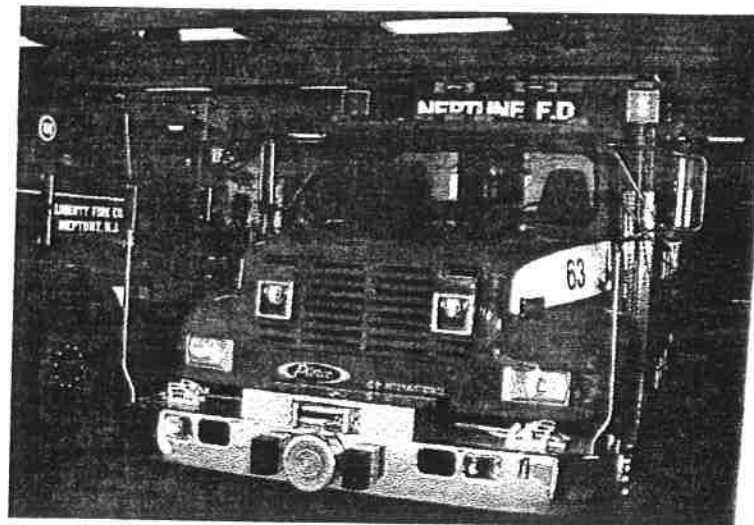
There is corrosion in this battery compartment as well.

There is chipped paint on the compartment after the jumpseat on the passenger's side.

There is a small power steering fluid leak at the bottom of the steering box.

The front shock absorbers should be checked as they are showing signs of wear and tear.

Install pull cable drains on all air brake air tanks to drain out moisture.



LIGHT UNIT - AIR TRUCK			
VIN #: 1HTSLN2L8RH555980		NJ PLATE #: MG5697	
MANUFACTURED BY: PIERCE			
MODEL #:		YEAR: 1993	
SERIAL #:			
CHASSIS MANUFACTURER: INTERNATIONAL			
AXLE:		☒ SINGLE	☐ TANDEM
TYPE:		☐ VAN	☒ BOX ☐ WALK-IN
AIR BAGS: NO			
HYDRAULIC RESCUE TOOL: PORT-A-POWER			
YEAR REHABBED:			

ENGINE 63
LIBERTY FIRE COMPANY
NEPTUNE NJ

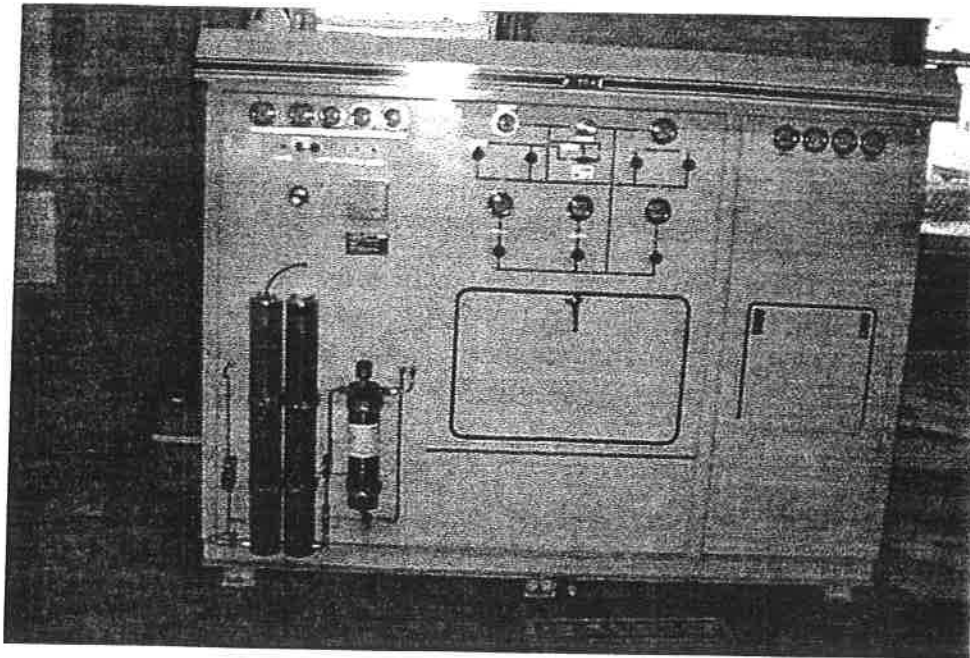
The paint is chipped on all compartment doors and inside the compartments.

