



CR 83-138

State of Wisconsin

DEPARTMENT OF NATURAL RESOURCES

Carroll D. Besadny  
Secretary

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STATE OF WISCONSIN )  
DEPARTMENT OF NATURAL RESOURCES ) ss

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TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, Carroll D. Besadny, Secretary of the Department of Natural Resources and custodian of the official records of said Department, do hereby certify that the annexed copy of Natural Resources Board Order No. SW-38-83 was duly approved and adopted by this Department on January 25, 1984. I further certify that said copy has been compared by me with the original on file in this Department and that the same is a true copy thereof, and of the whole of such original.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the official seal of the Department at General Executive Facility #2 in the City of Madison, this 13<sup>th</sup> day of March, 1984.

*Carroll D. Besadny*  
Carroll D. Besadny, Secretary

(SEAL)

3081I

ORDER OF THE STATE OF WISCONSIN  
NATURAL RESOURCES BOARD

AMENDING RULES

.....  
IN THE MATTER of amending s. NR 180.15, .  
of the Wisconsin Administrative Code, .  
pertaining to financial responsibility .  
for closure and long-term care of .  
solid waste land disposal facilities .  
and for commercial PCB waste storage .  
or treatment facilities. .  
.....

SW-38-83a

Analysis Prepared by the  
Department of Natural Resources

Section 144.443, Stats., and Chapter NR 180 require owners and operators of approved and licensed solid waste land disposal facilities to provide proof of financial responsibility for closure and long-term care of the facilities.

Chapter 374, Laws of 1981, effective on May 7, 1982, allows the use of a letter of credit or the net worth test as proof of financial responsibility; allows the use of other methods of proof of financial responsibility that are acceptable to the Department; and requires proof of financial responsibility for PCB commercial waste treatment and storage facilities. Since NR 180.15 is based on the statutes amended by Chapter 374, it was necessary to change the provisions of the rule. In addition, the Department reformatted the long-term care formulas for clarity; changed wording regarding a request for a hearing prior to converting a proof method in the event of the owner not performing closure or long-term care activities; included closure insurance and long-term care insurance as an acceptable method of proof of financial responsibility; and made other minor wording changes for clarity and completeness.

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Pursuant to the authority vested in the State of Wisconsin Natural Resources Board by ss. 144.431, 144.435, 144.44, 144.441, 144.443 and 227.014, Stats., the State of Wisconsin Natural Resources Board hereby amends rules interpreting ss. 144.44, 144.441 and 144.443, Stats., as follows:

SECTION 1. NR 180.15 is amended to read:

NR 180.15

NR 180.15 FINANCIAL RESPONSIBILITY FOR CLOSURE AND LONG-TERM CARE. (1) DEFINITIONS. (a) "Actual

dollar Inpayments" means equal annual payments made by the facility owner into a long-term care account.

(b) "Certificate of deposit" means a certificate issued by a bank or financial institution acknowledging receipt of a specified sum of money in a special kind of time deposit, drawing interest and requiring written notice for withdrawal.

(c) "Closure period" means the 90 day period after the facility ceases to accept waste, unless otherwise specified in the approved plan of operation.

(d) "Equal annual outpayments" means estimated payments for long-term care which are the same amount in each year of the period of owner responsibility for the long-term care of the facility.

(e) "Interest bearing accounts" means escrow accounts, trust accounts or cash deposits with the department.

(f) "Non-interest bearing accounts" means letters of credit, performance bonds or forfeiture bonds.

(g) "Real dollar inpayments" means payments made by the facility owner, which increase each year at the rate of inflation, into a long-term care account.

(h) "Unequal annual outpayments" means estimated payments for long-term care which are higher in the early years of the period of owner responsibility for long-term care than they are later in the long-term care period after the facility has stabilized.

(i) "U.S. government securities" includes treasury bills, treasury bonds, treasury certificates, treasury notes, and treasury stocks guaranteed by the federal government.

↔(2) APPLICABILITY. (a) Closure. 1. The owner of a ~~site~~ facility 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~~ facility's design and plan of operation comply substantially with the requirements of this chapter, shall submit, as part of the initial operating license application and annually thereafter for the period of active facility life, proof of financial responsibility to ensure compliance with the closure requirements of the ~~site's~~ facility's approved plan of operation.

2. The owner of a commercial PCB waste storage or treatment facility established or constructed after May 6, 1982 shall submit as part of the initial operating license application and annually thereafter for the period of active facility life, proof of financial responsibility to ensure compliance with the closure requirements of the facility's approved plan of operation.

(b) Long-term care. 1. The owner of a ~~site~~ facility 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~~ facility'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~~ facility for either 20 or 30 years after ~~site~~ facility 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~~ facility life, proof of financial responsibility to ensure compliance with the long-term care requirements of the plan of operation.

2. The owner of a commercial PCB waste storage or treatment facility established or constructed after May 6, 1982 shall submit as part of the initial operating license application and annually thereafter for the period of active facility life, proof of financial responsibility to ensure compliance with the long-term care requirements of the facility's approved plan of operation. The department may waive any requirement for long-term care proof of financial responsibility.

(c) Successors in Interest. Any person acquiring rights of ownership, possession or operation of a licensed ~~site~~ facility shall be subject to all requirements of the license for the ~~site~~ facility and shall provide any required proof of financial responsibility to the department in accordance with this section ~~prior to the transfer of ownership, possession, or operation of the site.~~ The previous owner is responsible for closure and long-term care, and shall maintain any required proof of financial responsibility, until the person acquiring ownership, possession or operation of the facility establishes any required proof of financial responsibility.

~~42~~(3) METHODS OF PROVIDING PROOF OF FINANCIAL RESPONSIBILITY. Financial assurances for closure and long-term care shall be established separately. The owner shall specify, as part of the plan of operation submittal, which method of providing proof of financial responsibility will be used for closure and for long-term care. 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. ~~44~~(5)(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~~ facility 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. The department shall mail notification of its intent to use the funds for that purpose to the last known address of the owner. If the owner submits a written request for a

hearing to the secretary of the department within 20 days after the mailing of the notification, the department shall, prior to using the funds, hold a hearing 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.

3. Each bond shall provide that, as long as any obligation of the owner for closure or long-term care remains, the bond shall may not be cancelled by the surety, unless a replacement bond or other proof of financial responsibility under this section is provided to the department by the owner. If the surety proposes to cancel such a bond, the surety shall provide 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 and the bond shall remain in effect as long as any obligation of the owner remains for closure or long-term care.

4. 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, 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 and the bond shall remain in effect as long as any obligation of the owner remains for closure or long-term care.

