Bloodborne Pathogen

1.0 Purpose and Scope

Exposure control plan for Waupaca Foundry, Inc.. This plan will eliminate or minimize exposure to blood and other potentially infectious material. The purpose of this policy is to provide protection to all employees, first aid attendants and nursing personnel from contamination during blood spill accidents.

2.0 Exposure Determination

Includes employees who are routinely exposed to blood borne pathogens. This includes the Health Services Nurse.

2.1 Exposure to employees in category I will include daily treatment of injuries in the Health Services Department, as well as response to incidents in the plant.

Includes employees who are not usually exposed but may be exposed under certain conditions. This group includes the EMT's and EMR's, as well as other Emergency Response Team members and janitors. The exposure control plan shall be reviewed and updated at least annually and when ever necessary to reflect new or modified tasks and procedures which affect occupational exposure and to reflect new or revised employee positions with occupational exposure.

2.2 Exposure to employees in category II will include in-plant emergency care.

Includes all other employees who are never exposed.

Fluids that have been recognized as directly linked to the transmission of HBV and/or HIV are blood, blood products, semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluids and saliva in dental settings.

Exposure determination must be made <u>without</u> regard to the use of Personal Protective Equipment (PPE).

3.0 Methods of Compliance

3.1 <u>Universal Precautions</u>

Definition: Universal Precautions is the concept that all human blood and certain body fluids should be treated as if they are known to contain HIV, HBV or other blood borne pathogens.

3.1.1 General Universal Precautions must be observed to prevent contact with blood or other potentially infectious material.

Materials that require Universal Precautions are:

- Blood
- Semen
- Vaginal secretions

Cerebrospinal fluid
Synovial fluid
Pleural fluid
Any body fluid with visible blood
Any unidentifiable body fluid
Saliva from dental procedures

3.2 Engineering Controls

3.2.1 Engineering controls must be used in preference to other control methods to eliminate or minimize worker exposure to blood or OPIM (other potentially infectious material).

3.2.1.1 Engineering controls must be inspected and maintained or replaced on a regularly scheduled basis to ensure effectiveness.

3.2.1.2 Example of engineering controls include but are not limited to: puncture resistant sharps containers, splash guards, eye wash stations, biohazard labels, and self sheathing needles.

3.2.1.3 Any employee noting a need for engineering controls is to report the hazardous area to the Safety and/or Health Departments.

3.3 Work Practice Controls:

3.3.1 Work practice controls are specific procedures that employees must follow to reduce their exposures to blood borne pathogens. This includes procedures for processing and handling blood and OPIM, clean up, waste disposal and personal hygiene.

3.3.1.1 Procedures involving blood or OPIM must be performed in a manner that minimizes splashing and spraying.

3.3.1.2 Waste must be placed in a red, closable, leak proof container and must clearly be identified as containing potentially infectious material with proper labeling.

3.3.1.3 Used needles must not be sheared, bent, broken, or recapped by hand. Contaminated needles and other sharps must be disposed of immediately in an approved sharps container. Sharps containers must be maintained in an upright position and replaced routinely.

3.3.1.4 Contaminated broken glass will not be picked up by hand. Use of a dust pan and brush, cardboard, tongs, or the blood spill kit component located in each of the Emergency Medical Responder bags.

3.3.1.5 Eating, drinking, smoking, the application of cosmetics, or the handling of contact lenses is strictly prohibited in areas where blood borne pathogens may be present.

3.3.1.6 Food and drink may not be stored in refrigerators, freezers, cabinets, or other areas containing blood or OPIM.

3.3.1.7 Regular hand washing with a bactericidal soap will be done immediately, or as soon as feasible, after removing gloves or other protective equipment or having blood or OPIM contact skin directly.

3.3.1.8 The office janitorial staff will be trained in proper handling and disposal of feminine hygiene waste materials. They will be instructed in the proper application and removal of examination gloves and the importance of hand washing. The office janitorial staff will also be required to contact the Health Services Department when a blood spill or exposure occurs.

3.4 Personal Protective Equipment

3.4.1 Personal protective equipment is specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (uniforms, pants, shirts or blouses) are not intended to function as protection against a hazard and therefore are not considered to be personal protective equipment. If an employees uniform or shoes become contaminated with blood or other potentially infectious material, Waupaca Foundry, Inc. will be responsible to clean, repair or replace the item(s) at no cost to the employee.

