

NR 180.14 Solid waste land spreading sites and facilities. (1) **GENERAL.** No person shall operate or maintain a solid waste land spreading site or facility unless the person has obtained an operating license from the department, except as otherwise provided in sub. (2).

(2) **EXEMPTIONS.** (a) The following land spreading sites and facilities are exempt from the requirements of this section, but must be developed, operated and maintained in a safe, nuisance-free manner:

1. Sites used for the land spreading of nonhazardous solid waste from a single family or household, a member of which is the owner, occupant, or lessee of the property used for solid waste disposal.

2. Farms on which only nonhazardous agricultural solid wastes resulting from the operation of a farm, including farm animal manure, are disposed.

3. Sites receiving only sludge from a publicly-owned treatment work or a privately-owned domestic sewage treatment work having a permit under ch. 147, Stats., providing the sludge disposal is accomplished in accordance with the requirements of the permit.

4. Sites used exclusively for the disposal of waste regulated under ch. NR 113.

5. Sites used for the disposal of treated liquid municipal or industrial wastewater approved under s. 144.04, Stats., and/or permitted under ch. 147, Stats.

6. Sites used for the land spreading of whey providing the whey is applied as a soil conditioner or fertilizer in accordance with accepted agricultural practices.

7. Sites used for the land spreading of by-products from canned, frozen or preserved fruit and vegetable processing operations providing the by-products are applied as soil conditioners or fertilizers in accordance with accepted agricultural practices.

8. Nonagricultural or nonsilvicultural sites used for the land spreading of solid waste or solid waste derived products with demonstrated soil conditioning or fertilizer value providing the material is applied for soil amendment purposes. Examples of such sites are golf courses or public parks where compost material is land spread.

9. Sites used for the land spreading of lime sludges from papermills providing the sludge its applied as a soil conditioner or fertilizer in accordance with accepted agricultural practices.

10. Sites used exclusively for the land spreading of nonhazardous sludges determined under this paragraph to have value as a soil conditioner or fertilizer and if repeated applications of the sludge would not result either in excessive accumulation of toxic or hazardous substances in the soil or vegetation, or in detrimental effects to groundwater or surface water quality, provided that the sludges are generated at industrial wastewater treatment facilities which have been approved or permitted in accordance with s. NR 214.11. In determining whether sludge has value as a soil conditioner or fertilizer, the department shall require, at a minimum, a chemical and physical analysis of the waste. The department may on a case-by-case basis require greenhouse or experimental

field studies and may consider federal regulations, technical guidelines, and other related research in determining whether a sludge has value as a soil conditioner or fertilizer.

11. Sites used for the land spreading of other wastes similar in nature to those identified in subds. 1-10 providing written approval is obtained from the department.

(b) The following land spreading sites and facilities are exempt from the licensing requirements of this section, but must obtain approval in writing from the department pursuant to sub. (4) prior to their establishment and operation and must meet all other applicable provisions of this section:

1. Agricultural or silvicultural sites used for the land spreading of non-hazardous solid waste demonstrated to have soil conditioning and/or fertilizer value, providing the waste is applied as a soil conditioner or fertilizer in accordance with accepted agricultural practices.

2. Land spreading sites utilized on a limited, controlled, experimental basis for the purpose of studying the feasibility of using a solid waste as a soil conditioner or fertilizer.

(c) Land spreading sites used solely for research purposes under the direction of a Wisconsin registered professional engineer or a scientist employed by a university located within this state are exempt from the licensing and plan submittal requirements of this section provided that they meet the following requirements:

1. The net plot area, excluding plot borders and buffer strips, shall not exceed 4 acres.

2. The available nitrogen and heavy metal additions averaged over the total plot area shall not exceed the rates recommended by the department for municipal sewage sludges.

3. The site shall be developed, operated, and maintained in a safe, nuisance-free manner consistent with the intent of this section.

4. Copies of the research proposal shall be provided to the department in advance of initiating the research and all reports and research publications pertaining to the site shall be provided to the department.

(3) **LOCATIONAL CRITERIA.** No person shall establish, construct, operate, maintain or permit the use of property as a land spreading site or facility within the following areas:

(a) Within wetlands.

(b) Within 100 feet of any navigable body of water. A vegetative buffer strip shall be maintained between the navigable water and the application site.

(c) Within critical habitat areas.

(d) Within an area where the department after investigation finds that there is a reasonable probability that disposal of solid waste within such an area will have a detrimental effect on any surface water.