(b) Deposit with the department. ~~if the An~~ owner may ~~deposits~~ deposit cash, certificates of deposit, or U.S. government securities with the department, the amount of the deposit shall be determined according to sub. ~~(4)~~(5)(a) and shall be submitted as part of the initial license application. ~~Deposits~~ Cash 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~~ submits a written request for a hearing in writing to the secretary of the department within ~~60~~ 20 days after the mailing of 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 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. ~~47~~(5)(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~~ A duplicate original of the escrow agreement with original signatures 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~~ submits a written request for a hearing in writing to the secretary of the department within ~~60~~ 20 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 a federal agency. The trust corpus shall consist of cash, certificates of deposit or U.S. government securities in the amount determined according to sub. ~~44~~(5)(a). All interest payments shall be accumulated in the account. An ~~originally-signed~~ A duplicate original of the trust agreement with original signatures 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 in writing 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~~ notification of its intent to use funds for that purpose to the last known address of the owner. If the owner ~~requests~~ submits a written request for a hearing in writing to the secretary of the department within ~~60~~ 20 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.

(e) Letter of credit. 1. If the owner chooses to submit a letter of credit, it shall be in the amount determined according to sub. (5)(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 original letter of credit shall be delivered to the department as part of the initial operating license application. Letter of credit forms shall be supplied by the department.

2. Letters of credit shall be issued by a bank or financial institution which is examined and regulated by a federal agency, or in the case of a bank or financial institution located within the state of Wisconsin, which is examined and regulated by the state or a federal agency. The department shall be the beneficiary of the letter of credit.

3. Each letter of credit shall provide that as long as any obligation of the owner for closure or long-term care remains, the letter of credit may not be cancelled by the bank or financial institution, unless a replacement letter of credit or other proof of financial responsibility under this section is provided to the department by the owner. If the bank or financial institution proposes to cancel a letter of credit, the bank or financial institution shall provide notice 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 date of the 90-day notice period, the owner shall deliver to the department a replacement letter of credit or other proof of financial responsibility under this section, in the absence of which all disposal operations shall immediately cease and the letter of credit shall remain in effect as long as any obligation of the owner remains for closure or long-term care.

4. If the bank or financial institution 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, deliver to the department a replacement letter of credit or other proof of financial responsibility under this section, in the absence of which all disposal operations shall immediately cease and the letter of credit shall remain in effect as long as any obligation of the owner remains for closure or long-term care.

5. The letter of credit shall further provide that the department shall have the right to withdraw and use part or all of the funds to carry out the closure or long-term care requirements of the plan of operation if the owner fails to do so. The department shall mail notification of its intent to use the funds for that purpose to the last known address of the owner. If the owner

submits a written request or a hearing to the secretary of the department, within 20 days after the mailing of the notification, the department shall prior to using the funds, hold a hearing 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.

(f) Net worth test. 1. Only a company that meets the definition in s. 144.443(1)(b), Stats., may use the net worth method of providing proof of financial responsibility.

2. The owner shall comply with the net worth test requirements of s. 144.443(4) and (6) or (7), Stats., and the minimum security requirements of s. 144.443(8) or (9), Stats., whichever is applicable.

3. Companies using the net worth test to provide proof of financial responsibility for more than one facility shall use the total cost of compliance for all facilities in determining the net worth to closure and long-term care cost ratio.

4. The department determinations under the net worth test shall be done in accordance with s. 144.443(5), Stats.

(g) Insurance. 1. If the owner chooses to submit an insurance policy for closure or long-term care, it shall be issued for the maximum risk limit determined according to sub. (5)(c). A certificate of insurance shall be delivered to the department as part of the initial operating license application. Certificate of insurance forms shall be supplied by the department.

2. At a minimum, the agent or broker shall be licensed as a surplus lines insurance agent or broker. The department shall determine the acceptability of a surplus lines insurance company to provide coverage for proof of financial responsibility. The department shall base the determinations on any evaluations prepared in accordance with s. 618.41(6)(d), Stats., by the office of the commissioner of insurance. The department shall be the beneficiary of the insurance policy.

3. The insurance policy shall provide that, as long as any obligation of the owner for closure or long-term care remains, the insurance policy may not be cancelled by the insurer unless a replacement insurance policy or other proof of financial responsibility under this section is

provided to the department by the owner. If the insurer proposes to cancel an insurance policy, the insurer shall provide notice 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 insurance policy or other proof of financial responsibility under this section, in the absence of which all disposal operations shall immediately cease and the policy shall remain in effect as long as any obligation of the owner remains for closure or long-term care.

4. If the insurance company becomes bankrupt or insolvent or if the company receives an unfavorable evaluation under s. 618.41(6)(d), Stats., the owner shall, within 30 days after receiving written notice, deliver to the department a replacement insurance policy or other proof of financial responsibility under this section in the absence of which all disposal operations shall immediately cease and the policy shall remain in effect as long as any obligation of the owner remains for closure or long-term care.

5. The insurance policy shall further provide that funds, up to an amount equal to the maximum risk limit of the policy, will be available to the department to carry out the closure and 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 the funds for that purpose to the last known address of the owner. If the insurer or owner submits a written request for a hearing to the secretary of the department within 20 days after the mailing of the notification, the department shall, prior to using funds, hold a hearing 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.

6. Each insurance policy shall contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditioned upon the consent of the insurer, provided such consent is not unreasonably refused.

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

(h) Other methods. The department shall consider other financial commitments made payable to or established for the benefit of the department to ensure the owner or operator will comply with the closure and long-term care requirements of the approved plan of operation. The department shall review the request of any owner or operator to establish proof of financial responsibility to determine whether the proposed method provides a degree of assurance that is comparable to that provided by the methods listed in this section. The owner shall submit the request and all supporting information as part of the plan of operation.

~~43~~(4) COST ESTIMATES. (a) For the purpose of determining the amount of proof of financial responsibility that is required in sub. ~~44~~(3), the owner shall estimate the total cost of closure for the point in time in the ~~site's~~ facility'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~~ facility for the period of owner responsibility and submit the estimated closure and long-term care costs together with all necessary justification to the department for approval as part of the plan of operation submittal. The costs shall be based on a third party performing the work and 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~~ by 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→(5) FORMULAS FOR CALCULATING THE AMOUNT OF THE PROOF OF FINANCIAL RESPONSIBILITY. The owner shall, as part of the plan of operation submittal, perform the calculation of the formula for the chosen method of providing proof of financial responsibility for closure and for long-term care.

(a) Deposits in escrow, trust or department accounts. 1. 'Interest bearing accounts for closure.' The formula for closure shall be:

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

In which:

D = 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. 'Interest bearing accounts for long-term care.' a. The following ~~statistics~~ information used in calculating the amounts deposited to the long-term care account shall be specified in the plan of operation submittal: the rate of outpayment during the period of long-term care, expressed in equal annual outpayments or unequal annual ~~amounts~~ outpayments, and the equal annual rate of inpayment, expressed as either ~~"real" or "actual" dollars~~ real dollar inpayments or actual dollar inpayments.

