

New Hanover County Safety Policies

- I. Confined Space Program
- II. Protective Clothing and Equipment
- III. Lock-Out/Tag-Out Program
- IV. Respiratory Protection
- V. Hazard Communication Program
- VI. Fire Prevention Policy
- VII. Electrical Safety-Related Work Practices Program
- VIII. Standard Procedure for Vehicle Operation
- IX. Bloodborne Pathogen Program

I - COUNTY CONFINED SPACE PROGRAM

New Hanover County has established the following permit-required confined space program to protect employees involved in confined space entry at its facilities. Confined space entry can pose a number of hazards to an employee's safety including exposure to toxic or asphyxiating atmosphere. Engulfment is another hazard employees may face when dealing with spaces that contain finely divided particulate matter, such as grains, sands or powdered chemical materials. The hazards of fire are also a concern when spaces have contained flammable materials. The combination of these hazards is compounded by the fact that many confined spaces have limited access for entry and exit - and for rescue as well. Permit-required confined spaces covered by this program have, or may have, the following characteristics:

1. Actual or potential hazardous atmosphere,
2. Engulfment hazard,
3. Internal configuration that could trap an employee, or
4. Other serious safety or health hazards.

Entry into any space designated as a permit-required confined space must be conducted under the policies outlined here. Employees involved in entry operations will be trained in relation to their duties as entrants, attendants, and entry supervisors. If you have not been trained and are not designated duties involving entry, DO NOT ENTER a confined space.

Unauthorized Entry

Unauthorized entry will NOT be allowed. Any employee not specifically identified on an entry permit as an entrant will be considered unauthorized and will be subject to disciplinary measures. It is the County's policy to prohibit unauthorized entry at all times, and to require full permit procedures when entering any permit-required confined space. This policy covers maintenance activities, repairs, and routine inspections -- shortcuts due to time/production demands will not be allowed. If you encounter an unauthorized entry in progress, it is to be reported immediately to the entry supervisor.

Entry Procedures

Whenever possible, work or repairs will be conducted from outside the space. If entry is necessary, it will be conducted as outlined in the following procedures:

1. The permit space will be identified by the entry supervisor, and reason for entry will be reviewed to determine necessity.

2. Isolation of the space, if possible, will be completed. This includes blocking, blinding, or misaligning all pipes or flow lines into and out of the space in question. As required by OSHA regulation 1910.147, Control of Hazardous Energy (Lock out / Tag out), the confined space will be isolated by lock out or tag out of electrical, mechanical, pneumatic and hydraulic energy.
3. Atmospheric hazards will be brought under control by flushing, purging, or ventilation. Forced air ventilation will be installed under the guidance of the entry supervisor to ensure that fresh air is entering the space and effectively displacing the contaminants. Ventilation will be installed in a fashion that keeps contaminants from being reticulated. Ventilation will be checked periodically to determine that the fresh air source has not been effected by other activities in the area.
4. Barriers will be installed at the start of the permit entry. Barriers will be installed in such a fashion to protect entrants from external hazards, and to stop any access to the permit space by unauthorized personnel. The barriers will remain in place throughout the duration of the entry activities.
5. Acceptable entry conditions will be maintained at all times. Atmospheric testing will be conducted at least hourly to determine that oxygen, flammable, and toxins are within allowable limits. Oxygen concentration will be between 19.5% and 23.5%. Flammable will not exceed 10% of the LFL (Lower Flammable Limit) and toxins will remain below the PEL (Permissible Exposure Limit). If any condition arises within the confined space or arises in the surrounding area which would jeopardize the safety of the entrant, it will be considered outside the norm of acceptable entry conditions and entry activities will stop.

Monitoring Procedures

The County has established a policy of continuous monitoring of permit spaces to be conducted at least every hour or more often as conditions warrant. Repeated monitoring is required to provide documentation that the space continues to be safe and acceptable entry conditions are being met. Monitoring will only be conducted by employees trained in the use of and calibration of the test equipment. As was noted in this policy, sampling strategy will require that oxygen levels be monitored first. Flammable will be monitored second, and other toxic contaminants will be sampled last.

Attendants

An attendant will be stationed outside the permit space at all times during entry. If for any reason the assigned attendant must leave, the entry supervisor must be notified. A replacement attendant will be stationed at the permit space until relieved by the original attendant or entry is completed.

All appointments, promotions, and other personnel transactions shall be made solely on the basis of merit and fitness.

Duties of the Attendant

All attendants are to receive training as to their duties as follows:

1. Recognize hazards associated with the confined space,
2. The signs of exposure and behavioral effects of hazard exposure,
3. Who and how many personnel are in the confined space,
4. Means of communication with the entrants,
5. Not allow unauthorized persons to enter the permit space.

Entrants

An entrant shall mean an employee who is authorized to enter a permit space.

Duties of an Entrant

1. Know the hazard that may be faced during entry,
2. Be aware of possible behavioral effects of hazard exposure,
3. Know how to use all required equipment to maintain safety within a permit space,
4. Communicate with the attendant as necessary to enable the attendant to monitor the entrant status,
5. Exit the permit space when conditions warrant or when advised by the attendant or entry supervisor.

Entry Supervisor

The entry supervisor is both responsible for initiating and terminating the permit. He or she is responsible for ensuring that all essential tests are conducted and recorded on the permit as well as entry procedures and equipment are in place before endorsing the permit and allowing entry. The supervisor is responsible for ensuring that the means for summoning rescue and emergency services are operable.

The entry supervisor must know the hazards associated with the confined space and be able to recognize signs and symptoms of exposure to those hazards. This includes a knowledge of how a person can become exposed and the consequences of an exposure. He/she must ensure that entry conditions and operations are consistent with the entry permit, including the expulsion if unauthorized personnel from the permit space.

II - PROTECTIVE CLOTHING AND EQUIPMENT

The variety of work operations performed by County employees involve many industrial hazards. The tasks performed, range from custodial services to construction activities. In all tasks, however, there are counterparts in private industry where much research has been done to develop measures to protect employees from accidental injury. Where possible, this is done by "Engineering Out" the hazard. Most commonly, this is done by providing guards for various types of machinery.

All machine guards shall be kept in place while machinery is in operation. Tampering with machine guards is prohibited and any removal requires prior approval by the supervisor. All guards are to be properly replaced after repair work has been completed. When necessary to work on electrically driven machinery, the disconnect switch for controlling the machinery shall be secured in the open or off position by the worker or workers performing the job. The securing device should not be removed until the work has been completed and the area cleaned.

When it is not possible to place a guard over the source of the hazard, then it becomes necessary to place the guard on the employee. This is done by wearing approved personal protective equipment such as hard hats, safety belts, safety goggles, traffic vests, face shields, gloves, safety shoes, respirators, etc. Supervisors should ensure that all their employees are properly protected. Local dress codes may be established within a particular department, division, or work area, and each employee is expected to know and follow these codes where applicable.

Every possible effort will be made by management to select protective clothing and equipment that is acceptable for comfort, appearance, and utility while affording the desired protection. Employee's personal safety is based on knowledge of the hazards of the job, knowledge of the protection available, and a commitment to wear available personal protective equipment when needed.

