CAPITAL CITY FIRE/RESCUE **SOG NUMBER 60.0**

STANDARD OPERATING GUIDELINES **DATE: Jan 3, 2005**

REVISION DATES: August 7, 2007

RESPIRATORY AND PERSONAL PROTECTIVE EQUIPMENT

OBJECTIVE:

To establish a standard for respiratory and personal protective equipment used by Capital City Fire/Rescue

GUIDELINE:

60.1 INTRODUCTION

60.1.1 This Guideline will establish general requirements for personal respiratory and bodily protection.

60.2 PROCEDURES

60.2.1 Capital City Fire/Rescue shall provide respirators, training and medical evaluations to its Members at no cost to the Member.

60.2.2 Capital City Fire/Rescue considers interior confined space, interior fire fighting, hazardous materials incident response and oxygen deficient atmosphere to be immediately dangerous to life or health (IDLH). NIOSH approved full facepiece, pressure-demand self-contained breathing apparatus (SCBA), with a minimum 45-minute service life, will be required in these instances.

60.2.3 Capital City Fire/Rescue shall ensure that each Member can demonstrate knowledge of at least the following:

.1 Why the respirator/ SCBA is necessary and how improper fit, usage, or maintenance can compromise the protective effect of the respirator / SCBA.
.2 What the limitations and capabilities of the respirator/SCBA are
.3 How to use the respirator/SCBA effectively in emergency situations, including situations in which the respirator / SCBA malfunctions
.4 How to inspect, put on and remove, use, and check the seals of the respirator / SCBA.

.5 What the procedures are for maintenance and storage of the respirator /SCBA.

.6 How to recognize the medical signs and symptoms that may limit or prevent the effective use of respirators or SCBA.

60.2.3 The training shall be conducted in a manner that is understandable to the Member. Capital City Fire/Rescue shall provide training prior to requiring the employee to use a respirator in the workplace.

60.2.4 Capital City Fire/Rescue, if able to demonstrate that a new Member has received training within the last 12 months is not required to repeat such training provided that , the Member can demonstrate knowledge of those element(s).

60.2.5 Capital City Fire/Rescue must provide refresher training no later than 12 months from the date of the previous training.

60.2.6 Retraining shall be administered annually, and when the following situations occur:

.1 Changes in the workplace or the type of respirator/SCBA render previous training obsolete.

.2 Inadequacies in the Member's knowledge or use of the respirator/ SCBA indicate that the Member has not retained the requisite understanding or skill.

.3 Any other situation arises in which retraining appears necessary to ensure safe respirator/SCBA use.

60.2.7 The Fire Chief is appointed as the Respiratory Program Administrator

60.3 RESPIRATOR EQUIPMENT

60.3.1 The SCBA selected by CCF/R is the Scott fifty, which is NIOSH certified and has a minimum service life of forty-five minutes. SCBA's must be used for response to unknown atmospheres or oxygen deficient atmospheres.

60.3.2 Respirator attachments manufactured by Scott Health and Safety for use on Scott full face pieces may be used provided that:

- positive identification of products producing any potentially hazardous atmosphere has been accomplished
- AND oxygen concentration is measured at above 19..5%,
- AND continuous atmospheric monitoring is conducted
- AND the Scott Health and Safety respirator units are compatible with providing respiratory protection for that product.
- AND the CCF/R member(s) have been instructed in operation of the respirator device.

Respirators for infectious control must be N-95 or N-100..

60.3.3 Members are not permitted to use their own respirators.

60.3.4 For particulate respiratory hazards, SCBA or Scott filter respirators shall be utilized.

60.4 MEDICAL EVALUATION

60.4.1 All Members who may operate in and IDLH atmosphere are required to complete an initial medical questionnaire compliant with OSHA Standard 29CFR 1910.134 Appendix C to evaluate their ability to use a respirator. This questionnaire shall be reviewed by a licensed physician. Any follow-up questions and/or pulmonary examinations required by the physician shall be provided by CCF/R at no cost to the Member. Physician approval is required before any CCF/R Member may take a SCBA mask fit-test or work in an IDLH atmosphere

60.4.2 Any changes in the Member's physical or mental condition which may impact their ability to properly use a respiratory protective device (SCBA), will require a reevaluation by a licensed physician.

