

FOND DU LAC BAND OF LAKE SUPERIOR CHIPPEWA

ORDINANCE #04/06

BROWNFIELD OVERSIGHT AND ENFORCEMENT

Adopted by Resolution #1207/06 of the Fond du Lac Reservation
Business Committee on August 15, 2006.

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CHAPTER 1

AUTHORITY, PURPOSE AND SCOPE

Section 101 Authority

This Ordinance is enacted by the Fond du Lac Reservation Business Committee pursuant to the inherent sovereign authority of the Fond du Lac Band of Lake Superior Chippewa, as recognized under the Treaty of LaPointe, 10 Stat. 1109; Section 16 of the Indian Reorganization Act, 25 U.S.C. § 476; Article VI of the Revised Constitution of the Minnesota Chippewa Tribe; and the Brownfields Revitalization and Environmental Restoration Act of 2001, Public Law 107-118, Title II, codified as part of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. § 9601 et al.

Section 102 Findings and Purposes

The Fond du Lac Reservation Business Committee recognizes the importance of protecting the land for future generations. Brownfields may likely pose unsafe and unsightly conditions, generating adverse effects to the aesthetics, environment, natural resources, and human population of the Fond du Lac Reservation. Cleaning up contaminated properties for reuse protects our health, spurs economic growth, and preserves forests, wetlands and farmland. It is therefore determined that the promulgation of standards for Brownfield oversight, enforcement, public information, site assessments, and site cleanup and certification are in the best interests of the Fond du Lac Band, and of all residents of the Fond du Lac Reservation. As a result, this Ordinance purpose is to revitalize, mitigate health risks and sustain reuse in Brownfield redevelopment to enhance Fond du Lac Band's long-term quality of life, which in turn protects the environment, and the health, welfare, and safety of Reservation residents.

Section 103 Scope and Applicability

This Ordinance applies to activities within the boundaries of the Fond du Lac Reservation by any person, including members and non-members of the Fond du Lac Band, and residents and non-residents of the Reservation. This Ordinance also applies to all land, water, and resources within the boundaries of the Reservation, as well as any lands and waters adjacent to the Reservation that may affect Reservation land, water, and resources.

Section 104 Reservation of Rights

The Reservation Business Committee reserves the right to amend or repeal all or any part of this Ordinance at any time. There shall be no vested private right of any kind created by this Ordinance. All the rights, privileges, or immunities conferred by this Ordinance or by acts done pursuant thereto shall exist subject to the power of the Reservation Business Committee. Nothing in this Ordinance shall be construed to constitute a waiver of the sovereign immunity of the Fond du Lac Band or a consent to jurisdiction by any government or forum not expressly authorized to exercise jurisdiction under this Ordinance.

CHAPTER 2

DEFINITIONS AND INTERPRETATION

Section 201 General Definitions

For the purposes of this Ordinance, certain words and terms are hereby defined. Terms and abbreviations used herein, which are not specifically defined, shall be construed in accordance with the context and professional usage. The singular usage includes the plural and the plural the singular.

- (a) **"Abandoned property"** means property that can be presumed to be deserted, or an intent to relinquish possession or control can be inferred from the general disrepair or lack of activity thereon such that a reasonable person could believe that there was an intent on the part of the current owner to surrender right to the property.
- (b) **"Abandoned waste"** means any type of waste disposed of by illegal dumping.
- (c) **"Adjoining Property"** means any real property or properties the border of which is (are) shared in part or in whole with that of the subject property, or that would be shared in part or in whole with that of the subject property but for a street, road or other public thoroughfare separating the properties.
- (d) **"Air pollution"** means the presence in the outdoor atmosphere of any fume, smoke, gas, ash, or particulate substance, comprised of such toxic substances as dioxins, or differing in composition from, or exceeding in concentration, the natural components of the atmosphere, and being of such nature or duration as to cause a nuisance or injurious to human health or the environment.
- (e) **"Band"** means the Fond du Lac Band of Lake Superior Chippewa.
- (f) **"Brownfield"** means real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant, including a site that is contaminated by a controlled substance, petroleum or a petroleum product excluded from the definition of "hazardous substance", or is defined as mine-scarred land.

- (g) **"CERCLA"** means The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986.
- (h) **"CERCLIS"** means CERCLA Information System, EPA's comprehensive data base and data management tracking system that inventories and tracks releases addressed or needing to be addressed by the Superfund program.
- (i) **"Division of Resource Management"** means the Fond du Lac Division of Resource Management of the Fond du Lac Band of Lake Superior Chippewa.
- (j) **"Drinking water supply"** means as defined by section 101(7) of CERCLA, means any raw or finished water source that is or may be used by a public water system (as defined in the Safe Drinking Water Act (42 U.S.C. 300 et seq.) or as drinking water by one or more individuals.
- (k) **"Environmental Professional"** means a person who possesses sufficient specific education, training, and experience necessary to exercise professional judgment to develop opinions and conclusions regarding the presence of releases or threatened releases (per Section 312(c)) to the surface or subsurface of a property, sufficient to meet the objective and performance factors in Section 312.20(d) and (e).
- (l) **"Facility"** as defined by CERCLA, means any building, structure, installation, equipment pipe, or pipeline (including any pipe into a sewer or publicly-owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft, or any site or area where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located; but does not include any consumer product in consumer use or any vessel.
- (m) **"Feasibility study"** means a study undertaken by the lead agency to develop and evaluate options for remedial action.
- (n) **"First Responder"** means as defined by the National Incident Management System (NIMS), personnel who have responsibility to initially respond to emergencies such as firefighters, law enforcement officers, lifeguards, forestry personnel, ambulance attendants, and other public service personnel.

- (o) **"Ground water"** means defined by section 101(12) of CERCLA, means water in a saturated zone or stratum beneath the surface of land or water.
- (p) **"Hazardous materials"** means any substance or material in a particular form or quantity which the Secretary of Transportation finds may pose an unreasonable risk to health, safety, and property, or any substance or material in a quantity or form which may be harmful to humans, animals, crops, water systems, or other elements of the environment is accidentally released. The DOT lists (9) hazard classes consisting of Explosives, Gases, Flammable liquids, Flammable Solids, Oxidizers, Poisons, Radioactive, Corrosives, and Miscellaneous.
- (q) **"Hazardous materials incident"** means uncontrolled, unlicensed release of hazardous materials from a fixed site.
- (r) **"Hazardous materials specialist"** as defined by OSHA, means individuals who respond with and provide support to hazardous materials technicians. Their duties parallel those of the hazardous materials technician, however those duties require a more directed or specific knowledge of the various substances they may be called upon to contain. The hazardous materials specialist would also act as the site liaison with Federal, state, local and other government authorities in regards to site activities.
- (s) **"Hazardous substance"** as defined by CERCLA; means any substance designated via the Federal Waters Pollution Control Act (FWPCA), any element, compound, mixture, solution, or substance designated pursuant to CERCLA; any hazardous waste having the characteristics identified under or listed pursuant to the Solid Waste Disposal Act [but not including any waste the regulation of which under the Solid Waste Disposal Act has been suspended by Act of Congress]; any Toxic pollutant listed under section 307(a) of the FWPCA; any hazardous air pollutant listed under section 112 of the Clean Air Act; and any imminently hazardous chemical substance or mixture with respect to which the Administrator has taken action pursuant to section 7 of the Toxic Substance Control Act. The term does not include petroleum, including crude oil, or any fraction thereof that is not otherwise specifically listed or designated as a hazardous substance, and the term does include natural gas, natural gas liquids, liquefied natural gas or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).

- (t) **"Hazardous materials technician"** as defined by OSHA, means individuals who respond to releases or potential releases for the purpose of stopping the release. They assume a more aggressive role than a first responder at the operations level in that they will approach the point of release in order to plug, patch or otherwise stop the release of a hazardous substance.
- (u) **"Hazardous waste"** means any commercial chemical substance designated pursuant to the Federal Water Pollution Control Act, under U.S.C. Title 33, section 1321(b)(2)(A); any hazardous air pollutant listed pursuant to the Clean Air Act, under U.S.C. Title 42, section 7412; any hazardous waste defined under the Resource Conservation & Recovery Act, U.S.C. Title 42, section 6901 et seq., as amended; & any other substance which constitutes a hazardous waste under tribal, state, or federal law.
- (v) **"Household"** means those persons, residents, owners and occupants occupying and generating waste and recyclable material at a residential dwelling unit.
- (w) **"Illegal dumping"** means the dumping, by any person of any material including but not limited to bulky items, construction debris, garbage, hazardous waste, solid waste, recyclable material, refuse, rubbish, trash or litter, white goods, waste tires, or other waste abandoned at a place other than an approved collection site, in an approved container, or at a waste management facility.
- (x) **"Institutional controls"** means non-engineered instruments, such as administrative and/or legal controls, that helps to minimize the potential for human exposure to contamination and /or protect the integrity of a remedy.
- (y) **"Liability"** means an obligation to do or refrain from doing something; a duty, which eventually must be performed; and obligation to pay money; also used to refer on one's responsibility for his/her conduct.
- (z) **"Liable"** means to be responsible for; to be obligated in law.
- (aa) **"LUST"** means leaking underground storage tank.
- (bb) **"Management of mitigation"** means actions that are taken to minimize and mitigate the migration of hazardous substances or pollutants or contaminants and the effects of such migration.

- (cc) **"Medical sharps"** means discarded items that can cause the sub-dermal inoculation of various infectious agents, such as needles, syringes, glass or rigid plastic vials, or other similar items derived from the care of human or animal patients.
- (dd) **"National priorities list"** means the list, compiled by EPA pursuant to CERCLA section 105, of uncontrolled hazardous substance releases in the U.S. that are priorities for long-term remedial evaluation and response.
- (ee) **"Natural resources"** means land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources belonging to, managed by, held in trust by, appertaining to, or otherwise controlled by the U.S., ...any state or local government, any foreign government, any Indian tribe, or, if such resources are subject to a trust restriction on alienation, any member of an Indian tribe.
- (ff) **"Non-resident"** means any person who does not have a permanent place of abode on the Reservation, except as hereafter provided. Non-resident does not mean any temporal or seasonal resident, for purposes of waste or recyclable material generated at the temporary or seasonal residence, and does not mean a place of business for purposes of waste and recyclable material generated at the place of business (see "Resident").
- (gg) **"On-scene Coordinator"** means the federal official predestinated by EPA or the USCG to coordinate and direct responses under subpart D, or the government official designated by the lead agency to coordinate and direct removal actions under subpart E of the NCP.
- (hh) **"On site"** means the areal extent of contamination and all suitable areas in very close proximity to the contamination necessary for implementation of the response action.
- (ii) **"Open view"** means that waste material such as garbage, construction debris, hazardous waste, junk vehicles, refuse, rubbish, solid waste, trash, litter, waste tires, white goods, recyclable material, or other wastes can be seen with the unaided eye from any public road or public road easement, including any tribal, town, county, state, or federal road, and any adjacent properties.
- (jj) **"Owner and Occupant"** means the person(s) or entity(s), which hold legal or beneficial title to a property and the person(s) or entity(s) that have or exercise possession or occupancy of a property, respectively.

Owner and Occupant also means landlord and lessee, respectively.

- (kk) **"Person"** means any human being, any household, any municipality or other governmental or political subdivision or public agency, any public or private corporation, any partnership firm, association or other organization, any receiver, trustee, assignee, agent, or other legal representative of any of the foregoing, establishment, institutions such as churches or schools, or any other legal entity.
- (ll) **"Pollutant" or "contaminant"** means as defined by section 101(33) of CERCLA, shall include, but not be limited to, any element, substance, compound, or mixture, including disease-causing agents, which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring. The term does not include petroleum, including crude oil, natural gas, liquefied natural gas, or synthetic gas of pipeline quality. For the purposes of the NCP the term pollutant or contaminate means any pollutant or contaminant that may present an imminent and substantial danger to public health or welfare of the U.S.
- (mm) **"Preliminary assessment (PA)"** means under CERCLA, a review of existing information and an off-site reconnaissance, if appropriate, to determine if a release may require additional investigation or action. A PA may include an on-site reconnaissance, if appropriate.
- (nn) **"Premises"** means the location, property, or real estate, public or private, upon which a residence, place of business, or industry lies, and includes all buildings and appurtenant structures. Premises also refers to any seasonal or temporal occupancy or operations at such locations, for the purposes of waste and recyclable material generated at such locations.
- (oo) **"Release"** means as defined by 101(22) of CERCLA, any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous substance, or pollutant, or contaminant), but excludes: Any release

which results in exposure to persons solely within the workplace.