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

A → R

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

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

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

~~$$R_x (1+f)^{x-1} + \dots + R_{SL} (1+f)^{SL-1} + \frac{R_{SL}(1+f)^{-SL}}{1+i} \left[ \frac{1 - (1+i)^{-LTC}}{i} \right] = \frac{A}{1+i} \left[ \frac{(1+i)^{SL} - 1}{i} \right]$$~~

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

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

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

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

When equal annual outpayments, actual dollar inpayments and a closure period are used, the formula shall be expressed as:

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

c. When equal annual outpayments, actual dollar inpayments and no closure period are used, the formula shall be expressed as:

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

d. When unequal annual outpayments, actual dollar inpayments and a closure period are used, the formula shall be expressed as:

$$A = \left[ \sum \left[ R_x (1+f)^{SL} \left( \frac{1+f}{1+i} \right)^{x+c} \right] \right] \div \left[ (1+i) \left[ \frac{(1+i)^{SL} - 1}{i} \right] \right]$$

e. When unequal annual outpayments, actual dollar inpayments and no closure period are used, the formula shall be expressed as:

$$A = \left[ \sum \left[ R_x (1+f)^{SL} \left( \frac{1+f}{1+i} \right)^x \right] \right] \div \left[ (1+i) \left[ \frac{(1+i)^{SL} - 1}{i} \right] \right]$$

f. When equal annual outpayments, real dollar inpayments and a closure period are used, the formula shall be expressed as:

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

g. When equal annual outpayments, real dollar inpayments and no closure period are used, the formula shall be expressed as:

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

h. When unequal annual outpayments, real dollar inpayments and a closure period are used, the formula shall be expressed as:

$$A = \left[ \sum \left[ R_x (1+f)^{SL} \left( \frac{1+f}{1+i} \right)^{x+c} \right] \right] \div \left[ (1+i)^{SL} + 1 \left[ \frac{1 - \left( \frac{1+f}{1+i} \right)^{SL}}{1-f} \right] \right]$$

1. When unequal annual outpayments, real dollar inpayments and no closure period are used, the formula shall be expressed as:

$$A = \left[ \sum \left[ R_x (1+f)^{SL} \left( \frac{1+f}{1+i} \right)^x \right] \right] \div \left[ (1+i)^{SL} + 1 \left[ \frac{1 - \left( \frac{1+f}{1+i} \right)^{SL}}{1-f} \right] \right]$$

In which:

A = the unknown annual inpayment for long-term care per year of active facility life

i = the estimated annual rate of interest

f = the estimated annual rate of inflation

SL = the estimated active life of the site facility in years

R = the estimated annual costs

R<sub>x</sub> = the estimated unequal annual costs

x = the year of long-term care

LTC = the period of long-term care

c = the period-of closure period as a fraction of one year

Σ = the sum from year 1 through the last year of LTC

(b) Bonds and letters of credit. 1. 'Non-interest bearing accounts for closure.' The formula for closure shall be:

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

In which:

CB = the unknown amount of the ~~closure~~ bond or letter of credit for closure

C = the estimated closure cost

f = the estimated annual rate of inflation

2. 'Non-Interest bearing accounts for long-term care.' a. The rate of outpayment shall be as specified in sub. ~~44(5)(a)2.~~, and the rate of inpayment shall be in equal "actual" dollars as specified in the plan of operation actual dollar inpayments.

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

~~$$PB = \left[ R (1 + f)^{SL} + I + C \left[ \frac{(1 + f)^{LTC} - 1}{f} \right] \right] \div f \cdot SL$$~~

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

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

~~$$PB = \left[ \sum \left[ R_x (1 + f)^{SL + x} + C \right] \right] \div f \cdot SL$$~~

$$PB = \left[ \sum \left[ R_x (1 + f)^{SL + x} + C \right] \right] \div f \cdot SL$$

In which:

PB = the unknown annual-performance bond or letter of credit amount for long-term care to increase per year of active facility life

f = the estimated annual rate of inflation

SL = the estimated active life of the ~~site~~ facility in years

R = the estimated annual costs

R<sub>x</sub> = the estimated unequal annual costs

LTC = the long-term care period

x = the year of long-term care

c = the ~~period-of~~ closure period as a fraction of one year

Σ = the sum from year 1 through the last year of LTC

(c) Insurance. 1. 'Closure.' The formula shall be:

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

In which:

CI = the unknown amount of the closure insurance

C = the estimated closure cost

f = the estimated annual rate of inflation

2. 'Long-term care.' a. The rate of outpayment shall be as specified in sub. (5)(a)2.

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

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

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

$$INS = \left[ \sum \left[ R_x (1 + f)^{SL+x+c} \right] \right]$$

In which:

INS = the unknown amount of the long-term care insurance

f = the estimated annual rate of inflation

SL = the estimated active life of the facility in years

R = the estimated annual costs

$R_x$  = the estimated unequal annual costs

LTC = the long-term care period

x = the year of long-term care

c = the closure period as a fraction of a year

$\sum$  = the sum of year 1 through the last year of LTC

(6) CHANGING METHODS OF PROOF OF FINANCIAL RESPONSIBILITY. The owner of a solid waste land disposal facility or a commercial PCB storage or treatment facility may change from one method of providing proof of financial responsibility under sub. (3) to another, but not more than once per year. A change may only be made on the anniversary of the submittal of the original method of providing proof of financial responsibility.

(5)(7) ADJUSTMENT OF FINANCIAL RESPONSIBILITY. The owner of a ~~state~~ facility for the land disposal of solid waste or the commercial storage or treatment of PCB 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 in the approved plan of operation affects the cost of long-term care. Proof of the increase in value the amount of all bonds, letters of credit, escrow accounts and trust accounts, or other approved methods 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~~ adjust the amount of proof of financial responsibility accordingly.

~~6~~8 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~~ land disposal facility or a commercial PCB storage or treatment facility is in violation of any of the requirements for closure or long-term care specified in the approved plan of operation, the department and its designees 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~~ the performance or forfeiture bonds, or letters of credit, or funds accumulated under other approved methods to carry out ~~these~~ the closure or long-term care requirements.

~~7~~9 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, insurance or the letter of credit or return of the money held on deposit, in escrow, or in trust for closure of the ~~site~~ facility. ~~Such~~ The 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 in writing the release and return of all funds accumulated in such accounts or give written permission for cancellation of a the bond or letter of credit. ~~Such-determinations~~ Determinations shall be ~~concluded~~ made 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 other approved methods, or for reduction ~~in-a~~ of the bond, insurance or letter of credit equal to the estimated costs for long-term care for that

year. ~~Such~~ The 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 in writing the release of the funds or approve a reduction in a the bond or letter of credit. Prior to authorizing a release of the funds or bond a reduction of the bond or letter of credit, the department shall determine that adequate funds exist to complete required long-term care work for the remaining period of owner responsibility. ~~Such-determination~~ Determinations shall be concluded made 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 the period of owner responsibility shall be released to the owner.

The foregoing rules were approved and adopted by the State of Wisconsin Natural Resources Board on January 25, 1984.

The rules contained herein shall take effect as provided in s. 227.026(1) (Intro.), Stats.

Dated at Madison, Wisconsin March 13, 1984

State of Wisconsin  
Department of Natural Resources

By Carroll D. Besadny  
Carroll D. Besadny, Secretary

(SEAL)

ORDER OF THE STATE OF WISCONSIN  
NATURAL RESOURCES BOARD

AMENDING RULES

.....  
IN THE MATTER of amending s. NR 180.16, .  
of the Wisconsin Administrative Code, .  
pertaining to the Waste Management Fund .  
for solid waste land disposal facilities .  
.....

