

Town of Union

Sludge Ordinance

A True Copy Attest

Janice Esancy
Union Town Clerk

I hereby certify that this Sludge Ordinance was adopted at the
June 22, 1998 Annual Town Meeting.

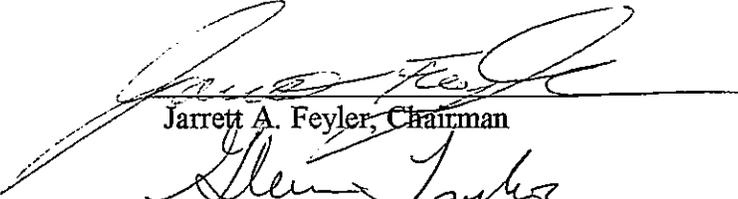
TOWN OF UNION
Office of Selectmen
Union, Maine

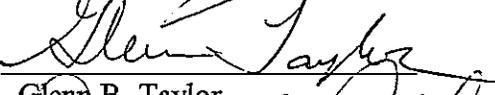
CERTIFICATION

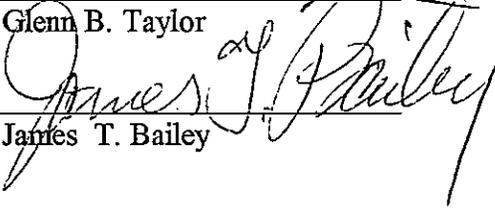
We, the undersigned Board of Selectmen, hereby certify the proposed ordinance entitled "Town of Union Sludge Ordinance", to be voted upon by the Town of Union's voters on June 22, 1998.

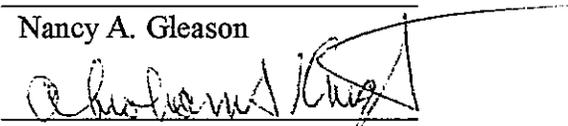
Given unto our hands the nineteenth day of May A.D., 1998.

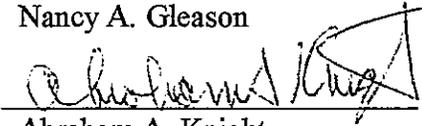
UNION BOARD OF SELECTMEN


Jarrett A. Feyler, Chairman

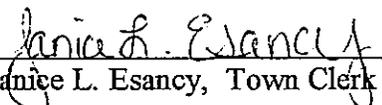

Glenn B. Taylor


James T. Bailey


Nancy A. Gleason


Abraham A. Knight

ATTEST: A true copy of an ordinance entitled "Town of Union Sludge Ordinance", as certified to me by the Municipal Officers of Union, Maine on the nineteenth day of May, 1998.

Signature: 
Janice L. Esancy, Town Clerk

Union Sludge Ordinance

SECTION I: TITLE

This Ordinance shall be known and cited at the 'Town of Union Sludge Ordinance', and will be referred to as the 'Ordinance'.

SECTION II: AUTHORITY

This Ordinance is adopted pursuant to the enabling provisions of Article VIII, Part 2, Section 1 of the Maine Constitution and the Home Rule provisions of Title 30-A M.R.S.A. Section 3001, et. seq. and the Growth Management Act Title 30-A M.R.S.A. Section 4312 et. seq.

SECTION III: FINDINGS & PURPOSE

A. The purposes of this Ordinance are:

1. To protect the health and safety of the residents of the Town of Union;
2. To maintain the quality of the natural resources within the Town of Union
3. To regulate the storage and land application of municipal, commercial and industrial waste water-treatment plant sludge and other residuals.

B. The residents of the Town of Union find:

1. That sludge and residuals may contain concentrations of heavy metals, dioxins, pathogens, polychlorinated biphenyls and other substances which may be harmful to humans, animals, plant life, or aquatic life, and to the preservation and safety of the natural environment;
2. That the topography of Union includes many water resources including Seven Tree Pond, Round Pond, Sennebec Lake, The Medomak and St. George Rivers, Pettingill Stream, wetlands, numerous brooks and significant ground water aquifers. These aquatic resources, together with significant areas of moderate to severe slopes within the Town of Union, make the Town very susceptible to environmental damage from runoff from areas where sludge may be spread.