- (pp) **"Relevant Experience"** means as used in the definition of environmental professional in this section means: participation in the performance of environmental site assessments that may include environmental analyses, investigations, and remediation which involve the understanding of surface and subsurface environmental conditions and the processes used to evaluate these conditions and for which professional judgment was used to develop opinions regarding conditions indicative of releases or threatened releases (per Section 312.1(c)) to the subject property.
- (qq) **"Remedial investigation (RI)"** means a process undertaken by the lead agency to determine the nature and extent of the problem presented by the release. The RI emphasizes data collection and site characterization, and is generally performed concurrently and in an interactive fashion with a feasibility study. The RI includes sampling and monitoring, as necessary, and includes the gathering of sufficient information to determine the necessity for remedial action and to support the evaluation of remedial alternatives.
- (rr) **"Remedial action (RA)"** means those actions consistent with permanent remedy taken instead of, or in addition to, removal action in the event of a release or threatened release of a hazardous substance into the environment, to prevent or minimize the release of hazardous substances so that they do not migrate to cause substantial danger to present or future public health or welfare or the environment.
- (ss) **"Reportable Quantity (RQ)"** means a substance that triggers reporting under CERCLA; if a substance is released in a quantity that exceeds it's "RQ", the release must be reported to the National Response Center (NRC), as well as the State Emergency Response Commission (SERC) and the community emergency coordinator for areas likely to be affected by the release.
- (tt) **"Resident"** means any person who has a permanent place of abode on the Reservation. Resident also means any temporal or seasonal resident for the purposes of waste and recyclable material generated at the temporary or seasonal residence, and also means a place of business or institutions such as churches or schools, for the purposes of waste generated at the place of business.
- (uu) **"Reservation"** means the Fond du Lac Reservation.

- (vv) **"Risk assessment"** means broadly defined as the scientific activity of evaluating the toxic properties of a chemical and the conditions of human exposure to it, with the objective of determining the probability that exposed humans will be adversely affected. Its four main components are: Hazard Identification, Dose-Response Assessment, Exposure, and Risk Characterization.
- (ww) **"Reservation Business Committee or "RBC"** means the governing body of the Fond du Lac Band of Lake Superior Chippewa.
- (xx) **"Salvage/Junk yard"** means any facilities at which salvageable materials and junk are stored or sold or at which wrecking, dismantling or demolition of salvageable materials is conducted. Salvage/junk yard also means any premises where greater than five (5) junk vehicles or greater than five (5) items of junk are stored in the open. Junk includes old or scrap copper, brass, rope, rags, batteries, trash, rubber debris, waste tires, junk vehicles, white goods, junked farm or construction machinery or any parts thereof, iron, steel, and other old or scrap ferrous and nonferrous material.
- (yy) **"Site inspection (SI)"** means an on site investigation to determine whether there is a release or potential release and the nature of the associated threats. The purpose is to augment the data collected in the preliminary assessment and to generate, if necessary, sampling and other field data to determine if further action or investigation is appropriate.
- (zz) **"Solid waste"** means garbage, rubbish, refuse, trash or litter, and other waste generated from residential, commercial, industrial, community, and other human activities. It does not include abandoned trailers, construction debris, hazardous waste, junk vehicles, medical sharps or waste, recyclable material, waste tires, white goods, bulky items, yard waste, or other material collected and transported as separate waste streams.
- (aaa) **"Superfund"** means trust fund established under CERCLA and extended under the 1986 Superfund Amendments and Reauthorization Act (SARA) to provide money for cleanups associated with inactive hazardous waste disposal sites. Under SARA Title III new authorities included: chemical emergency planning and preparedness, community right to know reporting, and toxic chemical release reporting.
- (bbb) **"Toxicity"** means the ability of a substance to cause damage to living tissue, impairment of the central

nervous system, severe illness, or death when ingested, inhaled, or absorbed by the skin.

- (ccc) **"Transfer station"** means an intermediate waste management facility at which waste collected from any source is temporarily deposited to await transportation to another waste management facility, such as a sanitary landfill. May be fixed or mobile.
- (ddd) **"Tribal Attorney"** means the Fond du Lac Tribal Attorney and the Legal Affairs Office of the Fond du Lac Band of Lake Superior Chippewa.
- (eee) **"Tribal Court"** means the Fond du Lac Tribal Court of the Fond du Lac Band of Lake Superior Chippewa.
- (fff) **"Trustee"** means an official of a federal natural resources management agency designated in subpart G of the NCP or a designated state official or Indian tribe or, in the case of discharges covered by the Oil Pollution Act (OPA), a foreign gov't official, who may pursue damage claims under section 107(f) of CERCLA or section 1006 of OPA.
- (ggg) **"UST"** means underground storage tank.
- (hhh) **"Water pollution"** means the presence in or on the land of any waste in such quantity, of such nature and duration, and under such condition as would impair designated uses, violate established criteria, or otherwise adversely affect any surface waters, ground waters, or wetlands of the Reservation (Fond du Lac Ordinance #12/98 - Water Quality Standards).

CHAPTER 3
GENERAL PROVISIONS

Section 301 Essential Elements of Tribal Brownfield Response Program

- (a) Section 128(a) of CERCLA Brownfield grants requires states or tribes to demonstrate that their response programs includes, or is taking reasonable steps to include the following four elements:
- (1) Timely survey and inventory of Brownfield sites in state or tribal land;
 - (2) Oversight and enforcement authorities or other mechanisms and resources;
 - (3) Mechanisms and resources to provide meaningful opportunities for public participation; and
 - (4) Mechanisms for approval of a cleanup plan and verification and certification that cleanup is complete.
- (b) Towards these purposes, this Ordinance includes policy language that details site discovery, site assessment, site ranking, personnel qualifications and implementation to prepare a contaminated site for reuse. This Ordinance also includes information on (1) public access to information; (2) public notice and comment solicitation on potential site cleanup plans and activity; (3) response activity mechanisms; (4) and mechanisms for individuals that may be affected by hazardous substance(s) to request an assessment.

Section 302 Construction of Ordinance to be Complimentary to other Ordinances of the Fond du Lac Band

This Brownfield Oversight and Enforcement Ordinance will compliment the other existing environmental ordinances of the Fond du Lac Band, including the Band's Emergency Operations Plan, Waste Management and Recycling Ordinance, and the Band's Hazard Analysis Plan.

CHAPTER 4

CONTINGENCY PLANNING FOR HAZARDOUS SUBSTANCE DISCHARGE RESPONSE BY TRIBAL EPA

Section 401 Coordination under the Band's Emergency Operations Plan

Contingency planning for hazardous substance discharge response by Tribal EPA is conducted in accordance with the Fond du Lac Band's Emergency Operations Plan (EOP). Response information including Direction and Control, Emergency Responsibility Assignments, Operations Policies, and Hazard Analysis are detailed in the plan. The purpose of the EOP is to coordinate the effective use of Tribal and local resources to mitigate the loss of life and property; prepare for emergencies; respond to emergencies; recover from the emergency to a state of normalcy; provide support to neighboring municipalities requiring assistance in cases of emergencies. The Fond du Lac EOP will be utilized and activated for all Tribal EPA Response efforts to all oil discharges and or hazardous substance releases.

Section 402 Classification of Emergency Response Activities

In support of contingency planning for hazardous substance discharge response, the U.S. EPA incident response system classifies response activities into five broad, interacting elements. The five elements comprise an orderly arrangement of components that interact to prevent or reduce the impact of the incident on people, the environment, property, and restore conditions to as near as normal as possible.

The (5) elements classify all response activities and they are:

- (1) Recognition: identification of the substance involved and the characteristics, which determine the degree of hazard.
- (2) Evaluation: impact or risk the substance poses to public health and the environment.
- (3) Control: methods to eliminate or reduce the impact of the incident.
- (4) Information: knowledge acquired concerning the conditions or circumstances particular to an incident.
- (5) Safety: protection of the responders from harm.

Tribal EPA will use the (5) element model for pre-planning and actual response purposes.

Section 403 Contingency Planning Policy for Abandoned Containers

- (a) Contingency planning for abandoned containers on Tribal land is done in accordance with the Fond du Lac Band's Emergency Operations Plan. Specifically, Annex L covers Radiological/Hazardous Materials Protection.
- (b) If abandoned containers are discovered they shall be reported to the Fond du Lac Emergency Response Coordinator at (218)878 8019 or (218)428-2530. No attempt should be made to touch, taste, smell, or come in contact with the abandoned containers or materials within. If hazardous material placards or labels are observed, from a safe upwind position (binoculars), the hazard communication they represent - i.e., toxic gas, flammable liquid, corrosives, etc. - should be reported to the Fond du Lac Emergency Response Coordinator. If the containers have identifying markings such as UN #s and Proper Shipping Names, and this information can be obtained safely, it should also be reported to the Fond du Lac Emergency Response Coordinator. Only properly trained "First Responders" with appropriate personal protective equipment (PPE) should respond to the abandoned hazardous materials location. Responders should never exceed their training or their PPE. If the abandoned containers are deemed to be non-hazardous, then the Fond du Lac Response Coordinator can simply ensure the Fond du Lac Waste Management & Recycling Ordinance is followed for proper disposal.
- (c) If contaminants are discovered on site, the Fond du Lac Emergency Response Coordinator shall work with the Fond du Lac Brownfields Assessment Specialist. Once the emergency response phase is deemed complete, the site shall be inventoried and assessed whether it meets the criteria as a Brownfield. In all cases the site shall be documented, and listed in the Fond du Lac Potential Brownfield - Contaminated Site Inventory matrix of actual or suspected Brownfield sites, and if applicable posted on the Fond du Lac Brownfield web site.

Section 404 Hazardous Substance Discharge Notification Procedures

- (a) Hazardous substance discharge notification procedures are conducted in accordance with the Fond du Lac Band of Lake Superior Chippewa's Emergency Operations Plan. Chart A has detailed notification procedures, specifically in section 1,

under Warning & Notification contacts and phone numbers.

- (b) The National Response System (NRS) is the federal government's mechanism for emergency response to oil discharges and chemical releases into the navigable waters, and or the environment of the United States. The NRS functions through a network of interagency and inter-government relationships which are formally established and described in the National Oil and Hazardous Substance Pollution Contingency Plan.

Within the Plan, the National Response Center (NRC) is the sole national point of contact for reporting oil, chemical, radiological, biological, and etiologicial discharges into the environment anywhere in the United States and it's territories. The NRC maintains a 24/7 operations center where all information is received via a toll free number at (800)424-8802. When a spill or release occurs, the responsible party must immediately contact the NRC. If you are not the responsible party and discover a spill or release, the NRC encourages you to contact them with whatever information you have. Once the NRC receives the report, they will immediately disseminate the notification to federal, state, and local agencies and stakeholders via a flash fax incident report system. The facsimile incident report will be followed up by a phone call to the Federal On Scene Coordinator (FOSC) with jurisdiction to ensure proper notification has been received. The state of Minnesota also has a 24/7 spill reporting system through the Minnesota Duty Officer at (800)422-0798. The Minnesota Duty Officer will also disseminate spill reports to agencies with jurisdiction or a need to know.

Section 405 Immediate and Interim Action Policy

- (a) Upon notification of a hazardous substance release the primary objective is the safety of life and health of the public and incident responders; protection of the environment; and protection of property including cultural sites. The immediate and interim action policy is to:
- (1) Report the incident;
 - (2) Evaluate/assess the incident;
 - (3) Initiate and maintain site control;
 - (4) Make notifications;
 - (5) Develop response strategies; and
 - (6) Mitigate the incident (secure the source; contain the spill; conduct cleanup operations).
- (b) There are two types of response classifications - (1) "Emergency" and (2) "Remedial" - that require immediate and interim response action policy. Emergency response is the response to any occurrence, which results, or is likely to

result, in a release of a hazardous substance(s) due to an unforeseen event.

- (1) Emergency Response actions mitigate the effects of an emergency incident to protect the public, environment, and or property in an immediate fashion. An example is a highway accident involving a chemical tank truck. This incident requires a rapid emergency response and an immediate mitigation plan.
 - (2) A Remedial response emphasizes data collection and site characterization, and is generally performed concurrently and in an interactive fashion with a feasibility study. The remedial investigation includes sampling and monitoring, as necessary, and includes the gathering of sufficient information to determine the necessity for remedial action and to support the evaluation of remedial alternatives. A remedial action will typically be long term, as compared to emergency response actions. An example of a remedial response may be contaminated ground water from a leaking underground storage tank. While it still may be critical to mitigate, the sense of urgency that an emergency response incident poses is not present.
- (c) As described in section 108(c) of this plan, once contaminants are discovered on site, the Fond du Lac Emergency Response Coordinator shall work with the Fond du Lac Brownfields Assessment Specialist. Once the emergency response phase is mitigated, the site shall be evaluated, inventoried, and assessed as to whether it meets the criteria as a "Brownfield". In all cases the site shall be documented, listed in the Fond du Lac Potential Brownfield - Contaminated Site Inventory matrix of actual or suspected Brownfield sites, and if applicable posted on the Fond du Lac Brownfield web site.