GENERAL CLOTHING

1. For safety and comfort, work cloths should be sturdy, fit well, and be washable.
2. Loose clothing worn by employees working on or near moving machinery or equipment is prohibited.
3. Steel-toe shoes should be worn on all jobs involving moving or handling heavy material. Excessively high heeled shoes may create a tripping hazard. Soft soled shoes (such as athletic shoes) do not afford protection from puncture wounds when in the field. Shoes with worn down heels and torn soles are hard on the feet and can cause falls. Keep your shoes in good repair.
4. The safe worker does not wear rings, medals, identification bracelets, or other jewelry. Jewelry increases the danger of electrical shock and can become entangled in machinery, causing severe injuries to employees.
5. Work clothes should be washed frequently as a safeguard against skin infection and irritations.
6. Smocks, overalls, and aprons should be worn whenever possible to keep work clothed clean.

The Safety Officer is responsible for the employee training program. He/she will ensure that all elements specified below are carried out.

Each new employee will receive information and training on the following:

1. An overview of the requirements contained in the Hazard Communication Standard.
2. Chemicals present in their workplace operation.
3. Physical and health effects of the hazardous chemical.
4. Location and availability of our written hazard program.
5. Methods and observation techniques used to determine the presence or release of hazardous chemicals in the work area.
6. How to lessen or prevent exposure to these hazardous chemicals through usage of control/work practices, personal protective equipment, and good personal hygiene practices.
7. Steps the County has taken to lessen or prevent exposure to these chemicals.
8. Emergency procedures to follow if they are exposed to these chemicals or if there is a chemical spill.
9. How to read labels and review MSDS's to obtain appropriate hazard information.
10. Location of MSDS file and location of hazardous chemical list.

After attending the training class, each employee will sign a form to verify that they attended the training, received our written materials, and understood the County's policies on hazard communication.

Prior to new chemical hazards being introduced into any department, each employee of that department will be given information as outlined above. The purchasing agent is responsible for ensuring that MSDS's on new chemicals are available.

Hazardous Non-Routine Task

Periodically, employees are required to perform hazardous non-routine tasks. Prior to starting work on such projects, each affected employee will be given information by their supervisor about the hazardous chemicals to which they may be exposed.

This information will include:

1. Specific chemical hazards.
2. Protective/safety measures the employee will take to prevent over exposures.
3. Measures the County has taken to lessen the hazards including ventilation, respirator, presences of another employee, and emergency procedures.

Unlabeled Pipes

Employees will be informed of the hazards of chemicals in unlabeled pipes in their work area. For employees in areas where chemicals in unlabeled pipes may pose a risk, employees will be

informed of procedures should a leak or rupture occur. The supervisor or department head should be contacted if questions arise regarding any unlabeled pipes within their work area.

Informing Contractors

It is the responsibility of the Department Head or their representative to provide contractors (with employees) the following information:

1. Hazardous chemicals to which they may be exposed while on the job site.
2. Precautions the employees may take to lessen the possibility of exposure by usage of appropriate protective equipment.
3. For protection against particulate, the following respirators shall be used:

The Department Head will also ensure that the contractors have provided the County with the same information:

1. Hazardous chemicals to which our employees may be exposed while the contractor is on the job.
2. Precautions our employees may take to lessen the possibility of exposure by usage of appropriate protective equipment.

The Department Head will also ensure that the contractors have provided the necessary training to their employees, and that employees understand the labeling systems used in the facility.

The Department Head will be responsible for contacting each contractor before work is started in the County to gather and disseminate any information concerning chemical hazards the contractor is bringing to our workplace.

The Department Head will be responsible for notifying each contractor regarding MSDS's for products which will be brought on site. Either copies will be made available or the MSDS's will be kept in a central location for the duration of time the contractor is on site.

VI - FIRE PREVENTION POLICY

Our fire prevention policy is designed to ensure that all reasonable steps are taken to preserve life and property from exposure to fire hazards. The requirements listed here identify the basic elements of our fire prevention program. They should be part of every department head and supervisor's day-to-day responsibilities.

This policy is not intended to deal with the complexities of fire prevention in building design, fire protection systems, high hazard exposure, compliance with legal ordinances, or the many technical details of fire prevention. It is meant to serve as an outline of the various aspects of our fire prevention program and as a helpful resource for department heads and supervisors who must carry out the program's specific procedures.

General Fire Prevention Rules

- 1) Identify the telephone number of the fire department and other emergency units which may be summoned.
- 2) Establish a warning system for fire or similar-type emergencies.
- 3) A quarterly self-inspection shall be conducted to identify and correct recognizable fire hazards.
- 4) Exit doors, approved hardware and locking devices, exit signs, passageways and means of emergency exit shall be inspected periodically to ensure their working condition and unobstructed access.
- 5) Fire drills shall be carried out in accordance with a yearly schedule.
- 6) Fire extinguishing equipment shall be predominantly displayed, labeled for usage and kept clear for easy access at all times.

VII - Electrical Safety-Related Work Practices Program

A. Purpose

This program implements the OSHA standard on electrical safety-related work practices that was adopted in August, 1990. It sets forth safety related work practices adopted by New Hanover County in order to prevent electric shock or other injuries resulting from either direct or indirect electrical contacts, when work is performed near or on equipment or circuits which are or may be energized.

B. Scope and Application

This document is applicable to all New Hanover County employees who are performing duties requiring the use of respiratory protection to prevent unnecessary exposure to airborne concentrations of toxic materials equal to or greater than the permissible limits established in existing Federal OSHA standards or criteria.

1. This program covers electrical safety-related work practices for both Qualified persons and Unqualified persons who are working on, near, or with the following installations:
 - a) Premises Wiring: Installations of electrical conductors or equipment within or on buildings or other structures, and on other premises such as yards, parking or other lots and industrial substations;
 - b) Wiring for Connection to Supply: Installation of conductors that connect to the supply of electricity;
 - c) Other Wiring: Installation of other outside conductors on the premises;
 - d) Optical Fiber Cable: Installation of optical fiber cable where such installations are made along with electrical conductors;
 - e) Exposed Energized Parts: Installations that involves work preformed by unqualified person on or near exposed energized parts.
2. This program does not apply to work performed by qualified persons on or directly associated with the following installations:
 - a) Communications Installations: Installation of communication equipment to the extent that the work is covered under the OSHA telecommunication standard.
 - b) Installation in Vehicles: Installation in water craft or automotive vehicles other than mobile homes and recreational vehicles.
 - c) Generation, Transmission and Distribution Installations: Installations for generation, control, transformation, transmission, and distribution of electrical energy located in buildings used for such purposes or located outdoors, including:
 - 1) Work performed directly on such installations, such as repairing overhead or underground distribution lines or repairing a feed water pump for the boiler in a generating plant.
 - 2) Work directly associated with such installations, such as line clearance tree trimming and replacing utility poles.

- 3) Work on electric utilization circuits in generating plants provided that (a). such circuits are commingled with installations of power generation equipment or circuits, and (b) the generation equipment or circuits present greater electrical hazards than those posed by the utilization equipment or circuit (such as exposures to higher voltages or lack of over current protection).
3. It should be noted that work on or associated with installation of utilization equipment used for other purposes than generating, transmitting, or distributing electrical energy (such as installation which are in office buildings, warehouses, garages, machine shops, or recreational buildings or other utilization installations which are not an integral part of a generating installation, substation, or control center) is covered under the paragraph above (premises wiring).