(e) Within an area where the department after investigation finds that there is a reasonable probability that disposal of solid waste within such an area will have a detrimental effect on groundwater quality.

(f) Within 10,000 feet of any airport runway used or planned to be used by turbojet aircraft or within 5,000 feet of any airport runway used only by piston type aircraft or within such other areas where a substantial potential bird hazard to aircraft would be created, unless a waiver is granted by the federal aviation administration, but this criteria is only applicable where such site or facility is used for disposing of putrescible waste such that a bird hazard to aircraft would be created.

(g) Within 1,000 feet of public water supply wells and/or 200 feet of private water supply wells.

(h) Within 500 feet of any residence, except that this distance may be reduced for the residence of the property owner on whose land solid waste is spread.

(4) **SOLID WASTE LAND SPREADING PLAN.** No person shall establish or construct a solid waste land spreading site or facility or expand an existing site or facility without first obtaining written approval from the department of a solid waste land spreading plan except as otherwise provided herein. The land spreading plan shall include in a detailed and understandable fashion the following:

(a) A description and analysis of each waste type proposed for deposition at a land spreading facility. Data on waste types shall include, at a minimum the following information:

1. The sources, processes, and/or treatment systems from which the wastes originate.

2. Waste pretreatment or waste processing techniques required prior to land spreading.

3. The volumes of solid waste to be land spread, stored, and/or disposed.

4. The physical and chemical characteristics of the waste obtained from representative waste samples. The parameters to be analyzed for shall be consistent with the waste material and shall in general, include but not be limited to, the following:

a. Physical characteristics including solids fraction and organic fraction.

b. pH.

c. Nutrient content including nitrogen, phosphorous, and potassium.

d. Metals content including arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc.

e. Salt content including chlorides, fluorides and sulfates.

f. Biological populations including total coliform, fecal coliform and any virus known to exist in the waste material.

g. Other parameters such as oils and greases, phenolics, pesticides, toxic substances and persistent organics, if present in the waste material.

(b) An assessment and analysis of data including conclusions drawn concerning the potential benefits and adverse effects of the land spreading program. Such assessment shall include a demonstration that the waste has value as a soil conditioner or fertilizer. Demonstration methods may include:

1. Documentation of previous successful uses of the solid waste, or other solid wastes with similar compositions, properties, and characteristics.

2. Documentation of compliance with existing Wisconsin department of agricultural, trade and consumer protection regulations pertaining to the licensing and marketing of fertilizers or soil conditioners.

3. Successful completion of an approved experimental solid waste land spreading program.

4. Other justification for use of the solid waste subject to written department approval.

(c) A description of information on the characteristics of the sites to be used for the land spreading program including, at a minimum, the following:

1. The site locations including copies of soils maps, plat maps and USGS topographic maps.

2. A description of the contracts or agreements covering use of the land including owner's name, address and telephone number.

3. A description of on-site land uses and current land uses on surrounding properties.

4. A description of the geology and hydrogeology of the site including the identification of all homes and/or private wells located within $\frac{1}{4}$ mile of the site.

5. A description of the crops to be grown or dominant vegetation on the site.

6. Soil test results from samples taken on-site. Parameters to be analyzed shall include soil pH, organic matter, available phosphorus, available potassium, and other parameters deemed necessary for analysis and design of the proposed operation.

7. A description of other soil additives to be used.

(d) Information on site design, site development and operating plans including, at a minimum, the following:

1. Provisions for interim waste storage and/or disposal when normal land spreading sites are unavailable or inaccessible, including:

- a. Type of storage or disposal

- b. Location of storage or disposal facility

- c. Capacity of storage or disposal facility
 - d. Construction details
 - e. Property interest or contractual agreement allowing use of the storage or disposal facility.
 - f. Future anticipated use of the storage or disposal facility.
 - g. Evaluation of environmental effects resulting from use of the storage or disposal facility.
2. Proposed mode of waste transportation, including:
 - a. The transporter of the waste
 - b. The method of transportation
 - c. The type of vehicle used for waste transportation
 - d. Spill contingency plans and notification procedures
 3. Proposed waste application rates, techniques, disposal frequencies and locations.
 4. Proposed maximum rates of application (annual and cumulative) for nitrogen, cadmium, and other heavy metals.
 5. Proposed crop monitoring, soil, groundwater and surface water monitoring.
 6. Proposed record keeping and reporting procedures to be used for monitoring waste volumes applied, application rates, disposal locations, and cumulative waste loading applied to each site.
 - (e) For sites and facilities required to be licensed, proposed site closure, maintenance, and long-term care procedures, and final land use plans for each land spreading site.
 - (f) For sites and facilities required to be licensed, proof of financial responsibility as specified in NR 180.15.
- (5) OPERATING REQUIREMENTS. No person shall operate or maintain a solid waste land spreading site or facility, except in conformance with an approved solid waste land spreading plan, if required, and the following minimum requirements:
- (a) Only approved waste types shall be disposed at the site. Plans to accept additional waste types require separate written approval from the department.
 - (b) The solid waste land spreading plan may be amended at any time, subject to written approval of the department. Any proposed amendment shall contain the same type of information required in the original land spreading plan. The amended plan may not be put into effect until it has been approved by the department.
 - (c) No solid waste shall be land spread in a manner that causes detrimental effects on ground or surface water quality.
 - (d) Depending on the type of operation to be conducted, solid waste materials shall be plowed, disced, or otherwise incorporated into the sur-

face soil layer at appropriate intervals as specified in the solid waste land spreading plan to minimize surface water runoff and surface leaching and to control objectionable odors.

(e) No solid waste shall be deposited in areas containing ponded or standing water.

(f) Maximum one time and/or cumulative application rates for cadmium and/or other heavy metals shall be strictly observed for disposal on land used for growing food chain crops.

(g) Waste materials with significant pathogen contents shall be properly stabilized prior to land spreading.

(h) Food chain crops grown on solid waste land spreading sites which have received waste applications containing pesticides or persistent organic materials shall not be marketed or used for human or animal consumption unless the crops meet all applicable contaminant levels as established by the United States food and drug administration.

(6) **MONITORING.** The owner or operator of every solid waste land spreading facility with an approved solid waste land spreading plan shall submit monitoring reports to the department on a frequency established in the land spreading plan. The report shall include the following information for each site utilized during the preceding reporting period:

(a) The amount of solid waste applied in tons per acre on a dry weight basis.

(b) The amount of nitrogen applied in pounds per acre on a dry weight basis.

(c) The amount of cadmium applied in pounds per acre on a dry weight basis.

(d) The total amount of each specific metal applied in pounds per acre as requested by the department on a dry weight basis.

(e) Other site monitoring results as specified in the approved land spreading plan.

(f) A description of any adverse environmental, health, or social effects that occurred due to solid waste disposal.

(g) A description of any action not in conformance with the approved land spreading plan.

(7) **CLOSURE.** Any person who operates or maintains a licensed land spreading facility, or permits the use of property for such purpose shall accomplish closure, maintenance and long-term care of the facility in accordance with any solid waste land spreading plan approval issued by the department and with the following minimum practices:

(a) At least 120 days prior to the closing of a licensed solid waste land spreading facility, the owner or operator shall notify the department, in writing, of the intent to close the site. This notice shall include the following information:

1. The proposed final date by which all solid waste disposal or land spreading operations will be terminated.

2. The current waste types, sources, and volumes of solid wastes being deposited at the site.

3. The cumulative volumes of waste which were applied to the site during active operations.

4. The reasons and/or intent for closing the site.

5. The proposed future land uses of those areas previously used for waste deposition.

6. Special precautions to be utilized, if appropriate, to limit access to the facility, and to insure that no further solid waste materials are deposited after the closure date.

7. The proposed site closure, site monitoring, and long-term care procedures to be implemented following site closure. These procedures shall be in accordance with the approved solid waste land spreading plan or any proposed modifications to the plan.

8. The alternate licensed sites or approved facilities to be utilized for waste disposal and/or land spreading purposes following closure of the facility.

(b) The department will review the notice of intent to close the facility and will approve or disapprove in writing the proposed closure procedures. The department may require additional information, or may require additional closure, maintenance, and/or long-term care procedures to be implemented to insure proper closure of the site.

1. If the facility to be closed was initially licensed under this section, site closure, maintenance, and long-term care procedures shall be conducted in accordance with the approved solid waste land spreading plan unless subsequently modified, or unless otherwise specified by the department.

2. If the facility to be closed was not initially licensed under this section, a final site closure and long-term care and monitoring plan shall be prepared and submitted to the department for approval as part of the notice of intent for site closure.

(c) No person shall deposit any solid waste materials at a closed site without the prior written authorization of the department, and the approval of the site owner.