Section 406 Site Discovery, Screening and Ranking Procedure

- (a) Site discovery and assessment is the most crucial step in the Brownfields process. It is the most crucial step due to any further environmental investigation and cleanup will hinge on whether potential environmental concerns are identified during the phase. Actual site discovery can occur as a result of a real time incident, from historical record review, property inspection investigations, aerial photograph review, federal, state, local environmental files/data base review, building permit inspection records, fire department records, and input from Elders and other Community Members.
- (b) Once a site or potential site is discovered, it will be screened to determine if contaminants are actually present. This process will be used to identify Recognized Environmental Conditions (RECs). The term REC means the presence, likely

presence, or potential for release of hazardous substance or petroleum products released to the environment on or near a property. If RECs are identified, their potential effect on soil, and ground water quality at the property is interpreted, and a level of potential environmental liability can be estimated. The screening process will be conducted utilizing the techniques noted in paragraph (a) above. If warranted, the Fond du Lac Phase I Contaminant Survey Land History Questionnaire will be used to establish the REC. If there is evidence or suspicion that contaminants may be on site, a Phase I Environmental Assessment (EA) will be conducted. The EA will be conducted utilizing the American Society for Testing and Materials (ASTM) Standard #E1527 entitled "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process". Assessments will be conducted by trained staff and or by hiring a qualified contractor.

- (c) Throughout the process noted above, the site will be documented and the information made available for public record in accordance with the Brownfield grant requirements and the Freedom of Information Act (FOIA), as applicable. If the findings reveal, no contaminants or minimal contaminant levels, with no threat to public safety, the environment or property, the site will be documented as "no further action". If the site is deemed "contaminated" and a Brownfield, it will be ranked in accordance with Fond du Lac's Brownfield Ranking Matrix. This matrix will be utilized to rank Brownfields based on contamination level in an attempt to determine site prioritization. This ranking will be based on the degree of hazard, RECs present on the site, the site's use, proximity to the public, and or natural/cultural resources affected. The factors in the ranking matrix include: Human Factor, Environmental Factor, Economic Factor and Social Factor. Individual point values for each factor are established in the matrix. The site will be ranked with a total score, the higher the score, the higher the ranking priority.

**Section 407 Personnel Qualifications for Conducting
Environmental Response Actions Policy**

- (a) The qualifications for Environmental Emergency Response Actions will be conducted in accordance with the Occupational Safety and Health Administration (OSHA) Title 29, Code of Federal Regulations, Part 1910.120. Upon the "First Responders" initial assessment identifying a hazardous substance(s) release or potential release, the minimum qualification for response mitigation into the Exclusion (hot) zone shall be at the Hazardous Materials Technician level. If circumstances warrant, a Hazardous Materials Specialist may be required on scene to support and assist the response. In most cases a local fire department/hazmat team will stabilize the incident until a certified hazardous material cleanup contractor arrives on scene to mitigate the incident.

(b) For remedial Phase I and II assessments, and Phase III response actions, Fond du Lac will utilize an "environmental professional" as defined in Title 40 Code of Federal Regulations, Part 312 (Standards and Practices for All Appropriate Inquiries) and in the definition section of this plan. An "Environmental Professional" is:

- (1) Environmental Professional to hold a current Professional Engineers or professional Geologist's license or registration from a state, tribe, or U.S. territory and have the equivalent of three (3) years experience of full-time relevant experience; or
- (2) Be licensed or certified by the federal government, a state, tribe, or U.S. territory to perform environmental inquiries as defined in section 312.21 and have the equivalent of three (3) years of full-time relevant experience; or
- (3) Have a Baccalaureate or higher degree from an accredited institution of higher education in a relevant discipline of engineering, environmental science, or earth science and the equivalent of five (5) years of full-time relevant experience; or
- (4) As of the date of the promulgation of this rule, have a Baccalaureate or higher degree from an accredited institution of higher education and the equivalent of ten (10) years of full-time relevant experience.

A person who does not qualify as an environmental professional under the foregoing definition may assist in the conduct of all appropriate inquiries in accordance with this part if such person is under the supervision or responsible charge of a person meeting the definition of an environmental professional provided above when conducting such activities. See 40 C.F.R. Part 312.10(b).

Section 408 Public Information and Participation Process

- (a) The Fond du Lac Band's Brownfield public information and participation process will be multi-faceted. First and foremost, it is Fond du Lac's policy to develop and maintain systems that proactively disseminate relevant Brownfield information to Tribal members and other residents. This will include public access to documents and related materials that the tribe or party conducting the cleanup is relying on, including developing cleanup decisions and or site activities. The Fond du Lac Brownfield program will provide notice and meaningful opportunity for public comment on cleanup plans and site activity. In addition, a mechanism by which a person who is, or may be affected by a release or threatened release of a hazardous substance, pollutant, or contaminate at a Brownfield site where they work or reside, may request a site

assessment be conducted. Once the request is made the appropriate tribal official must consider this request and respond appropriately.

- (b) Public information and participation process will be accomplished by continually providing Brownfield informational articles to the Tribal newspaper and departmental newsletters. A Brownfield web site will be maintained on the Fond du Lac Web page listing public information, preliminary site assessments, identified Brownfield sites, Fond du Lac Brownfield points of contact including how to request an assessment, and related Brownfield links. A database will be maintained for all requests for assessments, including their outcomes, and satisfy the public record requirement, easily accessed within the Fond du Lac Brownfield web page. The public record requirement, under section 128(b)(1)(C), specifically requires states and tribes must:
- (1) Maintain and update, at least annually or more often as appropriate, a record of sites that includes the name and location of sites at which response actions have been completed during the previous year;
 - (2) Maintain and update, at least annually or more often as appropriate, a record of sites that includes the name and location of sites at which a response actions are planned to be addressed in the next year; and
 - (3) Identify in the public record whether or not the site, upon completion of the response action, will be suitable for unrestricted use. If not, the public record must identify the institutional controls relied on in the remedy.
- (c) In addition to the requirements set forth under subsection (b) of this Section, the Band will hold public meetings to collect and disseminate Brownfield information. This may be best served during the annual Fond du Lac Health Fair. In addition, when necessary and appropriate, Fond du Lac Brownfield staff will contact adjoining property owners of potentially contaminated land to disseminate Brownfield information and possible actions. Fond du Lac staff has developed and will continue to build strong liaisons with federal, state, and local agencies to partnership on environmental issues.

Section 409 Site Investigation Requirements

- (a) The objective of Phase I site investigations is to identify whether there is any visible evidence of contamination at a property, past or present hazardous materials handling at a property which may have resulted in spills, or whether there are any agency records indicating past fires, spills, or

neighborhood conditions that have created contaminated conditions which may have migrated on to the property. If a Phase I investigation finds that these conditions exist, it may warrant a Phase II investigation, which will generally include laboratory testing of soils and or groundwater. It is essential that an appropriately detailed study of the site be performed to identify cause, nature, and extent of contamination and the possible threats to the environment, or any people living or working nearby. Targeted Brownfield assessments (TBA) by an EPA contractor, may be authorized by the EPA as a free Technical Assistance Tool by submitting a letter of request to EPA Region V's Brownfield Section Chief. If a Phase I or II investigation/assessment expending Brownfield grant money on tribal land is to be conducted, it requires authorization from the U.S. EPA Region V prior to commencement.

- (b) Site investigations will be conducted thoroughly, promptly and professionally. In accordance with 40 C.F.R. Part 312 (Standards and Practices for all Appropriate Inquiries) "all appropriate inquires"/Phase I site discovery investigations, will be consist of:
 - (a) Interviews of current and past owners and occupants, (for abandoned properties interview one or more neighboring property owners);
 - (b) Review of historical records for a property on previous owners/uses;
 - (c) Review government records concerning waste management practices;
 - (d) Conduct a visual on-site inspection of the property;
 - (e) Specialized knowledge or experience of property owner;
 - (f) Relationship of purchase price to value of the property, if not contaminated;
 - (g) Commonly known or reasonably ascertainable information about the property; and
 - (h) Degree of obviousness of the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation; Note: no requirement to conduct sampling and analysis exist.
- (c) In addition to the investigative methods defined in subsection (b) of this Section, the following will also be used when feasible: review of past and current aerial photographs, federal, state, and local environmental files including the National Priorities List, Comprehensive Environmental

Response; Compensation and Liability Information System (CERCLIS); Envirofacts, Emergency Response Notification System (ERNS) - National Response Center; Bureau of Indian Affairs; Minnesota State Superfund Sites; Minnesota State Hazardous Waste Sites; Minnesota State Landfills; Minnesota UST/LUST; Minnesota Spills List; Minnesota Voluntary Investigation and Cleanup Sites; building permits inspection records; fire department records; and input from community members.

**Section 410 Requirements for Management of Solid Wastes
Excavated During Response Actions**

- (a) If solid waste is encountered during excavation during a response action it will be documented and disposed of in accordance with the Fond du Lac Waste Management and Recycling Ordinance. Solid waste is defined as garbage, rubbish, refuse, trash or litter, and other waste generated from residential, commercial, industrial, community, and other human activities. It does not include abandoned trailers, construction debris, hazardous waste, junk vehicles, medical sharps or waste, recyclable material, waste tires, white goods, bulky items, yard waste, or other material collected and transported as separate waste streams.

Section 411 Soil Cleanup Standards

- (a) Soil cleanup standards will follow Fond du Lac and federal guidelines, and or state and local guidelines as applicable when not on Tribal land, in an attempt to fully mitigate/remove the soil contaminants, or at a minimum, mitigate down to acceptable safe levels. Fond du Lac has established soil cleanup standards, which are identified in appendix 1 of this plan. The Fond du Lac soil cleanup standards list contaminant levels for residential, recreational and industrial sites and the target organs the contaminants may likely effect. For reference purposes, especially when working on non-Tribal lands, the U.S. EPA Region V has a pre-established Memorandum of Understanding (MOU) with the Minnesota Pollution Control Agency (MPCA) concerning the state's Voluntary Investigation and Cleanup Program (VIC). As part of the state's VIC program, the MPCA developed a "Risk Based Site Evaluation Manual" (RBSEM). The RBSEM has guidelines for soil reference values (SRVs) found in Appendix 3 of the Risk Based Guidance for the Soil - Human Health Pathway Volume 2, Technical Support Document. These SRVs can be used to determine soil mitigation standards, which are pre-approved, by the U.S. EPA Region V. The Risk Based Guidance for the Soil-Human Health Pathway Volume 2, Technical Support Document (Appendix 3) can be accessed on the MPCA web site at:

Soil/Human Health: http://www.pca.state.mn.us/cleanup/pubs/srv3_99.pdf

RBSEM: <http://www.pca.state.mn.us/cleanup/riskbasedoc.html>

Section 412 Standards for Selecting Remedial Actions

- (a) In an attempt to mitigate to acceptable safe levels, standards for selecting remedial actions for soil, surface water, and ground water cleanup actions will follow Fond du Lac, and or, federal, state and local guidelines as applicable. Standards for selecting remedial actions will consider numerous factors, including but not limited to, public health and safety, environmental protection, cultural and property related factors to determine the best course of action. In support of selecting proper remedial actions, the EPA drafted a Brownfield Technology Primer titled "Using the Triad Approach to Streamline Brownfields Site Assessments and Cleanup" dated June 2003. The purpose of this document is to provide an educational tool for site owners, project managers, and regulators to help streamline assessment and cleanup activities at Brownfield sites. This reference book is available at:

www.epa.gov/tio/download/misc/triadprimer.pdf

See also EPA, "Road Map to Understanding Innovative Technology Options for Brownfields Investigation and Cleanup, 3rd ed.", available at:

<http://www.epa.gov/tio/download/misc/roadmap3edition.pdf>

- (b) Standards for selecting remedial actions for soil are in section 116 of this plan. Soil remedial actions will be based on the recommendations of the Phase II mitigation plan. Some mitigation examples include: excavation, incineration, capping, lining, and or neutralization.
- (c) The Fond du Lac Band and the U. S. Environmental Protection Agency signed an agreement which gives the Band the authority to establish water quality standards for Tribal members and non-Tribal members within the boundaries of the Fond du Lac reservation. As a result, Fond du Lac has achieved Treatment as a State (TAS) status under the Clean Water Act and administers its own core water quality standards for surface water. Therefore surface water cleanup standards for selecting remedial actions will be in accordance with Fond du Lac's water quality standards. The Fond du Lac water quality standards are in Fond du Lac Ordinance # 12/98, as amended and provided in appendix 2 of this plan.

In addition for reference purposes, the comprehensive Clean Water Act amendments of 1972 require states to adopt water quality standards that meet the minimum requirements of this federal law.

