

**Use of Competency Based Training/Evaluation Techniques  
for the Probationary Firefighter**

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An applied research project submitted to the Ohio Fire Executive Program

15 July, 2004

## **CERTIFICATION STATEMENT**

I hereby certify that the following statements are true:

1. This paper constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions, or writings of another.
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## **ABSTRACT**

Due to the growth of our Community, it became necessary that the Solon Fire Department expand its operation to better serve this Community. This expansion included the addition of a facility to move this department to a three station operation. In order to facilitate this action, additional personnel that would need to be added by the department. This process would be more challenging than before due to Civil Service regulations that had been recently changed. The challenge we face is how due we ensure that our new recruits are prepared to begin shift work and how due we continue to strengthen those skills. A critical part of that is documenting the proficiency of those skills and how to maintain continuous improvement.

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## **INTRODUCTION**

### **Statement of the Problem**

In the eighty years that the Solon Fire Department has existed, the vast majority of the training for new members was done through traditional methods of mentoring. This task was almost always assigned to the most senior members of the organization. Due to expansion of the Solon Fire Department and changes in technology, this outdated method of indoctrination is no longer sufficient due to attrition of older members and increasing size of the ranks.

Should a probationary firefighter not grasp the requirements of the occupation, how can an organization consciously terminate a probationary firefighter without documented reasons? In the past, this rare decision was solely based on recommendations of particular individuals. The need for a more objective process is necessitated due to the movement toward litigation and changes in the employment law.

Another area is a reduction in risk assessment. As we train members, performance of common tasks is routine under ideal conditions. The area of weakness in training is performing those same tasks under adverse conditions similar to typical fire ground activity.

The problem this study will address is how new member orientation can be improved to ensure that all members of the Solon Fire Department are given the basic elements of training necessary to function as an effective member of their team.

### **Purpose of the Study**

The purpose of this study is to develop a system that can be implemented to document the

competencies needed to provide an unbiased constructive evaluation of the probationary firefighter. As the probationary firefighter progresses through an orientation process, periodic assessment is needed to ensure that proper training is being offered to the individual so that at the end of the process they can function as an effective team member. The records generated during the process will be used by the Solon Fire Department to document the deficiencies of the probationary firefighter and assist in development of an individual action plan for improvement.

### **Research Questions**

The research questions this study will investigate are:

1. How to objectively evaluate the progress of probationary firefighter's ability to adapt to Department operations?
2. Can competency based training effectively be effectively used to evaluate probationary firefighters in Solon, Ohio?
3. When should probationary firefighters be reviewed?
4. What Department knowledge should be included in a training program?

### **BACKGROUND AND SIGNIFICANCE**

The Solon Fire Department is an organization deep in history and tradition. As most fire departments located in communities of similar demographics, this organization has evolved from a volunteer service to one that is comprised of career personnel. The Department services a population of 22,800 residents and roughly 26,000 employees of businesses in a response area of twenty-two square miles. Geographically Solon is situated in the Southeast portion of Cuyahoga

County and borders the Counties of Summit, Portage and Geauga. We are a full service, career paid, Department with a staff of sixty-two personnel working out of three stations providing the area with ALS Emergency Medical Service and Fire Protection. In the era previous to 1990, members were added to the department staff at a scare pace mainly due to attrition and not to expansion of the ranks. The orientation training of the recruits was a managed process, although not through a formally documented program, using a form training that closely resembles the industrial apprentice programs of the past; show as you go.

The progression of the department's growth during the early nineties was in response to the expansion of the Community which resulted in the need to expand the operations of the Department to serve the community and reduce response times. A second station was added to the department operation in 1991 to serve the northeastern area of the district which contained a mix of residential and industrial/commercial occupancies. At that point in time, the staffing of the current organization was doubled to accommodate this additional facility. The first of any formal documented orientation program was introduced to facilitate the introduction of the new personnel. It consisted of a documented two week, eight hours per day, curriculum that was designed to familiarize the recruit with the basic operation of the department. Simple in design and content, it was meant to orientate the new hires to the organizations operation; most of the new hires were from existing departments in the Northeastern Ohio area who were seeking an improvement in service community demographics. This factor and the lack of an age restriction on candidates provided the Department with many seasoned firefighters during that expansion.

All of these elements made for an easy orientation due to level of experience with most of the hires since they merely required an adjustment to operational specifics of the Solon Fire Department. The few exceptions to this that were hired and lacked prior experience could easily



be managed in the existing traditional format. The result of this expansion provided no motivation for major changes but did allow for the addition of a checklist of items that the recruit was introduced to during the two week orientation period. The only formal testing that came from this program was a documented test of district street knowledge within the district. The philosophy at this point was to ensure that each recruit knew where they were responding to on emergency calls. Basic operational knowledge was assumed in most cases based on past experience and each shift was left with the task of training their personnel on the operations related to the department.

As the department continues to grow in size, we begin to have fewer senior members that can personally mentor recruits. Therefore we will no longer be able to personally account for member proficiency as we have done in the past. In the past, most every firefighter personally knows the abilities and limitations of a shift member that they would work with on a regular basis. With a larger department membership, regular assignments become less frequent and all members tend to float from station to station dramatically changing the dynamics of crews. This is driving the need for objective operational evaluation to ensure proficiency and reduce potential risk to operating crews.

Recently the Solon Fire Department is in the midst of an expansion of its operational force which was required to support the addition of a third station in our community. Current regulations mandate to use the guidelines of Civil Service for selection of recruits, and the existence of age restrictions on hiring, one cannot be guaranteed that the recruit will bring some, if any, expertise or education to the department. Furthermore, in most cases, the potential hire is not from the community or even remotely familiar with the community geography requiring us to additionally evaluate their knowledge of the response district. As we grow our ranks, how do

we effectively evaluate the progress that new members are expected to gain and how do we measure the same? The result of this question is what drives my research questions for the project. This measurement is a task that the Administration of the Department must complete during the probationary period of the new hire. If we fail to effectively evaluate and measure the progress of the recruit, we can potentially impact the effectiveness of our operation thereby putting the Community at risk. Termination of employees for non-performance of job requirements requires supporting documentation of such a charge.

Another aspect of improved documentation of job performance requirements will assist in risk reduction of the overall department operation. Documented proficiency of these members will eliminate an area of suspected failure should an accident occur. Due to the size of the Solon Fire Department, one might think we could easily hide our mistakes within the ranks however staffing dynamics and demands to run with minimal staffing make this impossible. We need to measure our investment in our employees. We owe it to our shift commanders and department members that these new recruits be measured and reviewed in a manner that is fair and equitable; a manner that can quantify their progress and growth into an effective member of the organization. Documented weakness can then be addressed and professional development can be focused on those areas.

This tool will be used during each recruits probationary evaluation and then during a yearly evaluation. It could be used as a coaching tool and can offer subjective evidence of progress or lack of and provide direction for the training officer as to what type of classes the member should be requesting. Our goal is to grow these recruits into members of the Department with the necessary knowledge to act within the community as well as during any emergency that may arise.

## **LITERATURE REVIEW**

A literature review for this project will encompass three specific areas. To start the research process will be a review of existing Departmental policies and procedures applicable to training. Second will be a review of fire service related documents that specifically relate to existing programs. Lastly will be a review of private sector or educational related documents pertaining to training programs of this nature.

Solon FD Administrative Policies, Rules & Regulations, and Fireground SOG's

A review was conducted to evaluate the requirements of training currently documented within the operation of the department. The Administrative Policies of the organization do not contain any specific requirements on training other than the compensatory element should a member attend outside training. This section was drafted to add clarification to the Collective Bargaining Agreement requirement to permit members to attend outside training should they desire. The elements are not mandatory but merely provide a documented method of how the approval process works in order to insure hourly compensation and tuition payment.

(Administrative Policy, Section 4, 2000)

It should be noted that the current Department Rules & Regulations does contain a reference to "Performance of Skills" which requires a member to perform his or her skills to the best of his or her ability to order to prevent the loss of live or property. This would give the impression that all members are require to be competent in all skill areas. Another section requires all members to maintain EMT-A Certification throughout their duration of employment and EMT-P Certification for a period not less than twelve years. It is believed that these requirements are documented in policy to support the requirement of the State of Ohio to

maintain sufficient CEU's required for re-certification every three years. Since the State has no requirement for firefighting continuing education, the department has no requirement for support of continued fire training. (Rules and Regulations, 2001)

The last document that was reviewed was the current Fireground Standard Operating Guidelines of the Solon Fire Department. This is a twelve section document is intended to serve as a resource guide that encompasses all phase of departmental operations. Evolving out of this document is a group of sheets entitled "Standard Responses" which are a series of evolutions that serve as a resource for weekly drills. These contain basic skills that are currently used to train new recruits and provide redundant skill familiarization for current members. A problem noticed during the review was the lack of maintenance of these drills and any reference to the Department SOG's. However, since they have evolved from the intended operational basic responses of the department, they meet the baseline skill level needed for the department and could be used a tool to build upon in the future. (Fireground Standard Operating Guidelines, 1999)

In summary of this review it can be concluded that the need to evaluate recruits is implied within the Departmental documents during the beginning of their employment and throughout their duration support research question 3. These documents also begin to outline what areas should be covered in a competency based training program, research question 4.

### **Fire Service Publications**

A logical area to review would be documents specifically related to Fire Service training. In NFPA 1001, Standard for Fire Fighter Professional Qualifications, we see detailed criteria needed to perform in the Fire Service as a professional. This criterion is specifically related to entry level and initial certification. It does not provide for continuing or maintenance of the

certification once you attain the level. One could use this document to extract the necessary items needed to develop a system of continuing education. (NFPA 1001, 1997).

A review of professional periodicals reveals that no one size fits all training program that actually measures competency has been developed. A key point that was revealed is that a program should provide clear and concise goals and objectives through a predetermined basic skills checklist. You can then build from that point to assessing training needs for focus groups.

This process would include all members of the organization as training is the heart and soul of competency. (Fire Chief, 2002) In another article, probationary training was specifically targeted with respect to the proper methods of documentation in the progress of the orientation. The need to document the probationary firefighter during quarterly assessments in the areas of attitude, performance, appearance, skill knowledge, interaction with other fire department members and civilians, and report writing is paramount during this period. It touches on the fact that it takes a special drive to be a part of this noble profession and some recruits just aren't cut out for the service. The effective use of mentors in this program provides a role model for the recruit and someone who they can shadow as they become acclimated to the routine and surroundings. (Fire Engineering, 2001)

The use of training props can provide a realistic scenario in an environment that can be controlled and paused, if needed, to explain or correct actions while the drill is in progress. This is not a luxury we enjoy during an emergency incident and an error during that incident will usually end in an injury. In the case of training for firefighter survival, if the instructor cannot set the "mood" for the drill the event just becomes an obstacle course. (Fire Engineering 1998) A successful training prop for this particular firefighting has been developed and can be easily constructed by a fire department for their use. To gain the most effectiveness out of a training

exercise we must train as we would be required to perform. This concept strongly supports the need for competency based training and the need to develop props that can be effectively used for that purpose.