(d) Within 90 days of the final closure date of a site, all closure work shall be completely and finally performed in accordance with this subsection.

(e) Complete and proper final closure of a land spreading site may include, but not be limited to, the following:

1. Discing, plowing, or otherwise incorporating all deposited solid waste materials into the surface soil layers, or covering all land spreading areas with an adequate thickness of final earth cover material.

2. Providing for the control of surface water runoff to minimize adverse effects on surface and/or groundwater quality.

3. Establishing a vegetative cover to promote evapotranspiration and to control soil erosion, and/or otherwise preparing the land surface for the intended future land use.

4. Continuing to grow crops and conducting the associated monitoring work.

5. Performing the required environmental monitoring work associated with the approved final closure and long-term care plans.

(f) The department shall require long-term care as defined in s. 144.441, Stats., only of licensed land spreading facilities for which waste management fund monies may be expended in accordance with s. 144.44 (3), Stats. The department may require the following provisions:

1. Erosion control and maintenance of vegetation.
2. Control of surface drainage.
3. Ground and/or surface water quality monitoring.
4. Gas monitoring.
5. Soils and/or crop testing programs.
6. The preparation and submittal of monitoring data and/or reports.

(8) **WASTE MANAGEMENT FUND.** Land spreading sites and facilities which are exempt from licensing are not required to contribute to the waste management fund.

(9) **PUBLIC PARTICIPATION.** For sites requiring approval of a solid waste land spreading plan, the department prior to approval shall prepare an environmental impact assessment screening worksheet and provide opportunity for public comment according to the procedures established in ch. NR 150, except that the notice shall be published as a class 1 notice under ch. 985, Stats. The department shall hold a hearing on the proposed land spreading plan if a written request for a hearing is filed by any county, city, village or town, or by any 6 persons within 30 days from the time the notice is published. A hearing under this subsection shall be held within 60 days after receipt of the request and shall be conducted as provided in s. 227.022, Stats. The hearing shall be held in an appropriate place designated by the department in one of the counties, cities, villages or towns which could be affected by the operation of a proposed site.

(10) Prior to licensing a site, the owner or operator shall submit proof that a notation of the existence of the site has been recorded in the office of the register of deeds in each county in which a portion of the site is located.

History: Cr. Register, February, 1980, No. 290, eff. 3-1-80; renum. (2) (a) 10. to be 11. and am., cr. (2) (a) 10., Register, January, 1983, No. 325, eff. 2-1-83.

NR 180.15 Financial responsibility for closure and long-term care. (1) **APPLICABILITY.** (a) *Closure.* The owner of a site for the land disposal of solid waste which is approved and licensed after May 20, 1978, or which was initially licensed between May 21, 1975 and May 20, 1978 and whose owner successfully applied before May 21, 1980 for a determination that the site's design and plan of operation comply substantially with the requirements of this chapter, shall submit, as part of the initial operating license application, proof of financial responsibility

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to ensure compliance with the closure requirements of the site's approved plan of operation.

(b) *Long-term care.* The owner of a site for the land disposal of solid waste which is approved and licensed after May 20, 1978, or which was initially licensed between May 21, 1975, and May 20, 1978, and whose owner successfully applied before May 21, 1980, for a determination by the department that the site's design and plan of operation comply substantially with the requirements of this chapter, shall be responsible for the long-term care of the site for either 20 or 30 years after site closure, unless the owner's responsibility is terminated earlier in accordance with s. 144.441 (2) (d), Stats. An owner responsible for long-term care shall specify at the time of submittal of the plan of operation whether the owner chooses, to be responsible for 20 years, subject to department approval or 30 years and shall submit, as part of the initial operating license application and annually thereafter for the period of active site life, proof of financial responsibility to ensure compliance with the long-term care requirements of the plan of operation.

(c) *Successors in interest.* Any person acquiring rights of ownership, possession or operation of a licensed site shall be subject to all requirements of the license for the site and shall provide proof of financial responsibility to the department in accordance with this section prior to the transfer of ownership, possession, or operation of the site.

(2) **METHODS OF PROVIDING PROOF OF FINANCIAL RESPONSIBILITY.** Financial assurances for closure and long-term care shall be established separately. To provide proof of financial responsibility, the applicant shall use one of the following methods for each account:

(a) *Performance or forfeiture bond.* 1. If the owner chooses to submit a bond, it shall be in the amount determined according to sub. (4) (b) conditioned upon faithful performance by the owner and any successor in interest, of all closure or long-term care requirements of the approved plan of operation. The bond shall be delivered to the department as part of the initial operating license application. Bond forms shall be supplied by the department.