60.4.3 Haz-Mat Response Team members will receive an initial and an annual medical screening meeting OSHA standards by a licensed physician. They will also receive medical screening if they are exposed to hazardous materials.

60.5 MEDICAL EVALUATION PROCEDURES

60.5.1 Our health care professionals are:

Dr. Robert Haight
3225 Hospital Drive
Juneau AK
907 586-1203

Alaska Occupational Health
1919 Lathrop Street Suite 203
Fairbanks, AK. 99701
907 456-2825

60.5.2 Members will obtain a respiratory questionnaire from their Division Chief, complete the questionnaire and return it in a sealed envelop to the Division Chief. The Administrative Assistant will submit it to the Alaska Occupational Health for review. Questionnaires may also be submitted electronically directly to the provider.

60.5.3 Follow-up questions and physical examinations, if required, will be initiated by Alaska Occupational Health and coordinated through the EMS Coordinator.

60.5.4 A letter from Alaska Occupational Health advising that the Member is fit for SCBA fit testing and use will be filed in the Member's medical file. All information is confidential and will not be released to the public.

60.5.5 The following information has been provided to Alaska Occupational Health for use in determining the Member's physical requirements.

.1 Type and weight of respirator used: Scott fifty (4500 psi) with integral PASS device- Weight 32 lbs.
.2 Duration and frequency of respirator use – twice per month, 20 minutes to 2 hours in duration.
.3 Expected physical work is Heavy for Fire Fighting
.4 The member is required to wear additional protective equipment, which includes helmet, nomex hood, gloves, turnout coat, turnout pants and firefighting boot. The combined weight of this equipment and SCBA gear is 54 pounds.
.5 The Member may be exposed to temperature extremes from -35° F to +500° F and humidity extremes from 0 to 100%.

60.5.6 A copy of this Standard Operating Guideline will be provided to our screening physicians upon its effective date. Any changes to this S.O.G. or the supplemental information will be provided to the physicians when placed into effect.

60.6 FIT TESTING

60.6.1 Members will be issued their own Scott AV 3000 facepiece for use in the size determined by fit testing.

60.6.2 Members will be tested using the Quantitative Fit Test (QNFT), which means an assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator.

60.6.3 New Members will be initially fit tested before being permitted to use SCBA in an IDLH and any other potentially dangerous atmosphere.

60.6.4 Additional fit tests shall be conducted annually and whenever a Member, Officer or screening physician makes visual observations of changes in a Member's physical condition that could affect respirator fit.

60.6.5 All fit tests will be conducted under the mandatory guidelines of 1910.134, Appendix A, Fit Testing Procedures. As stated in the standard, the fit test shall not be conducted if there is any hair growth between the skin and the facepiece

sealing surface, such as stubble beard growth, beard, mustache or side burns which cross the respirator-sealing surface. The test will also be conducted with the Member wearing their issued helmet and hood.

60.6.6. Fit testing will be conducted by CCF/R trained personnel or by trained personnel of the Risk Management Office.

60.7 USE OF RESPIRATOR

60.7.1 Facial hair will not be permitted to interfere with valve function of the facepiece. It is the responsibility of each Member to ensure that they comply with this requirement before entering an IDLH atmosphere.

60.7.2 Members, who wear corrective glasses or goggles or other protective equipment, are not allowed to wear the equipment in a manner that interferes with the facepiece to face seal. Spectacle kits used must be those designated by the SCBA manufacturer. Contact lens may be worn beneath the SCBA face piece.

60.7.3 All Members are required to perform a mandatory user seal check each time they put on their facepiece. The negative pressure check as recommended by Scott Manufacturing Company and OSHA 1910.134 Appendix B-1, along with the positive pressure check of the exhalation valve shall be used.