C. Definitions

Qualified Person: means a person permitted to work on or near exposed energized parts who has been trained in and familiar with:

- a) The skill and techniques necessary to distinguish exposed live parts from other parts of electrical equipment;
- b) The skill and techniques necessary to determine the nominal voltage of exposed live parts;
- c) The knowledge, skill and techniques to work safely on energized circuits;
- d) The proper use of special precautionary techniques, personal protective equipment, insulating and shielding materials, and insulated tools: and
- e) The clearance distances for work performed near overhead lines that are specified in OSHA standards and the corresponding voltages to which he/she will be exposed.

Unqualified Person: means a person with little or no training in avoiding the electrical hazards of working on or near exposed energized parts.

On or Near: means close enough to exposed parts (by either personal contact or contact by tools or materials) for an employee to be exposed to any hazard they present.

D. Electrical Work in General

Appropriate safety-related work practices should be employed to prevent electric shock or other injuries resulting from either direct or indirect electrical contact, when work is performed near or on equipment or circuits that are or may be energized. Those specific work practices should be consistent with the nature and extent of the associated electrical hazards.

E. Work On or Near Exposed De-energize Parts

1. Live parts to which an employee may be exposed should be De-energize before any employee works on or near them, unless de-energizing would introduce additional or increased hazards or is infeasible due to equipment design or operational limitations. See below for example.
 - a) Live parts that operate at less than 50 volts to ground need not be De-

energize if there will be no increased exposure to electrical burns or to explosion due to electric arcs.

- b) Examples of increased or additional hazards include interruptions or deactivation of emergency alarm systems, shutdown of hazardous location ventilation equipment, or removal of illumination for an area.
 - c) Examples of work that may be performed on or near energized circuit parts because of infeasibility due to equipment design or operational limitations include testing of electrical circuit that can only be performed with the circuit energized.
2. Whenever any employee is exposed to contact with parts of fixed electric equipment or circuits that have been De-energize, the circuits energizing the parts should be locked out, or tagged out, or both in accordance with the County's Lockout - Tagout Program as supplemented by the requirements of this program.
 3. Safe procedures for de-energizing circuits and equipment should be determined before circuits and equipment are De-energize.
 4. The circuits and equipment to be worked on should be disconnected from all electric energy sources. Control circuit devices, such as push buttons, selector switches and interlocks, should not be used as the sole means for de-energizing circuits or equipment. Interlocks for electrical equipment should not be used as a substitute for lockout and tagging procedures.
 5. Stored electric energy that might endanger personnel should be released. Capacitors should be discharged and high capacitance elements should be short circuited and grounded, if the stored electric energy might endanger personnel.
 6. If the capacitors or associated equipment are handled in meeting the foregoing rule, they should be treated as energized.
 7. Stored non-electrical energy in devices that could re-energize electric circuit parts should be blocked or relieved to the extent that the circuit parts could not be accidentally energized by the device.
 8. A lock and tag should be placed on each disconnecting means used to de-energize circuits and equipment on which work is to be performed, except:
 - a) If a lock can not be applied, or if the tagging procedure will provide a level of safety equivalent to that obtained by the use of a lock, a tag may be used without a lock. See rule 9 below.
 - b) A lock without a tag is permissible if all three of the following exist: (1) only one circuit or piece of equipment is energized, (2) the lockout period does not extend beyond the work shift, (3) employees exposed to the hazards associated with re-energizing the circuit or equipment are familiar with the procedure.
 9. Whenever a tag is used without a lock as permitted by rule 8a above, it should be supplemented by at least one additional safety measure that provides a level of safety equivalent to that obtained by the use of a lock. Examples of additional safety measures include the removal of an isolating circuit element, blocking of a controlling switch, or opening of an extra disconnecting device.

10. Each lock should be attached so as to prevent persons from operating the disconnecting means unless they resort to undue force or the use of tools.
11. Each tag should contain a statement prohibiting unauthorized operation of the disconnection means and removal of the tag.
12. No work should be performed on or near De-energize live parts, circuit or equipment until De-energize condition has been verified.
13. Verification of the De-energize condition should be made as follows:
 - a) A qualified person should operate the equipment operating controls or otherwise verify that the equipment cannot be started.
 - b) A qualified person should use test equipment to test the circuit elements and electrical parts of equipment to which employees will be exposed and should verify that the circuit elements and equipment parts are De-energize.
 - c) The test should also determine if any energized condition exists as a result of inadvertently induced voltage or unrelated voltage backfield even though specific parts of the circuit have been De-energize and presumed to be safe.
14. Before any circuit or equipment is re-energized - even temporarily - the following requirements should be met in the order listed below:
 - a) A qualified person should conduct tests and visual inspections, as necessary, to verify that all tools, electrical jumpers, shorts, grounds, and other such devices have been removed, so that the circuits and equipment can be safely energized.
 - b) Employees exposed to the hazards associated with re-energizing the circuit or equipment should be warned to stay clear of circuits and equipment.
 - c) Each lock and tag should be removed by the employee who applied it or under his/her direct supervision.
 - d) If that employee is absent from the workplace, then the lock may be removed but following the guidelines within the Lock out - Tag out procedure.
 - e) There should be a final visual determination that all employees are clear of the circuits and equipment.
15. Conductors and parts of electric equipment that have been De-energize but have not been locked out or tagged out in accordance with the foregoing rules should be treated as energized parts, and the requirements listed in the next section of this program apply to work on or near them.

F. Work On or Near Exposed Energized Parts

1. In those cases where the exposed live parts are not De-energize -- either because of increased or additional hazards or because of infeasibility due to equipment design or operational limitations other safety-related work practices should be used to protect employees who may be exposed to the electrical hazards involved.
2. Those work practices should protect employees against contact with energized circuit parts directly with any part of their body or indirectly through some

conductive object or where employees are near enough to be exposed to any hazard they present.

3. The work practices that are used should be suitable for the conditions under which the work is to be performed and for the voltage level for the exposed electric conductors or the circuit parts in accordance with the requirements listed below.
4. Only qualified persons should work on electric circuit parts or equipment that has not been De-energized under the procedures listed in the preceding section of this program.
5. Such persons should be capable of working on energized circuits and should be familiar with the proper use of special precautionary techniques, personal protective equipment, insulating and shielding material, and insulated tools.
6. Whenever work is to be performed near overhead lines, the lines should be De-energized and grounded, or other protective measures should be provided before the work is started.
7. When overhead lines are to be De-energized, arrangements to de-energize and ground them should be made with the person or organization that operates or controls the electrical circuits involved.
8. When protective measures are provided such as guarding, isolating, or insulating, those precautions should prevent employees from contacting such lines directly with any part of their body or indirectly through conductive materials, tools, or equipment.
9. No person except a qualified person as defined in this program should be permitted to install insulating devices on overhead power transmission or distribution lines.
10. Whenever a unqualified person is working in an elevated position near overhead lines, the location should be such that the person and the longest conductive object he or she may contact cannot come closer to any unguarded, energized overhead line than the following distances:
 - a) For voltages to ground 50 kV - 10 ft.
 - b) For voltages to ground over 50 kV - 10 ft. plus 4 inches for every 10 kV over 50 kV
11. Whenever an unqualified person is working on the ground in the vicinity of overhead lines, the person should not bring any conductive object closer to unguarded, energized overhead lines, than the distances given in paragraph 10, above.
12. For voltages normally encountered with overhead power lines, objects which do not have an insulating rating for the voltage involved are considered to be conductive.
13. Whenever a qualified person is working in the vicinity of over-head lines, whether in an elevated position or on the ground, the person should not approach or take any conductive object without an approved insulating handle close to exposed energized parts unless:
 - a) The person is insulated from the energized part. Gloves, with sleeves if necessary, rated for the voltage involved, are considered to be insulation for

the person from the energized part on which work is performed.