2. Bonds shall be issued by a surety company authorized to do surety business in this state. At the option of the owner a performance bond or a forfeiture bond may be filed. The department shall be the obligee of the bond. Surety companies may have the opportunity to complete the closure or long-term care of the site in lieu of cash payment to the department if the owner or any successor in interest fails to carry out the closure or long-term care requirements of the approved plan of operation.

3. Each bond shall provide that as long as any obligation of the owner for closure or long-term care remains the bond shall not be cancelled by the surety, unless a replacement bond or other proof of financial responsibility under this section is provided to the department. If the surety proposes to cancel such a bond, notice shall be provided to the department in writing by registered or certified mail not less than 90 days prior to the proposed cancellation date. Not less than 30 days prior to the expiration of the 90-day notice period, the owner shall deliver to the department a replacement bond or other proof of financial responsibility under this section in the absence of which all disposal operations shall immediately cease. If the surety company becomes bankrupt or

insolvent or if its authorization to do business is revoked or suspended, the owner shall, within 30 days after receiving written notice thereof, deliver to the department a replacement bond or other proof of financial responsibility under this section in the absence of which all disposal operations shall immediately cease.

(b) *Deposit with the department.* If the owner deposits cash, certificates of deposit, or U.S. government securities with the department, the amount of the deposit shall be determined according to sub. (4) (a) and shall be submitted as part of the initial license application. Deposits placed with the department shall be segregated and, if applicable, invested in an interest bearing account. All interest payments shall be accumulated in the account. The department shall have the right to use part or all of the funds to carry out the closure or long-term care requirements of the approved plan of operation if the owner fails to do so. The department shall mail notification of its intent to use funds for that purpose to the last known address of the owner. If the owner requests a hearing in writing within 60 days after the mailing of the notification, the department shall, prior to using the funds, hold a hearing under s. 227.064, Stats., for the purpose of determining whether or not the closure or long-term care requirements of the approved plan of operation have been carried out.

(c) *Escrow account.* If the owner establishes an escrow account, it shall be with a bank or a financial institution located within the state of Wisconsin which is examined and regulated by the state or a federal agency in the amount determined according to sub. (4) (a). The assets in the escrow account shall consist of cash, certificates of deposit, or U.S. government securities. All interest payments shall be accumulated in the account. An originally signed duplicate of the escrow agreement shall be submitted to the department as part of the initial operating license application. Escrow account forms shall be supplied by the department. The department shall be a party to the escrow agreement, which shall provide that there shall be no withdrawals from the escrow account except as authorized in writing by the department. The escrow agreement shall further provide that the department shall have the right to withdraw and use part or all of the funds in the escrow account to carry out the closure or long-term care requirements of the approved plan of operation if the owner fails to do so. The department shall mail notification of its intent to use funds for that purpose to the last known address of the owner. If the owner requests a hearing in writing within 60 days after the mailing of the notification, the department shall, prior to using the funds, hold a hearing under s. 227.064, Stats., for the purpose of determining whether or not the closure or long-term care requirements of the approved plan of operation have been carried out.

(d) *Irrevocable trust.* If the owner creates an irrevocable trust, it shall be exclusively for the purpose of ensuring that the owner or any successor in interest will comply with the closure or long-term care requirements of the approved plan of operation. The trust agreement shall designate the department as sole beneficiary. The trustee shall be a bank or other financial institution located within the state of Wisconsin which has the authority to act as a trustee and whose trust operations are regulated and examined by the state or federal agency. The trust corpus shall consist of cash, certificates of deposit or U.S. government securities in the amount determined according to sub. (4) (a). All interest payments

shall be accumulated in the account. An originally signed duplicate of the trust agreement shall be submitted to the department for approval as part of the initial operating license application. Trust forms shall be supplied by the department. The trust agreement shall provide that there shall be no withdrawal from the trust fund except as authorized by the department. The trust agreement shall further provide that sufficient monies shall be paid from the trust fund to the beneficiary in the event that the owner or any successor in interest fails to complete the closure or long-term care requirements of the approved plan of operation. The department shall mail notifications of its intent to use funds for that purpose to the last known address of the owner. If the owner requests a hearing in writing within 60 days after the mailing of the notification, the department shall, prior to using the funds, hold a hearing under s. 227.064, Stats., for the purpose of determining whether or not the closure or long-term care requirements of the approved plan of operation have been carried out.