60.7.4 The Company Officers, as well as Chief Officers, shall continually re-evaluate the effectiveness of the Member and the respirator they are using. They shall insure that Members leave the respirator use area under the following conditions:

.1 To wash their faces and respirator facepieces as necessary to prevent eye or skin irritation associated with respirator use;
.2 If they detect vapors or gas breakthrough, changes in breathing resistance or leakage of the facepiece;
.3 To replace the respirator or SCBA bottle.

60.7.5 CCF/R will make additional SCBA respirators and facepieces available during emergencies for use by its Members in case of facepiece or respirator problems. CCF/R will replace or repair all respirators and facepieces before allowing them to be used by its Members if they are in need of repair.

60.8 Procedures for IDLH Atmospheres

60.8.1 CCF/R will utilize their interior structure fire fighting IDLH procedures as procedures for all IDLH atmospheres.

60.8.2 Members will enter IDLH atmosphere in minimum groups of two and will remain in visual or voice contact with each other at all times. If one individual must leave the IDLH atmosphere for any reason, they must leave as a group. No group will be less than two individuals at any time in an IDLH atmosphere with the exception of emergency rescue.

60.8.3 At least two Members are to be located outside the IDLH atmosphere area and must have full protective gear ready for use. One of the two individuals located outside the IDLH atmosphere may be assigned to an additional role provided this individual is able to perform assistance or rescue activities without jeopardizing the safety or health of any firefighters working the incident. For example, the Incident Commander may be considered as one of the two, providing that they have full protective gear and have a SCBA ready.

60.8.4 If the two outside Members are required to enter the IDLH atmosphere, they will broadcast over the radio that they are entering the IDLH atmosphere and the Incident Commander will see that they are replaced at once. If two more Members are not available, all Members will be ordered out of the IDLH atmosphere.

60.8.5 Nothing in this section is meant to preclude Firefighters from performing emergency rescue activities before an entire team has assembled under the following guidelines:

.1 They inform other responding units by radio that they are making entry.
.2 The entry is based on compelling evidence of a needed rescue.
.3 All involved personnel submit a written report to the Fire Chief explaining their reasons.

60.9 Maintenance and Care of Respirators

60.9.1 Our respirators and facepieces shall be cleaned according to Scott guidelines and/or OSHA Standard 1910.134 Appendix B-2. Members will use Scott cleaner liquid and/or a mild detergent as is recommended by the manufacturer to clean our SCBAs. A final rinse with clean water not exceeding 110 degrees F. is required. Water should not exceed 110° F for cleaning purposes and parts should be rinsed with running water not exceeding 110° F. Cleanliness of facepieces issued to individuals will be the responsibility of the Member they are issued to. SCBAs and vehicle supplied facepieces will be cleaned after each use by the individuals using them or assigned to return the equipment to service.

60.9.2 All SCBAs and face pieces shall be thoroughly air dried in a clean atmosphere before being placed back in service.

60.9.3 All SCBAs will be stored inside vehicle compartments and in proper brackets. All vehicle supplied facepieces will be stored in protective bags.

60.10 *Inspections*

60.10.1 Weekly inspections will be conducted on all self- contained breathing apparatus. Records of these inspections will be kept by the SCBA technician with a copy forwarded to the Career Division Chief.

60.10.2 All inspections will be done in accordance with Scott guidelines and will include:

.1 Respirator function
.2 Tightness of connections
.3 Condition of parts
.4 Pliability
.5 Deterioration
.6 Low air pressure warning device test
.7 Integral PASS device function
.8 Air cylinders will be maintained at no less than 90% of their recommended pressure.

60.11 Maintenance

60.11.1 SCBAs that fail an inspection or are damaged shall be removed from service and be marked with a red tag indicating the problem, date and member reporting or investigating the problem.

60.11.2 Repairs shall be made by the manufacturer or by CCF/R technicians trained by the manufacturer.

60.11.3 Each SCBA will have a file listing
.1 Date of inspections
.2 Person doing inspection
.3 Findings
.4 Remedial action
.5 Serial number or number of respirator inspected and/or repaired.