A training program complete with engineered drills could be used to supplement the use of the training props. A standardized set of drills will bring consistency to the operation of the organization. (Elgin Fire Department 2001) The concept of these drills, which cover a wide array of firefighting skill sets, could be easily adapted to any organization. With three different shifts, controlling the similarity in training is a challenge without an established baseline curriculum.

The need to test firefighter knowledge in a practical exam environment is a key component of a training program however a written test of the material that the firefighter has learned to assist in that application is equally important. The material that is taught to all firefighters in their initial training is not completely utilized in the practical arena. Therefore periodic testing of memory retention keeps the member current with the knowledge and identifies areas that require reinforcement. To develop a testing program internally would require extensive work to establish a bank of test questions that could be utilize in exam generation. A recognized text used by the fire service for training is the International Fire Service Training Association. Action Training Systems, Incorporated has developed a program that not only assists in the delivery of this material but also uses the material to generate test questions from the curriculum. A demonstration of the program was viewed and the results were outstanding. Consideration of this type of training and its potential will be a reviewed during the course of the research project.

To summarize this area of review, professionals within the fire service agree with the

concept of providing effective training that measures ones' competence in performance of tasks normally encountered in the fire service. The need to measure the ability of a recruit in the fire service during his probationary period is critical to determine that this member will be an effective member of the organization. Most organizations utilize different methods to achieve the same result. It appears this area will be subject to a determination of best practice as no basic program exists. We have much data that details what needs to be measured but no practical way to measure it at this point.

### **Private Sector Publications**

To provide a well rounded query of research material, a search through materials related to private sector operations was done to see what, if anything, is being done that the fire service could draw upon. The main concept taken for one such source was the realization that competency based training acknowledges that what a tradesperson can actually do well (completely) on the job is the bottom line. Competency based training makes no assumptions with respect to job knowledge. The key to passing this type of course is the students' ability to do the job and perform the required tasks. It has been proved in the tradesmen industry which closely mirrors that of the fire service; task oriented job performance. (Marine Training News, 2003) The need to keep the standard at a level that would correctly define the minimum standard is paramount to the success of the any program. It was noted that competence is in the eye of the beholder. Therefore it should be noted that any program that is developed to serve the department should be created by committee to provide a broader scope of the expectation of what is competent. If you wish to push the envelope of proficiency, consider a multi-level approach with definitive milestones commensurate to years of experience. (Competency-Based Education and Training, 1997)

Using a competency-based approach to training we would be able to provide a program that not only measures their acceptable skill level to become a member of our team but also one that could build on ones' experience as they progress through their employment. An additional benefit would be having a system that would measure and address the needs of the existing membership. The culmination of a program of this type is a common skill level for all members of the department. The committee would need to define the milestones and the competencies for each as the program is designed. Each area will need to be supported by curriculum and materials that will provide credibility and interest in the program. Once a program is developed, the committee needs to evaluate the effectiveness and provide adjustments as needed.

Once competencies are developed, a process by which to measure progression of skill towards these will need to be implemented. Since the competencies are directly related to job performance, the evaluation is considered to be performance management. The job performance standards required for the competencies should be developed from SMART goals; Specific, Measurable, Attainable, Relevant, and Timely. (Going into the Wilderness of Performance Management, 2003) These competencies should reflect key job responsibilities and need to be included the performance appraisal process for the firefighter. The current performance appraisal document, which is utilized within the organization, is generic to the City staff and addresses no specific areas with regard to departmental operations. A revised performance appraisal document is needed within the organization to address the competencies required for effective department operation. The Cleveland Clinic Health System has developed a new performance appraisal process in order to achieve their necessary credentials for the Joint Commission on Accreditation of Healthcare Organizations; JACHO. The CCHS needed a method of documenting



competencies within the organization and developed a system of performance management as required within the framework of JACHO.

Since over eighty percent of our work in the organization is medically related, there are significant parallels within this system that could be used in the fire service. CCHS has developed a system that evaluates six competencies within the Organization; Customer Service Orientation, Adaptability, Efficiency or Effectiveness, Essential Job Requirements, Managerial Responsibilities, Technical Excellence. (Going into the Wilderness of Performance Management, 2003) Five of the six are directly related to line firefighters and the sixth, Managerial Responsibilities is more suited to Officers and senior firefighters in the organization.

Through our organizations affiliation with the CCHS, the author was able to attend a training session on implementation process for this type of system. Afterwards it became apparent that several aspects of this process can be gleaned from this process and can be implemented into a similar process more suited for the fire service. The area that requires the most work is the development of performance indicators that must be added into the six areas described above. Performance Indicators are observable and measurable behaviors and roll up into the competency and determine the level of competency. (Going into the Wilderness of Performance Management, 2003) The process also permits for evaluation of special areas with the inclusion of an addendum to the form. This addendum allows for definition of specific competencies that require job specific performance indicators for those special areas. This addition would be utilized for employees that had certain specific assignment during the year which would require evaluation.

Performance evaluation should be performed on a regular interval during the orientation process to identify progress of the firefighter. An evaluation summary should prepare to identify

training weaknesses for the firefighter and to serve as an action plan for resolution. This portion of the process will be used as not only a coaching tool but a feedback tool for the process. The feedback can then be reviewed to highlight areas that need adjustment to the curriculum thereby making the process better; continuous improvement.

## **PROCEDURES**

The historical and evaluative research was conducted to determine the outcome of the research questions. These questions are:

1. How do you objectively evaluate the progress of new firefighter recruits ability to adapt to Department operations?
2. How can a competency based system of training effectively be utilized in the fire service?
3. At what points in time or at which milestones should recruits be reviewed?
4. What operational skills and Department knowledge should be included in a training program?

The query of an objective evaluation tool for the first research question was addressed in the literature review portion with an analysis of what is currently available within the organization to complete this activity. The only tool available to the organization is the standard performance appraisal document which is generic in nature and used throughout all City departments. It contains no instrument that would lend itself to evaluation of competencies related to the fire service. It became apparent a new form of evaluation would be needed to objectively evaluate a new firefighter. Review of various evaluation tools was conducted with no significant findings. Due to the time constraints of the project, it was not desirable to develop a tool specifically for the organization from scratch. Several consulting agencies offered their

services for a fee but budgetary constraints also made this prohibitive. Looking in other areas, similarity was found in the healthcare profession. Enlisting the aid of the Cleveland Clinic Health System, this researcher attended a training class on Performance Management. The elements contain within this method have served this healthcare organization well in the quest for improvement on their hospital accreditation and this method could be easily adapted to the fire service.

An orientation group was formed with members from the Officer staff with the common goal of improving the current orientation/probationary process in the organization. In order to effectively utilize performance management, Key Job Responsibilities (KJR's) would need to be identified and incorporated into a revised appraisal document. These KJR's will be discussed later in this section as they directly relate to the forth research question in this project. The group then focused on the document that would be used. Revision would be needed but the format used for the Cleveland Clinic would be suitable. The consensus of the group was that we felt this process would objectively evaluate the probationary firefighter as each area, Customer Service, Adaptability, Efficiency & Effectiveness, Essential Job Requirements, and the section for Performance Indicators is extremely applicable to the position. The Essential Job Requirements would require the most focus as it will contain the skill areas of the job requirements. These requirements were addressed in another research question but the remaining areas could be used without modification. An example of the evaluation that was adapted to our organization is contained in appendix one of this research document.

During the course of this research project, six new members were hired in the organization. These hires provided the ability to experiment with this new evaluation tool so that the results could be evaluated. Three of the hires were evaluated using the traditional process and

the three were evaluated with the draft version of the new process.

To effectively address research question number two, a review of currently available off-the-shelf training material that is available and can be used to develop an effective program was conducted. Emphasis was placed on programs that include interactive and simulation software that would document performance of the individual. This combined with specific tasks that replicate the operation of the department can then be joined together into a training program. Additionally, looking to our profession to see what policies and procedures exist to determine best practice to decide what will be the benchmark for the organization. A committee comprised of a shift Lieutenant responsible for training on each shift was established to develop the framework of the program which will include the areas to be covered by the assessment. The initial task will be to address the probationary firefighter assessment through the use of a competency based system with realistic milestones for the assessment.

An informal survey of departments, both in the area and outside of the area, would likely yield a view into what is available and acceptable. During this activity it became apparent that no standard exists as to which type of system should be utilized. The procedure did however provide some insight to what has worked and what has not which would thereby shorten our learning curve in development of a specific system for the Solon Fire Department. A review of current materials that would support an effective training curriculum was also done. As indicated in the literature review, a successful program must be supported by recognized text that is current with the standards of today and the expectations of the department. If it does not provide effective tools we cannot expect successful results.

Further literature searches revealed some tools that could be effectively used to build a program with competency testing. Sources for drill exercises that focus on basic tasks were

discovered using the internet. Discussion with the sources of these materials revealed that the intention of publishing these documents on the Internet was for use by other fire service agencies and the organizations welcome the use of these documents during this research project. These drills, based on basic skills, could be tested by the membership to develop acceptable standards for the organization to use to measure competency of recruits. A physical skill demonstration, if augmented with a written test, would provide proof of competency for a specific job function. These job functions would be related to the KJR's (Key Job Responsibilities) discussed earlier.

The desire of this researcher was to have a method by which written tests could be given to test general knowledge within a specific skill area. This method would only be effective if the questions could be controlled and readily validated against accepted text. Additionally, the ability to vary the questions so that no one could memorize the test content should they need to be re-tested was desired. This could be accomplished with the use a software program that would allow for random development of test questions from a question bank. The software reviewed in the literature review was selected because of the use of the IFSTA curriculum materials in development of the software program. IFSTA is widely accepted and used in this region for training of firefighter recruits. This approach would also align our program with these training instructions and give it credibility.

To validate this approach, a pilot test was conducted with one KJR; Self Contained Breathing Apparatus. A proficiency maze was utilized with the assistance of Cuyahoga Community College located in Parma, Ohio. They have constructed a series of training props that can be configured as a course that closely represents most of the obstacles a firefighter might encounter during a search and rescue assignment on an emergency incident. The materials were loaned to our organization and ninety percent of the membership participated in a test exercise to

validate the feasibility of using this type of skill drill. The outcome would prove the effectiveness of this process and provide a basis for further competency testing processes.