SW-38-83b

Analysis Prepared by the  
Department of Natural Resources

Section 144.441, Stats., and Chapter NR 180 require all owners or operators of licensed solid waste land disposal facilities to pay for each ton of waste received and disposed of at the facility.

Chapter 374, Laws of 1981, effective on May 7, 1982, requires each licensed solid waste land disposal facility to pay a \$100 waste management base fee; companies using the net worth method of financial responsibility to pay a 25% tonnage fee surcharge; and the Department to provide volumes which are equivalent to a ton of waste. Since NR 180.16 is based on statutes which were amended by Chapter 374, it was necessary to change the provisions of this rule. In addition to the amendments required by the statutory changes, the Department has increased the return time of the form and fees from 30 to 45 days and to encourage prompt payment, has included a \$50 late processing fee.

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Pursuant to the authority vested in the State of Wisconsin Natural Resources Board by ss. 144.431, 144.435, 144.44, 144.441 and 227.014, Stats., the State of Wisconsin Natural Resources Board hereby amends rules interpreting ss. 144.44 and 144.441, Stats., as follows:

SECTION 1. NR 180.16 is amended to read:

NR 180.16 WASTE MANAGEMENT FUND. (1) APPLICABILITY. (a) All owners or operators of licensed solid waste land disposal sites facilities shall contribute to the waste management fund established by s. 25.45, Stats.; pay to the department a tonnage fee for each ton of solid waste received and disposed of at the site from May 2, 1978; facility, or a minimum waste management fund base fee of \$100, whichever is greater, until the site is closed and facility no longer receives waste and begins closure activities, except as otherwise provided in s. 144.441(3)(b) or (c), Stats. The department shall deposit all tonnage and waste management base fees into the waste management fund provided for in s. 25.45, Stats.

(b) For all solid waste land disposal facilities with a plan of operation approved under s. 144.44(3), Stats., after May 20, 1978, the owner shall choose to be responsible for the long-term care of the facility for either 20 or 30 years after facility closure. The fees to be paid by the owner or operator into the waste management fund shall be in accordance with sub. (3)(a) and (d), if applicable, or sub. (3)(b), whichever fee is greater.

(c) For solid waste land disposal facilities initially licensed between May 21, 1975 and May 20, 1978 for which the owner successfully applied before May 21, 1980 for a determination by the department that the facility's design and plan of operation comply substantially with the requirements necessary for plan approval under s. 144.44(3), Stats., the owner shall choose to be responsible for the long-term care of the facility for either 20 or 30 years after facility closure. The fees to be paid by the owner or operator into the waste management fund shall be in accordance with sub. (3)(a) and (d), if applicable, or sub. (3)(b), whichever fee is greater.

(d) For all solid waste land disposal facilities not approved as set forth in par. (b) or (c), the fees to be paid by the owner or operator into the waste management fund shall be those indicated under the 30 year rate of payment in sub. (3)(a) and (d), if applicable, or sub. (3)(b), whichever fee is greater. The owner or operator of a solid waste land disposal facility licensed and in existence on May 21, 1978 may, but will not be required to, seek approval of the facility's plan of operation under s. 144.44(3)(ar), Stats.

(e) For those companies which have provided proof of financial responsibility by the net worth method under s. 144.443(4) and (8), Stats., the fees to be paid by the owner or operator into the waste management fund shall be in accordance with sub. (3)(c), if applicable, or sub. (3)(b), whichever fee is greater.

(2) CERTIFICATION. The owner or operator of a licensed solid waste land disposal site facility 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 department shall mail the certification form to the owner or operator every January. The certification form shall be completed and returned to the department with the appropriate fee within ~~30~~ 45 days after mailing of the form by the department to the owner or operator. An owner or operator failing to submit the waste management certification form and appropriate fees within 45 days after mailing of the form to the owner or operator shall pay a late processing fee of \$50.

(3) FEES. (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 solid waste tonnage fees to be paid into the fund shall be as follows for specific waste types established in s. 144.44(4), Stats., are summarized in table 6.

TABLE 6  
WASTE MANAGEMENT FUND  
TONNAGE FEES

<u>Waste type</u>	<u>Rate of Payment</u>	
	<u>20 Years</u>	<u>30 Years</u>
	<u>Period of Owner Responsibility</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

(b) ~~For sites initially licensed between May 21, 1975 and May 20, 1978 for which the owner successfully applies before May 21, 1980 for a determination by the department that the site's design and plan of operation comply substantially with the requirements necessary for plan approved 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 specified in par. (a):~~ As provided in s. 144.44(5), Stats., the owner or operator shall pay to the department a waste management fund base fee of \$100 for each calendar year.

(c) The facilities described in sub. (1)(e) shall increase the tonnage fees in par. (a) and if applicable, par. (d) by 25%.

(d) The hazardous waste tonnage fees established in s. 144.44(4)(b), (c), (e) and (f), Stats., shall be paid for each ton of hazardous waste received and disposed of at a solid waste land disposal facility described in sub. (1)(b) or (c).

(4) USE OF FUND. ~~For all land disposal sites and facilities not approved as set forth in sub. (3), the fees to be paid shall be those indicated under the 30-year rate of payment in sub. (3)(a):~~

Only an approved facility as defined in s. 144.44(2)(a)1., Stats., is eligible for use of the money accumulated in the waste management fund. The monies in the waste management fund shall be expended exclusively as set forth in s. 144.44(6), Stats.

(5) DETERMINATION OF WASTE TONNAGES. ~~Only site with an approved plan of operation under s. 144.44(3), Stats., or sites initially licensed between May 21, 1975 and May 20, 1978 for which the owner successfully applies before May 21, 1980 for a determination by the department that the site's design and plan of operation comply substantially with the requirements necessary for plan approved under s. 144.44(3), Stats., are eligible for use of the money accumulated in the waste management fund. The owner or operator of any land disposal site or facility licensed and in existence on May 21, 1978 may, but shall not be required to seek approval of the site's plan of~~

~~operation under s. 144.44(3), Stats. The monies in the waste management fund shall be expended exclusively as set forth in s. 144.44, Stats.~~ (a) Determination by owner or operator. The owner or operator shall, subject to department approval, use one of the following methods for determining the number of tons of waste received and disposed of at the solid waste land disposal facility.

1. The owner or operator may use actual weight or volume records.

2. The owner or operator may establish by field measurement the volume of waste disposed and convert to a weight using an assumed compaction density and cover material ratio using the conversion factors in table 7 in par. (b).

3. The owner or operator may conduct a survey during a representative period of operation to establish average representative weights or volumes of waste disposed. Changes in seasonal population shall be considered when establishing representative weights or volumes.

4. The owner or operator may use a waste generation rate of 2 pounds per capita per day and apply it over the number of days in the reporting period. Changes in seasonal population shall be considered when applying a per capita generation rate. This method may be used only for rural facilities serving a population equivalent of 2,500 or less and receiving little or no industrial waste.

(b) Conversion factors. The conversion factors in table 7 shall be used. All conversion factors are based on wet densities. The densities provided for domestic residential waste and commercial waste in table 7 are subject to mechanical compaction, such as packer trucks or enclosed roll off containers coupled to hydraulic compactors. If the waste is loose, 200 pounds per cubic yard shall be used as the conversion factor.