SECTION IV: SLUDGE PERMIT APPLICATION PROCEDURE

A. Application Procedure

1. An applicant wishing to deliver, store, or spread sludge or residuals shall complete a 'Sludge Application Form' provided by the Town of Union.
2. The applicant shall file ten (10) copies of the application, supporting documentation, application fees and escrow monies with the Union Code Officer at least thirty (30) days in advance of the Planning Board meeting at which the applicant wishes to be on the agenda.
3. The application shall be accompanied by a non-refundable 'application fee' of five thousand dollars (\$5,000) in the form of a bank or certified check payable to the Town of Union, such fees to be used for initial expenses to the town of Union and the remainder to the general fund.
4. The application shall be accompanied by an 'escrow check' in the amount of thirty-five thousand dollars (\$35,000), payable to the Town of Union. These funds shall be placed in an interest bearing account by the Town of Union referenced to the applicant by social security or

Union Sludge Ordinance

federal identification number. The funds in this account shall allow the Town of Union to provide necessary expertise in reviewing the application and conducting additional studies that the Union Planning Board may require to ensure that public health and natural resources of Union would not be at risk by the spreading or storage of sludge. Funds shall be withdrawn from this account by the Treasurer of the Town of Union only at the Planning Board's request. Any interest earned and any remaining balance in the account shall be returned to applicant following approval or denial of the application. If, during the review process, the escrow funds are not sufficient to cover expenses incurred, the Planning Board shall determine what additional funds are necessary and shall notify the applicant. The applicant shall deposit the funds requested with the Town of Union within fourteen (14) business days of written notification.

5. The Planning Board shall determine if the application is complete. If the application is found to be incomplete, the Planning Board shall notify the applicant, in writing, within fourteen (14) days, of any additional information required.

6. The applicant shall provide the additional information within thirty (30) days of receiving a written request for more information from the Planning Board. If the additional information requested is not received, the application shall be considered denied.

7. Upon receiving all required information, the Planning Board shall deem the application complete.

8. The Planning Board shall hold a 'public hearing' within thirty 30 days of determining that an application is 'complete'.

9. The Planning Board shall require notification of the public hearing to be sent by certified mail, return receipt requested, to owners of all property, within the town of Union and within 2,800 feet of the proposed sludge spreading site, at least 10 days before the scheduled public hearing.

10. Notice shall also be published in newspapers of general circulation in the Town of Union at least ten (10) days prior to the public hearing, such as the Camden Herald, Courier Gazette and Bangor Daily News.

11. Notice shall also be posted in five (5) public places designated by the Planning Board.

12. The Planning Board, after due deliberation, shall determine whether the application should be approved, approved with conditions, or denied. Upon approval of an application by the Planning Board, a copy of that approval, together with any conditions attached thereto, shall be recorded in the Knox County Registry of Deeds to be indexed under the name of the property owners with reference to book and page of all proposed sites.

13. If, during the Union application process, an applicant is denied permission to spread sludge on the subject property by the Maine Department of Environmental Protection, the Applicant shall notify the Town of Union within three (3) days. Notice of denial by DEP shall terminate the application process in Union. The Planning Board shall take no further action and the application shall be deemed denied.

14. The Planning Board, within fourteen (14) days of reaching a final decision shall notify the applicant in writing.

15. Upon approval of an application by the Planning Board and review by the Code Officer, the Code Officer may issue a permit.

Union Sludge Ordinance

16. A permit issued under this Ordinance shall be valid for a period of one (1) year from date of issuance.

17. If, at any time, as a result of any testing required by DEP or this Ordinance, elements or compounds are found in quantities which may be harmful to the health and safety of humans, animals, and/or aquatic life, the Planning Board shall require additional testing at the applicant's expense and shall review the conditions of the permit. The Planning Board may, based on the additional testing or risk assessment determine that continued storage and/or spreading of sludge or residuals poses a risk to the health and safety of human, animal, or aquatic life and may take appropriate action including modifications or suspension of any permit.