Note: These forms may be obtained from the Department of Natural Resources, Bureau of Solid Waste Management, P.O. Box 7921, Madison, Wisconsin 53707.

(3) COST ESTIMATES. (a) For the purpose of determining the amount of proof of financial responsibility that is required in sub. (1), the owner shall estimate the total cost of closure for the point in time in the site's operation when the extent and manner of its operation make closure most expensive, estimate the annual cost of long-term care of the site for the period of owner responsibility and submit the estimated closure and long-term costs together with all necessary justification to the department for approval as part of the plan of operation submittal. The costs shall be reported on a per unit basis. The source of estimates shall be indicated.

(b) At a minimum, closure costs shall include cover material, topsoil, seeding, fertilizing, mulching and labor.

(c) At a minimum, long-term care costs shall include land surface care; gas monitoring; leachate pumping, transportation, monitoring and treatment; and groundwater monitoring, collection and analysis.

(d) The estimated rate of inflation shall be the latest percent change in the annual gross national product implicit price deflator published in the survey of current business of the bureau of economic analysis, U.S. department of commerce.

(e) The estimated annual rate of interest shall be the rate specified by the financial institution managing the fund or deposit.

(4) FORMULAS FOR CALCULATING THE AMOUNT OF THE PROOF OF FINANCIAL RESPONSIBILITY. (a) *Deposits in escrow, trust or department accounts.* 1. 'Deposits for closure.' The formula for closure shall be:

$$D = C \frac{(1 + .f)}{(1 + i)}$$

in which:

D = the unknown deposit for closure

C = the estimated cost of closure in today's dollars for the maximum area to be open at any point in time

f = the estimated annual rate of inflation

i = the estimated annual rate of interest

2. 'Deposits for long-term care.' a. The following statistics used in calculating the amounts deposited to the long-term care account shall be specified in the plan of operation: the rate of outpayment during the period of long-term care, expressed in equal or unequal annual amounts, and the equal annual rate of inpayment, expressed as either "real" or "actual" dollars.

b. The following general formula shall be used in the calculation.

$$A = R$$

When equal annual outpayments are used, R shall be expressed as:

$$R(1 + f)^{SL} \left(\frac{1 + f}{1 + i} \right)^c \left[\frac{1 - \left(\frac{1 + f}{1 + i} \right)^{LTC}}{\left(\frac{1 + i}{1 + f} \right) - 1} \right]$$

When unequal annual outpayments are used, R shall be expressed as:

$$R_x (1 + f)^{SL} \left(\frac{1 + f}{1 + i} \right)^{x+c}$$

When equal "actual" dollar inpayments are used, A shall be expressed as:

$$A(1 + i) \left[\frac{(1 + i)^{SL} - 1}{i} \right]$$

When equal "real" dollar inpayments are used, A shall be expressed as:

$$A(1 + i)^{SL+1} \left[\frac{1 - \left(\frac{1 + f}{1 + i} \right)^{SL}}{i - f} \right]$$

in which:

A = the unknown annual inpayment for long-term care

i = the estimated annual rate of interest

f = the estimated annual rate of inflation

SL = the estimated active life of the site in years

R = the estimated annual costs

x = the year of long-term care

LTC = the period of long-term care

c = the period of closure

(b) *Performance or forfeiture bonds.* 1. 'Bonds for closure.' The formula for closure shall be:

$$CB = C (1 + f)$$

in which:

CB = the unknown amount of the closure bond

C = the estimated closure cost

f = the estimated annual rate of inflation

2. 'Bond for long-term care.' a. The rate of outpayment shall be as specified in sub. (4) (a) 2., the rate of inpayment shall be in equal "actual" dollars as specified in the plan of operation.