A search for additional props revealed an additional prop that could be constructed and used to test multiple firefighting skill areas. Appendix number two will provide the reader with an illustration of the training aid. Since it represents several elements found in occupancies that firefighters protect, these elements can be utilized for assessment of many firefighter skills used in search, rescue and survival. This tool is designed to serve multiple scenarios for both individual skills and team skills. Emphasis with this tool will be team based competency scenarios to further prove the ability of the recruit to function as an effective team member while testing for individual performance.

To address the timeline for evaluation which is research question number three, we need to stay within the guidelines of City policy. City policy is established by the City's administration and is typical of most organizations; every employee must be evaluated yearly. The Civil Service rules require that the probationary employees be evaluated prior to the end of their first year which is the end of the probation period. It has become apparent that waiting until the near end of the probation period provides little opportunity to identify and document weakness and incompetence with the employee. For the purpose of this project, it was decided to implement quarterly evaluations using the traditional and proposed new evaluations tools. The Officer Staff of the organization felt that use of the quarterly regiment would provide sufficient milestones for conducting objective evaluations. This time period would be sufficient to conduct the necessary skill assessment routines and to provide the employee with ample time for needed remediation and corrective action. The three quarterly

The final research question would address the contents of the elements of the

probationary training period; what competencies would a new recruit firefighter be evaluated on?

There was a definite need to compile a comprehensive list of competencies necessary for new firefighters. This list will be establish what elements require evaluation and then be reviewed as to the method of evaluation; some are knowledge based and some will be practical skill based and some a combination of both. The culmination of this effort would result in a list of Key Job Responsibilities for department members which was referred to earlier in this section. The list would be inclusive of practical firefighting skills required for the job and elements that relate specifically to the operation of the Solon Fire Department such as Stand Operating Guidelines, Administrative Policies, and Rules & Regulations. This list would clearly reflect the current job description on file in the City's personnel office.

To begin the process of a competency list, there was the need to develop the initial list of items that would comprise the orientation period. The training committee convened on several occasions and developed a revised orientation check list that would be the foundation for the probationary training period. In the past, this process was an eighty hour curriculum. The final version resulted in a 120 hour program which required some slight schedule modification for new recruits. The content covered all of the major areas required to place a probationary firefighter on shift. Some of these items are a review of what the recruit was exposed to in the State required training however the material was tailored to how these skills are used in our operational protocol. The remaining items are geared toward particular operational substance unique to the department and matters directly related to familiarization of the response district. The content list is contained in the resultant form and illustrated in appendix three of the report.

The program was presented to the Officer Staff and after minor revisions a final draft was developed for the implementation and appropriately titled the New Employee Orientation

Program.

During review of the orientation content, the group felt that more need to be done to strengthen the program in the area of preceptor assignment for the content material. Several inconsistencies were noted by the staff and then validated with input from recent hires that were orientated under the previous program. The two keys issues that were identified were lack of consistency in delivery by the preceptors. This was due in part to the fact the material was taught with the absence of lesson plans. The decision was made to require all preceptors to file lesson plans and presentations for their area of responsibility for review. These materials were approved and stored in the network file server so they could be readily available to the instructor or their designee should the normal instructor become unavailable.

In the past, this orientation program was scheduled and taught by certain individuals on their respective shifts. These members were the more senior firefighters who desired to teach and share their knowledge with the new recruits. All of those involved with the program agreed with the need to formally document the materials used for orientation. A concern they shared was the fact that while teaching on shift, interruptions with emergency calls was disrupting the quality of the delivery of the materials. A request was made to teach a majority of the material, particularly the items which require demonstration of the competency, off duty. This would reduce the number of interruptions and increase the quality of instruction. A proposal was submitted for approval, due to the anticipated increase in overtime budget hours that would be required this change. After receiving approval of the Chief of the Department, this change was instituted and the cost figure added to the total budget number for a new hire in the future.

To further reinforce what the recruit would learn during the orientation period, a New Employee Training Manual was develop using same committee that developed the revised



orientation program. The purpose of this endeavor is to maintain the continuity of the orientation concept and would serve as a continuation of the initial curriculum. The manual will provide advanced training and required testing throughout the probationary period while serving on their assigned shift. The program was designed to work hand-in-hand with a shift officer appointed mentor for that period. The recruit will then be required to present the manual to their respective officer staff for review prior to their scheduled evaluation.

The entire process of presenting the specific department knowledge that a recruit should be held accountable to study has several phases but strives to achieve a common goal; a better prepared firefighter after the expiration of the probationary period. The process was designed to be simple, present the content of the training program, properly instruct, and provide coaching and feedback throughout the process. These elements would then be incorporated into the Performance Indicators section of the new evaluation form so as to properly document the performance of the employee.

### **Definition of Terms**

KJR. “Key Job Responsibilities; those items which are critical to the success of the organization.” (Performance Management [CCHS], 2004).

SOG. Standard Operating Guidelines; written policies of the organization which suggest what actions to take for a specific situation (Solon Fire Department, 2001).

## **RESULTS**

During the course of the past eighteen months, the organization has increased the total number of on-duty personnel from fifteen to eighteen. This would necessitate the hiring nine additional personnel along with five additional personnel to cover attrition of employees for a total of fourteen. During this process, we had some questionable employees that required focused remediation in order to develop them into quality employees. The procedures outlined in this research were implemented in phases but in total with the last three employees hired. The results detailed deal with those employees and the three previously hired employees who we orientated using the old methods.

A focus group of three hires that were evaluated under the old evaluation system confirm the understanding of this researcher that a change in the evaluation tool was needed. The members were not provided with a documented evaluation that clearly listed what was expected during the probationary period. The previous form that was used provided little space for the evaluator to provide detailed feedback. The group also noted that the feedback they received was objective to the evaluator and not remotely consistent amongst the group of evaluators. The form used for this group contained nothing somewhat close to fire service related items rather it was a generic form used for all City employees. Therefore several areas particular to the fire service were not properly measured during the probationary period. The consensus of the group was that more detailed feedback was needed for the employee to feel that they were performing as expected. These recruits all agreed that they felt lost in the area of understanding job performance evaluation. The group indicated that during their initial work experience, they were being told multiple things from multiple people within the organization and at times they were

confused. A clear set of objectives was missing and most of the things they learned on the job as they went along using the trial and error method; it worked with this partner but not with this one but then again with another partner.

To objectively evaluate the performance of a new firefighter recruit the method must document individual performance and the ability to function as team member so that not only the recruit, but also the direct supervisor, clearly understands what areas require corrective action. For these reasons performance management techniques, a performance based evaluation, was utilized to evaluate the three most recent employees of the organization. A focused discussion with these individuals revealed this form proved to be a useful tool for the employee to understand not only what is expected but how well they currently grasp the responsibility of the job. The discussion focused on each area of the tool. Customer Service, the first section is the main focus of our organization. The elements contained in the section are relevant to the job description. A key point made was the need to involve the person with whom the recruit was working with as most of these elements are used in the field without officer supervision.

The area of Adaptability clearly reflects the need to be flexible and willing to assist whenever possible. The group felt this section was adequate and had no suggestion for change or modification and felt they could be objectively evaluated with the given criteria.

Discussing Efficiency and Effectiveness they offer a comment that as long as the elements in this section were clearly communicated there should no problem with the evaluation points.

The Essential Job Requirements area requires some modification as agreed to by all in group. The content in general can be adapted to the job description but it lacks some clarity. This section will be referred back to the committee for clarification. It was suggested that an

instruction guide be developed to assist both parties involved in the process so there is a clear understanding of the criteria. This section will be referred back to the committee for refinement. The section on Managerial Responsibilities is not relevant to the focus group and therefore was not discussed.

The draft version of the Performance Indicators is listed below. These items are reviewed during the orientation period with both classroom and hands-on training. The group agreed that these items are relevant to the job and they were thoroughly reviewed during the orientation period. Since these are considered the basic job elements of the evaluation process, which will take place over the remainder of the year, the evaluation will address these indicators during each milestone giving the employee ample time for improvement. All agreed that the format appears to address all areas but asked if changes could be made when the cycle is completed.

#### Performance Indicators

- 1) Squad S.O.G.'s
- 2) SCBA's; Equipment & Operation

#### Competency Course

- 3) Rules & Regulations
- 4) Paramedic Protocols - Adult
- 5) EMS Practicals - Adult IV/Drug/Intubation/Lifepak/  
12 Leads/ Pacing/Sending Strips
- 6) Paramedic Protocols - Peds
- 7) EMS Practicals - Peds Kit/IV/Intubation/Drugs
- 8) EMS Report Writing - Computer Data Entry
- 9) Fireground S.O.G.'s

- #1) Incident Command
- #4) Accountability
- #3) Safety
- 10) Fireground S.O.G #6 Fireground Operations
- 11) Hose loads
- 12) Maps
- 13) Fireground S.O.G.#2 - Communications
- Hands on with vehicle radios, portables
- 14) Power Tools - Operation and Safety Features
- Fans, saws, rabbit tool, generators, battery drills
- 15) Aerial Operations & Set-up
- 16) Ground Ladders
- 17) Fireground S.O.G #8 Operating FD Vehicles
- Driving Course Station 1-Squads only
- 18) Extrication Equipment & Operation
- 19) Standard Response and tasks
- Car 3-IC
- Squad-Medical
- R30-Extrication
- Engine-Safety/hazard removal
- 20) Fireground S.O.G #7 - Standard Responses
- 21) Station Maintenance Responsibilities
- 22) Fireground S.O.G #10 Haz-Mat

- 23) Thermal imager & Hot Stick, Operation
- 24) CO meters- Operation
- 25) Ferno 93EX Cot and Stat-Trac- Operation
- 26) Fireground S.O.G.#9 - Respiratory Protection
- 27) Cascade - Air & Oxygen
- 28) Firefighter Safety/Survival Skills

To effectively evaluate competency of a firefighter they need to prove retention of knowledge and ability to apply that knowledge. This has been an accepted practice in the basic training of both firefighter training and EMT/Paramedic training as mandated by State law. We provide opportunity to evaluate the medical aspect in these requirements for re-certification however once a firefighter has passed the examination of the Firefighter I & II course there are no further mandated skill assessments. This fact, coupled with the various specific operational guidelines of the department, provide strong support for testing of a firefighter's competency.