Secure the portable floodlights in the rear compartment

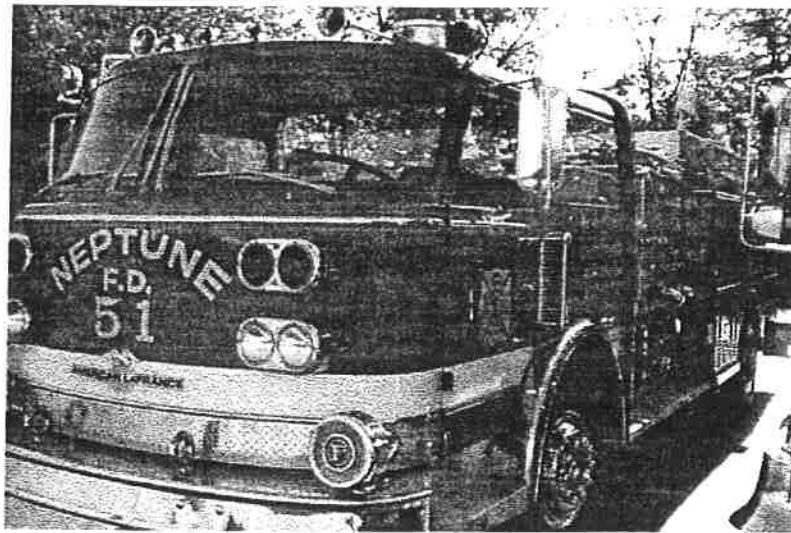
Secure the large fan in the rear compartment.

The paint is chipped on the edges of the compartment doors on the passenger's side.

The paint above the dual wheels is also in need of repair.



AIR COMPRESSOR	
BRAND: BAUER	
TYPE: 2216 PSI	YEAR OF MANUFACTURE: 1989
NUMBER OF FILLING STATIONS: 3	
AIR INTAKE LOCATION: OUTSIDE	
LAST DATE OF SERVICE: 1998	
SERVICED BY: AIR and GAS TECH	HAMILTON FIRE COMPANY



PUMPER	
VIN #: 1AFC1187E1A8023	NJ PLATE #: MG6502
MANUFACTURED BY: AMERICAN LAFRANCE	
MODEL #: CENTURY	YEAR: 1984
SERIAL #:	
CHASSIS MANUFACTURER: AMERICAN LAFRANCE	
AXLE:	SINGLE TANDEM
PUMP SIZE: 1,000 GPM	
PUMP VIN #:	
WATER TANK SIZE: 750 GALLON	
LAST PUMP TEST: ANNUALLY	
REHABBED:	
GROUND LADDER LENGTH: 24'	YEAR TESTED: DUE
ROOF LADDER LENGTH: 14'	YEAR TESTED:

ENGINE 51
UNEXCELLED FIRE COMPANY
NEPTUNE NJ

The driver's seat is torn and there is screw missing on the door at the safety strap.

The SCBA in the jumpseat is not securely fastened in a holder.

There is corrosion in the battery compartment on the driver's side.

All hand tools in the jumpseat should be secured with a pin-type holder to prevent injuries during a sudden stop.

The Mansaver Bar should be repaired. The fabric is torn.

The paint is chipped in the jumpseat area.

Paint is also in need of touch-up near the roller for the booster hose.

Paint is chipped and in bad shape in and around all compartments and near the fuel fill.

There is a large screw missing on the driver's side pump panel. Many other screws are loose and should be tightened.

The three fan belts should be checked and replaced since they are dry and cracking.

The front shock absorbers are worn and should be checked.

There is rust in the area of the pull-out step at the rear of the apparatus.