- b) The energized part is insulated both from all other conductive objects at a different potential and from the person, or
- c) The person is insulated from all conductive objects at a potential different from that of the energized part.

14. The minimum approach distances referred to above shall be as follows:

<u>Voltage Range</u> (Phase to Phase)	<u>Minimum Approach Distance</u>
300V or less	Avoid Contact
Over 300V, not over 750V	1 ft. 0 in.
Over 750V, not over 2kV	1 ft. 6 in.
Over 2kV, not over 15kV	2 ft. 0 in.
Over 15kV, not over 37kV	3 ft. 0 in.
Over 37kV, not over 87.5kV	3 ft. 6 in.
Over 87.5kV, not over 121kV	4 ft. 0 in.
Over 121kV, not over 140kV	4 ft. 6 in.

- 15. Any vehicle or mechanical equipment capable of having parts of its structure elevated near energized overhead lines should be operated so that a clearance of 10 ft. is maintained. IF the voltage is greater than 50kV, the clearance should increase accordingly.
- 16. Employees should not enter spaces containing exposed energized parts, unless illumination is provided that enables the employee to perform the work safely.
- 17. Where lack of illumination or an obstruction precludes observation of the work to be performed, employees should not perform tasks near exposed energized parts.
- 18. Employees must not blindly reach into areas which may contain energized parts.
- 19. Whenever a employee works in a *confined or enclosed space* (such as a manhole or vault) that contains exposed energized parts, he/she must be provided with, and use, protective shields, protective barriers, or insulating materials as necessary to avoid inadvertent contact with those parts.
- 20. Doors, hinged panels, and the like that are present in any *confined or enclosed space* should be secured to prevent their swinging into an employee and causing the employee to contact exposed energized parts.
- 21. Conductive materials and equipment that are in contact with any part of an employee's body should be handled in a manner that will prevent them from contacting exposed energized conductors or circuit parts.
- 22. Whenever an employee must handle long conductive objects (such as ducts and pipes) in areas with exposed live parts, appropriate work practices should be

instituted which will minimize the hazard.

23. Portable ladders should have non-conductive side rails if they are used where the employee or ladder could contact exposed energized parts.
24. Conductive articles of jewelry and clothing should not be worn if they might contact exposed energized parts.
25. Where live parts present an electrical contact hazard, employees should not perform housekeeping duties at such close distances to the parts that there is a possibility of contact, unless adequate safeguards are provided.

G. Use of Portable Electric Equipment

1. All cord- and plug- connected electric equipment, flexible cord sets (extension cords), and portable electric equipment should be handled in a manner that will not cause damage.
2. Flexible electric cords connected to equipment should not be used for raising or lowering the equipment.
3. Flexible cords should not be fastened with staples or otherwise hung in such a fashion as could damage the outer jacket or insulation.
4. Portable cord- and plug- connected equipment and flexible cord sets should be visually inspected before use on any shift for external defects and for evidence of possible internal damage.
5. If there is a defect or evidence of damage that might expose an employee to injury, the defective or damaged item should be removed from service, and no employee should use it until necessary repair and tests have been made to render the equipment safe.
6. Whenever an attached plug is to be connected to a receptacle, the relationship of the plug and receptacle contacts should first be checked to ensure that they are of proper mating.
7. A flexible cord used with grounding type equipment should contain an equipment grounding connector.
8. Attachment plug and receptacles should not be connected or altered in a manner that would prevent proper continuity of the equipment grounding conductor at the point where plugs are attached to receptacles. Additionally, those devices should not be altered to allow the grounding pole of a plug to be inserted into slots intended for connection to the current-carrying conductors.
9. Portable electric equipment and flexible cords used in highly conductive work locations (such as those inundated with water or other conductive liquids), or in job locations where employees are likely to contact water or conductive liquids, should be *approved* for those locations.
10. Employee's hands should not be wet when plugging and unplugging flexible cords and cord- and plug- connected equipment, if energized equipment is involved.
11. Energized plug and receptacle connections should be handled only with insulating protective equipment if the condition of the connection could provide a conducting

path to the employee's hand.

12. Locking-type connectors should be properly secured after connection.

H. Electric power and Lighting Circuits

1. Load rated switches, circuit breakers, or other devices specifically designed as disconnecting means should be used for the routine opening, reversing, or closing of circuits under load conditions.
2. Cable connectors not of the load-break type, fuses, terminal lugs, and cable splice connections should not be used for such purposes, except in emergency.
3. After a circuit is De-energized by a circuit protective device, the circuit should not be manually re-energized until it has been determined that the equipment and circuit can be safely energized. However, when it can be determined from the design of the circuit and the over current devices involved that the automatic operating of a device was caused by an overload rather than a fault condition, no examination of the circuit or connected equipment is needed before the circuit is re-energized.
4. Circuit breakers or fuses should not be repetitively closed or replaced to re-energized circuits.
5. Over current protection of circuits and conductors should not be modified, even on a temporary basis, beyond that allowed by the OSHA standard regulating installation safety requirements for over current protection.

I. Test Instruments and Equipment

1. Only qualified persons should perform testing work on electric circuits or equipment.
2. Test instruments and equipment and all associated test leads, cables, power cords, probes and connectors should be visually inspected for external defects and damage before the equipment is used. If there is a defect or evidence of damage that might expose an employee to injury, the defective or damaged item should be removed from service, and no employee may use it until necessary repairs and tests to render the equipment safe have been made.
3. Test instruments and equipment and their accessories should be rated for the circuit and equipment to which they will be connected and should be designed for the environment in which they will be used.

J. Use of Flammable or Ignitable Materials

1. In those situations where flammable materials are present only occasionally, electric equipment capable of igniting them should not be used, *unless* measures are taken to prevent hazardous condition from developing.
2. Such materials include, but are not limited to: flammable gases, vapors, or liquids; combustible dust; and ignitable fibers.
3. In those situations where flammable vapors, liquids, or gases, or combustible dusts or fibers are (or may be) present on a regular basis, the electrical installation requirements contained in the OSHA standard regulating hazardous locations

should be observed.