3.4.1.1 Personal protective equipment is made available and accessible at no cost to the employee and its use enforced. Employee education on types of PPE available, use and proper disposal of will be done on a yearly basis at Bloodborne Pathogen training.

3.4.1.2 Personal protective equipment such as, but not limited to examination gloves, gowns, face shields or masks, and eye protection, mouthpieces, resuscitation bags, pocket masks or other ventilation devices, must be repaired or replaced as needed to maintain its effectiveness. All Emergency Medical Responder bags will be inspected after each use to assure availability and access of proper equipment.

3.4.1.3 All equipment will be of safe design and construction.

3.4.1.4 Examples of available Personal Protective Equipment are:

1. Examination Gloves. Examination gloves will be worn when it is reasonably anticipated the employee may have hand contact with blood or OPIM and when handling contaminated objects and surfaces. Examination gloves are also indicated when examining abraded or non-intact skin or in patients with active bleeding. Examination gloves shall be of appropriate size for the wearer and should be disposed of after each patient use. Both medium and large examination gloves are stocked and available in the Health Services Department. Hypo-allergenic gloves, glove liners, powderless gloves or other similar alternatives shall be readily accessible to those employees who are allergic to the gloves normally provided.

2. Gowns, Aprons, and other Protective Body Clothing. The use of gowns, lab coats or aprons is required when splashes to the skin or clothing with blood or OPIM is likely to

occur. A gown is provided in each Emergency Medical Responder bag; this disposable gown will be replaced after each use.

3. Eye Protection. Masks in combination with eye protection devices, such as goggles or glasses with solid side shields or chin-length face shields, shall be worn whenever splashes, spray spatter, or droplets of blood or OPIM may be generated and eye, nose, or mouth contamination may be reasonably anticipated. This coverage is not required during routine care. Disposable face shields are supplied in the Emergency Medical Responder bags and will be replaced after each use.

4. Resuscitation Equipment. Pocket Microshields are provided to all CPR certified employees and are located in the Emergency Medical Responder bags. A disposable AMBU bag is also included in the bag and in the Health Services Department. Instruction for the proper use of this equipment is provided every two years during CPR certification.

3.5 Janitorial Service

Waupaca Foundry, Inc. employees in the office janitorial services will receive training in the proper disposal and handling of feminine hygiene waste materials. They will be instructed on the importance of hand washing and application of and removal of examination gloves. The office janitorial services will also be required to contact the Health Services Department when a blood spill or exposure occurs. In the plants that have contract workers perform office janitorial duties, the contracting company is responsible for training their employees.

3.6 Infectious Waste Disposal

Disposal of all infectious waste will be in accordance with applicable Federal, State and Local regulations. Regulated waste is defined as liquid or semi-liquid blood or OPIM (Other Potentially Infectious Materials), contaminated items that would release blood of OPIM in a liquid or semi-liquid state if compressed, items that are caked with dried blood or OPIM and are capable of releasing these material during handling; contaminated sharps, and pathological and microbiological waste containing blood of OPIM.

3.6.1 All infectious waste will be placed in red biohazard bags provided in the Emergency Medical Responder bags and available in the Health Services Department. All infectious waste will be double bagged in the red biohazard bags and brought to Health Services for disposal in the biohazard bags/box for disposing of infectious waste. These are marked with biohazard labels or signs and are kept in the Health Services Department. Contract currently with:

Waupaca & Marinette, WI:
Stericycle, Inc.
14035 Lettsbir Road
Sturtevant, WI 53177

Tell City, IN
Stericycle, Inc.
P.O. Box 9001588
Louisville, KY 40290-1588

Etowah, TN
Stericycle, Inc.
P.O. Box 9001590
Louisville, KY 40290-1590

3.6.2 A regulated waste manifest log is on file in Health Services Department. Disposable syringes, needles, scalpel blades and other sharp items will be placed in a clearly marked, puncture resistant container. This will also be double bagged and disposed of in the biohazard bags/box for disposing of infectious waste.

3.6.3 Lab specimens or body fluids must be transported in a container that will prevent leakage and disposed of in accordance with regulatory requirements.

3.7 Labels, Tags and Bags

All waste will be placed in double bagged red biohazard bags and labeled with "Biohazardous Waste" label. Puncture resistant sharps containers will be used in the Health Services Department. All employees in Category I and II will be made aware of the above information.