B.Submission Requirements

1. An application to spread sludge or residuals shall include the following:

- a. A complete 'Sludge Application for the Town of Union';
- b. A complete "Application for Sludge Utilization" prepared for DEP;
- c. An application fee of \$5,000 and an escrow fee of \$35,000;
- d. A map to scale of the proposed site that clearly indicates property lines, abutters, owners of property within 1,250 feet, existing water wells located within 1,250 feet, primary sand and gravel recharge areas, and ground water aquifers with twenty (20) foot contours
- e. A baseline soil analysis of each site conducted in a manner recommended by the Natural Resource Conservation Service and including testing as per Appendix A of this Ordinance,
- f. A baseline test of all water wells within 1,250 feet of the proposed site;
- g. A hydrogeologic analysis conducted by a certified geologist or registered professional engineer qualified by education and experience to conduct such an analysis. This analysis shall be sufficient to determine that the application of sludge would meet the performance standards set forth in Section IV of this Ordinance and shall include, but not be limited to, the following:
 - i. A site-specific geologic literature search.
 - ii. Aerial photo interpretation, including a photolineament analysis to identify potential high-yield aquifers and their recharge areas.
 - iii. Documentation of type, depth, yield, static water level and length of casing of any water wells within 1,250 feet of a proposed spreading site.
 - iv. Reconnaissance field mapping by a certified geologist of the surficial and bedrock geology of the proposed site and all areas within 1,250 feet, which field mapping shall relate any observed bedrock outcrop fracture orientation and spacing data to the photolineament analysis.
 - v. Documentation of the hydrogeologic setting of the site including, but not limited to, a general description of the depth and expected seasonal variations in depth to the first ground water table encountered below ground surface, a description of the general direction of ground water flow up to the point where discharge to surface water occurs, a description of the relationship of the site to any significant aquifers including bedrock aquifers or inferred bedrock aquifers.

Union Sludge Ordinance

- vi. A description of the background ground water quality at the up gradient edges of the proposed site. This shall include background levels for any constituent regulated by this Ordinance as set forth in Appendix A.
- vii. A proposed ground water monitoring plan to be used from just prior to, during, and for 2 years following the application of the sludge, including the proposed horizontal and vertical placement of monitoring wells and all domestic wells within 1,250 feet monitored, frequency of monitoring, and precision of measurement for each parameter to be measured.
- h. A plan for an independent weekly analysis of the sludge. The sampling and analysis shall be performed on all sludge by a state-certified laboratory chosen by the Planning Board. Sampling and analysis shall be based on the "Methodology for Sampling and Analysis of PCDD's and PCDF's in Sludge and Residuals".
- i. A plan for the submission of all test results required by this Ordinance.
- j. The Planning Board may require; where the site location is under heavy agricultural use, where there is a potential for leaching of heavy metals, where the site has previously been used as a waste site, where there are general site conditions including slope and proximity to aquatic or wetland resources, such other information, including additional testing, as it may deem necessary and appropriate for the evaluation of the application.

SECTION V: PERFORMANCE STANDARDS

A. General Standards

1. Storage and/or spreading of sludge residuals is prohibited, unless approval has been obtained from the Planning Board and a permit issued by the code officer.
2. There shall be no winter field stacking of sludge or residuals. Stacking on each site shall be limited to the amount approved for use on such site.
3. Temporary field stacking, should it occur, shall not leach into the soil nor disperse into the air nor emit malodorous odors to the atmosphere.
4. Spreading of sludge or residuals shall only be allowed from May 15 to October 15 in any year. Spreading of sludge or residuals is prohibited if it is raining or the ground is saturated, frozen, or snow-covered.

B. Testing Requirements

Subject to approval by DEP, the Planning Board shall recommend for approval, or conditional approval, an application for spreading of sludge or residuals if the applicant agrees to comply with any additional testing required by this Ordinance or approval conditions, including, but not limited, to the following:

1. Site Testing and Monitoring

- a. Soils Analysis: The applicant shall furnish a baseline soils analysis and soils testing program in accordance with the provisions of this Ordinance with the initial application to the Planning Board.
- b. Water Analysis: The applicant shall install at least two (2) monitoring wells on each site. The number and location of wells to be determined by a certified geologist or registered professional engineer mutually acceptable to the Planning Board and the applicant. The

Union Sludge Ordinance

water in the monitoring wells shall be tested weekly based on parameters for sludge or residuals approved by the Planning Board.

2. Characteristics of Sludge or Residuals

- a. The Planning Board shall provide for the supervision of an independent test sample taken from each delivery of sludge into the environs of the Town of Union and tested by the "EP Toxicity Test" as required by Appendix A of this Ordinance.
- b. Sludge or residuals shall not be delivered to, stored, or spread in the Town of Union if testing required by this Ordinance indicates that concentrations of heavy metals, organic compounds, or other pollutants exceed the permissible concentrations and/or limits codified in DEP regulations for the management and spreading of sludge.