K. Personal Protection Safeguards

1. Employees working in areas where there are potential electrical hazards should be provided with, and use, electrical protective equipment that is appropriate for the specific parts of the body to be protected and for the work to be performed. Such equipment includes rubber protecting equipment such as insulating gloves, blankets, hoods, line hose, sleeves, and matting for use around electric apparatus. See the OSHA standard on electrical protective devices, 1910.137.
2. Protective equipment should be maintained in a safe, reliable condition and should be periodically inspected or tested, as required by 1910.137.
3. If the insulating capability of protective equipment may be subject to damage during use, the insulating material should be protected.
4. Employees should wear nonconductive head protection whenever there is a danger of head injury from electric shock or burns due to contact with exposed energized parts.
5. Employees should wear protective equipment for the eyes or face whenever there is danger of injury to the eyes or face from electric arcs or flashes or from flying objects resulting from an electrical explosion.
6. When working near exposed energized conductors or circuit parts, each employee should use insulated tools when handling the tools might make contact with such conductors or parts. If the insulating capability of insulated tools or equipment is subject to damage, the insulating material should be protected.
7. Fuse handling equipment, insulated for circuit voltage, should be used to remove and install fuses when the fuse terminals are energized.
8. Ropes and handline used near energized parts should be nonconductive.
9. Protective shields, protective barriers, or insulating materials should be used to protect each employee from shock, burns, or other electrically related injuries while that employee is working near exposed energized parts which might be accidentally contacted or where dangerous electrical heating or arcing might occur.
10. When normally enclosed live parts are exposed for maintenance or repair, they should be guarded to protect unqualified persons from contact with the live parts.
11. Alerting techniques should be used to warn and protect employees from hazards which could cause injury due to electrical shock, burns, or failure of electric equipment parts as follows:
 - a) *Safety Signs and Tags.* Safety signs, safety symbols, or accident prevention tags should be used where necessary to warn employees about electrical hazards which might endanger them.
 - b) *Barricades.* Barricades should be used in conjunction with safety signs where it is necessary to prevent or limit employee access to work areas exposing employees to uninsulated energized conductors or circuit parts. Conductive barricades cannot be used where they might cause an electrical contact hazard.

- c) *Attendants*. If signs or barricades do not provide sufficient warning and protection from electrical hazards, an attendant should be stationed to warn and protect employees.

L. Training

1. Appropriate training will be provided for those employees who face a risk of electric shock that is not reduced to a safe level by the OSHA electrical installation requirements.
2. Electricians and welders always face such a risk and must be provided with appropriate training. That is also true for blue collar supervisors, electrical and electronic engineers, electrical and electronic technicians, and others *unless* their work or the work of those they supervise does not bring them or their employees close enough to exposed parts of electric circuits operating at 50 volts or more to ground for a hazard to exist.
3. Each employee required to be trained should be trained in, and should become familiar with, the safety related work practices required by this program or the OSHA standards pertaining to their respective job assignments.
4. Employees who are covered by paragraph 1 of this section, but who are not qualified persons should also be trained in and familiar with any electrically related safety practices not specifically addressed by OSHA standards but which are necessary for their safety.
5. Qualified persons should, at a minimum, be trained in and familiar with the following:
 - a) The skills and techniques necessary to distinguish exposed live parts from other parts of electric equipment.
 - b) The skills and techniques necessary to determine the nominal voltage of exposed parts, and
 - c) The clearance distances and the corresponding voltages to which the qualified person will be exposed.
6. The training shall be either classroom, on-the-job, or both.
7. The degree of training should be determined by the risk likely to be encountered by the employee.

VIII - Standard Procedure for Vehicle Operation

1.0 Purpose:

The purpose of this procedure is to outline drivers license requirements, as well as vehicle safety rules and regulations in order to reduce preventable accidents, injuries, property damage and maintenance costs.

2.0 Organizations Affected:

All Departments/ Divisions

3.0 Reference:

County Standard Procedure: Drivers Record Standards for Applicants

County Standard Procedure: Drivers Record Standards for Current Employees

State Motor Vehicle Code

4.0 Policy:

- 4.1 A valid drivers license for the type and class of vehicle to be driven shall be required for all employees operating County vehicles, including heavy equipment on the highway, and employees operating privately owned vehicles on County business.
- 4.2 County employees shall comply with the Vehicle Safety Program rules and regulations outlined in this procedure while operating a County vehicle or driving a private vehicle on County business.
- 4.3 Effective April 1, 1992, employees working in certain job classifications may be required to have a Commercial Drivers License (CDL) to operate designated vehicles and/or equipment. Successful job applicants, which may include current employees that are promoted or re-assigned to positions requiring a CDL, shall comply with one of the following:
 - 4.3.1 Have a current CDL at time of employment, promotion or re-assignment, or
 - 4.3.2 Within 90 days of hiring, promotion or re-assignment, obtain a CDL as a condition of continued employment.

5.0 Non-Commercial Drivers License Requirements:

- 5.1 Class A licenses shall be required of Emergency Equipment Operators, operating a vehicle with a gross vehicle weight rating (GVWR) or licensed weight of 26,001 pounds or more.
- 5.2 Class C license shall be required of all other employees operating any single vehicle with a GVWR or licensed weight of less than 26,000 pounds or any such towing a vehicle with a GVWR not in excess of 10,000 pounds. This includes operating a vehicle designed to carry less than 16 passengers including the driver.

6.0 Commercial Drivers License Requirements:

- 6.1 A CDL shall be required for employees operating vehicles and equipment in the following classes:
 - 6.1.1 Class A - Any combination of vehicle with a gross vehicle weight rating (GVWR) or licensed weight of 26, 001 pounds or more, provided the GVWR of the vehicle or vehicles being towed is in excess of 10,000 pounds.
 - 6.1.2 Class B - Any single vehicle with a GVWR or licenced weight of 26,001 or more and any such vehicle towing a vehicle not in excess of 10,000 pounds.
 - 6.1.3 Class C - Any single vehicle with a GVWR or licensed weight of less than 26,001 pounds or any vehicle towing a vehicle with a GVWR not in excess of 10,000 pounds comprising:
 - 6.1.3.1 Vehicles designed to transport 16 or more passengers including the driver.
 - 6.1.3.2 Vehicles used in the transportation of hazardous materials that require the vehicle to be placarded.
- 6.2 In addition to the required class of CDL, certain endorsements may be required and include the following:
 - 6.2.1 Endorsement P - Authorizes driving a vehicle carrying passenger specified in Paragraph 6.1.3.1.
 - 6.2.2 Endorsement H - Authorizes driving a vehicle transporting hazardous material.
 - 6.2.3 Endorsement N - Authorizes driving tanker vehicles.
 - 6.2.4 Endorsement X - Represents a combination of hazardous materials and tanker vehicles.

7.0 Vehicle Safety Program Rules and Regulations:

- 7.1 All employees driving County vehicle or personal vehicles on County business shall drive in a courteous manner observing the following vehicle safety program rules and regulations:
 - 7.1.1 Employees shall remain knowledgeable of and comply with all Federal, State and County motor vehicle laws and regulations.
 - 7.1.2 Employees shall practice effective defensive driving techniques. Employees shall exercise special precautions when children, joggers or pedestrians are in the roadway, driving during inclement weather or when negotiating around heavy equipment.
 - 7.1.3 The driver and all occupants shall wear seat belts as required by law.
 - 7.1.4 No person other than employees or appropriate persons engaged in business with the County and approved by the department head or designee shall ride in a County vehicle.
 - 7.1.5 No employee shall operate a County vehicle or personal vehicle on County business after having consumed alcohol and/or drugs , including prescription

and over-the-counter drugs which impair their ability to safely operate a vehicle.