In accordance with the Act, and EPA-State partnerships, states can submit surface water quality standards for approval if the standards are equal to or more stringent than what is required by federal law. Minnesota's water quality standards meet or exceed federal requirements. EPA and Minnesota water quality standards can be found at:

State water rules:

http://www.pca.state.mn.us/water/water_mnrules.html

EPA water quality:

<http://www.epa.gov/ebtpages/watwaterqstandards.html>

Remedial actions for surface water will be based on the recommendations of the Phase II mitigation plan. Some mitigation examples include: skimmers, recovery pumps, sorbents, neutralizers, and dredging operations.

- (d) Water quality standards are fundamental tools that help protect a Tribe's abundant and valuable surface and ground water resources. Fond du Lac has established ground water and drinking water cleanup standards, which are identified in appendix 3 of this plan. The Fond du Lac ground water standards list health risk limits in micrograms per liter and the potential toxicological endpoints or target organs which the contaminants may likely effect. The Fond du Lac Drinking water standard list Maximum Contaminant Levels (MCLs), in micrograms per liter (unless otherwise noted), which are the highest level of a contaminant that is allowed in drinking water. The Fond du Lac drinking water standard also lists the Maximum Contaminant Level Goal (MCLG), which is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety and are non-enforceable public health goals. MCLs are set as close to MCLGs as feasible using the best available treatment technology and taking cost into consideration and maximum contaminant level goals. For reference purposes, the EPA and Minnesota groundwater and drinking water standards can be found at:

MN Dept of Health:

<http://www.health.state.mn.us/divs/eh/groundwater/hrltable.html>

MN water quality standards:

<http://www.pca.state.mn.us/water/standards/>

EPA water quality standards:

<http://www.epa.gov/OST/standards/>

Remedial actions for sub-surface (groundwater) water will be based on the recommendations of the Phase II mitigation plan. Some examples include: site recovery wells, water filters and air strippers.

- (e) As an administrative note concerning "standards for selecting remedial actions", within the U.S. EPA Brownfield Grant, "Administrative Conditions" are required to be met. Included are "Programmatic Conditions" which detail "Cooperative Agreement Recipients" (CAR), ensuring work done in cooperative agreement complies with CERCLA 104(k); the prevailing wage rate requirements under the Davis-Bacon Act of 1931; Executive Order 13202 "Preservation of Open Competition and Government Neutrality Toward Government Contractors" Labor Relations on Federal and Federally Funded Construction Projects; OSHA Worker Health and Safety Standard; Uniform Relocation Act; Historic Preservation Act; Endangered Species Act; Permits required by Section 404 of the Clean Water Act; Equal Employment Opportunity; Contract Work Hours and Safety Standards Act; Anti-Kickback Act; and Section 504 of the Rehabilitation Act of 1973. The Brownfield Assessment Specialist shall maintain a copy of the "Administrative Conditions" to ensure compliance.

Section 413 Remedial and Interim Action Design Implementation, Operation, Maintenance and Monitoring Requirements

- (a) First and foremost, a response action will protect human health, the environment and cultural sites and be conducted in accordance with federal and state law as applicable. For Brownfield sites, the results of a remedial study can be instrumental in determining cleanup goals, quantifying risk, determining acceptable and unacceptable risk, and developing effective cleanup plans that do not cause unnecessary delays or costs in the development and reuse of the property. Brownfield sites remedial programs shall mean all remedial activities or actions undertaken to eliminate, remove, treat, abate, control, manage, or monitor hazardous substances at or emanating from a Brownfield site, including, but not limited to, the following:
- (1) Remedial investigation and remedy selection activities needed to develop such a program;
 - (2) Design activities;
 - (3) Construction activities including without limitation, grading, contouring, trenching, grouting, capping, excavating, transporting, incinerating, thermally treating, chemically treating, biologically treating, or constructing leachate collection and treatment systems;
 - (4) Interim remedial measures;

- (5) Post-construction operation, maintenance, and monitoring;
 - (6) Restoration of the environment; and
 - (7) Involvement by local governments of jurisdiction, by the general public; or by THE Fond du Lac Band.
- (b) If remedial actions expending Brownfield grant money on tribal land is to be conducted, it first requires authorization from the U.S. EPA Region V prior to commencement. Interim remedial measures shall mean activities to address both emergency and non-emergency site conditions, which can be undertaken without extensive investigation and evaluation, to prevent, mitigate, or remedy environmental damage or the consequences of environmental damage attributable to a site, including but not limited to the following activities: construction of diversion ditches, collection systems, free product recovery systems, or leachate collection systems; construction of fences or other barriers; installation of water filters; provision of alternative water systems; the removal of free product; or plume control. When mitigation activities are in progress they shall be monitored by environmental personnel of the Fond du Lac Band and/or contractors of the Band to ensure proper application and procedure. A cleanup plan is required and will be submitted to Fond du Lac Environmental Brownfield staff for review and approval, and a copy sent to the U.S. EPA Region V project officer. Any necessary response activities once commenced will be completed.

Section 414 Case Closure Requirements

- (a) The remedial program case closure goal for Fond du Lac Brownfield sites shall be to achieve a complete and permanent cleanup of the site that would allow the site to be used for any purpose without restriction and without reliance on the long-term employment of institutional or engineering controls. All remedies shall be protective of groundwater according to its classification. In order for a site to be deemed closed a requirement for verification and certification or similar type documentation from the state, the tribe, or a licensed site professional to the person conducting a response action indicating that the response action is complete is required.
- (b) The remedial program case closure criteria for a site must be selected upon due to consideration of the following factors. Conformance to standards and criteria that are generally applicable, consistently applied, and officially promulgated, that are either directly applicable, or that are not directly applicable but are relevant and appropriate, unless good cause exists why conformity should be dispensed with, and with consideration being given to guidance determined, after the exercise of engineering judgment, to be applicable. Such good cause exists if any of the following is present:

- (1) The proposed action is only part of a complete program that will conform to such standard or criterion upon completion; or
- (2) Conformity to such standard or criterion will result in greater risk to the public health or to the environment than alternatives; or
- (3) Conformity to such standard or criterion is technically impracticable from an engineering perspective; or
- (4) The program will attain a level of performance that is equivalent to that required by the standard or criterion through the use of another method or approach;
 - (A) Overall protectiveness of the public health and environment;
 - (B) Short-term effectiveness;
 - (C) Long-term effectiveness; and
 - (D) Reduction of toxicity, mobility, and volume with treatment; a remedial program that permanently and significantly reduces the toxicity, mobility and/or volume of hazardous substances is to be preferred over a remedial program that does not do so.

CHAPTER 5
ADMINISTRATION AND ENFORCEMENT

Section 501 Administration of Ordinance

- (a) The Reservation Business Committee (RBC), Division of Resource Management, or designee shall be responsible for the administration of this Ordinance.
- (b) The RBC, Division of Resource Management, or designee shall investigate complaints and institute enforcement through the issuance of verbal or written warnings and citations, and recommend to the Tribal Attorney's office that legal proceeding be initiated against a person, legal entity, or facility to compel compliance with the provisions of this Ordinance or to address a violation of the same when deemed necessary.
- (c) The RBC, Division of Resource Management, or designee shall encourage and conduct studies, investigations, and research relating to Brownfield sites.

Section 502 Enforcement Procedures

- (a) All law enforcement and conservation enforcement personnel of the Fond du Lac Band shall be empowered to enforce the provisions of this Ordinance.
- (b) If it is determined that a person(s), entity, or company is presently or has created a Brownfield site the enforcement protocol in the Fond du Lac Band's Waste Management and Recycling Ordinance is applicable and will be utilized. As a result, the only perceived enforcement action in support of this ordinance is to ensure site access by environmental professionals and staff when necessary to perform their official duties. This may require an official law enforcement escort onto private or commercial property. Any person in violation of any provision of this ordinance may first receive a warning.

CHAPTER 6
AMENDMENTS; SEVERABILITY

Section 601 Additional Provisions and Requirements

The Reservation Business Committee may amend this Ordinance as it deems necessary to protect the public health, safety and welfare of the Fond du Lac Reservation.

Section 602 Severability

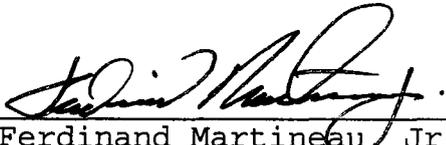
If any section, provision, or portion of this Ordinance is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of this Ordinance will not be affected thereby.

CERTIFICATION

We do hereby certify that the foregoing Ordinance # 04/06 was duly presented and adopted by Resolution # 1207/06 by a vote of 3 for, 0 against, 0 silent, with a quorum of 4 being present at a Special Meeting of the Fond du Lac Reservation Business Committee held on August 15, 2006 on the Fond du Lac Reservation.



Peter J. Defoe
Chairman



Ferdinand Martineau Jr.
Secretary/Treasurer

Appendix 1

Fond du Lac Reservation Chronic Soil Reference Values (SRV) Cleanup Criteria						
Contaminant	CAS #	V O C	Residential SRV (mg/kg)	Recreational SRV (mg/kg)	Industrial SRV (mg/kg)	Target Organs
Inorganics:						
Aluminum	7429905		26000	31000	100000	CNS/PNS; REPROD
Antimony	7440360		14	16	100	CV/BLD; WHOLE BODY
Arsenic	7440382		10	12	25	CV/BLD; CNS/PNS; SKIN; CANCER
Barium	7440393		1200	1200	12500	KIDN; REPRO (Based on Acute Intake)
Beryllium	7440417		55	64	290	LIV/GI; RESP; CANCER
Boron	7440428		3000	3600	23000	REPROD
Cadmium	7440439		35	40	250	KIDN; CANCER
Chromium III	1606583 1		34300	40000	100000	Not available
Chromium VI	1854029 9		71	80	425	Not available; CANCER
Cobalt	7440484		2000	2300	13000	CV/BLD; IMMUN; RESP
Copper	7440508		100	100	9000	LIV/GI (Based on Acute Intake)
Copper Cyanide	544923		150	200	1200	KIDN; LIV/GI; WHOLE BODY
Cyanide, free	57125		62	62	5000	CNS/PNS; TYROID; WHOLE BODY (Based on Acute Intake)
Flourine (soluble fluoride)	7782414		550	550	20000	BONE; LIV/GI (Based on Acute Intake)
Iron	7439896		7000	8000	46000	No adverse effects observed at dose levels evaluated
Lead	7439921		400	400	700	CV/BLD; CNS/PNS; REPRO; CANCER
Manganese	7439965		1400	1800	5600	CNS/PNS;
Mercury (inorganic: elemental and mercuric chloride)	7439976 7487947	y	0.7	1.5	2	CNS/PNS; IMMUNE
Methyl Mercury	22967926		3	4	22	CNS/PNS; REPROD;
Nickel	various		520	550	3000	WHOLE BODY; CANCER

**Fond du Lac Reservation Chronic Soil Reference Values (SRV)
Cleanup Criteria**

Contaminant	CAS #	V O C	Residential SRV (mg/kg)	Recreational SRV (mg/kg)	Industrial SRV (mg/kg)	Target Organs
Selenium	7782492		170	200	1250	CV/BLD; CNS/PNS; LIV/GI; SKIN
Silver	7440224		170	200	1250	SKIN
Thallium	various		3	3	21	CV/BLD; HAIR; REPROD
Tin	various		15000	16000	100000	KIDN; LIV/GI
Titanium	7440326		100000	100000	100000	WHOLE BODY
Vanadium	7440622 1314621		210	230	1340	Not Available
Zinc	7440666		8700	11300	70000	CV/BLD;
Volatile Organics						
Acetone	67641	y	320	700	1000	KIDN; LIV/GI
Benzene	71432	y	1.5	3	4	CV/BLD; CANCER
Bromodichloromethane	75274	y	10	28	17	KIDN; CANCER
Bromomethane (methyl bromide)	74839	y	0.7	2	2	LIV/GI; RESP
1,3 - Butadiene	106990	y	0.07	0.2	0.1	CANCER
n-Butylbenzene	104518	y	30	70	92	CNS/PNS
sec-Butylbenzene	135988	y	25	55	70	CNS/PNS
tert-Butylbenzene	98066	y	30	55	90	CNS/PNS
Carbon Disulfide	75150	y	65	160	190	CNS/PNS; REPROD
Carbon Tetrachloride	56235	y	0.3	0.7	0.9	LIV/GI; CANCER
Chlorobenzene	108907	y	11	23	32	KIDN; LIV/GI
Chloroethane (ethyl chloride)	75003	y	1000	2250	3000	REPROD; CANCER
Chloroform (trichloromethane)	67663	y	2.5	7	4	LIV/GI; CANCER
Chloromethane (methyl chloride)	74873	y	13	36	21	CNS/PNS; WHOLE BODY; CANCER (?)
2-Chlorotoluene	95498	y	436	436	436	WHOLE BODY (Csat Utilized)
Cumene (isopropylbenzene)	98828	y	30	74	87	ADRENAL; KIDN
1,2 -Dibromomethane (ethylene dibromide)	106934	y	0.14	0.16	0.25	REPROD; CANCER
Dibromomethane (methylene bromide)	74953	y	260	316	1860	CV/BLD
Dichlorodifluoromethane (Freon 12)	75718	y	16	42	50	LIV/GI; WHOLE BODY
1,1 - Dichloroethane	75343	y	34	97	55	KIDN; CANCER (?)
1,2 - Dichloroethane	107062	y	4	10	6	NA; CANCER