3. Hydrogeological Criteria

- a. Sludge or residuals shall not be stored or spread on land with a slope of greater than 15%.
- b. Where the proposed application site has a slope of 15% or less, sludge or residuals shall not be delivered to, stored, or spread within the following setback areas:
 - i. Residences; bodies of water including but not limited to lakes, ponds, and streams; water supply wells - 1000 feet
 - ii. Intermittent streams - 500 feet
 - iii. Public roadways, drainage gullies, property boundaries - 500 feet
- c. No sludge or residuals may be stored, or spread on a site closer than a 200 days hydraulic ground water travel time from or to the nearest water well.
- d. Sludge or residuals shall not be stored or spread over a significant ground water aquifer, primary sand and gravel recharge area or within the recharge area of a public water supply.
- e. Sludge or residuals shall not cause the State of Maine Primary Drinking Water Regulations as amended, which are incorporated by reference, to be exceeded in the ground water at a distance greater than 50 feet from the edge of the sludge or residuals spreading boundary. The burden shall be upon the applicant to show that the spreading of sludge or other residuals will not cause these standards to be exceeded.

4. Aquatic Impact Criteria

The spreading of sludge or residuals shall not cause the National Water Quality Criteria (freshwater chronic criteria) established by the U.S. Environmental Protection Agency to protect aquatic organisms, to be exceeded in classified water bodies that will receive runoff from the site of the storage or spreading of sludge or other residuals. The freshwater chronic criteria appear in full in the "Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and Their Uses," published in the EPA document Quality Criteria for Water, 1989, EPA 440/5-6-00 1. The burden shall be on the applicant to establish that the spreading of sludge or other residuals will not cause these criteria to be exceeded.

5. Additional Requirements

The Planning Board shall not approve an application for the spreading of sludge or residuals on land or the storage of sludge or residuals within the Town of Union unless;

- a. The applicant agrees in writing to furnish the Code Enforcement Officer for the Town of Union with copies of all conditions and limitations imposed by DEP, and advanced notice

Union Sludge Ordinance

of at least seven (7) days of any changes in the composition of the sludge or residuals, and further testing required by the DEP and the results of those tests.

b. The applicant agrees in writing to notify the Code Enforcement Officer for the Town of Union at least seven (7) days in advance of delivery of any sludge or residuals, to advise said Code Enforcement Officer of the proposed spreading schedule, and the identity of the person actually doing the spreading. The person spreading sludge or residuals shall notify said Code Enforcement Officer not later than seven (7) days prior to spreading.

c. The applicant has provided the landowner and the Town of Union a written statement indicating that the applicant has agreed to indemnify the owner for any damages resulting from the spreading of sludge or residuals.

d. Each load shall be tested at the plant prior to being transferred to the site location for materials deemed pertinent by the Planning Board, and the material delivered to the site also be tested upon delivery to the site and prior to any spreading. No spreading will be allowed until the results of the tests are received and evaluated and permission to spread is obtained from the Code Enforcement Officer.

e. The applicant shall furnish documentation as to its financial responsibility should the storage and/or spreading of sludge or residuals prove hazardous to the health and safety of the residents, their descendants, the wildlife, soil, water, and/or air quality of the Town of Union, and to fund the mitigation expense of full cleanup of any site as is necessary. In order to demonstrate this financial responsibility, the applicant shall be required to provide the following:

i. A liability insurance policy covering all potential liability including mitigation expenses, in an amount commensurate with the risk attributable to the potential spreading site, but in no case less than \$1,000,000.00. The Town shall be named as additional insured on that policy. Cancellation of any such policy shall be considered a revocation of the permit to spread and no further material may be transferred to that site or spread at that site.

ii. The applicant shall furnish to the Town of Union a performance bond which shall be in an amount determined by the Planning Board and shall be available to the Town to provide funding for any cleanup or mitigation activities that may be required as a result of damages that may occur from sludge spreading activities. The performance bond shall be for the duration of spreading activities plus five (5) years after termination.

f. The applicant agrees in writing to provide a fence or other sturdy barrier to prevent access to the sludge or residuals storage and/or spreading area by animals or unauthorized individuals.

SECTION VI: ENFORCEMENT AND PENALTY

A. The Union Code Enforcement Officer shall have the right to enter storage and/or application sites at all reasonable hours for the purpose of inspecting sites for compliance with this Ordinance.

B. If the Code Enforcement Officer finds violations of any permit conditions imposed by this Ordinance or DEP Sludge Spreading Regulations he shall issue a written notice to the landowner, Planning Board, applicant, operator (if different from the landowner) and DEP. Further application shall be halted until the Planning Board can meet to examine the issue.