60.12 Breathing Air and Oxygen Quality and Use

60.12.1 Our medical oxygen is purchased from T & S Welding Inc. 8401 Airport Blvd. Medical oxygen cylinders will not be placed in service unless they have a full tag, a lot tag and a seal over the connection area. The EMS Coordinator is responsible to ensure that the cylinders are changed when required.

60.12.2 Our breathing air shall meet Type I-Grade D breathing air described in ANSI/Compressed Gas Association Community Specifications for Air, which includes:

.1 Oxygen content 19.5 to 23.5%
.2 Hydrocarbon of 5 milligrams per cubic meter of air or less
.3 Carbon monoxide of 10 ppm or less
.4 Carbon dioxide content of 1,000 ppm or less
.5 Lack of noticeable odor**.**

60.12.3 Our breathing air will be sampled quarterly, or when the carbon monoxide detector is activated, by assigned personnel who have been trained in maintaining the MAKO 539ACI06 compressor and will be tested by TRI Environmental located in Austin, Texas.

60.12.4 We will not use compressed oxygen with any of our current Self Contained Breathing Apparatus (SCBA).

60.12.5 MAKO air cylinders will be maintained in accordance with 49 CFR, Part 173 and Part 178, Shipping Container Specification regulations of the Department of Transportation.

60.12.6 If breathing air must be purchased, it will meet Type I – Grade D, Breathing Air Standards.

60.12.7 Our breathing air compressors will be maintained to comply with NFPA 1500 Standards for Breathing Air.

60.12.8 A TRI Environmental, Inc. certification will be posted within the compressor area(s) to certify compliance with NFPA 1500 Breathing Air Standard.

60.12.9 All maintenance records and repairs will be maintained and shall include:

.1 Service manual binder
.2 Analysis results binder
.3 Maintenance log book
.4 Parts and tools

60.12.10 Breathing air containers will be marked in accordance with NIOSH Respirator Certifications Standard 42 CFR, Part 84, to include labeling that states "Compressed Breathing Air." All portable breathing air bottles will have gauges.

60.12.11 Personnel refilling cylinders and/or operating the Mako compressor equipment must first have been trained and certified through the preceptorship program to operate this equipment.

60.12.12 Personnel operating the compressors will check the exterior of the building prior to starting the compressor to ensure that no vehicles are idling or other activities are underway in the vicinity of the air intake that may contaminate the outside air.

60.12.13 Respirator attachments manufactured by Scott Health and Safety for use on Scott full face pieces may be used provided that:

- positive identification of products producing any potentially hazardous atmosphere has been accomplished
- AND oxygen concentration is measured at above 19..5%,
- AND continuous atmospheric monitoring is conducted
- AND the Scott Health and Safety respirator units are compatible with providing respiratory protection for that product.
- AND the CCF/R member(s) have been instructed in operation of the respirator device.

60.12.14 All members providing emergency medical services must be fit tested for N-95 or N100 HEPA filter masks. Qualitative fit testing in Section 60.6 will be used for the Scott respiratory equipment . The method used for fit testing of other medical respiratory devices (duck-bill masks) will be the Bitrex Denatonium Benzoate Solution aerosol Qualitative Fit Test protocol using the Kimberly-Clark Qualitative fit testing kit.

60.13 TRAINING AND INFORMATION

60.13.1 CCF/R will provide training to its Members on an annual basis. We will also provide training to recruit Members around the time they are fit tested. The annual and initial training will include:

60.13.2 Demonstration by the Member that they understand:

.1 Why the respirator is necessary and how improper fit, usage or maintenance can compromise the protective effect of the respirator.
.2 What the limitations and capabilities of the respirator are.
.3 How to use the respirator effectively in emergency situations, to include situations in which the respirator malfunctions.
.4 How to inspect, put on and remove, use and check the seals of the respirator.
.5 What the maintenance and storage procedures are for the respirators.
.6 How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators.

60.13.3 The above training will be provided to all new Members before they are permitted to use our respirators, other than for initial training.