**Fond du Lac Reservation Chronic Soil Reference Values (SRV)
Cleanup Criteria**

Contaminant	CAS #	V O C	Residential SRV (mg/kg)	Recreational SRV (mg/kg)	Industrial SRV (mg/kg)	Target Organs
Volatile Organics						
1,1 - Dichloroethylene	75354	y	0.6	1.6	1	LIV/GI;CANCER (?)
cis-1,2-Dichloroethylene	154592	y	8	19	22	CV/BLD
trans-1,2-Dichloroethylene	156605	y	11	28	33	LIV/GI;
1,2-Dichloroethylene (mixed isomers)	540590	y	8	19	22	LIV/GI;
Dichloromethane (methylene chloride)	75092	y	97	270	158	LIV/GI;CANCER
1,2 - Dichloropropane	78875	y	4	11	6	RESP;CANCER
Ethyl benzene	100414	y	200	200	200	KIDN;LIV/GI; REPROD (Csat Utilized)
Hexane	110543	y	100	100	100	CNS/PNS;REPROD; RESP (Csat Utilized)
Methyl ethyl ketone (2-butanone)	78933	y	1400	3200	4300	REPROD;
Methyl isobutyl ketone (MIBK)	108101	y	140	330	420	KID;LIV/GI;WHOLE BODY
Naphthalene	91203	y	10	24	28	CV/BLD;RESP; WHOLE BODY
n-Propylbenzene	103651	y	30	70	93	CNS/PNS;
Styrene	100425	y	210	500	600	CV/BLD;CNS/PNS; LIV/GI;CANCER (?)
1,1,1,2 - Tetrachloroethane	630206	y	31	83	51	KIDN;LIV/GI; CANCER (?)
1,1,2,2 - Tetrachloroethane	79345	y	3.5	4	6.5	LIV/GI;WHOLE BODY;CANCER (?)
Tetrachloroethylene (PCE)	127184	y	72	145	131	CNS/PNS;KIDN; LIV/GI;CANCER
Toluene	108883	y	107	260	305	CNS/PNS;KIDN; LIV/GI;RESP
1,2,4 Trichlorobenzene	120821	y	200	290	985	ADREN;LIV/GI;
1,1,1 - Trichloroethane	71556	y	140	280	472	CNS/PNS;LIV/GI;
1,1,2 - Trichloroethane	79005	y	9	24	14	CV/BLD;IMMUNE; LIV/GI;CANCER (?)
Trichloroethylene (TCE)	79016	y	29	82	46	CANCER
Trichlorofluoromethane	75694	y	67	168	195	KIDN;RESP; WHOLE BODY;
1,1,2-Trichloro-1,2,2- trifluoroethane (Freon 113)	76131	y	3745	5430	5430	CNS/PNS; WHOLE BODY;
1,2,4-Trimethylbenzene	95636	y	5	5	5	LIV/GI;THYROID

**Fond du Lac Reservation Chronic Soil Reference Values (SRV)
Cleanup Criteria**

Contaminant	CAS #	V O C	Residential SRV (mg/kg)	Recreational SRV (mg/kg)	Industrial SRV (mg/kg)	Target Organs
Volatile Organics						
1,3,5-Trimethylbenzene	108678	Y	4	9	10	CV/BLD; CNS/PNS; KIDN; LIV/GI; RESP WHOLE BODY; (Csat Utilized)
Vinyl Chloride	75014	y	0.25	0.7	0.4	CANCER
Xylenes (mixed)	1330207	y	110	248	248	CNS/PNS; RESP; WHOLE BODY;
Non/Semi Volatile Organics						
Benzoic acid	65850		50000	83000	100000	No adverse effects observed at does tested
Benzyl alcohol	100516		8700	9500	56000	LIV/GI;
Bis (2-chloroethyl) ether	111444		2.5	6	5	CANCER
Bis (chloromethyl) ether	542881		0.002	0.006	0.0035	CANCER
Bromoform (tribromomethane)	75252		370	630	650	LIV/GI; CANCER
Butyl benzylphthalate	85687		580	623	3700	LIV/GI; CANCER; (? Class C - extra UF of 10)
Dibenzofuran	132649		104	130	810	KIDN;
1,4 - Dibromobenzene	106376		260	306	1760	LIV/GI;
Dibromochloromethane	124481		12	30	20	LIV/GI; CANCER (?)
Dibutyl phthalate	84742		2440	3070	16300	WHOLE BODY;
1,2-Dichlorobenzene	95501		26	63	75	WHOLE BODY;
1,3-Dichlorobenzene	541731		26	32	200	LIV/GI; THYROID
1,4-Dichlorobenzene	106467		30	72	50	KIDN; LIV/GI; CANCER (?)
3,3'-Dichlorobenzidine	91941		25	30	50	CANCER
2,4-Dichlorophenol	120832		48	61	230	IMMUNE
Di (2-ethylhexyl) phthalate (bis-ethylhexyl phthalate)	117817		570	690	2100	LIV/GI; CANCER
2,4-Dimethylphenol	105679		390	530	1925	CV/BLD; CNS/PNS;
Di-n-octyl phthalate	117840		520	630	3700	KIDN; LIV/GI;
Ethylene glycol	107211		50000	63000	100000	LIV/GI; REPROD;
Hexachlorobenzene	118741		5	8	9	LIV/GI; CANCER
Hexachlorobutadiene	87683		6	6	37	KIDN; CANCER (?)
Hexachlorocyclopentadiene	77474		0.8	2	2	LIV/GI;

**Fond du Lac Reservation Chronic Soil Reference Values (SRV)
Cleanup Criteria**

Contaminant	CAS #	V O C	Residential SRV (mg/kg)	Recreational SRV (mg/kg)	Industrial SRV (mg/kg)	Target Organs
Non/Semi Volatile Organics						
Methanol	67561		9100	12900	43500	CNS/PNS;LIV/GI; REPROD;
2-Methylphenol (o-cresol)	95487		75	95	352	CNS/PNS;WHOLE BODY;CANCER; (? Class C - extra UF of 10)
3-Methylphenol (m-cresol)	108394		75	95	352	CNS/PNS;WHOLE BODY;CANCER; (? Class C - extra UF of 10)
4-Methylphenol (p-cresol)	106445		10	11	59	CNS/PNS;WHOLE BODY;CANCER; (? Class C - extra UF of 10)
N-Nitrosodiphenylamine	86306		1950	2585	3720	CANCER
N-Nitrosodi-N-propylamine	621647		0.7	1.2	1.2	CANCER
Pentachlorophenol	87865		71	67	135	KIDN;LIV/GI; CANCER;
Phenol	108952		1100	1100	26800	DEATH (SRV based on acute intake)
2,3,4,6-Tetrachlorophenol	58902		636	700	3700	LIV/GI;
2,4,5-Trichlorophenol	95954		1920	2212	10600	KIDN;LIV/GI;
2,4,6-Trichlorophenol	88062		595	705	1060	CANCER
Polyaromatic Hydrocarbons						
Acenaphthene	83329	y	1200	1860	5260	LIV/GI;
Anthracene	120127		7880	10000	45400	None observed at doses Evaluated
Benzo[a]pyrene (or BaP equivilents)	50328		2	2	4	CANCER
Fluoranthene	206440		1080	1290	6800	CV/BLD;KIDN; LIV/GI;
Fluorene	86737		850	1200	4120	CV/BLD;
Naphtalene -see Volatile Organics						
Pyrene	129000		890	1060	5800	KIDN;
Quinoline	91225		1.2	1.2	2.5	CANCER (?)
Polychlorinated Biphenyls						
PCBs (Polychlorinated Biphenyls)	1336363		1.2	1.4	8	IMMUNE;REPROD;CANCER

**Fond du Lac Reservation Chronic Soil Reference Values (SRV)
Cleanup Criteria**

Contaminant	CAS #	V O C	Residential SRV (mg/kg)	Recreational SRV (mg/kg)	Industrial SRV (mg/kg)	Target Organs
Pesticides and Herbicides						
Aldrin	309002		1	1	2	LIV/GI; CANCER
Carbazole	86748		700	720	1310	CANCER
Chloramben	133904		430	540	3200	LIV/GI;
Chlordane	57749		13	16	74	LIV/GI; CANCER
4,4'-DDD	72548		56	74	125	CANCER
4,4'-DDE	72559		40	52	80	CANCER
4,4'-DDT	50293		15	18	88	LIV/GI; CANCER
Diazinon	333415		26	32	200	CNS/PNS;
2,4-Dichlorophenoxyacetic acid	94757		285	360	2200	CV/BLD; KIDN; LIV/GI;
4-(2,4-Dichlorophenoxy) butyric acid (2,4-DB)	94826		226	286	1750	CV/BLD; LIV/GI; WHOLE BODY;
Dieldrin	60571		0.8	1.2	2	LIV/GI; CANCER
Endosulfan	115297		120	140	700	CV/BLD; CNS/PNS; KIDN;
Endrin	72208		8	10	56	CNS/PNS; LIV/GI;
Heptachlor	76448		2	3	3.5	LIV/GI; CANCER
Heptachlor epoxide	1024573		0.4	0.5	3	LIV/GI; CANCER
alpha- Hexachlorocyclohexane	319846		2	3	3.5	CANCER
beta- Hexachlorocyclohexane	319857		7	11	15	CANCER (?)
gamma- Hexachlorocyclohexane (gamma-BHC, Lindane)	58899		9	12	15	KIDN; LIV/GI; CANCER
Hexachlorocyclohexane, technical grade	608731		6	9	11	CANCER
Methoxychlor	72435		11	13	50	REPROD;
2-Methyl-4- chlorophenoxyacetic acid (MCPA)	94746		16	18	110	KIDN; LIV/GI;
2-(2-Methyl-4- chlorophenoxy)propionic acid (MCPP)	93652		29	36	220	KIDN;
Metolachlor	51218452		435	536	3300	WHOLE BODY; CANCER (?) (Class C - extra UF of 10 used)
Picloram	1918021		2000	2500	15000	LIV/GI;

**Fond du Lac Reservation Chronic Soil Reference Values (SRV)
Cleanup Criteria**

Contaminant	CAS #	V O C	Residential SRV (mg/kg)	Recreational SRV (mg/kg)	Industrial SRV (mg/kg)	Target Organs
Pesticides and Herbicides						
Terbufos	13071799		0.6	0.6	3.5	CNS/PNS;
Toxaphene	8001352		13	17	28	CANCER
2,4,5-Trichlorophenoxyacetic acid (2,4,5-T)	93765		290	360	2150	KIDN; REPROD;
Dioxins and Furans						
Hexachlorodibenzodioxin mixture	19408743		0.002	0.0025	0.005	CANCER
2,3,7,8-TCDD (or 2,3,7,8-TCDD equivalents)	1746016		0.0002	0.0002	0.00035	IMMUNE; REPROD; CANCER
Explosives						
1,3 - DNB	99650		2	2	13	SPLEEN
2,4 - DNT	121142		50	60	355	CV/BLD; CNS/PNS; LIV/GI; CANCER
2,6 - DNT	606202		25	30	175	CV/BLD; CNS/PNS; KID; LIV/GI; CANCER
2,4-AND 2,6 DNT MIXTURE			12	17	23	CANCER
HMX	2691410		1360	1611	9560	LIV/GI
RDX	121824		35	27	75	PROSTATE; CANCER (?)
1,3,5 - TNB	99354		610	660	3760	CV/BLD; SPLEEN
2,4,6 - TNT	118967		10	11	63	LIVER; CANCER (?)

Note: Based on LIMITED multiple pathway exposure scenario (i.e. incidental soil/dust ingestion, dermal contact and inhalation). If multiple contaminants are present cumulative risk MUST be evaluated. Impacts to ecological receptors or to ground water must be evaluated utilizing other methods.