- 7.1.6 County vehicles shall be used for work related duties only.
- 7.1.7 Vehicles not in good mechanical condition shall not be driven. Report all mechanical problems to your supervisor immediately.
- 7.1.8 Unsecured items shall not be placed on the dash of a County vehicle.
- 7.1.9 Low beam headlights shall be turned on during daylight hours if the windshield wipers are in operation.
- 7.1.10 Vehicles shall not be left unattended while the engine is running. If it is necessary to leave the vehicle running while it is unattended, the transmission shall be placed in Park and the parking brake activated. If the vehicle is on an incline or decline, the wheels shall be chocked.
- 7.1.11 When possible, drivers shall position their vehicles to eliminate the need for backing. If backing is the only alternative, the driver shall survey the area on both sides, above and behind the vehicle prior to backing. When an employee (spotter) is available, the employee will assist the driver in backing a vehicle. The driver shall instruct the spotter on the hand signals that will be used. The spotter will remain in full view of the driver during the backing maneuver.
- 7.1.12 Ladders, pipes and tools carried outside the closed compartment of vehicles shall be placed in the brackets or carriers provided. Tools, equipment and materials carried in the truck bed shall be secured by using side rails and tailgate.
- 7.1.13 Cargo transported on trailers shall have at least one tie down for each 10 feet of cargo.
- 7.1.14 Ear phones shall not be worn while operating a County vehicle. Personal battery powered portable radios or cassette players are permitted in the cab of vehicles when they are secured in a manner that does not create operational and/or safety hazards.
- 7.1.15 CDL drivers shall perform a pre-trip inspection at the beginning of each day's use. An after trip inspection shall be completed by the driver. If conditions are identified that indicate the vehicle is unsafe to operate, the driver shall report such conditions to his/her supervisor immediately. If problems are found, the vehicle shall not be operated until repairs are made and the vehicle is safe to operate.
- 7.1.16 All County vehicles, when parked during non-working hours, will have:
 - 1) The ignition key removed
 - 2) The parking brake set
 - 3) All passenger and compartment doors locked
 - 4) Wheels chocked, if applicable

All motor vehicle collisions involving County vehicle or personal vehicles used during County business shall reported to your supervisor immediately.

Driving Record Standard for Applicants

1.0 Purpose:

To establish minimum driving record standards which successful applicants must meet for all job classifications requiring a valid drivers license.

2.0 Organizations Affected:

All Departments/Divisions

3.0 Policy:

- 3.1 This policy applies to all applicants including employees applying for positions requiring a valid drivers license as a condition of employment.

Applicants must have in their possession a valid North Carolina drivers license or obtain a North Carolina license within 30 days after hiring as a condition of employment. A review of the driving history of each selected applicant will be conducted by the Safety Officer prior to hiring.

Applicant driving records with convictions listed in section 3.2 will be disqualified.

- 3.2 Applicants will not be selected for positions requiring a valid drivers license if their driving record contains any of the following:
- 3.2.1 Conviction of driving while impaired (DWI) within the last five (5) years.
 - 3.2.2 Conviction for death by vehicle, hit and run, racing, careless and reckless or other major offenses within the last three (3) years.
 - 3.2.3 Conviction of more than two (2) ordinary traffic violations or more than two (2) chargeable accidents within the past 12 month period.
 - 3.2.4 Suspension or revocation of driving license within the last five (5) years.
 - 3.2.5 When an applicants overall driving history reveals a pattern of convictions of traffic offenses and the applicants capacity to safely operate a County vehicle or heavy equipment is questionable, the Safety Officer shall reserve the right to approve or disapprove the applicant based on their overall driving record and the position for which the applicant has applied. Results of review and rationale for disapproval will be provided to the hiring supervisor by the Safety Officer.

4.0 Procedure for Applicants:

- 4.1 The hiring department shall notify the Safety Officer when an applicant has been recommended for a position requiring a valid drivers license by means of a completed "Drivers License Record Check" form. The Safety Officer shall request a copy of the applicants drivers history from the Sheriff's Department for review. The Safety Officer will notify the hiring department of the outcome of the check.

- 4.2 All employee hiring shall be conducted in accordance with this procedure. Any employee hired not in accordance with this procedure for which the driving history does not meet the minimum requirements set forth in this procedure shall be terminated or re-assigned to an available position which does not require a valid drivers license.

DRIVING RECORD STANDARDS FOR CURRENT EMPLOYEES

1.0 PURPOSE:

To establish minimum driving standards which must be met for all classifications requiring a valid drivers license. Departments may elect to enforce more stringent driving record requirements.

2.0 ORGANIZATIONS AFFECTED:

All Departments/Divisions

3.0 POLICY:

- 3.1 Effective July 1, 1996, all employees who operate County vehicles, including heavy equipment operated on the roadways and all employees assigned to positions requiring valid drivers licenses, must comply with section 3.3 of this policy.
- 3.2 Effective with the adoption of this policy and continuing thereafter, the Safety Officer will periodically check the driving record of randomly selected employees holding positions for which valid drivers license are required.

When an employee's overall driving record reveals a pattern of convictions for traffic offenses and the employees capacity to safely operate a County vehicle or heavy piece of equipment

is questionable, the Safety Officer shall reserve the right to approve or disapprove the continued operation of a County vehicle or heavy piece of equipment by the employee based on their overall driving record, following consultation with the Department Head and the Director of Human Resources. Results of review and rationale for disapproval will be provided to the employee's supervisor by the Safety Officer.

- 3.3 Employees will not be permitted to operate County vehicles or heavy equipment if their driving record contains any of the following:
 - 3.3.1 Conviction of driving while impaired (DWI) for which their driving privileges have been suspended or revoked.
 - 3.3.2 Conviction of death by vehicle, hit and run, racing, careless and reckless or other major offenses for which their driving privileges have been suspended or revoked.
 - 3.3.3 Conviction of two (2) ordinary traffic violations, or two chargeable accidents within the past 12 months period, or the conviction of three (3) ordinary traffic violations, or three (3) chargeable accidents within the past 36 months period.
 - 3.3.4 Suspension or revocation of their driving privileges within the past five (5) years.

4.0 Penalty Provisions:

- 4.1 Any employee in a position requiring a valid drivers license is subject to disciplinary action up to and including dismissal for violations in accordance with Standard Procedures. Any employee who has their State Drivers License suspended or revoked shall not operate a County vehicle and shall immediately report such suspension or revocation to their Supervisor.
- 4.2 Driving while Impaired provision:
 - 4.2.1 Any employee convicted of a DWI prior to the effective date of this policy and whose license has been reinstated (case cleared) may continue to operate a County vehicle on a probationary basis within their currently assigned license classification.
 - 4.2.2 Effective August 1, 2006, employees who have had their drivers' licenses suspended or revoked for any reason will not be allowed to operate a County vehicle or a privately owned vehicle on County business. This restriction shall include all employees issued a Limited Driving Privilege by the state.

5.0 PROCEDURES FOR REPORTING CHARGES AND CONVICTIONS:

- 5.1 All County employees shall report any charge and or conviction of a motor vehicle violation and any charge and or conviction for DWI to their Supervisor immediately. This action shall occur on the first working day following the charge and or conviction. The Supervisor shall report each DWI charge and conviction to the Safety Officer within three (3) work days. Failure to comply with this provision shall be considered a willful violation and may result in disciplinary action up to and including termination.

IX. Bloodborne Pathogen Program

Covered Employees:

The below listed employees are to be covered by the provisions of the Bloodborne Pathogen Policy. The employees shall receive training, be given the option of receiving the HBV vaccine at no cost and other policy related information pertaining to this policy.

- A) Health Department
- B) Sheriff's Office
- C) Social Services
- D) Parks Department
- E) Property Management
- F) Vehicle Management
- G) Engineering Water/Sewer
- H) Environmental Management
- I) Juvenile Day Treatment Center

It should be noted that not all employees within these departments will fall under this policy. Administration, supervision and/or clerical support may not be covered.