TABLE 7  
CONVERSION FACTORS

<u>Municipal solid waste</u>	
<u>As delivered</u>	
<u>Domestic residential</u>	<u>425 pounds/cubic yard</u>
<u>Commercial</u>	<u>375 pounds/cubic yard</u>
<u>Industrial - other than specified below</u>	<u>300 pounds/cubic yard</u>
<u>Bulky</u>	<u>400 pounds/cubic yard</u>
<u>Trees and brush</u>	<u>300 pounds/cubic yard</u>
<u>Demolition</u>	<u>1,250 pounds/cubic yard</u>
<u>Liquids</u>	<u>8.34 pounds/gallon</u>
<u>Compacted in place</u>	<u>1,000 pounds/cubic yard</u>
<u>facilities receiving only demolition waste</u>	<u>1,400 pounds/cubic yard</u>
<u>Municipal wastewater sludge</u>	<u>8.34 pounds/gallon</u>
	<u>1,684 pounds/cubic yard</u>
<u>Pulp and papermill sludge</u>	
<u>As delivered - uncompacted</u>	<u>1,800 pounds/cubic yard</u>
<u>In-field - consolidated</u>	<u>2,200 pounds/cubic yard</u>
<u>Utility ash - fly and bottom</u>	
<u>As delivered - uncompacted</u>	<u>2,200 pounds/cubic yard</u>
<u>In-field - compacted</u>	<u>2,400 pounds/cubic yard</u>
<u>Foundry wastes</u>	
<u>As delivered - uncompacted</u>	<u>2,600 pounds/cubic yard</u>
<u>In-field - compacted</u>	<u>3,000 pounds/cubic yard</u>

(c) Department estimates. The department may estimate by waste category the number of tons received at a solid waste land disposal facility. The department's estimate shall appear on the certification form and shall be based on the number of tons received and reported on for the previous reporting period.

(6) WASTE MANAGEMENT FUND EXPENDITURES. (a) ~~The department may reduce or waive the fees specified in sub. (3) for mining operations if the owner or operator of a site for the land disposal of mining wastes successfully demonstrates that the reclamation bonding and other requirements of ss. 144.81 to 144.94, Stats., are sufficient to accomplish the purposes of the waste management fund. Such demonstration may be made at a hearing conducted as provided in s. 227.022, Stats., as an uncontested case.~~ Payments for long-term care after termination of owner responsibility. The department shall determine the necessary maintenance requirements for the long-term care of an approved solid waste land disposal facility after the termination of the owner's responsibility. The department shall comply with s. 16.75, Stats., when applicable, for contracting services for the required long-term care maintenance of solid waste land disposal facilities.

(b) ~~The owner or operator of a site for the land disposal of mining waste who requests a reduction of waiver shall make such application in writing. Upon receipt of the application, the department shall mail copies to those listed in s. 144.836(3)(b)1., Stats., accompanied by a mailing of the application, the department may take action to grant the application without public hearing if timely objection is filed, or the applicant requests it, the department shall set the application for a contested public hearing pursuant to s. 227.01(2), Stats. Notice of such hearing shall be given pursuant to the provisions of s. 144.836(3)(b)1. and 2., Stats., except the hearing may be scheduled with 30 days notice.~~ Payments of related costs. The department shall comply with s. 144.441(6)(f), Stats., prior to making any expenditures from the waste management fund under s. 144.441(6)(e), Stats.

~~(c) The decision following the hearing shall be in writing accompanied by findings of fact and conclusions of law. The burden of proof to establish that the reclamation bonding and other requirements are sufficient to accomplish the purposes of the waste management fund shall be on the owner or operator.~~ Other payments. The department may expend monies from the waste management fund  
In accordance with s. 144.44(6)(g) to (i), Stats.

The foregoing rules were approved and adopted by the State of Wisconsin Natural Resources Board on January 25, 1984.

The rules contained herein shall take effect as provided in ss. 227.026(1) (Intro.), Stats.

Dated at Madison, Wisconsin March 13, 1984

State of Wisconsin

Department of Natural Resources

By: Carroll D. Besadny  
Carroll D. Besadny, Secretary

(Seal)

ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCES BOARD

AMENDING RULES

. . . . .  
IN THE MATTER of amending s. NR 181.42(10), .  
of the Wisconsin Administrative Code, .  
pertaining to financial responsibility for .  
closure and long-term care of hazardous .  
waste facilities. .  
. . . . .

SW-38-83c

Analysis Prepared by the Department of Natural Resources

Section 144.443, Stats., and Chapter NR 181 require owners or operators of licensed hazardous waste facilities to provide proof of financial responsibility for closure and long-term care of the facilities.

Chapter 374, Laws of 1981, effective on May 7, 1982, allows the use of a letter of credit or the net worth test as proof of financial responsibility, allows the use of other methods of proof of financial responsibility that are acceptable to the Department; and requires proof of financial responsibility for PCB commercial waste treatment and storage facilities. Since NR 181.42(10) is based on the statutes amended by Chapter 374, it was necessary to change the provisions of the rule. In addition, the Department reformatted the long-term care formulas for clarity; changed wording regarding a request for a hearing prior to converting a proof method in the event of the owner not performing closure or long-term care activities; included closure insurance and long-term care insurance as an acceptable method of proof of financial responsibility; and made other minor wording changes for clarity and completeness.

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Pursuant to the authority vested in the State of Wisconsin Natural Resources Board by ss. 144.431, 144.435, 144.44, 144.441, 144.443, 144.62, 144.64 and 227.014, Stats., the State of Wisconsin Natural Resources Board hereby amends rules interpreting ss. 144.44, 144.441, 144.443 and 144.64, Stat., as follows:

SECTION 1. NR 181.42(10) is amended to read:

NR 181.42(10) FINANCIAL RESPONSIBILITY FOR CLOSURE AND LONG-TERM CARE. (a) Definitions.

1. "Actual dollar inpayments" means equal annual payments made by the facility owner into a long-term care account.

2. "Certificate of deposit" means a certificate issued by a bank or financial institution acknowledging receipt of a specific large sum of money in a special kind of time deposit, drawing interest and requiring written notice of withdrawal.

3. "Closure period" means the 60 day period after a facility ceases for hazardous waste treatment and storage facilities and the 90 day period after a facility ceases to accept waste for hazardous waste land disposal facilities unless otherwise specified in the approved plan of operation.

4. "Equal annual outpayments" means estimated payments for long-term care which are the same amount in each year of the period of owner responsibility for the long-term care of the facility.

5. "Interest bearing accounts" means escrow accounts, trust accounts or cash deposits with the department.

6. "Non-interest bearing accounts" means letters of credit or performance or forfeiture bonds.

7. "Real dollar inpayments" means payments made by the facility owner which increase each year at the rate of inflation, into a long-term care account.

8. "Unequal annual outpayments" means estimated payments for long-term care which are higher in the early years of the period of owner responsibility for long-term care than they are later in the long-term period care after the facility has stabilized.