Data compiled from:
Minnesota Pollution Control Agency
Risk Based Guidance for the Soil - Human Health Pathway, Vol 2
Working draft, dated January 1999

Appendix 2

Water Quality Standards Applicable to A, B, C1, D1 and D2 Designated Use Waters							
Substance	Units	Aquatic Life Chronic Standard	Aquatic Life Maximum Standard	Aquatic Life Final Acute Value	Human Health Chronic Standard	Wildlife Chronic Standard	Applicable Chronic Standard
Arsenic, total	ug/l	148	340	680	2		2
Benzene	ug/l				9.5		9.5
Cadmium, total (TH)	ug/l	App. 2	App. 2	App. 2			App. 2
Chlordane	pg/l				28		28
Chlorobenzene	ug/l	10	423	846	230		10
Chromium III, total (TH)	ug/l	App. 2	App. 2	App. 2			App. 2
Chromium VI, total	ug/l	11	16	32			11
Copper, total (TH)	ug/l	App. 2	App. 2	App. 2			App. 2
Cyanides*	ug/l	5.2	22	44	587		5.2
DDT	pg/l				18	11	11
Dieldrin	pg/l	56000	240000	480000	0.81		0.81
2,4-Dimethylphenol	ug/l	21	137	274	336		21
2,4-Dinitrophenol	ug/l	71	379	758	51		51
Endrin	ug/l	0.036	0.086	0.17	0.0039		0.0039
Hexachlorobenzene	pg/l				52		52
Hexachloroethane	ug/l				0.75		0.75
Lindane	ug/l		0.95	1.9	0.057		0.057
Mercury*	ug/l	0.91	1.7	3.4	0.00077	0.0013	0.00077
Methylene Chloride	ug/l				45		45
Nickel, total (TH)	ug/l	App. 2	App. 2	App. 2			App. 2
Parathion	ug/l	0.013	0.065	0.13			0.013
PCBs (class)	pg/l				3.2	120	3.2
Pentachlorophenol (pH)	ug/l	App. 2	App. 2	App. 2	0.93		0.93
Selenium, total	ug/l	5.0	20	40			5.0
2,3,7,8-TCDD	pg/l				0.0010	0.0031	0.0010
Toluene	ug/l	253	1352	2703	3180		253
Toxaphene	pg/l				7.7		7.7
Trichloroethylene	ug/l				19		19
Zinc, total (TH)	ug/l	App. 2	App. 2	App. 2			App. 2

*These do not reflect % lipid adjustment

Water Quality Standards Applicable to A, B, C2, D1 and D2 Designated Use Waters

Substance	Units	Aquatic L i f e Chronic Standard	Aquatic Life Maximum Standard	Aquatic Life Final Acute Value	H u m a n Health Chronic Standard	Wildlife Chronic Standard	Applicable Chronic Standard
Arsenic, total	ug/l	148	340	680	2		2
Benzene	ug/l				11		11
Cadmium, total (TH)	ug/l	App. 2	App. 2	App. 2			App. 2
Chlordane	pg/l				113		113
Chlorobenzene	ug/l	10	423	846	400		10
Chromium III, total (TH)	ug/l	App. 2	App. 2	App. 2			App. 2
Chromium VI, total	ug/l	11	16	32			11
Copper, total (TH)	ug/l	App. 2	App. 2	App. 2			App. 2
Cyanides*	ug/l	5.2	22	44	587		5.2
DDT	pg/l				71	11	11
Dieldrin	pg/l	56000	240000	480000	3.3		3.3
2,4-Dimethylphenol	ug/l	21	137	274	417		21
2,4-Dinitrophenol	ug/l	71	379	758	54		54
Endrin	ug/l	0.036	0.086	0.17	0.016		0.016
Hexachlorobenzene	pg/l				209		209
Hexachloroethane	ug/l				2.8		2.8
Lindane	ug/l		0.95	1.9	0.22		0.22
Mercury*	ug/l	0.91	1.7	3.4	0.00077	0.0013	0.00077
Methylene Chloride	ug/l				46		46
Nickel, total (TH)	ug/l	App. 2	App. 2	App. 2			App. 2
Parathion	ug/l	0.013	0.065	0.13			0.013
PCBs (class)	pg/l				13	120	13
Pentachlorophenol (pH)	ug/l	App. 2	App. 2	App. 2	1.9		1.9
Selenium, total	ug/l	5.0	20	40			5.0
2,3,7,8-TCDD	pg/l				0.0040	0.0031	0.0031
Toluene	ug/l	253	1352	2703	4942		253
Toxaphene	pg/l				31		31
Trichloroethylene	ug/l				27		27
Zinc, total (TH)	ug/l	App. 2	App. 2	App. 2			App. 2

* These do not reflect % lipid adjustment

Water Quality Standards Applicable to B, C2, C3, D1 and D2 Designated Use Waters

Substance	Units	Aquatic Life Chronic Standard	Aquatic Life Maximum Standard	Aquatic Life Final Acute Value	Human Health Chronic Standard	Wildlife Chronic Standard	Applicable Chronic Standard
Arsenic, total	ug/l	148	340	680	53		53
Benzene	ug/l	114	4487	8974	125		114
Cadmium, total (TH)	ug/l	App. 2	App. 2	App. 2			App. 2
Chlordane	pg/l				113		113
Chlorobenzene	ug/l	10	423	846	1478		10
Chromium III, total (TH)	ug/l	App. 2	App. 2	App. 2			App. 2
Chromium VI, total	ug/l	11	16	32			11
Copper, total (TH)	ug/l	App. 2	App. 2	App. 2			App. 2
Cyanides*	ug/l	5.2	22	44	17280		5.2
DDT	pg/l				71	11	11
Dieldrin	pg/l	56000	240000	480000	3.3		3.3
2,4-Dimethylphenol	ug/l	21	137	274	3734		21
2,4-Dinitrophenol	ug/l	71	379	758	1087		71
Endrin	ug/l	0.036	0.086	0.17	0.016		0.016
Hexachlorobenzene	pg/l				210		210
Hexachloroethane	ug/l				3.1		3.1
Lindane	ug/l		0.95	1.9	0.23		0.23
Mercury*	ug/l	0.91	1.7	3.4	0.00077	0.0013	0.00077
Methylene Chloride	ug/l	1561	9600	19200	1113		1113
Nickel, total (TH)	ug/l	App. 2	App. 2	App. 2			App. 2
Parathion	ug/l	0.013	0.065	0.13			.013
PCBs (class)	pg/l				13	120	13
Pentachlorophenol (pH)	ug/l	App. 2	App. 2	App. 2	5.5		App. 2
Selenium, total	ug/l	5.0	20	40			5.0
2,3,7,8-TCDD	pg/l				0.0040	0.0031	0.0031
Toluene	ug/l	253	1352	2703	23265		253
Toxaphene	pg/l				31		31
Trichloroethylene	ug/l				169		169
Zinc, total (TH)	ug/l	App. 2	App. 2	App. 2			App. 2

* These do not reflect % lipid adjustment

Appendix 2. Standards that vary with Total Hardness (TH) or pH

a. Designated use A, B, C1, C2, C3, D1 and D2 standards that vary with total hardness (TH) applicable to all surface waters of the Reservation, are listed in this subsection. Total hardness is the sum of the calcium and magnesium concentrations expressed as calcium carbonate in mg/l. For ambient or effluent total hardness values greater than 400 mg/l, 400 mg/l must be used in the calculation of the standard. Exp. is the base e exponential function.

<u>Cadmium total</u>	<u>formula, results in ug/l</u>	<u>Example standards at hardness of:</u>				
		<u>50</u>	<u>100</u>	<u>200</u>	<u>300</u>	<u>400</u>
CS	exp.(0.7852 [ln (TH mg/l)]-2.715)	1.4	2.5	4.2	5.8	7.3
MS	exp.(1.128 [ln (TH mg/l)] -3.6867)	2.1	4.5	9.9	16	22
FAV	exp.(1.128 [ln (TH mg/l)] -2.9935)	4.1	9.0	20	31	43

<u>Chromium III total</u>	<u>formula, results in ug/l</u>	<u>Example standards at hardness of:</u>				
		<u>50</u>	<u>100</u>	<u>200</u>	<u>300</u>	<u>400</u>
CS	exp. (0.819[ln (TH mg/l)]+0.6848)	49	86	152	212	268
MS	exp. (0.819[ln (TH mg/l)]+3.7256)	1022	1803	3181	4434	5612
FAV	exp. (0.819[ln (TH mg/l)]+4.4187)	2044	3606	6362	8867	11223

<u>Copper total</u>	<u>formula, results in ug/l</u>	<u>Example standards at hardness of:</u>				
		<u>50</u>	<u>100</u>	<u>200</u>	<u>300</u>	<u>400</u>
CS	exp. (0.8545[ln (TH mg/l)]-1.702)	5.2	9.3	17	24	30
MS	exp. (0.9422[ln (TH mg/l)]-1.700)	7.3	14	27	39	52
FAV	exp. (0.9422[ln (TH mg/l)]-1.0069)	15	28	54	79	103

<u>Nickel total</u>	<u>formula, results in ug/l</u>	<u>Example standards at hardness of:</u>				
		<u>50</u>	<u>100</u>	<u>200</u>	<u>300</u>	<u>400</u>
CS	exp. (0.846[ln (TH mg/l)]+0.0584)	29	52	94	132	169
MS	exp. (0.846[ln (TH mg/l)]+2.255)	261	469	843	1188	1516
FAV	exp. (0.846[ln (TH mg/l)]+2.9481)	522	938	1687	2377	3032

<u>Zinc total</u>	<u>formula, results in ug/l</u>	<u>Example standards at hardness of:</u>				
		<u>50</u>	<u>100</u>	<u>200</u>	<u>300</u>	<u>400</u>
CS	exp. (0.8473 [ln(TH mg/l)]+0.884)	67	120	216	304	388
MS	exp. (0.8473 [ln(TH mg/l)]+0.884)	67	120	216	304	388
FAV	exp. (0.8473 [ln(TH mg/l)]+1.5772)	133	240	431	608	776

b. Designated use A, B, C1, C2, C3, D1 and D2 standards that vary with pH are listed in this subsection. Exp. is the base e exponential function.

<u>Pentachloro-phenol formula, results in ug/l</u>	<u>6.5</u>	<u>Example standards at pH of:</u>				
		<u>7.0</u>	<u>7.5</u>	<u>8.0</u>	<u>8.5</u>	
CS	exp. (1.005 [pH]-5.134) not to exceed 5.5 ug/l	4.0	5.5	5.5	5.5	5.5
MS	exp. (1.005 [pH]-4.869)	5.3	8.7	14	24	39
FAV	exp. (1.005 [pH]-4.175)	11	17	29	48	79

Conversion factors for transforming total metals to dissolved metals.

Metal	Conversion Factors	
	Acute	Chronic
Arsenic	1.000	1.000
Chromium (III)	0.316	0.860
Chromium (VI)	0.982	0.962
Copper	0.960	0.960
Mercury	0.85	0.85
Nickel	0.998	0.997
Zinc	0.978	0.986

Bacteriological standards

For designated use D1 (primary contact recreational) and D2 (secondary contact recreational) waters of the Reservation, density criteria for the indicator species *E.coli* will be used. In bacteriological surveys, the monthly geometric mean is used in assessing attainment of standards when a minimum of five samples are collected in a thirty day period. The monthly geometric mean for *E.coli* shall not exceed 126 organisms/100 ml*. When fewer than five samples are collected in a month, densities of *E.coli* shall not exceed 235 organisms per 100 ml in any single sample.