C. The Code Enforcement Officer, upon finding that provisions of this Ordinance or conditions

Union Sludge Ordinance

of approval have been violated, shall suspend the permit. The Code Enforcement Officer may take any other action deemed necessary, including prosecution of the code violation pursuant to Rule 80K of the Maine Rules of Civil Procedure.

D. An applicant and/or operator who violates the Ordinance or the conditions of approval, as well as the owner who permits such violations to occur, shall each be guilty of a civil violation and shall be subject to a civil penalty of not less than \$5,000 nor more than \$50,000 for each offense. Each day such violation is permitted to exist after notification shall constitute a separate offense.

SECTION VII: APPEALS.

An aggrieved party may appeal any final action taken by the Planning Board to the Union Board of Appeals within thirty (30) days of a final decision.

SECTION VIII: VALIDITY, SEVERABILITY, AND CONFLICT WITH OTHER ORDINANCES, CODES, OR STATUTES.

A. Should any section or provision of this Ordinance be declared by a court to be invalid, such decision shall not invalidate any other section of this Ordinance.

B. Wherever the requirements of this Ordinance are inconsistent with the requirements of any other ordinance, code, or statute, the more restrictive requirements shall apply.

SECTION IX: DEFINITIONS

Applicant: The owner and/or operator of the waste water treatment plant or generator of the sludge

Baseline: Means the existing site conditions for a specific location prior to the storage or spreading of any sludge material at that location

Baseline Monitoring Plan: A monitoring plan that will define the existing site conditions for a specific location and shall include, but is not limited to, characterizations of the following resources: wildlife, surface water, ground water quality and quantity, soil type and condition, plant growth, air quality and socioeconomic characteristics

Code Officer: The Union Code Enforcement Officer

DEP: Maine Department of Environmental Protection

Fractured Bedrock Aquifer: A consolidated rock formation which is fractured and which is saturated and recharged by precipitation percolating through overlying sediments to a degree which will permit wells drilled into the rock to produce a sufficient water supply for domestic use

Ground Water: All the waters found beneath the surface of the earth which are contained within or under this State or any portion thereof, except such waters as are confined and retained completely upon the property of one person and do not drain into or connect with any other waters of the State

Operator: Any person who has care, charge, or control of a land site or storage facility site subject to this Ordinance. This person may be the owner, an agent, a lessee of the owner, or an independent contractor

Union Sludge Ordinance

Owner: Any person or persons who, alone or in conjunction with others, owns the property upon which is located an application site or storage facility site subject to this Ordinance

Planning Board: The Union Planning Board

Residuals: Pulp and paper mill waste water, treatment plant sludge, ash from incineration of sludge and wood generated by commercial or industrial facilities and other compounds containing a portion of these materials.

Significant Ground Water Aquifer: Any formation of soil or fractured bedrock that contains significant recoverable quantities of water

Significant Sand and Gravel Aquifer: A porous formation of ice-contact and glacial out wash sand and gravel that contains significant recoverable quantities of water which are likely to provide drinking water supplies

Sludge: The solid, semi-solid or liquid residue generated by a municipal, commercial or industrial waste water treatment plant and all materials containing same

Temporary Field Stacking: Short-term storage of sludge or other application materials for a period of not longer than forty-eight (48) hours

APPENDIX A

Testing Parameters

1. All soil, water, sludge and other residual tests shall include pH, Magnesium, Potassium, Phosphorous, Boron, Arsenic, Chloride, Selenium, Fluoride, Sulfate, Aluminum, Sodium, Cadmium, Copper, Nickel, Lead, Vanadium, Zinc, Silver, Barium, Calcium, Iron, Mercury, Manganese, Molybdenum, Nitrate, Nitrite, Ammonium, Total Kjeldahl N, Polychlorinated Dibenzofurans (PCDF's), Polychlorinated Biphenyls (PCB's), Total Organic Halogens (TOX), Polychlorinated Dibenzoprans, (All Dioxin Cogeners), Chromium (metallic, hexavalent, trivalent), and Pathogens.
2. Soil tests shall also include ion exchange capacity, crop recommendations, texture separate analysis, and percent of organic matter.
3. Water tests shall also include color and turbidity.
4. Sludge and Other Residuals Tests shall also include the percent of components present in the test results of paragraph 1 of this Appendix. The percent of loss of ignition shall also be included.