3.8 Housekeeping Practices

Specific methods and regular schedules for cleaning bench tops, equipment and other infectious materials are as follows:
The Health Services Department counter is cleaned with an antiseptic cleanser a minimum of two times a day. Disposable drape sheets are used on the counter with each procedure. Utensils such as tweezers, scissors, etc., will be kept soaking in a container with Sterilizing and disinfecting solution (ie: Metricide 28, Cidex-Plus), which is changed every 28 days.

3.8.1 In case of a blood related spill IN PLANT, trained personnel such as the Emergency Medical Responder, EMT or the company nurse, are the only personnel responsible for cleaning up the blood spill. Complete Personal Protective Equipment will be worn. This includes gown, mask, gloves, and protective eyewear if necessary. Fluid Control Solidifier (i.e. Isolyser powder) will be applied to the infectious material until a gel is formed. The gel will then be double bagged and taken to the Health Services Department for disposal. Fluid Control Solidifier and the blood spill clean up kits are located in each of the Emergency Medical Responder bags and in the Health Services Department.

3.8.2 The infected area will then be cleaned with either the DisCide or if a large area is affected, 10% bleach solution will be applied to disinfect. The bleach solution can be found in the First Aid Treatment rooms at Plant 1, 2/3, 4, 5 and 6 along with paper wipes. Gloves must be worn during all aspects of clean up procedure. All materials used in the clean up procedure will be double bagged in a red biohazard bag.

3.8.3 If a blood spill or exposure occurs within the office environment, the above procedure will be used. The waste material will be double bagged. Health Services Department should be notified of all blood spills to evaluate that proper decontamination methods are used. Office personnel must contact a Emergency Medical Responder, EMT, or Nursing Service personnel who have been trained in handling a blood spill.

3.9 Hepatitis B Vaccination

The Hepatitis B vaccine is available at no cost to all Emergency Medical Responders, EMT, and nursing personnel whose job task involves the risk of directly contacting blood or OPIM.

3.9.1 The vaccination will be provided by a licensed health care professional and will be made available to employees after required Blood Spill training.

3.9.2 The vaccination must be administered in series. The initial injection given within 10 days of work assignment. The second injection given in 30 days, and the third injection given in 6 months from the initial injection.

3.9.3 If the employee initially declines the Hepatitis B vaccination but decides to accept the vaccination at a later date, while still covered under the standard, it will be made available to him/her at that time.

3.9.4 If a booster dose(s) of Hepatitis B vaccine is recommended by the U.S. Public Health Service at a future date, such booster dose(s) shall be made available to all employees covered under the standard, without cost.

3.9.5 ALL WORKERS WHO HAVE ROUTINE EXPOSURE TO BLOOD OR BODY FLUIDS HAVE THE RIGHT TO RECEIVE A VACCINATION SERIES AGAINST HEPATITIS B.

BEFORE RECEIVING THIS VACCINE IN DECIDING TO USE A MEDICINE, THE RISKS OF USING THE MEDICATION MUST BE WEIGHED AGAINST THE GOOD IT WILL DO. THIS IS A DECISION YOU AND YOUR DOCTOR WILL MAKE.

THE HEPATITIS B VACCINE IS GIVEN IN THREE DOSES OVER A 6-MONTH PERIOD. THE VACCINE IS VERY EFFECTIVE. FROM 79% TO 100% OF PEOPLE VACCINATED DEVELOP PROTECTION AGAINST THE HEPATITIS B VIRUS (SMITHKLINE BEECHAM PHARMACEUTICALS, 1993)

SIDE EFFECTS OF THIS VACCINE ALONG WITH ITS NEEDED EFFECTS, A VACCINE MAY CAUSE SOME UNWANTED EFFECTS. ALTHOUGH NOT ALL OF THESE SIDE EFFECTS MAY OCCUR, IF THEY DO OCCUR THEY MAY NEED MEDICAL ATTENTION.