*source: USEPA

Calculated to nearest whole number using equation:

$$(\text{Mean } E.coli \text{ density}) = \frac{\text{antilog}_{10} \text{ illness rate}/1000 + 11.74}{9.40}$$

Appendix 3

Fond du Lac Reservation Ground Water Health Risk Limits - Cleanup Criteria			
Contaminant	CAS #	Health Risk Limit ug/L	Toxicologic Endpoint
Acenaphthene	83-32-9	400	liver
Acetone	67-64-1	700	kidney
Alachlor	15972-60-8	4	cancer
Aldicarb	116-06-3	1	nervous system
Allyl chloride (3 chloropropene)	107-05-1	30	nervous system
Anthracene	120-12-7	2000	-----
Antimony	7440-36-0	6	-----
Atrazine	1912-24-9	20	cardiovascular system
Barium	7440-39-3	2000	cardiovascular system
Benzene	71-43-2	10	cancer
Benzoic acid	65-85-0	30,000	-----
Beryllium	7440-41-7	0.08	cancer
1,1-Biphenyl (Diphenyl)	92-52-4	300	kidney
Bis(chloroethyl)ether (BCEE)	111-44-4	0.3	cancer
Bis(chloroethyl)ether (BCME)	542-88-1	0.002	cancer
Boron	7440-42-8	600	male reproductive system
Bromodichloromethane	75-27-4	6	cancer
Bromoform	75-25-2	40	cancer
Bromomethane (Methyl bromide)	74-83-9	10	stomach
n-Butanol	71-36-3	700	nervous system
Butyl benzyl phthalate	85-68-7	100	-----
Butylphthalyl butylglycolate (BPPG)	85-70-1	7000	-----
Cadmium	7440-43-9	4	kidney
Carbon disulfide	75-15-0	700	developmental effects
Carbon tetrachloride	56-23-5	3	cancer
Chloramben	133-90-4	100	liver
Chlorobenzene	108-90-7	100	liver
Chloroform	67-66-3	60	cancer
2-Chlorophenol	95-57-8	30	developmental effects
Chlorothalonil	1897-45-6	30	cancer
Chromium III	16065-83-1	20,000	-----
Chromium VI	18540-29-9	100	-----
Cumene (Isopropyl benzene)	98-82-8	300*	-----
Cyanide, free	57-12-5	100	endocrine system, nervous system

Fond du Lac Reservation Ground Water Health Risk Limits - Cleanup Criteria

Contaminant	CAS #	Health Risk Limit ug/L	Toxicologic Endpoint
Dibromochloromethane	124-48-1	10	liver
1,2-Dibromoethane (Ethylene dibromide, EDB)	106-93-4	0.004	cancer
Dibutyl phthalate	84-74-2	700	-----
Dicamba	1918-00-9	200	developmental effects
1,2- Dichlorobenzene	95-50-1	600	liver
1,4 Dichlorobenzene (para)	106-46-7	10	cancer
3,3'-Dichlorobenzidine	91-94-1	0.8	cancer
Dichlorodifluoromethane	75-71-8	1000	-----
p,p'-Dichlorodiphenyl dichloroethane (DDD)	72-54-8	1	cancer
p,p'-Dichlorodiphenyldichloroethylene (DDE)	72-55-9	1	cancer
p,p'-Dichlorodiphenyltrichloroethane (DDT)	50-29-3	1	cancer
1,1-Dichloroethane	75-34-3	70	kidney
1,2-Dichloroethane	107-06-2	4	cancer
1,2-Dichloroethylene (cis)	156-59-2	70	hemaltologic system
1,1-Dichloroethylene (Vinylidene chloride)	75-35-4	6	liver
1,2-Dichloroethylene, trans-	156-60-5	100	-----
Dichloromethane (Methylene chloride)	75-09-2	50	cancer
2,4- Dichlorophenol	120-83-2	20	immune system
2,4-Dichlorophenoxyacetic acid (2,4-D)	94-75-7	70	hemaltologic system, kidney, liver
1,2-Dichloropropane	78-87-5	5	cancer
1,3 - Dichloropropene	542-75-6	2	cancer
Di(2-ethylhexyl)phthalate (DEHP)	117-81-7	20	cancer
Diethyl phthalate	84-66-2	6000	-----
2,4-Dimethylphenol	105-67-9	100	hemaltologic system, nervous sys
Dimethylphthalate	131-11-3	70,000	kidney
2,4-Dinitrophenol	51-28-5	10	eyes
Disulfoton	298-04-4	0.3	nervous system
Ethylbenzene	100-41-4	700	kidney, liver
S-Ethyl dipropylthiocarbamate (EPTC)	759-94-4	200	cardiovascular system, nervous system

Fond du Lac Reservation Ground Water Health Risk Limits - Cleanup Criteria

Contaminant	CAS #	Health Risk Limit ug/L	Toxicologic Endpoint
Ethyl ether	60-29-7	1000	-----
Ethylene glycol	107-21-1	10,000	kidney
Fluoranthene	206-44-0	300	kidney, liver
Fluorene (9H-Fluorene)	86-73-7	300	hematologic system
Formaldehyde	50-00-0	1000	stomach
Heptachlor	76-44-8	0.08	cancer
Heptachlor epoxide	1024-57-3	0.04	cancer
Hexachlorobenzene	118-74-1	0.2	cancer
Hexachlorobutadiene	87-68-3	1	kidney
Hexane (n-hexane)	110-54-3	400	nervous system
Isophorone	78-59-1	100	kidney
Linuron	330-55-2	1	hematologic system
Manganese	7439-96-5	100*	nervous system
Methanol	67-56-1	3000	liver, nervous system
2-Methyl-4-chlorophenoxyacetic acid (MCPA)	94-74-6	3	kidney, liver
Methyl ethyl ketone (MEK, 2-butanone)	78-93-3	4000	developmental effects
Methyl isobutyl ketone (MIBK)	108-10-1	300	kidney, liver
2-Methylphenol (o-cresol)	95-48-7	30	nervous system
3-Methylphenol (m-cresol)	108-39-4	30	nervous system
4-Methylphenol (p-cresol)	106-44-5	3	-----
Metolochlor	51218-45-2	100	developmental effects
Metribuzin	21087-64-9	200	kidney, liver
Napthalene	91-20-3	300	-----
Nickel, soluble salts	7440-02-0	100	-----
Nitrate (as nitrogen)	14797-55-8	10,000	hematologic system
N-Nitrosodiphenylamine	86-30-6	70	cancer
Pentachlororphenol	87-86-5	3	cancer
Phenol	108-95-2	4000	developmental effects
Picloram	1918-02-1	500	liver
Polychlorinated biphenyls (PCBs)	1336-36-3	0.04	cancer
Prometon	1610-18-0	100	-----
Propachlor	1918-16-7	90	-----
Pyrene	129-00-0	200	kidney
Selenium	7782-49-2	30	-----

Fond du Lac Reservation Ground Water Health Risk Limits - Cleanup Criteria

Contaminant	CAS #	Health Risk Limit ug/L	Toxicologic Endpoint
Silver	7440-22-4	30	-----
Simazine	122-34-9	30	hematologic system
1,1,1,2-Tetrachloroethane	630-20-6	70	kidney, liver
1,1,2,2-Tetrachloroethane	79-34-5	2	cancer
1,1,2,2-Tetrachloroethylene	127-18-4	7	cancer
Thallium salts	7440-28-0	0.6	liver
Tin	7440-31-5	4000	kidney, liver
Toluene	108-88-3	1000	kidney, liver
Toxaphene	8001-35-2	0.3	cancer
1,1,1-Trichloroethane	71-55-6	600	liver
1,1,2-Trichloroethane	79-00-5	3	immune system
1,1,2-Trichloroethylene (TCE)	79-01-6	30**	cancer
Trichlorofluoromethane	75-69-4	2000	-----
2,4,6-Trichlorophenol	88-06-2	30	cancer
2,4,5-Trichlorophehnoxyacetic acid (2,4,5-T)	93-76-5	70	developmental effects, hematologic system
2(2,4,5-Trichlorophenoxy) propionic acid	93-72-1	60	liver
1,2,3-Trichloropropane	96-18-4	40	kidney, liver
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	200,000	-----
1,3,5-trinitrobenzene	99-35-4	0.3*	-----
Vanadium	7440-62-2	50	-----
Vinyl chloride	75-01-4	0.2	cancer
Xylenes (mixture of isomers o,m,p)	1330-20-7	10,000	nervous system
Zinc	7440-66-6	2000	-----
HRL = Health Risk Limit, MN Dept of Health			
<p>*Due to research that has become available since the HRLs were promulgated, the MDH no longer recommends the HRL value.</p> <p>** In reponse to the draft US EPA health risk assessment for 1,1,2-Trichloroethylene (TCE), the MDH recommends that an exposure limit of five micgorams of TCE per liter of water (5ug/L) be used in place of the existing MDG HRL of 30 ug/L for drinking water from private wells. This exposure limit is the current EPA Maximum contaminant level for TCE.</p>			<p>A Health Risk limit exposure value for a concentration of groundwater contaminant, expressed in micrograms per liter (ug/L), that can be safely consumed daily for a lifetime.</p> <p>Data compiled from: Minnesota Department of Health Promulgated 1993/94</p> <p>http://www.health.state.mn.us/di vs/eh/groundwater/hrltable.html</p>

Fond du Lac Reservation Ground Water Health Risk Limits - Cleanup Criteria

Fond du Lac Reservation Drinking Water Contaminant & MCL Levels

Contaminant	MCLG ¹ (mg/L) ₂	MCL or TT ¹ (mg/L) ₂	Potential Health Effects from Ingestion of Water
Microorganisms			
Cryptosporidium	zero	TT ³	Gastrointestinal illness
Giardia labblia	zero	TT ³	Gastrointestinal illness
Heterotrophic plate count	n/a	TT ³	HPC has no health effects; it is an analytic method used to measure the variety of bacteria that are common in water. The lower the concentration of bacteria in drinking water, the better maintained the water system is.
Legionella	zero	TT ³	Legionnaire's Disease, a type of pneumonia
Total Coliforms (including fecal coliform and E. Coli)	zero	5.0% ⁴	Not a health threat in itself; it is used to indicate whether other potentially harmful bacteria is present ⁵
Turbidity	n/a	TT ³	Turbidity is a measure of cloudiness of water. Used to indicate water quality and filtration effectiveness. Higher turbidity levels are often associated with higher levels of disease causing microorganisms such as viruses, parasites, and some bacteria. These organisms can cause symptoms such as nausea, cramps, diarrhea, and headaches.
Viruses (enteric)	zero	TT ³	Gastrointestinal illness
Disinfection Byproducts			
Bromate	zero	0.010	Increased risk of cancer
Chlorite	0.8	1.0	Anemia; infants & young children:nervous system effects
Haloacetic acids	n/a ⁶	0.060	Increased risk of cancer
Total Trihalomethanes (TTHMs)	none ⁷ ----- n/a ⁶	0.10 ----- 0.080	Liver, kidney or central nervous system problems; increased risk of cancer.
Disinfectants			
	MRDLG ¹ (mg/L) ²	MRDL ¹ (mg/L) ²	
Chloramines	MRDLG=4 ¹	MRDLG=4.0 ¹	Eye/nose irritation; stomach discomfort; anemia
Chlorine	MRDLG=4 ¹	MRDLG=4.0 ¹	Eye/nose irritation; stomach discomfort
Chlorine dioxide	MRDLG=0.8 ¹	MRDLG=0.8 ¹	Anemia; infants & young children:nervous system effects

Fond du Lac Reservation Ground Water Health Risk Limits - Cleanup Criteria

Fond du Lac Reservation Drinking Water Contaminant & MCL Levels

Contaminant	MCLG ¹ (mg/L)	MCL or TT ¹ (mg/L) ²	Potential Health Effects from Ingestion of Water
Inorganic Chemicals			
Antimony	0.006	0.006	Increase in blood cholesterol; decrease in blood sugar
Arsenic	0 ⁷	0.010	Skin damage or problems with circulatory systems, and may have increased risk of getting cancer
Asbestos (Fiber > than 10 micrometers)	7 million fibers per liter	7 MFL	Increased risk of developing benign intestinal polyps
Barium	2	2	Increase in blood pressure
Beryllium	0.004	0.004	Intestinal lesions
Cadmium	0.005	0.005	Kidney damage
Chromium	0.1	0.1	Allergic dermatitis
Copper	1.3	TT ⁸ Action Level=1.3	Short term exposure:Gastrointestinal distress. Long term exposure: Liver or Kidney damage. People w/ Wilson Disease should consult Dr.if copper levels exceed action level.
Cyanide (as free cyanide)	0.2	0.2	Nerve damage or thyroid problems
Fluoride	4.0	4.0	Bone disease (pain and tenderness of the bones) Children may get mottled teeth
Lead	zero	TT ⁸ Action Level=0.015	Infants and children: Delays in physical or mental development; children could show slight deficits in attention span and learning abilities. Adults: Kidney problems; high blood pressure
Mercury (Inorganic)	0.002	0.002	Kidney damage
Nitrate (measured as Nitrogen)	10	10	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.
Nitrite (measured as Nitrogen)	1	1	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.
Selenium	0.05	0.05	Hair or fingernail loss; numbness in fingers or toes; circulatory problems
Thallium	0.0005	0.002	Hair loss; changes in blood; kidney, intestine, or liver problems