To effectively judge the retention of knowledge of the recruit firefighter, a written exam was needed for each specific competency area. The need to have random questions generated necessitated the use of a commercially available software program to generate the needed exams. Action Training Systems, Incorporated has such a product that uses the curriculum developed by the International Fire Service Training Association (IFSTA). This aspect will align the testing done by the department with that which is taught by the agencies which provide the initial fire service training to these recruits. An example of the typical format of questions this program will develop is illustrated below. The beneficial feature of this particular product is the fact that quizzes can be generated by subject type. An example of the test given prior to the practical competency test is included in appendix number four. The format was simple and related to

general knowledge of the equipment and application. All participants achieved a perfect score. Future tests will increase in difficulty gradually requiring the participants to become more knowledgeable as time moves forward.

#### Example of Questions Generated by Action Training Software

To prove the practicality of hands on competency based training within the Solon Fire Department, the researcher picked one task to conduct a test case with a portion of the membership of the department. This test was designed to prove that a practical skill based test could be effectively used to evaluate new recruits within the organization and to establish baseline proficiency bench marks for the organization.

To complete this study a competency course for use of Self Contained Breathing Apparatus (SCBA) was selected. The intent of this activity is to test several firefighting skills while utilizing the SCBA in full protective clothing in a controlled environment. The NFPA mandates that no firefighting activities can take place in a hazardous environment without the use of a SCBA. All firefighters must be proficient in the use of this appliance not only for their own protection but also to ensure they remain a functional part of a team on the scene of an emergency. The use of this device is considered a basic and necessary skill for newly hired members of the organization. Practical training in this area has always been a part of the department's training regime however no standards for proficiency have been instituted within the organization.

The local fire training center, Cuyahoga Community College, has built a series of props that can be arranged to simulate various obstacles that might be found during an actual emergency. The College uses these props in the current Firefighter I & II curriculum offered at their institution. They graciously agreed to allow the Solon Fire Department to use these props

for our SCBA Competency Course experiment. The course was set up to simulate a search and rescue situation where a firefighting team of two personnel, wearing full protective gear and a SCBA, follow a hose line through the nine station course searching for a victim. Since we had no base line for determining the time necessary to complete the course and be considered competent, the majority of the membership was evaluated in the course. The conditions and layout were consistent for all participants so the resultant times could be evaluated and averaged for a target goal.

The chart below illustrates the results of the times of the sample group who participated in the SCBA Competency Course. The bold line represents the average of all the times which could be considered the target goal for the course. All participating candidates completed the entire course in a total time that was less than thirty minutes. All candidates completed the course without an expired air cylinder which was a major goal of the exercise. The results of all of the participants would be considered acceptable and a passing grade under the criteria supplied by Cuyahoga Community College. The criteria are the same as that which is used in the fire training curriculum adopted by the educational institution.

### **Graph Illustrating Completion Times of SCBA Competency Course**

SCBA Times

0

5

10

15

20

25



30

35

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35

36 37 38

Test Candidate

Course Times in Minutes

The past methodology of yearly evaluations for all members of the organization, both newly hired and current, proved to be a disservice to the recently hired. The past method provided no documented method of coaching and evaluating the recruit during the probationary period.

Employees who were evaluated were interviewed as to how they felt the process should have been done. All agreed that feedback during the probationary period would have been helpful in obtaining a feel as to their place in the organization; are they on board or on the shore as the ship leaves the harbor. The end result of the past intervals of appraisal was an evaluation that was delivered at the end of the probationary period which provided limited recourse for nonperforming employees. Fortunately this issue did not arise in the past however with the need to increase staffing a change was desired. Using the most recent hires in the past two years, quarterly evaluations were instituted. The feedback from employees was favorable and positive. Most valued the information contained in these evaluations and they served as road maps to areas which needed improvement.

The recommendation of the industry standard of quarterly evaluations proved to be beneficial to this organization. The policy related to the probationary firefighters has been revised and now includes the procedure for quarterly evaluations. The employee's City required

yearly evaluation will contain the quarterly documents as they will serve as a basic for compilation of that document.

A successful training program for new recruits should contain the basic elements necessary for personnel to be an effective member of the organization's operation. The content must be formal presented and have credentials that relate to recognized instructional text of the profession. These elements have been proven successful in the industrial sector and can be successfully adapted to this fire service organization.

The starting point for course content first would be the information that is presented to the firefighter recruit. This would be the orientation phase of the process which entails a three week period of exposure to the department and its operation. This material presented within this foundation is then used throughout the probationary period. The substance of the program is presented by members of the department who have expertise in these areas and are considered to be leaders within the organization. Each subject that pertains to specific areas that necessitate presentation of material had an approved lesson plan that was consistent for each member who participated in the program. This was combined with relevant handouts for all areas that contained a practical skill component. At the end of the orientation period each recruit had the opportunity to sit down and request clarification or review of specific items that may not have been understood. The researcher interviewed each candidate for feedback in course development and improvement. The results were insignificant with only minor suggestions for improvement.

With respect to the content of the material, each instructor was asked to continuously review the items that they were responsible for and hone each for optimum substance with improved delivery. Each area has progressed nicely with improved efficiency in delivery so the

time frame has allowed for increased hands on activity with ample time for questions and answers. The layout of the program can be seen in appendix number three.

The second part of the content required for the training program is implemented after the initial orientation. After the recruit is assigned to their respective shift a mentor is assigned by the shift Battalion Chief. Listed criteria are specific for the proper selection of this mentor so that the purpose of the appointment remains consistent on all shifts. The result is to not only provide a technical resource for the recruit but also to provide a point of contact for other areas such as behavior and practices in the fire station that are typically not documented. This assignment and the curriculum, appropriately named the “New Firefighter/Paramedic Training Manual”, are meant to guide the employee through the remainder of their probationary period. The manual was developed by department officers from all levels within the department. The material supports the objectives of job description and outlines milestones of comprehension that will be covered during the quarterly evaluation. A copy of this manual is included in Appendix 5.

To date, eight recruits have participated in this version of the probationary process with five members completing the manual. All of the recruits agreed that this method was beneficial in assisting them to adjust to the operation of the Solon Fire Department. Previous members that were hired prior to the implementation of this training aid agreed that they would have acclimated more rapidly to the department had they had the opportunity to participate in the program. All of the officers agreed the content contained within the document will provide the department with a better prepared firefighter at the end of the probationary period. The process has been successful and will be referred back to the committee for review at the end probationary group currently in process.

The final result of this research question was to develop a list of Key Job Responsibilities

(KJR's) for the probationary firefighter. This list was developed and has been incorporated into the training manual with a specific training schedule. Those KJR's are as follows:

1. Knowledge of response district
2. Proficient operation of paramedic appliances
3. Proficient use of Self Contained Breathing Apparatus
4. Use of ground ladders
5. Mastery of the vehicle driving course
6. Use of hose streams
7. Knowledge of firefighting power tools and hand tools
8. Use of extrication equipment
9. Incident report data entry
10. Knowledge of ropes and knots
11. Fire apparatus operations
12. Knowledge of water flow hydraulics
13. Knowledge of fire suppression systems
14. Demonstration of effective public relations

## DISCUSSION

The culmination of this research project has proven that an effective probationary training program must contain key elements to be successful. As it was discovered in the literary search portion of the project, a successful program must contain clear and concise goals and a skills checklist. (Fire Chief, 2002) Those elements were developed and instituted into the entire process which provided the recruits with an obvious understanding as to what was expected of them during the probationary period. The success of that was apparent in the readiness which these recruits demonstrated at the end of one year. The previous recruits trained under the old system were still working to grasp skills after their probationary period. One recruit in particular had to be taught several basic operational skills several times over until the skill was retained. This particular event prompted the researcher to investigate a different approach to the training function.

As it was revealed in the literature relating to private industry skill training, a training program that measures competency of an individual must be task oriented. The reason is that task oriented training makes no assumption as to job knowledge. The proof is in the application of the knowledge along with the skill. (Marine Training News, 2003) This has been apparent in the area of paramedic training for years with the advent of the National Registry of Emergency Medical Technicians. The test format is one on written examination of knowledge and practical application of job knowledge for initial certification and for re-certification. The fire service has not adopted the concept of re-certification and only requires demonstration of skill knowledge and proficiency in the initial training program. The need to have a recruit demonstrate their ability to function in our organization became more apparent during the most recent expansion of

the organization. A few near failures of recruits coupled with a couple of near miss accidents prompted the need for a change. The tasks assembled for the program have served the department well in preparation of these latest recruits.

The final element of the program is the need to have the development of the training program done in the environment of a committee. The intent is not to complicate the process, as is often the case with this approach, but to provide for a broader viewpoint as to its expectations. (Competency-Based Education and Training, 1997) The committee that worked on various portions of the project was comprised of training lieutenants for each shift, and officer from each shift and the researcher. The research process was successful in the development of several items through the course of the study. The potential for a revised performance evaluation was tested however the form needs further refinement which will be the focus of a separate project. A further result of the study was the development of a revised initial orientation training program with dedicated instructors and instruction materials. The process provided the discovery of the future use of dedicated training props for all members of the department which will provide them the opportunity to hone their skills in a controlled environment. The release of the first ever training manual for new members of the department contains all of the necessary basic skills a recruit needs to begin to function as a technically competent member of the team. The recruits have now been given specific goals and milestones to guide them in the early portion of their career development.

## RECOMMENDATIONS

The basic elements this project was meant to address is how to evaluate probationary firefighters, can competency based training be used as an evaluation tool, at what intervals should we evaluate, and what material should be included in a training program.

The need to refine the performance evaluation, which was described in the performance management material, is the first item that must be implemented. The draft used for the purpose of this research project proved to be successful, however due to the need to have specific job responsibilities addressed and training for all members involved in the evaluation process, which could not be effectively completed in the time frame of the project. An effective evaluation tool is critical in providing feedback, coaching, and documentation related to employee performance. The initial use of the proposed form achieved excellent results and feedback. The future refinement of this document will serve the organization well.

The use of competency based training for the purpose of this project not only provide the new members with and excellent training opportunity but also allowed them to put their skills to the test in an environment which was controlled and easily paused for the purpose of remediation. The desire of the committee is to expand the use of these types of sessions and allow every aspect related to firefighting to be practiced with minimal risk to the participant. The goal is build more props that will serve to facilitate these future simulations. The prop shown in appendix number two is currently funded and in the planning stages. The course curriculum for each activity will be drafted with implementation set for the first quarter of 2005.

The generosity of Cuyahoga Community College for the use of the training prop for the SCBA competency course created some interest on their behalf as to the intent of this project.

They have applied for grant money and are planning a new training facility for police and firefighters that will center on competency based training and simulation. The plan would include live fire training facilities but would also contain a complete city block that would contain all of the elements found in a regular city block of any community. The intent would be to provide area that personnel could use to practice their skills in a controlled environment. This is the same concept that was used to validate the use of competency based training in his project. This researcher has been invited to sit on this committee to offer assistance in the development of the project. The future prospect of the impact this program can have on the quality of our training is exciting.