When equal annual outpayments are used, the formula shall be:

$$PB (SL) = R (1 + f)^{SL+1+c} \left[\frac{(1 + f)^{LTC} - 1}{f} \right]$$

When unequal annual outpayments are used, the formula shall be:

$$PB(SL) = R_x (1 + f)^{SL+x+c}$$

in which:

PB = the unknown annual performance bond amount for long-term care

f = the estimated annual rate of inflation

SL = the estimated active life of the site in years

R = the estimated annual costs

LTC = the long-term care period

x = the year of long-term care

c = the period of closure

(5) ADJUSTMENT OF FINANCIAL RESPONSIBILITY. The owner of a site for the land disposal of solid waste shall prepare a new closure cost estimate whenever a substantial change in the closure plan affects the cost of closure and a new long-term care cost estimate whenever a substantial change in the long-term care requirements of the plan of operation affects the cost of long-term care. Proof of the increase in value of all bonds, escrow accounts and trust accounts established under this section shall be submitted annually to the department. The department may adjust the amount of the required proof of financial responsibility for closure or long-term care based upon prevailing or projected interest and inflation rates and the latest cost estimates, and may annually require the owner to increase or decrease the amount of proof of financial responsibility accordingly.

(6) ACCESS AND DEFAULT. Whenever on the basis of any reliable information and after opportunity for a hearing, the department determines that an owner or operator of a solid waste site is in violation of any of the requirements for closure or long-term care specified in the approved plan of operation, the department shall have the right to enter upon the facility and carry out the closure or long-term care requirements. The department may use part or all of the money deposited with it, or the money deposited in the escrow or trust accounts, or the performance or forfeiture bonds to carry out these requirements.

(7) **AUTHORIZATION TO RELEASE FUNDS.** (a) *Closure.* When an owner or operator has completed closure, the owner may apply to the department for release of the bond or return of the money held on deposit, in escrow, or in trust for closure of the site. Such application shall be accompanied by an itemized list of costs incurred. Upon determination by the department that complete closure has been accomplished, the department shall authorize release and return of all funds accumulated in such accounts or give written permission for cancellation of a bond. Such determinations shall be concluded within 90 days of the application.

(b) *Long-term care.* One year after closure, and annually thereafter for the period of owner responsibility, the owner, who has carried out all necessary long-term care during the preceding year, may make application to the department for reimbursement from an escrow account, trust account, or deposit with the department, or for reduction in a bond equal to the estimated costs for long-term care for that year. Such application shall be accompanied by an itemized list of costs incurred. Upon determination that the expenditures incurred are in accordance with the long-term care requirements anticipated in the approved plan of operation, the department may authorize release of the funds or approve a reduction in a bond. Prior to authorizing a release of funds or bond reduction, the department shall determine that adequate funds exist to complete required long-term care work for the remaining period of owner responsibility. Such determination shall be concluded within 90 days of the application. Any funds remaining in an escrow account, trust account, or on deposit with the department at the termination of owner responsibility shall be released to the owner.

History: Cr. Register, February, 1980, No. 290, eff. 3-1-80; r. and recr. Register, September, 1981, No. 309, eff. 10-1-81; reprinted to correct formulas in sub. (4), Register, November, 1981, No. 311; am. (3) (d), (4) (a) 1., (4) (b) 1., Register, June, 1982, No. 318, eff. 7-1-82.

NR 180.16 Waste management fund. (1) All owners or operators of licensed land disposal sites shall contribute to the waste management fund established by s. 25.45, Stats., for each ton of solid waste received and disposed of at the site from May 21, 1978, until the site is closed and no longer receives waste, except as otherwise provided in s. 144.441 (3), Stats.

(2) The owner or operator of a licensed land disposal site shall certify on a form provided by the department the amount of solid waste received and disposed of during the preceding reporting period. The department shall specify the term of the reporting period on the certification form. The certification form shall be completed and returned to the department with the appropriate fee within 30 days after mailing of the form by the department to the owner or operator.

(3) (a) For all sites with an approved plan of operation under s. 144.44 (3), Stats., the owner may choose to be responsible for the long-term care of the site for either 20 years or 30 years after site closure. The fees to be paid into the fund shall be as follows for specific waste types:

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<u>Waste type</u>	<u>Rate of payment</u>	
	<u>20 Years</u>	<u>30 Years</u>
1. Municipal solid waste	3.5¢/ton	1.5¢/ton
2. Ashes and sludges from electric and process steam generating facilities	3.5¢/ton	1.5¢/ton
3. Pulp or paper mill sludges produced by waste treatment or manufacturing processes	3.5¢/ton	1.5¢/ton
4. Manufacturing process solid waste from foundries	3.5¢/ton	1.5¢/ton
5. Sludges produced by municipal wastewater treatment plants	3.5¢/ton	1.5¢/ton
6. All other solid wastes not designated as hazardous	3.5¢/ton	1.5¢/ton

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