Fond du Lac Reservation Ground Water Health Risk Limits - Cleanup Criteria

Fond du Lac Reservation Drinking Water Contaminant & MCL Levels

Contaminant	MCLG ¹ (mg/L)	MCL or TT ¹ (mg/L) ²	Potential Health Effects from Ingestion of Water
Organic Chemicals			
Acrylamide	zero	TT ⁹	Nervous system or blood problems; increased risk of cancer
Alachlor	zero	0.002	Eye, liver, kidney or spleen problems; anemia; increased risk of cancer
Atrazine	0.003	0.003	Cardiovascular system or reproductive problems
Benzene	zero	0.005	Anemia; decrease in blood platelets; increased risk of cancer
Benzo (a)pyrene (PAHs)	zero	0.0002	Reproductive difficulties; increased risk of cancer
Carbofuran	0.04	0.04	Problems with blood, nervous system, or reproductive system
Carbon tetrachloride	zero	0.005	Liver problems; increased risk of cancer
Chordane	zero	0.002	Liver or nervous system problems; increased risk of cancer
Chlorobenzene	0.1	0.1	Liver or Kidney problems
2,4-D	0.07	0.07	Kidney, liver, or adrenal gland problems
Dalapon	0.2	0.2	Minor kidney changes
1,2-Dibromo-3-chloropropane (DBCP)	zero	0.0002	Reproductive difficulties; increased risk of cancer
o-Dichlorobenzene	0.6	0.6	Liver, kidney or circulatory system problems
p-Dichlorobenzene	0.075	0.075	Anemia; liver, kidney or spleen damage; changes in blood
1,2-Dichloroethane	zero	0.005	Increased risk of cancer
1,1-Dichloroethylene	0.007	0.007	Liver problems
cis-1,2-Dichloroethylene	0.07	0.07	Liver problems
trans-1,2-Dichloroethylene	0.1	0.1	Liver problems
Dichloromethane	zero	0.005	Liver problems; increased risk of cancer
1,2-Dichloropropane	zero	0.005	Increased risk of cancer
Di(2-ethylhexyl) adipate	0.4	0.4	Weight loss, liver problems, or possible reproductive difficulties
Di(2-ethylhexyl) phthalate	zero	0.006	Reproductive difficulties; liver problems; increased risk of cancer

Fond du Lac Reservation Ground Water Health Risk Limits - Cleanup Criteria

Fond du Lac Reservation Drinking Water Contaminant & MCL Levels

Contaminant	MCLG ¹ (mg/L)	MCL or TT ¹ (mg/L) ²	Potential Health Effects from Ingestion of Water
Dinoseb	0.007	0.007	Reproductive difficulties;
Dioxin (2,3,7,8-TCDD)	zero	0.00000003	Reproductive difficulties; increased risk of cancer
Diquat	0.02	0.02	Cataracts
Endothall	0.1	0.1	Stomach and intestinal problems
Endrin	0.002	0.002	Liver problems
Epichlorohydrin	zero	TT ⁹	Increased cancer risk, & over a long period of time, stomach problems
Ethylbenzene	0.7	0.7	Liver or kidney problems
Ethylene dibromide	zero	0.00005	Problems with liver, stomach, reproductive system, or kidneys; increased risk of cancer
Glyphosate	0.7	0.7	Kidney problems; Reproductive difficulties
Heptachlor	zero	0.0004	Liver damage; increased risk of cancer
Heptachlor epoxide	zero	0.0002	Liver damage; increased risk of cancer
Hexachlorobenzene	zero	0.001	Liver or kidney problems; Reproductive difficulties; increased risk of cancer
Hexachlorocyclopentadiene	0.05	0.05	Kidney or stomach problems
Lindane	0.0002	0.0002	Liver or kidney problems;
Methoxychlor	0.04	0.04	Reproductive difficulties
Oxamyl (Vydrate)	0.2	0.2	Slight nervous system effects
Polychlorinated biphenyls (PCBs)	zero	0.0005	Skin changes; thymus gland problems; immune deficiencies; reproductive or nervous system difficulties; increased risk of cancer
Pentachlorophenol	zero	0.001	Liver or kidney problems; increased risk of cancer
Picloram	0.5	0.5	Liver problems
Simazine	0.004	0.004	Problems with blood
Styrene	0.1	0.1	Liver, kidney, or circulatory system problems
Tetrachloroethylene	zero	0.005	Liver problems; increased risk of cancer
Toluene	1	1	Nervous system, kidney, or liver problems
Toxaphene	zero	0.003	Kidney, liver or thyroid problems; increased risk of cancer

Fond du Lac Reservation Ground Water Health Risk Limits - Cleanup Criteria

Contaminant	MCLG ¹ (mg/L)	MCL or TT ¹ (mg/L) ²	Potential Health Effects from Ingestion of Water
2,4,5-TP(Silvex)	0.05	0.05	Liver problems
1,2,4-trichlorobenzene	0.07	0.07	Changes in adrenal gland
1,1,1-trichloroethane	0.20	0.2	Liver, nervous system, or circulatory problems
1,1,2-trichlorethane	0.003	0.005	Liver, kidney, or immune system problems
Trichloroethylene	zero	0.005	Liver damage; increased risk of cancer
Vinyl chloride	zero	0.002	Increased risk of cancer
Xylenes (total)	10	10	Nervous system damage
Radionuclides			
Alpha particles	none ⁷ ----- zero	15 picocuries per Liter (pCi/L)	Increased risk of cancer
Beta particles and photon emitters	none ⁷ ----- zero	4 millirems per year	Increased risk of cancer
Radium 226 and Radium 228 (combined)	none ⁷ ----- zero	5 pCi/L	Increased risk of cancer
Uranium	zero	30 ug/L	Increased risk of cancer, kidney toxicity

Data compiled from U.S. EPA List of Drinking Water Contaminants and MCLs
National Primary Drinking Water Regulations and National Secondary Drinking Water Standards

Notes

¹ Definitions:

Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to MCLGs as feasible using the best available treatment technology and taking cost into consideration. MCLs are enforceable standards.

Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety and are non-enforceable public health goals.

Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Treatment Technique - A required process intended to reduce the level of a contaminant in drinking water.

² Units are in milligrams per liter (mg/L) unless otherwise noted. Milligrams per liter are equivalent to parts per million.

³ EPA's surface water treatment rules require systems using surface water or ground water under the direct influence of surface water to (1) disinfect their water, and (2) filter their water or meet criteria for avoiding filtration so that the following contaminants are controlled at the following levels:

- Cryptosporidium: (as of 1/1/02 for systems serving >10,000 and 1/14/05 for systems serving <10,000) 99% removal.
- Giardia lamblia: 99.9% removal/inactivation
- Viruses: 99.99% removal/inactivation
- Legionella: No limit, but EPA believes that if *Giardia* and viruses are removed/inactivated, *Legionella* will also be controlled.

- Turbidity: At no time can turbidity (cloudiness of water) go above 5 nephelometric turbidity units (NTU); systems that filter must ensure that the turbidity go no higher than 1 NTU (0.5 NTU for conventional or direct filtration) in at least 95% of the daily samples in any month. As of January 1, 2002, turbidity may never exceed 1 NTU, and must not exceed 0.3 NTU in 95% of daily samples in any month.
- HPC: No more than 500 bacterial colonies per milliliter.
- Long Term 1 Enhanced Surface Water Treatment (Effective Date: January 14, 2005); Surface water systems or (GWUDI) systems serving fewer than 10,000 people must comply with the applicable Long Term 1 Enhanced Surface Water Treatment Rule provisions (e.g. turbidity standards, individual filter monitoring, Cryptosporidium removal requirements, updated watershed control requirements for unfiltered systems).
- Filter Backwash Recycling; The Filter Backwash Recycling Rule requires systems that recycle to return specific recycle flows through all processes of the system's existing conventional or direct filtration system or at an alternate location approved by the state.

⁴ more than 5.0% samples total coliform-positive in a month. (For water systems that collect fewer than 40 routine samples per month, no more than one sample can be total coliform-positive per month.) Every sample that has total coliform must be analyzed for either fecal coliforms or E. coli if two consecutive TC-positive samples, and one is also positive for E.coli fecal coliforms, system has an acute MCL violation.

⁵ Fecal coliform and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Disease-causing microbes (pathogens) in these wastes can cause diarrhea, cramps, nausea, headaches, or other symptoms. These pathogens may pose a special health risk for infants, young children, and people with severely compromised immune systems.

⁶ Although there is no collective MCLG for this contaminant group, there are individual MCLGs for some of the individual contaminants:

- Trihalomethanes: bromodichloromethane (zero); bromoform (zero); dibromochloromethane (0.06 mg/L). Chloroform is regulated with this group but has no MCLG.
- Haloacetic acids: dichloroacetic acid (zero); trichloroacetic acid (0.3 mg/L). Monochloroacetic acid, bromoacetic acid, and dibromoacetic acid are regulated with this group but have no MCLGs.

⁷ MCLGs were not established before the 1986 Amendments to the Safe Drinking Water Act. Therefore, there is no MCLG for this contaminant.

⁸ Lead and copper are regulated by a Treatment Technique that requires systems to control the corrosiveness of their water. If more than 10% of tap water samples exceed the action level, water systems must take additional steps. For copper, the action level is 1.3 mg/L, and for lead is 0.015 mg/L.

⁹ Each water system must certify, in writing, to the state (using third-party or manufacturer's certification) that when acrylamide and epichlorohydrin are used in drinking water systems, the combination (or product) of dose and monomer level does not exceed the levels specified, as follows:

- Acrylamide = 0.05% dosed at 1 mg/L (or equivalent)
- Epichlorohydrin = 0.01% dosed at 20 mg/L (or equivalent)

National Secondary Drinking Water Regulations

National Secondary Drinking Water Regulations (NSDWRs or secondary standards) are non-enforceable guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. EPA recommends secondary standards to water systems but does not require systems to comply. However, states may choose to adopt them as enforceable standards.

<u>Contaminant</u>	<u>Secondary Standard</u>
<u>Aluminum</u>	<u>0.05 to 0.2 mg/L</u>
<u>Chloride</u>	<u>250 mg/L</u>
<u>Color</u>	<u>15 (color units)</u>
<u>Copper</u>	<u>1.0 mg/L</u>
<u>Corrosivity</u>	<u>noncorrosive</u>
<u>Fluoride</u>	<u>2.0 mg/L</u>
<u>Foaming Agents</u>	<u>0.5 mg/L</u>
<u>Iron</u>	<u>0.3 mg/L</u>
<u>Manganese</u>	<u>0.05 mg/L</u>
<u>Odor</u>	<u>3 threshold odor number</u>
<u>pH</u>	<u>6.5-8.5</u>
<u>Silver</u>	<u>0.10 mg/L</u>
<u>Sulfate</u>	<u>250 mg/L</u>
<u>Total Dissolved Solids</u>	<u>500 mg/L</u>
<u>Zinc</u>	<u>5 mg/L</u>

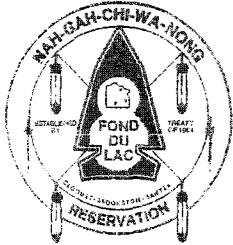
Fond du Lac Reservation

Business Committee

1720 Big Lake Rd.
Cloquet, MN 55720
Phone (218) 879-4593
Fax (218) 879-4146

RESOLUTION # 1207/06

The Fond du Lac Reservation Business Committee, on behalf of the Fond du Lac Band of Lake Superior Chippewa, hereby enacts the following Resolution:



Chairman
Peter J. Defoe

Secretary/Treasurer
Ferdinand Martineau, Jr.

Dist. I Councilman
Eugene Reynolds

Dist. II Councilman
V.R. "Butch" Martineau

Dist. III Councilman
Roger "Bouda" Smith, Sr.

WHEREAS, the Fond du Lac Reservation is a sovereignty, created by the Treaty of September 30, 1854, 10 Stat. 1109, as the permanent home of the Fond du Lac Band of Lake Superior Chippewa, which possesses the inherent jurisdiction and authority to exercise regulatory control within the boundaries of the Fond du Lac Reservation; and

WHEREAS, it is the sovereign obligation of the Fond du Lac Reservation Business Committee, as the Governing Body of the Fond du Lac Band, under the Indian Reorganization Act, 25 U.S.C. § 461 et seq., and in accordance with the Indian Self-Determination Act, 25 U.S.C. § 450 et seq., to assume the responsibilities of self government; and

WHEREAS, the Brownfield Revitalization and Environmental Restoration Act of 2001 ("Brownfield Act") promotes the redevelopment and reuse of lands which have become contaminated by hazardous substances and other pollutants; and

WHEREAS, the Reservation Business Committee has established a program for the Fond du Lac Reservation under the Brownfield Act in cooperation with the United States Environmental Protection Agency; and

WHEREAS, the Reservation Business Committee has determined it to be necessary and in the best interests of the Fond du Lac Band to enact an Ordinance governing oversight and enforcement activities by the Band under the Brownfield Act;

NOW THEREFORE BE IT RESOLVED, that the Fond du Lac Reservation Business Committee hereby adopts and enacts Fond du Lac Ordinance #04106, entitled "Brownfield Oversight and Enforcement", to become effective immediately.

CERTIFICATION

We do hereby certify that the foregoing Resolution was duly presented and acted upon by a vote of 3 for, 0 against, 0 silent, with a quorum of 4 being present at a Special Meeting of the Fond du Lac Reservation Business Committee held on August 15, 2006 on the Fond du Lac Reservation.

Peter J. Defoe
Peter J. Defoe
Chairman

Ferdinand Martineau, Jr.
Ferdinand Martineau, Jr.
Secretary/Treasurer