9. "U.S. government securities" includes treasury bills, treasury bonds, treasury certificates, treasury notes, treasury stocks or other obligations guaranteed by the federal government.

(e)(b) Applicability. 1. 'Closure.' The owner of every hazardous waste storage, treatment or disposal facility shall provide, as part of ~~the~~ an interim license submittal or an initial operating license application and annually thereafter for the period of active facility life, proof of

financial responsibility to ensure compliance with the closure requirements of the approved plan of operation for the facility, or if no approved plan of operation exists for the facility, with the requirements in sub. (8).

2. 'Long-term care.' The owner of every hazardous waste disposal facility shall provide, as part of ~~the~~ an initial license submittal or an initial operating license application and annually thereafter for the period of active ~~site~~ facility life, proof of financial responsibility to ensure compliance with the long-term care requirements of the approved plan of operation for the facility, or if no approved plan of operation exists for the facility, with the requirements in sub. (9). 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. If no plan of operation has been approved, the 30 year period of owner responsibility shall apply.

3. 'Successors in Interest.' Any person acquiring rights of ownership, possession or operation of a licensed hazardous waste storage, treatment, or disposal facility shall be subject to all requirements of the license for the facility and shall provide any required proof of financial responsibility to the department in accordance with this subsection ~~prior to the transfer of ownership, possession, or operation of the facility.~~ The previous owner is responsible for closure and long-term care, and shall maintain any required proof of financial responsibility, until the person acquiring ownership, possession or operation of the facility establishes any required proof of financial responsibility.

~~(b)~~ (c) Methods of providing proof of financial responsibility. Financial assurances for closure and long-term care shall be established separately. The owner shall specify, as part of the plan of operation submittal or interim license submittal, which method of providing proof of financial responsibility will be used for closure and for long-term care. To provide proof of financial responsibility, the applicant shall use one of the following methods for each account:

1. 'Performance or forfeiture bond.' a. If the owner chooses to submit a bond, it shall be in the amount determined according to par. ~~(d)~~(e)2. 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, or if no approved plan of operation exists for the facility, all applicable requirements in sub. (8) or (9). The bond shall be delivered to the department as part of ~~the~~ an interim license submittal or an initial operating license application. Bond forms shall be supplied by the department.

b. 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~~ facility 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, or the applicable requirements in sub. (8) or (9). The department shall mail notification of its intent to use the funds for that purpose to the last known address of the owner. If the owner submits a written request for a hearing to the secretary of the department within 20 days after the mailing of the notification, the department shall, prior to using the funds, hold a hearing for the purpose of determining whether or not the closure or long-term care requirements of the approved plan of operation or the applicable requirements in sub. (8) or (9) have been carried out.

c. Each bond shall provide that as long as any obligation of the owner for closure or long-term care remains, the bond ~~shall~~ may not be cancelled by the surety, unless a replacement bond or other proof of financial responsibility under this subsection is provided to the department by the owner. If the surety proposes to cancel such a bond, the surety shall provide 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 subsection, in the absence of which all storage, treatment or disposal operations shall immediately cease and the bond shall remain in effect as long as any obligation of the owner remains for closure or long-term care.

d. If the surety company becomes bankrupt or insolvent or its authorization to do business in the state 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 subsection in the absence of which all storage, treatment or disposal operations shall immediately cease and the bond shall remain in effect as long as any obligation of the owner remains for closure or long-term care.

2. 'Deposit with the department.' ~~if the~~ An owner may deposit cash, certificates of deposit, or U.S. government securities with the department, the amount of the deposit shall be determined according to par. ~~(d)~~(e), and shall be submitted as part of ~~the~~ an interim license submittal or an initial operating license application. ~~Deposits~~ Cash 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 or the applicable requirements in sub. (8) or (9) 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~~ submits a written request for a hearing in writing to the secretary of the department within ~~60~~ 20 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 or the applicable requirements in sub. (8) or (9) have been carried out.

3. 'Escrow account.' If the owner establishes an escrow account, it shall be with a bank or 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 par. ~~(d)~~(e). 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~~ A duplicate original of the escrow agreement with original signatures shall be submitted to the department as part of ~~the an~~ interim license submittal or an 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 or the applicable requirements in sub. (8) or (9) 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~~ submits a written request for a hearing in writing to the secretary of the department within ~~60~~ 20 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 or the applicable requirements in sub. (8) or (9) have been carried out.

4. '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, or if no approved plan of operation exists for the facility, the applicable requirements in sub. (8) or (9). 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 a federal agency. The trust corpus shall consist of cash, certificates of deposit or U.S. government securities in the amount determined according to par. ~~(d)~~(e)1. All interest payments shall be accumulated in the account. ~~An originally signed~~ A duplicate original of the trust agreement with original signatures shall be submitted to the department for approval as part of ~~the~~ an interim license submittal or an initial operating license application. Trust forms shall be supplied by the department. The trust agreement shall provide that there shall be no withdrawals 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, or if no approved plan of operation exists for the facility, the applicable requirements in sub. (8) or (9). 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~~ submits a written request for a hearing in writing to the secretary of the department within ~~60~~ 20 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 or the applicable requirements in sub. (8) or (9) have been carried out.

5. 'Letter of credit.' a. If the owner chooses to submit a letter of credit, it shall be in the amount determined according to par. (e)2. 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, or if no approved plan of operation exists for the facility, the applicable requirements in sub. (8) or (9). The original letter of credit shall be delivered to the department as part of an interim license submittal or an initial operating license application. Letter of credit forms shall be supplied by the department.

b. Letters of credit shall be issued by a bank or financial institution which is examined and regulated by a federal agency, or in the case of a bank or financial institution located within the state of Wisconsin, which is examined and regulated by the state or a federal agency. The department shall be the beneficiary of the letter of credit.

c. Each letter of credit shall provide that as long as any obligation of the owner for closure or long-term care remains, the letter of credit may not be cancelled by the bank or financial institution, unless a replacement letter of credit or other proof of financial responsibility under this subsection is provided to the department by the owner. If the bank or financial institution proposes to cancel such a letter of credit, the bank or financial institution shall provide notice 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 date of the 90 day notice period, the owner shall deliver to the department a replacement letter of credit or other proof of financial responsibility under this subsection, in the absence of which all storage, treatment or disposal operations shall immediately cease and the letter of credit shall remain in effect as long as any obligation of the owner remains for closure or long-term care.

d. If the bank or financial institution 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 letter of credit or other proof of financial responsibility under this subsection, in the absence of which all storage, treatment or disposal operations shall immediately cease and the letter of credit shall remain in effect as long as any obligation of the owner remains for closure or long-term care.

e. The letter of credit shall further provide that the department shall have the right to withdraw and use part or all of the funds to carry out the closure or long-term care requirements of the plan of operation or the applicable requirements in sub. (8) or (9) if the owner fails to do so. The department shall mail notification of its intent to use the funds for that purpose to the

last known address of the owner. If the owner submits a written request for a hearing to the secretary of the department within 20 days after the mailing of the notification, the department shall prior to using the funds, hold a hearing for the purpose of determining whether or not the closure or long-term care requirements of the approved plan of operation have or the applicable requirements in sub. (8) or (9) been carried out.