The suggested interval which is used in most industrial field with respect to evaluations is a quarterly interval during the probationary period. The Civil Service Regulations require yearly evaluations but do not prohibit the use of additional evaluations. The committee agreed that a quarterly time frame was successful within this project and served the project well. The recruits proved favorable feedback with respect to the schedule. The committee formally recommended incorporation of this process for future hires. The evaluation of the regular membership will remain at the yearly interval as it historically has been. The use of a quarterly evaluation could be used for special needs should they arise with an employee.

The knowledge needed for the task of firefighting has been explored in depth through the efforts of this project. The approach taken was to progress in steps with support and reinforcement. The revision of the orientation schedule provides the basic skills, new or reviewed, for a recruit to function on shift; basic tools. The new employee training manual is then provided when they transition to shift assignment. This provides them with more tools and reference material to build on those skills; advance tools. Combined with an assigned mentor, the



recruit now has the items necessary for success, an understanding of what is expected, a reference guide for those items, a resource for assistance, and a time line for attaining their goals. When they have completed their first year of service they should fully understand what direction the need to proceed for the following year and what areas require improvement. The process allows for interaction at levels within their shift and should steer them in the right direction. We have given them all of the items they need to be successful; the rest is up to them.

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**APPENDIX 1 – PERFORMANCE EVALUATION**

## **APPENDIX 2 – TRAINING PROP**

## **APPENDIX 3 –ORIENTATION FORM**

## APPENDIX 4 – SCBA KNOWLEDGE TEST

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Beneath each question or incomplete statement is a list of possible answers. Circle the letter corresponding to the best answer.

1. Which item is a fundamental rule of firefighting safety?

A. No one enters a potentially toxic atmosphere unless wearing breathing apparatus

B. An engine company should have a crew of three or more

C. No one enters a building involved in fire without a lifeline

D. SCBA should be removed during salvage and overhaul in order to conserve energy

IFSTA Essentials 4th Ed, pg 87

2. All of the following are accepted methods of controlling internal fogging of the facepiece lens

EXCEPT ONE. CHOOSE THE EXCEPTION.

A. Momentarily open the bypass valve

B. Install a nose cup

C. Treat the lens with an anti-fogging solution

D. Exhaling forcefully while maintaining a good seal with the facepiece

IFSTA Essentials 4th Ed, pg 98-99

3. Which statement about phosgene gas is correct?

A. It is colorless and odorless

- B. It has a yellow color
- C. It is most commonly a product of class B combustibles
- D. It smells of musty hay

IFSTA Essentials 4th Ed, pg 89

4. Which statement about protective equipment is correct?

- A. SCBA and PASS are optional elements of full protective gear for structural firefighting
- B. Inner liners of a protective coat may be removed during firefighting operations as conditions warrant
- C. According to NFPA 1500, a long turnout coat with hip boots is an acceptable substitute for protective trousers
- D. Dirty protective gear absorbs heat more quickly than clean gear

IFSTA Essentials 4th Ed, pg 80-87

5. Which one of these fabrics presents the greatest melting hazard?

- A. Polyester
- B. Wool
- C. Gore Tex
- D. Cotton
- E. Acrylic

IFSTA Essentials 4th Ed, pg 86

## **APPENDIX 5 – NEW FIREFIGHTER/PARAMEDIC TRAINING MANUAL**

CITY OF SOLON

DEPARTMENT OF PUBLIC SAFETY

DIVISION OF FIRE-RESCUE

NEW FIREFIGHTER/PARAMEDIC

TRAINING MANUAL

NAME: \_\_\_\_\_

### **Goal**

The goal of this New Employee Training Manual is to provide clear and consistent objectives, information, timelines and instruction to each new employee, their officers and assigned mentors.

In addition, it documents the progress of the new employee in order to insure that each employee has every opportunity to succeed in his or her new job.

The overall goal of the New Employee Training Program is to assure that our Firefighter/Paramedics are technically competent, understand what's expected of them and are thoroughly prepared to protect and serve the population we serve.

### **New Employee Orientation Program**

- Each new probationary Firefighter/Paramedic will participate in a New Employee Orientation Program (NEOP). This is an intensive five-week training program.
- Each new Firefighter/Paramedic will have already completed their Ohio Paramedic Certification and their Ohio 240 hour Firefighter I & II Training prior to entering the



NEOP.

- The first three weeks of NEOP will consist of 120 hours of learning how to apply their Firefighter and Paramedic training to the work we do here at Solon. This will include:

- o Rules and Regulations

- o Standard Operating Guidelines

- o Administrative Guidelines

- o Paramedic Protocols

- o Paramedic equipment, specialized kits and medical devices

- o Firefighting apparatus, tools and equipment

- o Extrication and specialized rescue tools and equipment

- o Streets and maps

- Employees will also be evaluated during this period to determine their mental and physical ability to do the work of a Firefighter/Paramedic.

- During the final two weeks of the NEOP, new employees will be assigned to 24 hour shifts and ride along as Paramedic on the rescue squad. They will have an opportunity to provide medical care under our protocols while being assisted and evaluated by two experienced Firefighter/Paramedics.

- Upon completion of this five-week program, the new employee will transition to working on his or her assigned shift. While assigned to shift, and during the balance of the first six months, the new employee will begin Shift Based Probationary Firefighter/Paramedic Training.

Shift-Based Probationary

Firefighter/Paramedic Training

## **Mentoring**

A mentor (or preceptor) will be chosen for each probationary firefighter/paramedic by the shift officer. The mentor is usually a senior member who has agreed to volunteer for the program and is willing to spend time with the probationary firefighter/paramedic to help the probationary firefighter/paramedic through all the phases of the probationary firefighter/paramedic training.

### Guidelines for choosing a mentor.

- 1) . Must be a Firefighter First Class/Paramedic
- 2) Usually a senior member of the shift with good firefighting and EMS skills
- 3) Willing to spend some time each shift with the probationary firefighter/paramedic
- 4) Willing to submit evaluations and recommendations to the shift officer.

### Responsibilities of a mentor.

- 1) Ensure that the probationary firefighter/paramedic has any materials necessary for the probationary firefighter/paramedic program
- 2) Enlist other shift members to assist in various aspects of the training
- 3) Periodically review the probationary firefighter/paramedics probationary firefighter/paramedic manual and add any comments
- 4) Make sure that the probationary firefighter/paramedic is keeping pace with the schedule
- 5) Discuss any problems with the probationary firefighter/paramedic and offer suggestions
- 6) Meet with the shift officer prior to each evaluation period

### **The mentor is not responsible for the:**

entire probationary firefighter/paramedic training. This program relies on the cooperation and team effort of the entire shift. The probationary firefighter/paramedic should be

enlisting the aid of all members. This team effort is important so that the probationary firefighter/paramedic gets several points of view and learns other shift member's attributes.

Practical Exam

**Objectives**

Practical Testing and Written Exam Responsibility

Each probationary firefighter/paramedic is responsible for notifying the Shift Training Officer when he or she is ready for a practical or written exam. Notification shall be at least one shift in advance of the requested testing date. Most practical and written exams will be given by the shift training officer, but in his/her absence, may be given by another shift officer. Unless the probationary firefighter/paramedic is on a different shift for an extended period of time all tests or exams shall be conducted on his or her own shift.

The probationary firefighter/paramedic understands that all completed written exams are to be kept in the designated section of this manual. The probationary firefighter/paramedic understands that under no circumstances shall the contents of any written exam be shared with any other members or any copies made.

The probationary firefighter/paramedic further understands that any cheating or sharing of exam materials is reasonable grounds for discipline up to and including dismissal.

I have read, understand and agree with this section

---

SIGNATURE OR PROBATIONARY FIREFIGHTER/PARAMEDIC

.....DATE

## **Shift-Based Probationary Firefighter/Paramedic Training**

- 1) After reviewing streets and maps and completing practice maps, the probationary firefighter/paramedic shall be able to fill in the names of major city streets on a blank city section map with 100% accuracy.
- 2) After reviewing streets and maps, the probationary firefighter/paramedic shall pass a twenty question test about city streets, major city buildings, addresses and address breaks with a score of at least 80%.
- 3) After reviewing and practicing with another shift member, the probationary firefighter/paramedic shall be able to demonstrate competency in operating the department's cardiac monitor/pacer/defibrillator, including 3 lead monitoring of EKG rhythm strips, acquiring and transmitting 12 lead EKGs, defibrillating and external transthoracic pacing.
- 4) After reviewing and practicing with another shift member, the probationary firefighter/paramedic shall, with turnout gear already on, don an SCBA and be breathing air within 40 seconds elapsed time and have hood, helmet, gloves and PASS within 60 seconds elapsed time.
- 5) After reviewing and practicing with another shift member, the probationary firefighter/paramedic shall complete the prescribed SCBA course while wearing full gear and SCBA.
- 6) After reviewing and practicing with another shift member, the probationary firefighter/paramedic shall refill an SCBA and an oxygen cylinder, while following safety practices.

- 7) After reviewing and practicing with another shift member, the probationary firefighter/paramedic shall remove a 24 ft. ladder from an assigned apparatus, carry and place it on a wall and climb it while wearing turnout gear and SCBA.
- 8) After reviewing and practicing with another shift member, the probationary firefighter/paramedic shall climb the aerial ladder while wearing turn-out gear. The ladder shall be fully extended and at an angle of at least 75 degrees.
- 9) After reviewing and practicing with another shift member, the probationary firefighter/paramedic shall maneuver an assigned rescue squad through a prescribed driving course, without hitting any cones, curbs or having to redo any section.
- 10) After reviewing and practicing with another shift member, the probationary firefighter/paramedic shall demonstrate removing a hose line from a truck, stretching, advancing and repacking the hose. The probationary firefighter/paramedic shall demonstrate proper stream use. The hose advance is with the assistance of others as needed.
- 11) After reviewing and practicing with another shift member, the probationary firefighter/paramedic shall operate, list safety procedures and describe maintenance procedures for the vehicle mounted generators, gas and electric powered blowers and portable generators.
- 12) After reviewing and practicing with another shift member, the probationary firefighter/paramedic shall operate, list safety procedures and describe maintenance procedures for the power chain saw and rotary saw, including operating on pallets or other scrap materials.