SIDE EFFECTS MAY OCCUR THAT USUALLY DO NOT NEED MEDICAL ATTENTION. HOWEVER, CHECK WITH YOUR DOCTOR IF ANY OF THE FOLLOWING SIDE EFFECTS CONTINUE OR ARE BOTHERSOME:

MORE COMMON: SORENESS AT THE PLACE OF INJECTION

LESS COMMON: DIZZINESS; FEVER OF 37.7 (DEGREES C) 100 (DEGREES F) OR OVER; HARD LUMP, REDNESS, SWELLING, PAIN, ITCHING, PURPLE SPOT, TENDERNESS, OR WARMTH AT PLACE OF INJECTION; HEADACHE; UNUSUAL TIREDNESS OR WEAKNESS

RARE: ACHES OR PAIN IN MUSCLES; BACK PAIN OR STIFFNESS OR PAIN IN NECK OR SHOULDER; CHILLS; DIARRHEA OR STOMACH CRAMPS OR PAIN; FEELING OF BODILY DISCOMFORT; INCREASED SWEATING; HEADACHE (MILD), SORE THROAT, RUNNY NOSE, OR FEVER (MILD); ITCHING; LACK OF APPETITE OR DECREASE APPETITE; NAUSEA OR VOMITING; SUDDEN REDNESS OF SKIN; SWELLING OF GLANDS IN ARMPIT OR NECK; TROUBLE SLEEPING

GET EMERGENCY HELP IMMEDIATELY IF ANY OF THE FOLLOWING SIDE EFFECTS OCCUR:
SYMPTOMS OF ALLERGIC REACTION -- RARE
DIFFICULTY IN BREATHING OR SWALLOWING; HIVES; ITCHING, ESPECIALLY OF FEET AND HANDS; REDDENING OF SKIN, ESPECIALLY AROUND EARS; SWELLING OF EYES, FACE, OR INSIDE OF NOSE; UNUSUAL TIREDNESS OR WEAKNESS (SUDDEN AND SEVERE)

OTHER SIDE EFFECTS NOT LISTED ABOVE MAY ALSO OCCUR IN SOME PATIENTS. IF YOU NOTICE ANY OTHER EFFECTS, CHECK WITH YOUR DOCTOR

3.10 Blood Spill Policy - Training and Education

Employee training will be conducted initially and annually. Employees with anticipated occupational exposure to bloodborne pathogens must be informed of the hazards posed and must be equipped with the skills and knowledge necessary to control exposure with those hazards.

3.10.1 This training will include:

1. An explanation of the contents of the bloodborne standard 1910.1030.
2. A general explanation of the epidemiology and symptoms of bloodborne diseases.
3. An explanation of the modes of transmission of bloodborne pathogens.
4. An explanation of the employer's exposure control plan and the means by which the employee can obtain a copy. A copy of the Waupaca Foundry, Inc. Exposure Control plan will be handed out annually at the training for Bloodborne Pathogens.
5. Recognition of exposure situations.
6. An explanation of the use and limitations of control methods that may prevent or reduce exposure including:
    a. Universal precautions
    b. Engineering controls

c. Work practice controls

d. Personal protective equipment available and selection and handling of equipment.

e. Information on the HBV vaccine including its effectiveness, safety and benefits of vaccination.

f. An explanation of the procedure to follow if an exposure incident occurs, reporting the incident to Health Services Department and the medical follow up that will be made available.

g. An explanation of the signs, labels, and color coding system that will identify hazardous waste.

3.10.2 Training records must include the following information:

1. The date(s) of the training session.
2. The contents or a summary of the training session.
3. The name and qualifications of the person conducting the training.
4. The names, job titles and social security numbers of all persons attending the training.
5. Training records must be maintained for 3 years from date of training.
6. Transfer of employee record must comply with 29 CFR 1910.20.

3.10.3 Sharps injury log: The employer shall establish and maintain a sharps injury log for the recording of percutaneous injuries from contaminated sharps. The information in the sharps injury log shall be recorded and maintained in such manner as to protect the confidentiality of the injured employee. The sharps injury log shall contain, at a minimum:

1) The type and brand of device involved in the incident.
2) The department or work area where the exposure incident occurred.
3) An explanation how the incident occurred.
4) The requirement to establish and maintain a sharps injury log shall apply to any employer who is required to maintain a log of occupational injuries and illnesses.
5) The sharps injury log shall be maintained for the period required by 29 CFR 1904.6.

3.11 Post Exposure Evaluation and Follow Up

Confidential medical evaluation and follow up will be made available immediately to any employee(s) involved in an exposure incident.

3.11.1 An Occupational exposure incident involves eye, mouth, mucous membrane, non-intact skin or parenteral contact with blood or OPIM that result from the performance of an employee's duties.

3.11.2 Route(s) of exposure and the circumstances under which the exposure incident occurred must be established and documented.