6. 'Net worth test.' a. Only a company that meet the definition in s. 144.443(1)(b), Stats., may use the net worth method of providing proof of financial responsibility.

b. The owner shall comply with the net worth test requirements of s. 144.443(4) and (6) or (7), Stats., and the minimum security requirements of s. 144.443(8) or (9), Stats., whichever is applicable.

c. Companies using the net worth test to provide proof of financial responsibility for more than one facility shall use the total cost of compliance for all facilities in determining the net worth to closure and long-term care cost ratio.

d. The department determinations under the net worth test shall be done in accordance with s. 144.443(5), Stats.

7. 'Insurance.' a. If the owner chooses to submit an insurance policy for closure or long-term care, it shall be issued for the maximum risk limit determined according to par. (e)3. A certificate of insurance shall be delivered to the department as part of an interim license submittal or an initial operating license application. Certificates of insurance shall be supplied by the department.

b. At a minimum, the agent or broker shall be licensed as a surplus lines insurance agent or broker. The department shall determine the acceptability of a surplus lines insurance company to provide coverage for proof of financial responsibility. The department shall base the determination on any evaluations prepared in accordance with s. 618.41(6)(d), Stats., by the office of the commissioner of insurance. The department shall be the beneficiary of the insurance policy.

c. The Insurance policy shall provide that, as long as any obligation of the owner for closure or long-term care remains, the Insurance policy shall not be cancelled by the insurer, unless a replacement insurance policy or other proof of financial responsibility under this subsection is provided to the department by the owner. If the insurer proposes to cancel such an insurance policy, the insurer shall provide notice 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 insurance policy or other proof of financial responsibility under this subsection, in the absence of which all disposal operations shall immediately cease and the policy shall remain in effect as long as any obligation of the owner remains for closure or long-term care.

d. If the insurance company becomes bankrupt or insolvent or if the company receives an unfavorable evaluation under s. 618.41(6)(d), Stats., the owner shall, within 30 days after receiving written notice thereof, deliver to the department a replacement insurance policy or other proof of financial responsibility under this subsection, in the absence of which all disposal operations shall immediately cease and the policy shall remain in effect as long as any obligation of the owner remains for closure or long-term care.

e. The insurance policy shall further provide that funds, up to an amount equal to the maximum risk limit of the policy, will be available to the department to carry out the closure and long-term care requirements of the approved plan of operation, or if no approved plan of operation exists, all applicable requirements in sub. (8) or (9), if the owner fails to do so. The department shall mail notification of its intent to use the funds for that purpose to the last known address of the owner. If the insurer or owner submits a written request for a hearing to the secretary of the department within 20 days after the mailing of the notification, the department shall prior to using the funds, hold a hearing for the purpose of determining whether or not the closure or long-term care requirements of the approved plan of operation or the applicable requirements in sub. (8) or (9) have been carried out.

f. Each insurance policy shall contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditioned upon the consent of the insurer, provided such consent is not unreasonably refused.

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

8. 'Other methods.' The department shall consider other financial commitments made payable to or established for the benefit of the department to ensure the owner or operator will comply with the closure or long-term care requirements of the approved plan of operation, or if no approved plan of operation exists for the facility, the applicable requirements in sub. (8) or (9). The department shall review the request of any owner or operator to establish proof of financial responsibility under this subsection. The owner shall submit the request and all supporting information as part of the plan of operation.

~~(e)~~(d) Cost estimates. 1. For the purpose of determining the amount of proof of financial responsibility that is required in par. (a), the owner shall estimate the total cost of closure for the point in time in the operation of the facility when the extent or manner of its operation make closure most expensive, estimate the annual cost of long-term care of the ~~site~~ or facility 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~~ an interim license submittal or a plan of operation submittal. The costs shall be reported on a per unit basis. The source of the estimates shall be indicated.

2. At a minimum, closure costs shall include any necessary cover material, topsoil, seeding, fertilizing, mulching, labor, and disposal or decontamination of hazardous waste and residues on equipment and structures.

3. At a minimum, long-term care costs shall include land surface care; gas monitoring; leachate pumping, transportation, monitoring and treatment; groundwater monitoring, collection and analysis; maintenance of facility monitoring and waste containment devices; and security requirements necessary to prevent hazards to human health.

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

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

~~(e)~~ Formulas for calculating the amount of proof of financial responsibility. The owner shall, as part of an interim license submittal or a plan of operation submittal, perform the calculation of the formula for the chosen method of providing proof of financial responsibility for closure and for long-term care. 1. 'Deposits in escrow, trust or department accounts.' a. Interest bearing accounts 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

f = the estimated annual rate of inflation

i = the estimated annual rate of interest

b. Interest bearing accounts for long-term care. 1) The following statistics information used in calculating the amounts deposited to the long-term care account shall be specified in the an interim license submittal or a plan of operation submittal: the rate of outpayment during the period of long-term care, expressed in equal annual outpayments or unequal annual amounts outpayments, and the equal annual rate of inpayment, expressed as either "real" or "actual" dollars real dollar inpayments or actual dollar inpayments.

2) The following general formula shall be used in the calculation:

$$A - R$$

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

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

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

~~$$R \sum_{t=1}^n (1 + f)^{SL - t} + \frac{(1 + f)^{LTC} - 1}{(1 + f) - 1} C$$~~

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

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

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

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

When equal annual outpayments, actual dollar inpayments and a closure period are used, the

formula shall be expressed as:

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

3) When equal annual outpayments, actual dollar inpayments and no closure period are used, the

formula shall be expressed as:

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

4) When unequal annual outpayments, actual dollar inpayments and a closure period are used, the formula shall be expressed as:

$$A = \left[ \sum \left[ R_x (1+f)^{SL} \left( \frac{1+f}{1+i} \right)^x + c \right] \right] \div \left[ (1+i) \left[ \frac{(1+i)^{SL} - 1}{i} \right] \right]$$

5) When unequal annual outpayments, actual dollar inpayments and no closure period are used, the formula shall be expressed as:

$$A = \left[ \sum \left[ R_x (1+f)^{SL} \left( \frac{1+f}{1+i} \right)^x \right] \right] \div \left[ (1+i) \left[ \frac{(1+i)^{SL} - 1}{i} \right] \right]$$

6) When equal annual outpayments, real dollar inpayments and a closure period are used, the formula shall be expressed as:

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

7) When equal annual outpayments, real dollar inpayments and no closure period are used, the formula shall be expressed as:

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

8) When unequal annual outpayments, real dollar inpayments and a closure period are used, the formula shall be expressed as:

$$A = \left[ \sum \left[ R_x (1 + f)^{SL} \left( \frac{1 + f}{1 + i} \right)^x + c \right] \right] \div \left[ (1 + i)^{SL} + 1 \left[ \frac{1 - \left( \frac{1 + f}{1 + i} \right)^{SL}}{1 - f} \right] \right]$$