New Hanover County has made every effort to provide coverage to employees who are, or may have the potential to be, exposed to Bloodborne Pathogens.

Exposure Determination:

- A) Category 1**
 - Health Department employees
 - Sheriff Department employees
- A) Category 2**
 - Engineering Water/Sewer employees
 - Environmental Department employees
 - Parks Department employees
- B) Category 3**
 - All other departments covered by this policy

1.0 Policy:

- 1.1 This policy is designed to assist New Hanover County (NHC) employees eliminate or minimize exposure to Bloodborne Pathogens (BP) or other potentially infectious materials. The degree of risk of acquiring BP on the job is directly related to the frequency of potential exposure to blood. Non-intact skin, eye and mucous membrane exposure to blood poses a lower risk and exposure to other potentially infectious body material, still a lower risk.
- 1.2 The policy outlines steps to proven occupational exposure and specific procedures to be followed if an inadvertent percutaneous or permucosal exposure occurs.
- 1.3 The policies and procedures shall be reviewed and updated at least annually and whenever necessary to reflect new job descriptions and modified tasks and procedures that affect occupational exposure.

2.0 Employees Affected:

- 2.1 All full-time and temporary employees who have occupational exposure to BP are covered by this policy and its standard operating procedures.
- 2.2 NHC contract employees are required to have a current HBV immunization to perform jobs involving exposure to BP. NHC DOES NOT provide the initial HBV vaccine to contract employees. With this exception, all other aspects of this policy and its standard operating procedures apply to contract, part-time employees and volunteers.

3.0 Definitions:

- 3.1 Bloodborne Pathogens: Pathogenic micro-organisms that are present in human blood and can cause diseases in humans. These pathogens include, but are not limited to, Hepatitis B Virus (HBV) and Human Immunodeficiency Virus (HIV).
- 3.2 Other Potentially Infectious Materials: Includes the following human body fluids: Semen, vaginal secretions, cerebrospinal fluids, pleural fluids, synovial fluids, pericardial fluids, peritoneal fluid, amniotic fluid, saliva in dental procedures and any fluid that is visibly contaminated with blood.
- 3.3 Occupational Exposure: Actual or potential parenteral, skin, eye or mucous membrane contact with blood or other potentially infectious material that may result from the performance of an employee's duties.
- 3.4 Universal Blood and Body Fluid Precautions: An approach to infection control. According to the concept of universal precautions, all human blood, body components including serum, other body fluids containing visible blood, semen, vaginal secretions, tissues, and cerebrospinal, synovial, pleural, peritoneal, pericardiac and amniotic fluids are treated as if they are infectious for HBV, HIV and other BP.

4.0 Standard Operating Procedures:

- 4.1 New Hanover County has developed written exposure determinations and maintains a list of all job classifications in which employees have occupational exposure to BP. All job tasks and procedures are classified into one of three categories to facilitate determinations.
 - A. Exposure Determination Include:

1. Category 1: Tasks that involve potential for mucous or skin contact with blood, body fluids or tissues, or potential for spills or splashes of them.
 2. Category 2: Tasks that involve no exposure to the above but may require performing unplanned Category 1 tasks.
 3. Category 3: Tasks that involve no exposure and Category 1 tasks are not a condition of employment.
- 4.2 NHC establishes, maintains and enforces work practices and standard operating procedures to eliminate or minimize contact with blood or other potentially infectious materials.
- A. NHC employees are required to follow standard operating procedures while performing job duties classified as Category 1 and 2.
- 4.3 NHC uses modifications to work environments and changes in work practices and procedures as a primary method to eliminate or minimize employee exposure.
- 4.4 All NHC employees who have occupational exposure to BP are required to have HBV vaccines. The vaccine is provided to the employee at no cost. The first dose of vaccine is to be made available within ten working days of the initial job assignment. Employees who decline the Hepatitis B vaccine are required to sign a Declination form and have the option of taking the vaccine at a later date without cost.
- 4.5 NHC offers initial, pre-placement, annual and new or modified procedure training to all employees who perform Category 1 and 2 tasks.

At a minimum, the training includes:

1. Access to and explanation of the BP standard
 2. Information about BP diseases and their transmission
 3. The County's exposure control plan
 4. Job classifications
 5. Information about HBV
 6. Decontamination and disposal procedures
 7. Universal blood and body fluid precautions
 8. Protective equipment
 9. Information and protocols for reporting and treatment of possible exposures
- 4.6 NHC has implemented a written cleaning procedure and the method of decontamination based upon the location within or outside the facility, type of surface to be cleaned, type of soil present and tasks or procedures being performed in the area.
- A) Employees are required to clean equipment, environmental and work surfaces and decontaminate them immediately after contact with blood or other body

fluids.

- 4.7 As defined by OSHA, contaminated laundry means laundry that is soiled with blood or body fluids.
 - A. When handling contaminated laundry, employees are to practice universal precautions, including wearing gloves. Contaminated laundry is to be handled as little as possible, with minimum agitation.
 - B. Contaminated laundry must be placed in red plastic bags or biohazard-labeled leak-proof containers wherever it is generated. It is not to be sorted or raised at the location where it is used.
 - C. Although contaminated laundry must be handled more carefully and stored in labeled or red bags, it can be washed with the regular laundry.
- 4.8 New Hanover County has established and maintains a record-keeping system that consist of:
 - A. A confidential medical record for each employee who performs Category I and II tasks, and
 - B. Training records including content, faculty and attendance.

5.0 PROCEDURES FOR EXPOSURE TO BLOODBORNE PATHOGENS

When an inadvertent percutaneous or permucosal exposure to blood or other potentially infectious materials occurs:

5.1 EMPLOYEES ARE REQUIRED TO:

- A. Remove contaminated personal protective equipment and place it in a red or biohazard labeled bag.
- B. Wash exposed areas (hands and other skin surfaces) with soap and water. Immediately flush exposed mucous membranes with water, and, if exposed, flush eyes with large amounts of water or eye wash solution.
- C. Immediately report exposure incident to your supervisor. If exposure occurs after 5 P.M. or on weekend or holiday, report exposure as soon as possible.
- D. If there is a spill, immediately arrange for decontamination with an approved cleaning solution.
- E. Seek medical care if first aid is needed or if signs or infection, such as redness or swelling occurs.
- F. Obtain an Incident Report form from the supervisor. Complete and return it to the supervisor within 24 hours.

When an employee reports an inadvertent percutaneous or permucosal exposure to blood or other potentially infectious materials:

5.2 SUPERVISORS ARE REQUIRED TO:

- A. Immediately arrange an exposure follow-up.
- B. Review standard operating procedures and methods to prevent future exposures with the employee.

- C. Provide employee with the Incident Report form.

When an employee or supervisor reports an inadvertent percutaneous or permucosal exposure to blood or other potentially infectious materials:

5.3 NEW HANOVER COUNTY'S CORPORATE HEALTH PROVIDER IS REQUIRED TO:

- A. Access the employee's exposure, his/her Hepatitis B vaccination and vaccine response status, whether the source of the blood is available, and the source's HIV and HBsAG status. This is done by interviewing the employee, reviewing the completed accident report form, the employee's confidential medical record and the source's record; contacting the source's physician and talking with other employees, as indicated.
- B. Individualize post-exposure management and treatment of exposed employee(s) on a case by case basis, following current communicable disease rules.
- C. Conduct HIV and HBV pre-test counseling prior to obtaining laboratory tests from the exposed employee. Obtain consent for confidential HIV testing from the employee.
 - 1. If the employee consents to a baseline blood specimen collection, but does not give consent at that time for HIV serologic testing, the serum sample must be stored by freezing at - 20^oc for 90 days (if long, - 70^oc). If within 90 days of the exposure incident, the employee elects to have the baseline sample tested, such testing shall be done as soon as possible.
- D. Conduct post-exposure counseling on return of laboratory results. All employees will receive their laboratory results.