3.11.3 Identification of the source individual must be established and documented. The source individuals blood shall be tested as soon as feasible and after consent is obtained in order to determine HBV and HIV infectivity. If consent is not obtained, the employer shall establish that legally required consent cannot be obtained. When the source individuals consent is not required by law, the source individuals blood, if available, shall be tested and the results documented. If the source individuals blood is already known to be infected with HBV or HIV, testing for the source individuals known HBV or HIV status need not be repeated.

3.11.4 Results of the source individuals blood testing shall be made available to the exposed employee and the employee shall be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.

3.11.5 If the exposed employee consents to giving a baseline blood collection, but does not give consent for HIV serologic testing, the sample must be preserved for at least 90 days. If within 90 days of the exposure the employee elects to have the testing done, it must be performed as soon as possible.

3.11.6 Follow up of the exposed worker must include:

- 3.11.6.1 Counseling
- 3.11.6.2 Medical evaluation of reported illnesses.
- 3.11.6.3 Use of safe and effective post-exposure measures according to recommendations for standard medical practice.

3.11.7 The appropriate information will be provided to the health care professional evaluating an employee after an exposure incident. Such information should include:

- 3.11.7.1 A copy of the OSHA regulation
- 3.11.7.2 A description of the exposed employee's duties
- 3.11.7.3 Documentation of the route(s) of exposure and circumstances under which it occurred
- 3.11.7.4 Results of the source individuals blood testing, if available
- 3.11.7.5 All medical records relevant to the appropriate treatment

3.11.8 The employer shall obtain and provide the employee with a copy of the evaluating healthcare professionals written opinion within 15 days of the completion of the evaluation.

3.12 Exposure Evaluation and Follow Up Worksheet (HSF 4-0114)

3.12.1 Source individuals identity must be established and documented in a statement of facts.
3.12.2 Circumstances under which the exposure incident occurred and the routes of exposure must be established and documented in statement of facts.
3.12.3 Consent from the source individual must be obtained. If unable to obtain a consent, sign follow up sheet in appropriate place and document reason for inability to obtain consent.
3.12.4 If source individual is willing to disclose that he/she is known to be infected with HIV or HBV, no further testing is needed.
3.12.5 If source individual consents to having blood tested, the results of the test for HIV/HBV will be disclosed to the exposed individuals and a copy of the test results will be kept in their health files.
3.12.6 The exposed individual has an option to sign:

- 3.12.6.1 Consent for having blood tested for HIV/HBV
- 3.12.6.2 Consent to have baseline blood work done, with the option for blood to be preserved for 90 days in case he/she changes their decision to have HIV/HBV testing done.
- 3.12.6.3 Refusal to have blood tested for HIV/HBV.

3.12.7 If exposed person consents for testing or baseline testing, appropriate physicians order should be made out and given to the employee. A copy of the consent should be sent with the patient to hospital/clinic.
3.12.8 The exposed employee should be offered counseling. Document on follow up sheet if accepted or refused with the exposed employees signature and date
3.12.9 The exposed employee should be offered medical evaluation. Document on follow up sheet if accepted or refused with exposed employees signature and date. If the employee wishes to have medical evaluation, the following items must be provided to the health care giver:

- 3.12.9.1 A copy of the OSHA guidelines section 1910.1030.
- 3.12.9.2 A description of how the incident occurred.
- 3.12.9.3 The results of the source individuals testing (if available).
- 3.12.9.4 All medical records that pertain to that one incident.

3.12.10 The exposed employee should be offered the series of Hepatitis B vaccination. Document on the follow up sheet if exposed employee accepted or refused with exposed employees signature and date. The Blood Spill policy for Hepatitis B vaccination will be filled out and the vaccination record will be kept in the employees health file.
3.12.11 The employer must have the following information on file:

- 3.12.11.1 The name and social security number of each employee.
- 3.12.11.2 A copy of the employee's Hepatitis B vaccination status including the dates of all the Hepatitis B vaccinations and any medical record relative to employee's ability to receive the vaccination.
- 3.12.11.3 A copy of all results of examinations, medical testing, and follow up procedures after an exposure.
- 3.12.11.4 The employer's copy of the health care providers written opinion regarding the incident.

4.0 Forms

HSF 4-0113 Training Documentation
HSF 4-0114 Post Exposure Evaluation and Follow Up
HSF 4-0115 Vaccination Agreement