- 13) After reviewing and practicing with another shift member, the probationary firefighter/paramedic shall demonstrate the operation, use and maintenance of the Hydraulic Rescue Tool, including spreaders, cutters, rams and pump.
- 14) After reviewing and practicing with another shift member, the probationary firefighter/paramedic shall demonstrate the operation, use and maintenance of the rescue air bags.
- 15) The probationary firefighter/paramedic after reviewing various materials available in the fire station shall pass a short test on the history of the Solon Fire Department.
- 16) After reviewing and practicing with another shift member, the probationary firefighter/paramedic shall have successfully completed the entry of twenty actual EMS incident and patient care reports into the InterFire computer system.
- 17) The probationary firefighter/paramedic must assist with two, and actually conduct one, fire station tour for members of the public.
- 18) After reviewing and practicing with another shift member, the probationary firefighter/paramedic must assist with a fire extinguisher demonstration for a commercial or industrial facility.
- 19) After reviewing and practicing with another shift member, the probationary firefighter/paramedic shall demonstrate the use of ropes for firefighting operations, such as hoisting tools to a roof, and shall demonstrate tying the following knots: overhand, half-hitch, bowline, clove hitch, figure eight, double figure eight, figure eight followthrough, and square knot.
- 20) After reviewing streets and maps, the probationary firefighter/paramedic shall pass a twenty-five question test about city streets, major city buildings, subdivisions and address

breaks with a score of at least 80%.

21) After reviewing and practicing with another shift member, the probationary firefighter/paramedic shall place an engine in pump, flow water from the tank, supply water to a hose line at the prescribed pressure and transfer to hydrant water.

22) After reviewing and practicing with another shift member, the probationary firefighter/paramedic shall place the aerial tower in operation, raise and lower the ladder, operate the ladder from the turntable and return the ladder to normal position.

23) After reviewing and practicing with another shift member, the probationary firefighter/paramedic shall correctly identify, demonstrate and/or describe the safe operation of: a fire department connection (FDC), an industrial fire pump, a pump header, a water motor gong, a PIV, an OS&Y, a sprinkler system riser and a standpipe connection. This shall include knowing how to tell if the equipment or appliance is properly operating.

### **Training Schedule**

The following schedule is designed to spread out the objectives and work load. These are deadlines and there is no reason that tests or practical exams can not be completed ahead of time.

END OF MONTH COMPETENCY

DATE OF COMPLETION

FIREFIGHTER INITIALS

OFFICER INITIALS

#### **I.**

1) Major Streets Map Test

- 2) Written Street Test
- 3) Cardiac Monitor/Pacer/Defib Operation

**II.**

- 4) SCBA Donning Drill
- 5) SCBA Obstacle Course
- 6) Compressed Gas Cylinder Refills

**III.**

- 7) 24' Extension Ladder Drill
- 8) Aerial Ladder Climb

**IV.**

- 9) Squad Driving Course
- 10) Hose Line Evolution

**V,**

- 11) Generators and Blowers Evolution
- 12) Gas Powered Saws

E ND OF MONTH COMPETENCY

DATE OF COMPLETION

FIREFI GHTER INITIALS

OFFICER INITIALS

**VI.**

- 13) Hydraulic Rescue Tools
- 14) Rescue Air Bags



## **VII.**

15) History of Solon Fire Dept

16) EMS Computer Reporting

## **VIII.**

17) Fire Station Tour

18) Fire Extinguisher Demo

## **IX.**

19) Rope Hoisting & Knots

20) Streets, City Buildings, Schools, Subdivisions Test

## **X.**

1) Pump Operation Drill

22) Complete “Something to Do” Activity

## **XI.**

23) Aerial Ladder Set-up

## **XII.**

24) Fire Suppression Systems

### **Streets and Maps**

In the following pages are maps of Solon.

- After reviewing streets and maps and completing practice maps, the probationary firefighter/paramedic shall be able to fill in the names of major city streets on a blank city section map with 100% accuracy.

o Bainbridge Rd

- o Aurora Rd
- o Solon Rd
- o SOM Center Rd
- o Miles Rd
- o Cannon Rd
- o Harper Rd
- o Cochran Rd
- o US 422
- o Liberty Rd
- o Pettibone Rd

- After reviewing streets and maps, the probationary firefighter/paramedic shall pass a twenty question test about city streets, major city buildings, addresses and address breaks with a score of at least 80%.

- o Address breaks of SOM Center Rd at the North Border, Aurora Rd, Cannon Rd and the South Border

- o Address breaks of Aurora Rd at the East Border, SOM Center Rd, Cochran/Harper Rd and the West Border

- o Locate each of the following on a blank map:

City Hall Solon High School

Police Station Orchard School

Solon Medical Campus Roxbury School

Fire Station #1 Solon Middle School

Fire Station #2 Solon Middle School

Fire Station #3 Arthur Road School  
Recreation Dept Parkside Elementary School  
Service Dept Dorothy Lewis School  
Waste Water Treatment Plant  
Saint Rita's Schools  
Solon Library Kmart Plaza  
Solon Square Shopping Center  
Solar Shopping Center  
Grantwood Golf Course/Hawthorne Valley Country Club  
Emerald Ridge Stradford Commons

### **Cardiac Monitor/Pacer/Defibrillator**

#### Objective:

After reviewing and practicing with another shift member, the probationary firefighter/paramedic shall be able to demonstrate competency in operating the department's cardiac monitor/pacer/defibrillator, including 3 lead monitoring of EKG rhythm strips, acquiring and transmitting 12 lead EKGs, defibrillating and external transthoracic pacing.

#### Instructions:

- 1) The probationary firefighter/paramedic shall demonstrate turning on the power and how to determine the successful completion of the self-test.
- 2) The probationary firefighter/paramedic shall demonstrate three lead monitoring of an EKG rhythm strip, including proper placement of limb electrodes on a patient, attaching the cable to the electrodes, plugging the cable into the monitor and printing a rhythm strip.

- 3) The probationary firefighter/paramedic shall demonstrate obtaining a twelve lead EKG, including proper placement of chest electrodes on a patient, attaching the cable to the electrodes, plugging the cable into the monitor, acquiring a twelve lead EKG into the cardiac monitor memory, transmitting a strip to the hospital via cellular phone and printing a twelve lead EKG strip.
- 4) Demonstrate how to change batteries and paper, when needed, in the cardiac monitor/pacer/defibrillator.
- 5) Demonstrate how to properly apply defib pads to a patient, plugging the electrodes into the monitor, setting the joule power, charging and shocking a patient.
- 6) Demonstrate how to properly apply pacing pads to a patient, plugging the electrodes into the monitor, setting the power setting, set the rate, begin pacing a patient, and determining capture.

## **SCBA Donning**

### Objective:

After reviewing and practicing with another shift member, the probationary firefighter/paramedic shall, with turnout gear already on, don an SCBA and be breathing air within 40 seconds elapsed time and have hood, helmet, gloves and PASS within 60 seconds elapsed time.

### Instructions:

- 1) The probationary firefighter/paramedic shall be wearing all turnout gear, including bunkers and boots, coat and hood prior to starting.
- 2) SCBA cylinder valve must be shut off prior to starting. SCBA straps must be fully extended and may be laid out on floor in any manner preferred by probationary

firefighter/paramedic.

- 3) Probationary firefighter/paramedic shall check seal on face mask before going on air.
- 4) Probationary firefighter/paramedic shall be breathing cylinder air within 40 seconds.
- 5) Probationary firefighter/paramedic shall complete donning of other protective clothing, with successful completion within 20 additional seconds, for a total elapsed time of less than 60 seconds. Other protective clothing shall include all zippers or flaps, hood, helmet, gloves and PASS device turned on.
- 7) The probationary firefighter/paramedic shall have as many tries as necessary for completion. However if it is clear that more practice is necessary, the mentor or officer may require such practice before attempting this objective again.

### **SCBA Obstacle Course**

#### Objective:

After reviewing and practicing with another shift member, the probationary firefighter/paramedic shall complete the prescribed SCBA course while wearing full gear and SCBA.

#### Instructions:

1) The exact SCBA course description is not given to the probationary firefighter/paramedic, but the probationary firefighter/paramedic can expect some or all of the following obstacles:

A.....Entrapment

B.....SCBA removal and re-donning

C.....Tool recognition

- D.....Hoseline recognition
- E..... Advancing over, under or through obstacles
- F .....Ropes wires or other hanging obstacles
- G..... Up or down stairs
- H..... Victim removal

- 2) Probationary firefighter/paramedic shall be wearing full turn-out gear and SCBA.
- 3) Instructor shall accompany the probationary firefighter/paramedic through the course and give instructions as necessary.
- 4) Probationary firefighter/paramedic shall complete the course on one tank of air.
- 5) The probationary firefighter/paramedic shall have a tool with him during the course.
- 6) Placing a hood over the mask or some other acceptable device shall obscure the vision of the probationary firefighter/paramedic.
- 7) Failure to complete any significant portion of this objective shall require a retest.

**Cylinder Refill**

Objective:

After reviewing and practicing with another shift member, the probationary firefighter/paramedic shall refill an SCBA and an oxygen cylinder, while following safety practices.

Instructions:

- 1) Probationary firefighter/paramedic shall visually inspect the cylinder for damage and hydro test date.
- 2) Probationary firefighter/paramedic shall determine the cylinder gas capacity.

- 3) Probationary firefighter/paramedic shall place the cylinder in the appropriate slot in the fragmentation containment cabinet, attach the appropriate yoke (fill hose), insure that the bleeder valve is closed and open the cylinder valve. Note the pressure in the cylinder to be filled. Close and latch the cabinet door.
- 4) Probationary firefighter/paramedic shall check the cascade log for current system pressures and open the appropriate cylinder and the appropriate cascade control valve.
- 5) Probationary firefighter/paramedic shall slowly open the fill valve and allow gas to transfer to the cylinder being filled. If the pressure is equalized before reaching the desired fill pressure, close the fill valve, close the cascade control valve and open another cascade control valve with a higher cylinder pressure. Then slowly open the fill valve and again slowly flow gas to the cylinder being filled.
- 6) Once the desired pressure is reached, close the fill valve. Then open the cabinet and close the cylinder valve. Once the cylinder valve is closed, open the bleeder valve and release the pressure in the line. Disconnect the fill hose and remove the cylinder from the fill station cabinet.
- 7) Probationary firefighter/paramedic shall record the numbers of cylinders being filled and the ending pressures of each cylinder in the cascade. When completed, close the cascade cylinders and cascade control valves, gently back off the main regulator and bleed the pressure off the main regulator.

#### **14. Ft Roof Ladder Placement and Climb**

##### Objective:

After reviewing and practicing with another shift member, the probationary firefighter/paramedic shall remove a 14 ft. roof ladder from an assigned apparatus, carry and

place it on a wall and climb it while wearing turnout gear and SCBA.