60.13.4 Training reports will be submitted for all SCBA training.

60.13.5 Changes in type of respirator will require new annual training. Modifications will require training on those areas affected. Additional training may be provided to insure safe respirator use by the Members of CCF/R.

60.14 PROGRAM EVALUATION

60.14.1 CCF/R Program Administrator, and the Officers will review our SCBA written program during the annual training to suggest changes. Members are encouraged to submit their views on the SCBA written program in writing at anytime to the Chief.

60.15 PERSONAL PROTECTIVE EQUIPMENT

60.15.1 This guideline is to insure that our Members benefit from and utilize proper personal protective equipment (PPE).

60.15.2 PROCEDURES

60.15.2.1 Protective equipment will be provided by the CCF/R and utilized by its Members when required. The equipment will be cleaned and maintained by the Member at the expense of the CCF/R. It is the responsibility of the Member to maintain their PPE in sanitary and dependable condition.

60.15.2.2 Member owned equipment shall not be allowed to be used by Capital City Fire / Rescue Members.

60.15.2.3 All PPE shall be of safe design and construction for the work to be performed. PPE shall meet the National Fire Protection Agency standards and/or A.N.S.I. standards under which they are purchased.

60.15.2.4 All required PPE will be inspected annually by the station Captains (career) or Lieutenants (volunteer) for proper condition. PPE in requiring repair shall be yellow tagged with a description of the required repair and date or request. Replacement PPE will be issued to the Member until repair is made. The annual PPE inspection forms will be forwarded to the career Division Chief.

60.15.3 Hazard Assessment and Equipment Selection

60.15.3.1 The Chief shall conduct a workplace hazard assessment, which is attached to this Standard Operating Guideline as Appendix A.

60.15.4 Defective and Damaged Equipment

60.15.4.1 Defective or damaged PPE shall not be used, and shall be tagged with a yellow out of service tag identifying the deficiency, the date, the person taking the equipment out of service and the equipment shall be removed from service.

60.15.5 Training

60.15.5.1 CCF/R shall provide training to each Member to cover the following areas:

.1 When PPE is necessary.
.2 What PPE is necessary.
.3 How to properly don, doff, adjust and wear PPE.

.4 Limitations of the PPE.
.5 The proper care, maintenance, useful life and disposal of PPE.

60.15.5.2 Each Member shall demonstrate an understanding of these areas outlined in 60.15.5.1and receive training, before being allowed to perform work requiring the use of the PPE.

60.15.5.3 Retraining will be conducted under any of the following circumstances:

.1 A trained Member is found to not have the understanding or skill required to use the PPE.
.2 Changes in the workplace render previous training obsolete.
.3 Changes in the types of PPE to be used render previous training obsolete.

60.15.5.4 The Company Officer will submit training reports for each Member that received training for PPE.

60.15.5.5 Separate PPE will be provided for EMS workers. This equipment will meet as a minimum OSHA 29 1910.1030(d)(3)(ii).

60.15.5.6 Structural Firefighting PPE purchased after the effective date of this policy will meet NFPA 1971, Protective Ensemble for Structural Fire Fighting, 2000 edition.

60.15.5.7 Firefighting PPE purchased after the effective date of this policy for aircraft crash-fire-rescue will meet NFPA 1976, Protective Ensemble for Proximity Fire Fighting, 2000 edition

60.15.5.8 Wildland firefighting PPE (nomex shirt and over pants) will be made available to members involved with wildland fire suppression. See SOG 1.3.2.6

60.16 HEAD PROTECTION

60.16.1 This policy is to insure that our Members benefit from and utilize proper head protection.

60.16.2 PROCEDURES

60.16.3 All Members are required to wear protective helmets when working in areas where there is potential for injury to the head from falling objects.

60.16.4 All Members are required to wear protective helmets when near exposed electrical conductors which could contact the head.

60.16.5 Future structural firefighting helmets purchased by CCF/R, will meet NFPA Standard 1971, Protective Ensemble for Structural Fire Fighting 2000 edition.