If the source person is HIV or HBV infected, employee counseling should include:

- 1. Refraining from sexual intercourse unless condoms are used,
 - 2. Not sharing needles or syringes,
 - 3. Not donating or selling blood, and
 - 4. Not breast-feeding
- E. Provide prophylactic treatment or immunizations as ordered by the physician and as required by the communicable disease rules [15A NCAC .0203 (b)(3)(b) and (c)].
 - 1. When indicated, administer Prophylactic Zidovudine and HBIG as soon as possible after exposure, since Zidovudine's value beyond 48-72 hours, and HBIG's value beyond 7 days is unclear.
 - F. If the source person is HIV-positive or is unknown, conduct follow-up HIV testing and counseling for the exposed employee at 3 and 6 months.
 - G. File completed Incident Report Form with New Hanover County's Department of Human Resources.

- H. File completed Incident Report Form with New Hanover County's Department of Human Resources.

STANDARD OPERATING PROCEDURES FOR PROTECTION AGAINST OCCUPATIONAL EXPOSURE TO BLOODBORNE PATHOGENS

I. PURPOSE

Bloodborne Pathogens are a major occupational health hazard in the health care industry. Engineering controls, work practice administrative controls, and personal protective equipment must be used to eliminate or minimize exposure to Bloodborne Pathogens or other potentially infectious materials.

II. EVALUATION OF THE WORKPLACE

The workplace must be evaluated to determine the actual or potential hazards, including biological hazards (HIV, HBV and Bloodborne Pathogens). All job-related tasks are classified into three categories according to potential for contact with blood or other potentially infectious materials.

III. WORK PRACTICES TO BE FOLLOWED (CATEGORIES I AND II)

- A. All employees must follow universal blood fluid precautions, as described by CDC. All body fluids/ material must be treated as if known to be infectious for HIV, HBV, or other Bloodborne Pathogens.
- B. Aseptic procedures must be used to obtain fluids for diagnostic or therapeutic purposes.
- C. Personal protective equipment must be used to prevent exposure to blood or other potentially infectious materials. It should not permit blood or other Bloodborne Pathogens to pass through to or reach the employees work clothes, street clothes, under garments, skin, eyes, mouth or other mucuous membrane under normal conditions of use and for the duration of time which the protective equipment will be used.
 - 1. Uniforms or lab coats must be worn in clinical work areas.
 - 2. Gloves (disposable) must be worn when handling all specimens of blood or other body fluids. A glove which has been used for handling infectious materials should not be used for handling equipment, opening doors, answering phones, or handling reports.
 - A. Gloves must be changed between each patient contact. Immediately after use, gloves are to be discarded in appropriate trash containers.
 - 3. Gloves, masks, lab coats, and protective eyewear must be worn if mucous membrane contact with blood or other potentially infectious materials (which includes splashing, spraying, spattering, and generation of droplets of these substances) is possible.
- D. Hands must be thoroughly washed with soap after removing gloves and immediately after contact with blood or other potentially infectious materials.
- E. All sharps (e.g., needles, slides, lancets, scalpels, etc.) must be place in a nearby puncture-proof, labeled container. Contaminated needles and other contaminated

sharps must be bent, recapped, or removed before disposal.

NOTE: Special circumstances may require recapping needles. In such cases, protective recapping shields must be used to prevent unintentional needlesticks.

- F. Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited in clinical work areas.
- G. Food and drinks must not be kept in refrigerators, freezers, shelves, cabinets, counters, or benchtops where blood or other potentially infectious materials are present.
- H. Employees with exudative lesions or weeping dermatitis should refrain from all direct patient care, and handling patient care equipment until the condition resolves.
- I. All procedures involving blood or other potentially infectious materials must be performed in such a manner to minimize splashing, spraying, spattering, and generation of droplets of these substances.
- J. Uniforms, lab coats, other fabric items, or nondisposable clothing that become blood-soaked are to be immediately removed and handled as contaminated laundry.
- K. Broken glassware that may be contaminated must be picked up directly by hand. It should be cleaned up by mechanical means such as dust pan and brush, tongs, or forceps.
- L. All employees are responsible for maintaining a clean and sanitary worksite at all times.
- M. Heavy utility gloves may be worn during routine, noncontaminated cleaning procedures. These gloves may be decontaminated for re-use with a 1:10 to a 1:100 dilution of bleach as long as the integrity of the glove is not compromised.

To view or print the **HEPATITIS B VACCINE DECLINATION FORM**, click [here](#).

Bloodborne Pathogen Lesson Plan

A: OSHA Standard

The Occupational Safety and Health Administration (OSHA) standard is 1910.1030. This standard is directed at hospitals, clinics, law enforcement, and other businesses where workers have an exposure to blood and other body fluids which may be infectious. It also deals with other material which may be contaminated with infectious fluids.

B: HBV and HIV

The two types of bloodborne pathogens you are most likely to be exposed to are:

1. Hepatitis B virus (HBV)
2. Human immunodeficiency virus (HIV)

HBV is an inflammation of the liver that is transmitted by blood and other body fluids. It can

result in severe liver damage, cirrhosis of the liver, and death. There is a vaccine available for HBV, which is about 90% effective. The County offers the vaccine to employees, who have the potential exposure to blood or other body fluids, at no cost. It is a three shot series and is given by the Health Dept..

HIV attacks the body's immune system and leads to acquired immune deficiency syndrome or AIDS. AIDS is always fatal. There is no vaccine to guard against HIV at this time.

C: Exposure Incidents

Most workplace exposures occur from contact with contaminated blood. This may be from an injured coworker or a member of the general public. You can be infected if your skin is punctured by pieces of blood-strained glass, metal or other sharp object. The key to preventing contamination is to protect yourself from exposure.

D: PPE's

If you must assist an injured person, put on protective gloves, eyewear, and other personal protective equipment as necessary. Non-absorbent gloves such as latex or nitrile work best to protect you. Wear gloves if there is any chance of coming into contact with blood or other body fluids. Wear face protection if there is a chance of being splattered in the face with blood.

E: Clean Up

Continue to wear PPE's while cleaning up the area after treating an injured person. Place all towels, gauze, pads and blood covered items into specially labeled biohazard disposal bags. Clean all potentially contaminated areas with chlorine bleach or other suitable EPA-registered disinfectant.

When clean up is complete, place gloves and other PPE's in the marked bag also. Clothing should be removed and cleaned with warm soapy water as soon as possible. Bleach may be needed while cleaning clothes or disposal of clothes may be necessary.

Wash hands thoroughly after removing gloves with a non-abrasive soap and running water.

F: PostExposure

If exposure has occurred, inform your supervisor immediately. He or she will help you arrange a confidential medical evaluation and any treatment which may be necessary. Exams and treatment is covered under Workers' Compensation so it is required that a form 19 be completed for each exposure.