Instructions:

- 1) Probationary firefighter/paramedic shall be wearing full turnout gear including, helmet, gloves and SCBA (not breathing air)
- 2) Probationary firefighter/paramedic shall use 14 ft. ladder from a pumper ladder rack.
- 3) Ladder shall be removed from the engine by the probationary firefighter/paramedic and placed on the ground, then prepared for a one-firefighter low shoulder carry.
- 4) Probationary firefighter/paramedic shall kneel beside the ladder facing the tip and grasp the middle rung with the near hand. Probationary firefighter/paramedic shall lift the ladder and pivot the ladder as it rises and place on the shoulder. Probationary firefighter/paramedic shall carry the ladder butt end first slightly lower.
- 5) Probationary firefighter/paramedic shall also carry an axe in the free hand.
- 6) Probationary firefighter/paramedic shall place the butt end of the ladder against the building and grasp the ladder and flat raise against the building. (Tool should be set on the ground)
- 7) Probationary firefighter/paramedic shall observe the area above the ladder to make sure it is clear.
- 8) Probationary firefighter/paramedic shall position the ladder at a safe angle for climbing, carefully moving the ladder to the desired location.
- 9) The probationary firefighter/paramedic shall retrieve the axe and climb the ladder carrying the tool.
- 10) Probationary firefighter/paramedic shall return ladder to the engine by reversing all steps.
- 11) Although there is no specific time limit this objective should be done quickly and efficiently.
- 12) Failure to complete any significant portion of this objective shall require a retest.



## **24 Ft. Extension Ladder Placement and Climb**

### Objective:

After reviewing and practicing with another shift member, the probationary firefighter/paramedic and another firefighter shall remove a 24 ft. extension ladder from an assigned apparatus, carry and place it on a wall and climb it while wearing turnout gear and SCBA.

### Instructions:

- 1) Both firefighters shall be wearing full turnout gear including, helmet, gloves and SCBA (not breathing air)
- 2) A 24 ft. extension ladder from a pumper ladder rack shall be used for this evolution.
- 3) Ladder shall be removed from the engine carried to the building with a two-firefighter low shoulder carry.
- 4) Probationary firefighter/paramedic shall also carry an axe in the free hand.
- 5) Probationary firefighter/paramedic shall place the butt end of the ladder on the ground and raise the ladder using a flat raise. (Tool should be set on the ground while raising the ladder)
- 6) Probationary firefighter/paramedic shall observe the area above the ladder to make sure it is clear. Probationary firefighter/paramedic shall extend the ladder by pulling the halyard, hand over hand, until the ladder has been raised to the desired level and the pawls are engaged.
- 7) Probationary firefighter/paramedic shall position the ladder at a safe angle for climbing, carefully moving the ladder to the desired location.
- 8) The probationary firefighter/paramedic shall tie off the halyard by wrapping two rungs and securing with a clove hitch.
- 9) The probationary firefighter/paramedic shall retrieve the axe and climb the ladder carrying the tool.

- 10) After reaching the top, the probationary firefighter/paramedic shall climb partially back down the ladder and demonstrate a leg lock.
- 11) The firefighters shall return ladder to the engine by reversing all steps.
- 12) Although there is no specific time limit this objective should be done quickly and efficiently.
- 13) Failure to complete any significant portion of this objective shall require a retest.

### **Aerial Ladder Climb**

#### Objective:

After reviewing and practicing with another shift member, the probationary firefighter/paramedic shall climb the aerial ladder while wearing turn-out gear. The ladder shall be fully extended and at an angle of at least 75 degrees.

#### Instructions:

- 1) The aerial ladder shall be put up and fully extended. A qualified member of the shift should do this.
- 2) The probationary firefighter/paramedic shall be wearing full turnout gear and safety belt.  
(SCBA not necessary)
- 3) The probationary firefighter/paramedic shall climb the ladder, one rung at a time in a consistent manner.
- 4) Once at the top the probationary firefighter/paramedic shall open the door and enter the bucket and communicate with the ladder operator.
- 5) The probationary firefighter/paramedic shall then operate the controls in the bucket and return it to the bed.
- 6) Failure to reach the top shall result in a retest.

7) There is no set time for the climb; however it shall be done in a reasonable period of time.

## **Squad Driving Course**

### Objective:

After reviewing and practicing with another shift member, the probationary firefighter/paramedic shall maneuver an assigned rescue squad through a prescribed driving course, without hitting any cones, curbs or having to redo any section.

### Instructions:

- 1) The probationary firefighter/paramedic shall have practiced extensively and feel very confident.
- 2) The probationary firefighter/paramedic shall observe all safety rules, including seatbelts being worn by the probationary firefighter/paramedic and any passenger.
- 3) The probationary firefighter/paramedic shall adjust mirrors as necessary.
- 4) An officer shall ride with the probationary firefighter/paramedic.
- 5) There shall be someone observing all backing and stop if the truck nears any immovable object.
- 6) The probationary firefighter/paramedic shall proceed with caution.
- 7) In order to pass, the probationary firefighter/paramedic shall not knock over any cones, complete within the time limit of seven minutes, and not have to restart any portion of the course.
- 8) In the event of failure the probationary firefighter/paramedic may try two more times on that day. Subsequent attempts shall be after additional driving and practice.

## **Hose Line Advance and Handling**

### Objective:

After reviewing and practicing with another shift member, the probationary firefighter/paramedic shall demonstrate removing a hose line from a truck, stretching, advancing and repacking the hose. The probationary firefighter/paramedic shall demonstrate proper stream use. The hose advance is with the assistance of others as needed.

### Instructions:

- 1) The probationary firefighter/paramedic shall list all the pre-connects on the pumper assigned and their corresponding length.
- 2) The probationary firefighter/paramedic shall remove a 200 ft. pre-connected 1-3/4" line from the pumper and stretch it to a door less than 150 ft. away.
- 3) The probationary firefighter/paramedic shall flake the hose for ease of advancement into the building.
- 4) The probationary firefighter/paramedic shall check the door that is about to be entered for heat, smoke and accessibility.
- 5) The probationary firefighter/paramedic shall call for charging of the line.
- 6) The probationary firefighter/paramedic shall open the line prior to opening the door and bleed the line of air while checking for pressure and straight stream.
- 7) The probationary firefighter/paramedic shall open the door and chock it open.
- 8) The probationary firefighter/paramedic shall advance the line into the structure while staying low with the nozzle in front of the probationary firefighter/paramedic.
- 9) The probationary firefighter/paramedic shall flow the line out a window demonstrating the pattern of extinguishment.

- 10) This exercise shall be done while wearing full PPE, including SCBA.
- 11) The probationary firefighter/paramedic shall then repack the hose with the proper hoseload while supervising the assistance of other crew members.

## **Generators and Blowers**

### Objective:

After reviewing and practicing with another shift member, the probationary firefighter/paramedic shall operate, list safety procedures and describe maintenance procedures for the fixed generators, gas and electric powered blowers and portable generators.

### Instructions:

- 1) The probationary firefighter/paramedic shall list where all generators are located.
- 2) The instructor shall pick two generators, and the probationary firefighter/paramedic shall demonstrate starting procedures.
- 3) The probationary firefighter/paramedic shall turn on power to fixed lights and extension cords associated with that generator.
- 4) The probationary firefighter/paramedic shall demonstrate shut down and refueling procedures
- 5) The probationary firefighter/paramedic shall list where all blowers are located.
- 6) The probationary firefighter/paramedic shall demonstrate proper starting procedures for a blower.
- 7) The probationary firefighter/paramedic shall demonstrate proper placement of a blower and how to check for proper placement.
- 8) The probationary firefighter/paramedic shall demonstrate shut down and refueling procedures.

## **Power Saws**

### Objective:

After reviewing and practicing with another shift member, the probationary firefighter/paramedic shall operate, list safety procedures and describe maintenance procedures for the power chain saw and rotary saw, including operating on pallets or other scrap materials.

### Instructions:

- 1) The probationary firefighter/paramedic shall explain where the saws are stored.
- 2) The probationary firefighter/paramedic shall list the safety procedures and equipment for use of each saw.
- 3) The probationary firefighter/paramedic shall demonstrate proper starting of the chain saw.
- 4) The probationary firefighter/paramedic shall demonstrate how to climb a ladder with the saw and proper methods of operation on a roof.
- 5) The probationary firefighter/paramedic shall simulate proper cutting methods on a peaked or sloped roof.
- 6) The probationary firefighter/paramedic shall demonstrate how to change or adjust the chain.
- 7) The probationary firefighter/paramedic shall demonstrate refueling and oil checks of the saw.
- 8) The probationary firefighter/paramedic shall demonstrate proper starting of the rotary saw.
- 9) The probationary firefighter/paramedic shall demonstrate how to climb a ladder with the saw and proper methods of operation on a roof.
- 10) The probationary firefighter/paramedic shall simulate proper cutting methods on a peaked or sloped roof.
- 11) The probationary firefighter/paramedic shall demonstrate how to use the saw when cutting vertical surfaces.

- 12) The probationary firefighter/paramedic shall demonstrate how to change or adjust the blade.
- 13) The probationary firefighter/paramedic shall demonstrate refueling and oil checks of the saw.

### **Hydraulic Rescue Tool Operation**

#### Objective:

After reviewing and practicing with another shift member, the probationary firefighter/paramedic shall demonstrate the operation, use and maintenance of the Hydraulic Rescue Tool, including spreaders, cutters, rams and pump.

#### Instruction:

- 1) The probationary firefighter/paramedic shall describe and demonstrate the daily fluid and equipment checks.
- 2) The probationary firefighter/paramedic shall explain the proper placement of R30 in relation to the MVA and discuss the reach of the hose.
- 3) The probationary firefighter/paramedic shall extend the rear tray with the hydraulic rescue tool.
- 4) The probationary firefighter/paramedic shall place the control valve in the neutral position and prepare to start.
- 5) The probationary firefighter/paramedic shall start the unit by first putting on the choke, then pulling the starter cord. When the power unit starts, place open choke and place on highest idle.
- 6) The probationary firefighter/paramedic shall hook-up one of the tools and lock the couplings.
- 7) The probationary firefighter/paramedic shall place control valve in “pressure”.
- 8) The probationary firefighter/paramedic shall then operate each tool, following the above procedure for switching.

- 9) The probationary firefighter/paramedic shall explain the intended use of each tool.
- 10) The probationary firefighter/paramedic shall discuss the vehicle stabilization options available.
- 11) The probationary firefighter/paramedic shall discuss cleaning and maintenance of the hydraulic rescue tool.

### **Rescue Air Bags**

#### Objective:

After reviewing and practicing with another shift member, the probationary firefighter/paramedic shall demonstrate the operation, use and maintenance of the rescue air bags.