60.16.6 All current structural firefighting helmets used by CCF/R Members will meet NFPA Standard 1972, Helmets for Structural Fire Fighting, 1992 Edition.

60.16.7 EMS only personnel will be issued a blue hardhat type helmet for bump protection. EMS personnel will not enter an IDLH atmosphere or area subject to impact from falling debris.

60.16.8 CCF/R personnel engaged in wildland fire suppression will wear a wildland helmet with neck shield or a structural fire helmet. (see SOG 1.3.2.6)

60.17 EYE AND FACE PROTECTION

60.17.1 This guideline is to insure that our Members benefit from and utilize proper eye and face protection.

60.17.2 PROCEDURES

60.17.3 Members shall use appropriate eye and face protection when exposed to eye and face hazards, which include:

.1 Flying particles
.2 Molten metal
.3 Liquid chemicals
.4 Acids or caustic liquids
.5 Chemical gases or vapors
.6 Potentially injurious light radiation

60.17.4 CCF/R shall furnish appropriate eye and face protection devices.

60.17.5 Members will wear eye protection devices that provide side protection when there is a hazard from flying objects.

60.17.6 Prescription lenses will not interfere with protective devices.

60.17.7 CCF/R will furnish eye and face PPE that is identifiable as to the manufacturer.

60.17.8 Members will use goggles with a minimum protective shade of 3 when using CCF/R oxygen acetylene cutting equipment.

60.17.9 All CCF/R eye and face protective devices shall comply with American National Standards Institute (ANSI) Standard Z87.1-1989.

60.17.10 Protective eye wear for wildland fire suppression shall consist of goggles.

60.18 FOOT PROTECTION

60.18.1 This guideline is to insure that our Members benefit from and utilize proper foot protection.

60.18.2 Procedures

60.18.2.1 Members are required to wear protective footwear when working in areas where there is a danger of foot injuries due to falling or rolling objects, or objects piercing the sole, and where such Member's feet are exposed to electrical hazards.

60.18.2.2 Future structural firefighting protective footwear purchased by CCF/R will meet NFPA 1971, Protective Ensemble for Structural Fire Fighting, 2000 edition.

60.18.2.3 Existing structural firefighting footwear used by CCF/R Members will meet American National Standard Institute (ANSI) Standard Z41-1991.

60.18.2.4 Wildland firefighting footwear will be eight inch high leather boots with slip resistant sole and safety toe. (See SOG 1.3.2.6)

60.19 HAND PROTECTION

60.19.1. This guideline is to insure that our Members benefit from and utilize proper hand protection.

60.19.2 PROCEDURES

60.19.2.1 Members shall use appropriate hand protection when their hands are exposed to hazards such as:

.1 Skin absorption of harmful substances
.2 Severe cuts or lacerations
.3 Severe abrasions
.4 Punctures
.5 Chemical burns
.6 Thermal burns
.7 Harmful temperature extremes

60.19.2.2 CCF/R will base the selection of the appropriate hand protection on an evaluation of the performance characteristics of the hand protection relative to the task to be performed, conditions present, duration of use and the hazards and potential hazards identified.

60.19.2.3 The only five finger gloves authorized for structural fire fighting and rescue operations involving extrication by CCF/R Members are those that at least

meet NFPA 1971, Protective Ensemble for Structural Fire Fighting, 2000 edition.

60.19.2.4 All future five finger gloves purchased and authorized for structural fire fighting and rescue operations, involving extrication by CCF/R Members will meet NFPA 1971, Protective Ensemble for Structural Fire Fighting, 2000 edition.

60.19.2.5 Gloves for wildland fire suppression will be leather.(see SOG 1.3.2.6)
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60.20 Electrical safety PPE

60.20.1 Capital City Fire / Rescue does not authorize the utilization of electrical protective equipment as outlined under OSHA 1910.137; such as insulating blankets, matting, covers, line hose, gloves and sleeves made of rubber.

60.20.2 If such equipment is needed, it will be requested and used by the local electrical company, Alaska Electric Light & Power personnel or an electrical contractor.