PUMPER		
VIN #: HC211107114	NJ PLATE: MG12879	
MANUFACTURED BY: HAHN		
MODEL #: C10	YEAR:	
SERIAL #:		
CHASSIS MANUFACTURER:		
AXLE:	SINGLE	TANDEM
PUMP SIZE: 1000 GPM	2 STAGE HALE	
PUMP VIN #: 32343		
WATER TANK SIZE: 500 GALLON		
LAST PUMP TEST: ANNUALLY		
REHABBED: 10 YEARS +		
GROUND LADDER LENGTH: 24'	YEAR TESTED:	
ROOF LADDER LENGTH: 14'	YEAR TESTED:	

ENGINE 52
UNEXCELLED FIRE COMPANY
NEPTUNE NJ

The windshield is cloudy at the bottom.

The paint is chipped at the top hinge and at the edge of the cab by the windows.

Secure the SCBA with a safety strap.

The paint is chipped at the front fender, rain gutter, and jumpseat.

The jumpseats are torn on both the driver's and passenger's sides.

Secure all hand tools in the jumpseat area with pin-type holders to keep them from coming loose.

The Mansaver Bar in the jumpseat is showing signs of wear. The fabric should be replaced.

The paint is chipped on the rear beavertails near the grab rails.

Remove the safety straps from the rear step to discourage riders. No one should be riding the rear step.

Properly secure the hose clamp. Bungee cords should not be used for this.

The hydrant assist valve should also be fastened securely.

The rain gutter is missing above the passenger's side compartment. All compartment doors on the passenger's side are chipped.

The rear fender is crumpled and dented.

There is a screw missing on the pump panel on the passenger's side.

The air horns should be moved from the roof of the cab to the bumper.

The front shock absorbers are worn and should be checked and repaired or replaced.

The radiator is full of dust and dirt. It should be blown out from the motor side.

The running board on the passenger's side has a large rust area and should be repaired.



PUMPER	
VIN #: 2031	NJ PLATE #: MG34NB
MANUFACTURED BY: AMERICAN LAFRANCE	
MODEL #:	YEAR: 1989
SERIAL #:	
CHASSIS MANUFACTURER: AMERICAN LAFRANCE	
AXLE:	SINGLE TANDEM
PUMP SIZE: 1,000 GPM	
PUMP VIN #:	
WATER TANK SIZE: 850 GALLONS	
LAST PUMP TEST: ANNUALLY	
REHABBED:	
GROUND LADDER LENGTH: 24'	YEAR TESTED: OVERDUE
ROOF LADDER LENGTH: 14'	YEAR TESTED:

ENGINE 53
UNEXCELLED FIRE COMPANY
NEPTUNE NJ

The paint is scratched on the driver's door.

Secure the SCBA in the passenger areas to prevent injuries. All loose items in the cab must also be secured to prevent injury from flying tools.

The jumpseat door and hinge on the driver's side are chipped.

Secure all tools in the jumpseat.

The pull-down seat in the jumpseat area is torn.

The tie-downs in the battery box are corroded.

The lower compartment door does not close or latch properly.

The white reflector tape is peeling

The rear compartment on the driver's side must be vented to remove the fumes from the gasoline tank and saw.

The number plate on the rear step is blocked by the hose clamp.

The rear compartment door on the passenger's side is chipped.

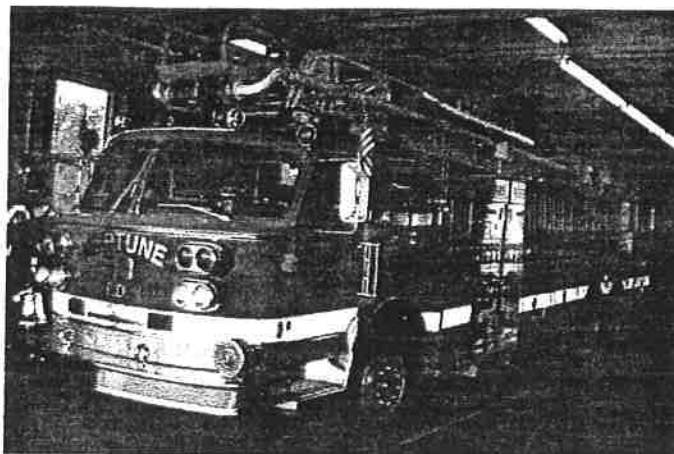
There are screws missing on the door at the window on the passenger's side.

The front shock absorbers are worn and should be checked.

Install pull-down drains on all air brake tanks to make draining water build-up easier.

The channel steel is bent under the rear step on the driver's side and should be checked for integrity.