#### Instruction:

- 1) The probationary firefighter/paramedic shall describe and demonstrate the daily equipment checks of compressed gas cylinders and equipment related to the rescue air bags.
- 3) The probationary firefighter/paramedic shall demonstrate knowledge of the location of the high pressure air bags, the controls, hoses and compressed gas cylinders.
- 4) The probationary firefighter/paramedic shall demonstrate how to crib up to the load under the airbags, and describe the purpose of the protective mats.
- 5) The probationary firefighter/paramedic shall hook-up one of the bags and lock the couplings.
- 6) The probationary firefighter/paramedic shall demonstrate how to couple hoses between the air bags to the control unit, how to provide compressed air to the control unit and describe the function of each of the control on the control unit.



7) The probationary firefighter/paramedic shall place control valve in “pressure” and inflate the lower air bag. When inflated against the object being lifted, the upper air bag will be inflated for additional lift.

9) The probationary firefighter/paramedic shall demonstrate cribbing to maintain position as the load is lifted.

11) The probationary firefighter/paramedic shall discuss cleaning and maintenance of the rescue air bags, controls and cylinders.

## **CONDUCT A FIRE STATION TOUR**

On a regular basis, groups of people, often children, tour our fire station. It may be the only time they have contact with us and this meeting thus becomes very important. Conducting a good fire station tour, not only instills a positive image of our Fire Department to the public, but allows you to demonstrate your caring and dedication.

Prior to completion of training, each probationary firefighter/paramedic shall have assisted on two fire station tours and conducted one. The following are guidelines for conducting a good fire station tour.

Prepare ahead of time. Know who is coming, how many and what type of organization they belong to. In most cases this information is readily available from a form filled out by the party requesting the tour. Develop a simple plan that takes into account the suggestions below for conducting a good fire station tour.

When the group arrives, welcome them and introduce yourself. Give them a brief overview of what they are going to see. Now is the time that you have to provide some information for their safety and enjoyment. We generally like to have one of the adults at the

front of the group and one at the rear as they move throughout the building. Let them know that you will ask for questions at the end. With younger children there may be more questions than time allows. Show them where they should go in the event that we get a call. Let them know that if everyone leaves, they should wait a few minutes to see if we return. Tell them how they should leave and secure the building, if we don't return shortly. Let them know they should call us back for another appointment. Depending on the age of the group, let them know other safety rules, such as no climbing on trucks, etc.

Start them on the tour. Remember to keep terms on their level. Use examples they understand and can relate to. We show them the trucks and the quarters. Introduce several fire safety messages as you go. This will depend on age, but topics that should be covered include: smoke detectors, not playing with matches or lighters, a home escape plan, stop, drop & roll, and how to call 9-1-1. If you have little experience in this area, please see the training officer, who can give you some tips.

Don't be afraid to use some humor. Younger children like to touch things. Have an assistant put on complete gear with an SCBA. Be aware of your time, you want to get everything in you planned.

At the end, please thank them for coming. Fire Prevention usually has hand-outs for them. Remind them of the lessons learned and to go home and discuss these with their parents.

## **Streets and Maps**

After reviewing streets and maps, the probationary firefighter/paramedic shall pass a test about city streets and subdivisions with a score of at least 80%.

o Locate each of the following on a blank map:

Solon Park Apartments Solon High School  
Liberty Hills Apartments  
Orchard School  
Ledge Hill Subdivision Roxbury School  
Graystone Apartments Solon Middle School  
Fox Hill Subdivision Solon Middle School  
ABC Streets Arthur Road School  
Briar Hill Subdivision Parkside Elementary School  
Signature of Solon Subdivision  
Dorothy Lewis School  
Emerald Ridge Saint Rita's Schools  
Stratford Commons Kmart Plaza  
Thornbury Subdivision Solar Shopping Center  
Hawthorne Valley Country Club

### **Basic Pump Operation**

#### Objective:

After reviewing and practicing with another shift member, the probationary firefighter/paramedic shall place an engine in pump, flow water from the tank, supply water to a hose line at the prescribed pressure and transfer to hydrant water.

#### Instructions:

1) The probationary firefighter/paramedic shall explain the strategy of proper pumper placement.

2) The probationary firefighter/paramedic shall apply the air brake and shift the transmission to neutral.

3) The probationary firefighter/paramedic shall shift the lever from road to pump, and make sure the green light comes on. RPM needle will also rise.

4) The probationary firefighter/paramedic shall place the transmission in drive.

5) The probationary firefighter/paramedic shall exit the cab and place the wheel chocks.

At this point there needs to be an assistant using a hose line.

6) The probationary firefighter/paramedic shall then open the “tank to pump” valve and make sure the pump has water.

7) The probationary firefighter/paramedic shall explain possible reasons that the pump might not have water and ways to remedy them.

8) The probationary firefighter/paramedic shall open the valve to the selected hose line and increase the pressure to the desired pressure.

The assistant flows water for a short period.

In the next section the probationary firefighter/paramedic hooks up the truck, often done by other personnel but is included in this test.

9) The probationary firefighter/paramedic pulls one of the hook-up sections of hose, gathers hook-up tools and proceeds to the hydrant.

10) The probationary firefighter/paramedic removes a 2 ½ inch cap installs a hydrant valve and flushes the hydrant through the valve.

11) After shutting back down the hydrant, the probationary firefighter/paramedic attaches the hook-up section and opens the hydrant chasing out all kinks in the hook-up section.

12) The probationary firefighter/paramedic shall open the intake valve and return to the pump panel.

13) The probationary firefighter/paramedic shall refill the tank and adjust the throttle as necessary.

Basic hydraulics is a separate area of testing and review.

Important at this point is the mechanical operation of the truck.

## **SOMETHING TO DO ACTIVITY**

### Directions:

Find the answers to the following questions. You may not ask any other shift personnel or have them provide the answer. Some of the questions are just interesting and others are ones that you need to know.

- 1) How many feet of 5 inch hose is on each of our engines?
- 2) Where do we store spare foam for the trucks?
- 3) Who are the previous three fire chiefs of Solon?
- 4) You are standing in front of and facing a building with a street number of 6320. Will the numbers to your left go up or down? Which direction are you facing?
- 5) What street in Solon has three digit address numbers?
- 6) When was the fire station #1 built?
- 7) Name all the streets in Solon that cross Bainbridge Road.
- 8) What brand auto extrication tool do we have?
- 9) What does BRT stand for?
- 10) Where are the Emergency Response Guidebooks kept?

- 11) What did the Center for the Arts used to be?
- 12) What did the Quartermasters office at Fire Station 2 used to be?
- 13) What are the three command staff positions (of the Incident Commander) in the Incident Command System?
- 14) What does the rating of a fire extinguisher tell us?
- 15) Who is the youngest member of this department and who has worked here the longest?
- 16) What departments do we have automatic mutual aid contracts with?
- 17) What frequency does our main band use?
- 18) What streets in the city have addresses with N-S four digit numbers and E-W five digit numbers?
- 19) When did SFD become full-time?
- 20) How many traction splints do we have?
- 21) How high is the radio tower behind the police station?
- 22) How many feet of ground ladders are on L1?
- 23) For each of the following list how many and the name of each that are in the city, include parochial schools?
  - a) High Schools
  - b) Middle Schools
  - c) Elementary Schools
- 24) What counties border our city?
- 25) What is the tallest building in Solon?
- 26) What are the names of the City Parks?
- 27) Where is the Station 2 emergency power generator located and what fuel does it use?

- 28) Where is Grantwood Country Club?
- 29) What community that borders us has an intersection at 480 & 91?
- 30) What is the maximum length that we can pump through 5" hose without a relay pumper when flowing 800 gpm?
- 31) Who is our medical director?
- 32) How many passport tags should there be with your name on them?
- 33) What is the Police Chiefs name?
- 34) What are the other local cities using our radio frequency?
- 35) Where are the houses with SOM Center addresses which do not face SOM Center Rd?
- 36) How many fire inspection districts are there in the city?
- 37) What does "SOM Center" stand for?
- 38) Why is fire prevention week in October?

### **Aerial Ladder Set-up**

#### Objective:

The probationary firefighter/paramedic after reviewing and practicing with other shift members, shall place the aerial ladder in operation, raise and lower the ladder, operate the ladder from the turntable and return the ladder to normal position.

#### Instructions:

- 1) The probationary firefighter/paramedic shall explain how much room is needed for full extension of the outriggers.
- 2) The probationary firefighter/paramedic shall discuss rig placement and possible safety and/or strategic considerations.

- 3) The probationary firefighter/paramedic shall put transmission into neutral and apply the parking brake.
- 4) The probationary firefighter/paramedic shall put the transmission into the “Mode” position.
- 5) The probationary firefighter/paramedic shall explain or review the procedures if the ladder will be used as a master stream.
- 6) The probationary firefighter/paramedic shall exit the cab and place chocks on both sides.
- 7) The probationary firefighter/paramedic shall place the ground pads.
- 8) The probationary firefighter/paramedic shall go to the rear of the truck and open the control panel.
- 9) The probationary firefighter/paramedic shall engage the high idle.
- 10) The probationary firefighter/paramedic shall extend the outriggers. The probationary firefighter/paramedic shall explain the minimum amount of extension for the working side and non-working side.
- 11) The probationary firefighter/paramedic shall lower the outriggers, while placing the truck in a level position. Then insert the safety pins.
- 12) The probationary firefighter/paramedic shall disengage the high-idle.
- 13) The probationary firefighter/paramedic shall drive a grounding rod and attach the grounding cable to the attachment stud and then to the grounding rod.

### **Operation of the ladder from the turntable**

- 1) The probationary firefighter/paramedic shall list the minimum safety equipment for riding in the bucket.
- 2) The probationary firefighter/paramedic shall check for wires and other overhead obstructions.



- 3) The probationary firefighter/paramedic shall place the lever to run.
- 4) The probationary firefighter/paramedic shall raise the ladder out of the cradle.
- 5) The probationary firefighter/paramedic shall demonstrate rotating, lowering, raising and extending the ladder.
- 6) The probationary firefighter/paramedic shall demonstrate communication with someone in the bucket.
- 7) The probationary firefighter/paramedic shall explain the operation of the remote “deadman” controls.
- 8) The probationary firefighter/paramedic shall explain operation of air for the supplied air in the bucket.

**Return to Service**

- 1) The probationary firefighter/paramedic shall return the ladder to the normal position for driving.
- 2) The probationary firefighter/paramedic shall carefully place the ladder back in the cradle, and reverse all procedures to secure outriggers and drive apparatus.

Progress Notes ,Shift Battalion Chief

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Progress Notes, Shift Lieutenants

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