APPENDIX A

CAPITAL CITY FIRE / RESCUE
CERTIFICATION OF WORKPLACE HAZARD ASSESSMENT

On October 29, 2004, a workplace hazard assessment was performed on the Capital City Fire / Rescue, facilities located at 820 Glacier Avenue, 1700 Crest Avenue, 11900 Glacier Highway, 17900 Glacier Highway, 1016 3rd Street, Douglas, and 2601 Sherwood Lane, Juneau, AK.

On the above date, a walk-through assessments of the above mentioned areas were conducted. The purpose of the assessment was to identify potential sources of hazards to Capital City Fire / Rescue Members. Consideration was given to the following basic hazard categories:

Impact	5. Heat
Penetration	6. Harmful Dust
Compression (roll-over)	7. Light (optical) radiation
Chemical	8. EMS harmful exposure

The following are the findings for the workplace hazard assessment:

Impact - it was found that anytime machinery is being used in a manner that could result in flying fragments, objects, large chips, particles, sand, dirt, etc., eye protection should be worn by the worker and any bystanders in the immediate area. For severe exposures, a face shield should also be worn. This includes, but is not limited to, the Mako machine, Oxygen cylinders, grinders, drills, compressed air hoses, impact tools, Hurst tools, hammers, cutters, and other tools and/or machines that could result in flying debris.

Penetration - it was found that anytime tools are being used in a manner that could result in a penetration injury, hand and foot protection should be worn by the worker and any bystanders in the immediate area. This includes, but is not limited to, any sharp objects such as wire, nails, saws, drills, metal, or other objects that could cause a penetration injury.

Compression - it was found that anytime equipment is being used in a manner that could result in a compression injury, foot protection should be worn by the worker and by any bystanders in the immediate area. This includes, but is not

limited to, barrels, rolling carts, vehicles, tires, or other objects that need to be carried or moved.

Chemical - it was found that anytime a worker is using chemicals in a manner that could result in a splash burn/injury, splash protection (including eye and hand protection) should be worn. This includes, but is not limited to, cleaning chemicals, firefighting chemicals, vehicle maintenance chemicals, and any other chemicals that could cause this type of injury.

Heat - it was found that anytime a worker is in close proximity to an extreme heat source, an approved face shield or heat protective goggles should be worn. This includes any open flames or radiated heat sources.

Harmful dust - it was found that anytime a worker is in an area that could result in an injury from irritating mists, nuisance dust, etc., eye protection and masks should be worn. This includes, but is not limited to, woodworking, buffing, grinding, sawing, cutting, or other procedures that could result in this type of injury.

Light (optical) radiation - it was found that anytime equipment is being used is a manner that could result in an optical radiation injury, spectacles or welding face-shields should be worn by the worker and any bystanders in the immediate area. This includes, but is not limited to, cutting torches, or any other equipment that could cause this type of injury.

Communicable diseases exposure - it was found that in the course of providing emergency medical services, that personnel could be exposed to communicable diseases. All members shall use the proper personnel protective equipment provided by the department and conform to the department's Exposure Control Plan.

It was found that all Members have been issued a helmet with either a face-shield or goggles for eye/face/head protection; two different types of gloves for hand protection (depending on personnel function); boots with steel shanks and toes for foot/leg protection; separate goggles for eye protection and necessary personnel protective equipment for communicable disease exposure control. There are also dust particle masks in supply cabinets or rooms in each station for dust/particle inhalation protection in non-emergency situations (i.e sweeping floors).

All Members have been trained in the wearing, cleaning, and maintaining of this equipment and such equipment is inspected every year.

The result of this workplace hazard assessment is that it appears the workers in the above mentioned workplaces have been issued protective equipment for the assessed hazards; have been trained in the use and maintenance of such equipment; the protective equipment is inspected annually; and engineering controls have been put in place for any hazards possible to reduce the risk to the workers.

It is the opinion of this assessor that a workplace hazard assessment should be performed every year to re-evaluate any possible hazards.

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Eric Mohrmann Fire Chief