Secure the hose clamp and hydrant assist valve with something other than bungee cord.



AERIAL APPARATUS		
VIN #: CE6555		
MANUFACTURED BY: AMERICAN LAFRANCE		
MODEL #: CE6555	YEAR: 1980	
SERIAL #:		
CHASSIS MANUFACTURER: AMERICAN LAFRANCE		
AXLE:	SINGLE	☐ TANDEM
PUMP SIZE: 1,000 GPM		
PUMP VIN #:		
WATER TANK SIZE: 450 GALLONS		
LAST PUMP TEST: ANNUALLY		
AERIAL DEVICE TESTED: ANNUALLY		
# OF GROUND LADDERS: 2-35' ; 1-28' ; 1-24' ; \1-16' ; 1-26' ROOF; 1-10' FOLDING		
TYPE OF LADDERS:		
WOOD	☐ ALUMINUM	☐ FIBERGLASS
LADDER PIPE		
	☐ PRE-PIPED	☐ REMOVABLE

LADDER 53
UNEXCELLED FIRE COMPANY
NEPTUNE NJ

The windshield on the driver's side is clouded at the bottom and the sides. The problem is not quite as bad on the passenger's side.

The paint is chipped on the jumpseat door on the driver's side.

The paint is scraped on the first compartment on the passenger's side.

All SCBA must be securely strapped in to prevent damage and injury.

The pull handle is loose on the right rear pike pole compartment door.

Move the air horns from the roof to the bumper to prevent hearing loss.

The pull handle in the center compartment on the passenger's side is loose.

The hinge pin is out on the passenger's side jumpseat door. This should be reset as soon as possible.

There is a puncture in the covering of the jumpseat on the passenger's side.

Secure the tools in the jumpseat to prevent injury during any sudden stops.

RECOMMENDATIONS

Consideration should be given to upgrading to 5" hose for water supply. With the hydrant spacing that exists in this community, no less than 1,800' of 5" hose should be carried per engine.

This will require the purchase of both hose and valves for each piece. The appropriate adapters to make the system work properly must also be acquired.

All SCBA should be upgraded to the new lighter weight units. Either 4500 or 2216 PSI units with the lightweight carbon or fiberglass cylinders would be acceptable. Enough spare cylinders should be provided to allow at least one spare per unit.

All air horns should be moved from the top of the cabs to the area below the front bumper. Studies have shown that this will reduce the decibel level considerably in the cab thus minimizing hearing loss in the firefighters.

Automatic tire chains should be considered for each piece of apparatus.

The purchase of PASS devices for each member of the department should be considered. These can either be stand-alone units or an integrated part of any new SCBA purchased.

Hose should be color-coded. A separate color should be assigned for each size hose.

All turnout gear should eventually be upgraded to PBI.

Apparatus Replacement Schedule

After an intensive review of the apparatus fleet which provides service to the **Board of Fire Commissioners for Neptune Township Fire District #1**, we would recommend the following:

<u>Unit #</u>	<u>Year of Unit</u>	<u>Year to Reserve</u>	<u>Year to Replace</u>
51	1984	2004	2009
52	(Sell Unit and Do Not Replace)		
53 (Aerial)	1980	2000	2005
54	1989	2009	2014
61	1980	2000	2005
62	1984	2004	2009
63	1993 (Sell unit and incorporate air cascade system on new heavy rescue)		
71	1989	2009	2014
72	1979	1999	1999
73	1994	(This Unit Should be Converted to a light rescue pumper) 2014	
74(Tower)	1977	Refurbish 1998	2002-2005
81	1995	2015	2020
82	1984(Rehabed1991) 2004		2009

We would recommend that the Board of Fire Commissioners consider the following:

1. Sell Engine 52 (As is, where is, with no warranties expressed or implied.)
2. Plan to replace Ladder 53 in 2003-2005
3. Plan to Replace Tower 74 in 2007
4. Sell Air Unit 63 (As is, where is, with no warranties expressed or implied.)
5. Set up a program to rehabilitate all units at the 11-15 year mark.
6. Acquire a new heavy rescue vehicle, with an array of forcible entry tools, hydraulic rescue tools, air bags, and an on-board air cascade system to refill cylinders at emergency scenes.
7. Commissioners should create an apparatus deployment committee to study the need for shifting apparatus from station to station.
8. The rescue vehicle should be centrally located.

Section Nine - Final Recommendations

After many months of studying the operations of Neptune Township Fire District #One, the time has come to make our final recommendations for improving operational efficiency.

Overall Recommendations

1. Consider de-emphasizing the individuality of the separate fire companies.
2. Create a new township command structure with a Chief and three (3) assistant chiefs.
3. Conduct a team building retreat for the fire department
4. Conduct a joint team-building retreat with OEM and the First Aid Squads to improve township emergency service team. This can also work to overcome the personality problems and animosity which has occurred over time.
5. We would strongly recommend that you adopt a municipal policy for operating at hazardous materials incidents that places the operational control back in the hands of the fire department, where it actually belongs. We would suggest that you develop a plan for operating in a defensive posture. The steps could be:
 - A. Respond
 - B. Identify the presence of hazardous materials
 - C. Evaluate the hazards involved
 - D. Evacuate all involved personnel and citizens to a safe distance

E. Await the arrival of trained county or private agency personnel to handle the emergency

Organizational Focus

1. You should become a single, autonomous fire department, not remain as four separate companies operating in a contiguous geographic area.
2. You should develop an organizational communications system including a computer network, a news letter, and periodic team-building sessions.
3. You should develop a reliable fire reporting system. We had a great deal of difficulty reviewing your runs on a company-by-company basis. We really could not arrive at a total for runs in the district as a whole. It is our opinion that you, yourself, do not know how many runs have been made, in total.
4. We would strongly recommend that you hold an organizational long-range planning retreat with a team-building consultant. The inter-company problems existent in your community are interfering with efficient district-wide operations. These problems should be attacked, head-on, with help from a neutral third party.
5. You should reach out and pro-actively include mutual aid fire companies in your initial dispatch for the Island area, as well as a number of border line areas with Neptune City, Glendola, Ocean Grove, Asbury Park, and Tinton Falls

Community Information

Our review of your community led us to a number of important conclusions. Each of these have are relevant factors in your plans for the future of the fire district. You are fortunate that yours is not a high-growth-rate community. This will allow for better, and more positive, long-range planning.

1. Yours is a mature suburban community.
2. Your population is stable.
3. Your community is well built-out.
4. There is room for growth in the townhouse style of housing.
5. You are on the verge of a great deal of commercial growth in the Route #66 highway corridor area. This appears to be a given, based upon our anecdotal exchanges with fire company personnel.
6. You can plan for the future based upon the current and envisioned development.

Stations

There is usually no more controversial topic than that of station location and construction. Many times people are so tied to the traditions of the past that they lose sight of the need to grow and change with the times. This is the case in Neptune Township. You can better serve your community through a repositioning of station resources. Please accept the following recommendations in a positive manner, for that is the spirit in which they are given to you.

1. Your stations are poorly located. They are located in those areas where the original membership base came from.
2. There is an area located in the vicinity of Route #66 and Wayside Road that is beyond a reasonable response distance from all existing stations.
3. We would recommend that the following options be explored for your future:

Option A

Continue to operate as currently positioned. Staying the same is always an option.

Option B

Continue to operate out of the existing stations. Add a new station in the Route #66 corridor area. We would suggest it be located in the vicinity of the intersection of Route #66 and Wayside Road.

Option C

Combine the Unexcelled and Liberty Fire Companies into a more centrally located new station, one which will better serve the community as a whole. Combine this with the new station mentioned under Option B.

The choice is yours.

Apparatus

After a thorough review of your apparatus fleet and the community it is designed to protect, we would suggest the follow statements as descriptive of where we feel your district should be headed.

1. You have too many pieces of pumping apparatus.
2. However, your total fleet size is not too large.
3. Your fleet mix needs to be adjusted.
4. Units of varying types may need to be swapped between the varying companies.
5. The International pumper at Hamilton should become a candidate for transformation into a pumper-rescue unit.
6. The district should consider the acquisition of a heavy rescue unit for service in the Township. This unit should be considered for an on-board air cascade system for refilling SCBA bottles at emergency scenes.
7. You need to develop a fleet maintenance program, with a computer-based preventive maintenance program.
8. You should consider developing a standard set of apparatus specifications based around a chosen brand of apparatus.
9. Vehicles scheduled for refurbishment should be sent out as per existing bids. Consider each vehicle as a candidate for refurbishing at the 10-15 year mark.
10. Our actual replacement schedule can be found in Section Eight.

Equipment Recommendations

1. All pumper apparatus should be equipped with 5" large-diameter hose.
The use of this size of hose will allow you to shrink the size of your pumper fleet by one. We are recommending 1,800 feet per unit, with the appropriate array of connectors and adaptors.
2. Your new rescue vehicle should be equipped with an array of heavy rescue tools, to include air bag units and hydraulic tools.
3. A study of your SCBA system should be undertaken to insure that what you are using is the best device available for your needs. You should consider upgrading to a light-weight system.
4. A committee of officers and members should be formed under the command of the Fire Chief to study the equipment distribution throughout the fire district. This group could form a standardized equipment list that eliminates gaps, or overages in the wide range of tools needed to operate at emergencies in Neptune Township.
5. Automatic tire chains should be considered for each piece of fire apparatus.
6. PASS devices should be acquired for each firefighter.
7. Hose should be color-coded by station.
8. All turnout gear should eventually be replaced with PBI.

Staffing

1. Your daytime staffing, both career and volunteer, appears to be lower than recommended by the National Fire Protection Association.
2. You were very wise to implement the **Second Alarm** policy.

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3. Your career staff should be expanded.
4. Should you choose to build the new station recommended about, consideration should be given to staffing it with **four career personnel** operating as a crew.
5. You should consider hiring a **second career person** in each station to assist your department in abiding with the upcoming Two-in/Two-Out policy which will be implemented by the state in April of 1999.
6. All new career staff should be EMT-B and EMT-D qualified.
7. Consideration should be given to creating the position of career staff supervisor. (Possibly a Lieutenant)

Emergency Medical Services

1. The existing policy of having the career staff assist the township first aid squads is both wise and commendable.
2. EMS response in your community appeared to be slow going in service during the daytime. We noted this on a number of occasions during our visits. This observation was confirmed by anecdotal information from individuals interviewed during our study.
3. The fire district should consider creating a daytime ambulance service, staffed by career personnel, to provide emergency medical support for fire department personnel operating at emergency locations. This service could be made available to the community on an as-needed basis. This would be a broadening of the existing support policy.
4. Having your own EMS unit would provide an extra measure of safety for operational suppression personnel.

Deployment Strategies

1. The Second Alarm policy is good and should be continued.
2. The matter of apparatus numbers for radio communications should be settled in favor of the use of county numbers.
3. The acquisition of an additional repeater-assisted radio frequency should continue as a priority.
4. New automatic and mutual aid programs should be created which will allow for the timely response of equipment and staff which will assist with “two-in/two-out” rule compliance.

Funding Matters

1. A sinking fund for future apparatus purchased should be established. This will allow for the growth of funds in interest-bearing accounts. These funds can be used to purchase new apparatus.
2. By saving for the future, bonding or leasing for apparatus acquisitions can be minimized.
3. The position of full-time fire district administrator should be created. One of this individual’s primary responsibilities would involve grant research and applications, and other forms of revenue generation, as may be identified by the Board.
4. A committee should be formed by the Board of Fire Commissioners to explore alternative funding matters.

Fire Prevention Bureau

1. The Board of Fire Commissioner should decide whether to continue in the code enforcement business.
2. Your options are simple:
 - a. Operate the fire prevention bureau as currently constituted.
 - b. Split off the Fire Sub-Code Official's position, give it to the township's construction office and retain the Fire Official's position.
 - c. Offer the Uniform Fire Code and Uniform Construction Code enforcement activities to the township, and leave the business.
 - d. The choice is yours.
3. Fire Investigation services could be retained under any of the above arrangements or passed along to the county fire marshal's office.

Fire District Operations

1. The district should institute an all-encompassing set of operational policies and procedures. This will work to standardize how the department operates. Computer programs exist which can help to codify existing policies and procedures.
2. A full-time administrator should be hired to run the day-to-day operations of the fire district.
3. The new computer system under construction, should be used as the conduit for improved district communications and training.
4. The district should develop a strict enforcement policy for their policies.

5. Job descriptions should be developed for all positions, career and volunteer.

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