9) When unequal annual outpayments, real dollar inpayments and no closure period are used, the formula shall be expressed as:

$$A = \left[ \sum \left[ R_x (1 + f)^{SL} \left( \frac{1 + f}{1 + i} \right)^x \right] \right] \div \left[ (1 + i)^{SL} + 1 \left[ \frac{1 - \left( \frac{1 + f}{1 + i} \right)^{SL}}{1 - f} \right] \right]$$

In which:

A = the unknown annual inpayment for long-term care per year of active facility life

i = the estimated annual rate of interest

f = the estimated annual rate of inflation

SL = the estimated active life of the site facility in years

R = the estimated annual cost

$R_x$  = the estimated unequal annual costs

x = the year of long-term care

LTC = the period of long-term care

c = the period of closure period as a fraction of one year

$\sum$  = the sum from year 1 through the last year of LTC

2. 'Bonds and letters of credit.' a. Non-interest bearing accounts for closure. The formula for closure is:

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

In which:

CB = the unknown amount of the ~~closure~~ letter of credit for closure

C = the estimated closure cost

f = the estimated annual rate of Inflation

b. Non-interest bearing accounts for long-term care. The rate of outpayment shall be as specified in par. ~~(d)~~ (e) l.b., and the rate of inpayment shall be in equal "actual" dollars as specified-in-the-plan-of-operation actual dollar inpayments.

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

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

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

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

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

$$PB = \left[ \sum \left[ R_x (1 + f)^{SL+x+c} \right] \right] \div SL$$

In which:

PB = the unknown annual performance bond or letter of credit amount for long-term care to increase per year of active facility life;

f = the estimated annual rate of Inflation;

SL = the estimated active life of the site facility;

R = the estimated annual outpayments costs;

R<sub>x</sub> = the estimated unequal annual costs

LTC = the period of long-term care;

x = the year of the long-term care;

c = the period of closure period as a fraction of one year

Σ = the sum from year 1 through the last year of LTC

3. 'Insurance.' a. Closure. The formula shall be:

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

In which:

CI = the unknown amount of the closure insurance

C = the estimated closure cost

f = the estimated annual rate of inflation

b. Long-Term Care. 1) The rate of outpayment shall be as specified in par. (e)1.b.

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

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

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

$$INS = \left[ \sum \left[ R_x (1 + f)^{SL+x+c} \right] \right]$$

In which:

INS = the unknown amount of the long-term care insurance

f = the estimated annual rate of inflation

SL = the estimated action life of the facility in years

R = the estimated annual costs

R<sub>x</sub> = the estimated unequal annual costs

LTC = the long-term care period

x = the year of long-term care

c = the closure period as a fraction of a year

$\Sigma$  = the sum of year 1 through the last year of LTC

(f) Changing methods of proof of financial responsibility. The owner of a hazardous waste facility may change from one method of providing proof of financial responsibility under par. (c) to another, but not more than once per year. Such a change may only be made on the anniversary of the submittal of the original method of providing proof of financial responsibility.

~~(g)~~ (g) Adjustment of financial responsibility. The owner of a hazardous waste facility 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 ~~requirement of~~ requirements in the approved plan of operation, or if no approved plan of operation exists, in sub. (9), affects the cost of long-term care. Proof of the increase in ~~value~~ the amount of all bonds, letters of credit, escrow accounts and trust accounts established under this subsection 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 or operator to ~~increase or decrease~~ adjust the amount of proof of financial responsibility accordingly.

~~(h)~~ (h) 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 hazardous waste facility is in violation of any of the requirements for closure or long-term care specified in the approved plan of operation, or if no approved plan of operation exists, in sub. (8) or (9), the department and its designees 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 performance or forfeiture bonds, or letters of credit, or funds accumulated under other approved methods to carry out these the closure or long-term care requirements.

~~(g)~~ (1) Authorization to release funds. 1. 'Closure.' When an owner or operator has completed closure, the owner may apply to the department for release of a bond or letter of credit or return of money held on deposit, in escrow, or in trust for closure of the facility. ~~Such~~ The 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 in writing authorize release and return of all funds accumulated in such accounts or give written permission for cancellation of a bond or letter of credit. ~~Such-determinations~~ Determinations shall be ~~concluded~~ made within 90 days of the application.

2. '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, deposit with the department, or other approved methods, or for reduction ~~in a~~ of the bond, insurance or letter of credit equal to the estimated costs for long-term care for that year. ~~Such~~ The 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, or if no approved plan of operation exists, are in accordance with the requirements in sub. (9), the department may authorize in writing the release of the funds or approve a reduction in a the bond or letter of credit. Prior to authorizing a release of the funds or ~~bond~~ a reduction of the bond or letter of credit, the department shall determine that adequate funds exist to complete required long-term care work for the remaining period of owner

responsibility. ~~Such determinations~~ Determinations shall be ~~concluded~~ made 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 the period of owner responsibility shall be released to the owner.

The foregoing rules were approved and adopted by the State of Wisconsin Natural Resources Board on January 25, 1984.

The rules contained herein shall take effect as provided in section 227.026(1) (Intro.), Stats.

Dated at Madison, Wisconsin March 13, 1984

STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES

By Carroll D. Besadny  
Carroll D. Besadny, Secretary

(SEAL)

ORDER OF THE STATE OF WISCONSIN  
NATURAL RESOURCE BOARD

AMENDING RULES

.....  
IN THE MATTER of amending s. NR 181.42(12), of .  
the Wisconsin Administrative Code, pertaining to .  
the Waste Management Fund for hazardous waste .  
disposal facilities. .

SW-38-83d

Analysis Prepared by the  
Department of Natural Resources

Section 144.441, Stats., and chapter NR 181 requires all owners or operators of licensed hazardous waste land disposal facilities to pay for each ton of waste received and disposed of at the facility.

Chapter 374, Laws of 1981, effective on May 7, 1982, requires each licensed disposal facility to pay a \$100 waste management base fee; companies using the net worth method of financial responsibility to pay a 25% tonnage fee surcharge; and the Department to provide volumes which are equivalent to a ton of waste. Since NR 181.42(12) is based on the statutes which were amended by Chapter 374, it was necessary to change the provisions of this rule. In addition to the amendments required by the statutory changes, the Department has increased the return time of the form and fees from 30 to 45 days and to encourage prompt payment, has included a \$50 late processing fee.

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Pursuant to the authority vested in the State of Wisconsin Natural Resources Board by ss. 144.441 and 227.014, Stats., the State of Wisconsin Natural Resources Board hereby amends rules interpreting ss. 144.44 and 144.441, Stats., as follows:

SECTION 1. NR 181.42(12) is amended to read:

NR 181.42(12) WASTE MANAGEMENT FUND. (a) Applicability. 1. All owners or operators of licensed hazardous waste disposal facilities shall pay to the department ~~the fees specified in part (c); a tonnage fee~~ for each ton of hazardous waste or solid waste received and disposed of at the ~~site facility, from the effective date of these rules~~ or a minimum waste management fund base fee of \$100, whichever is greater, until the site is closed and facility no longer receives waste and begins closure activities, except as otherwise provided in ~~s. 144.441(3)(a)~~ s. 144.441(3)(b) or (c), Stats. The department shall deposit all ~~such~~ tonnage and waste management base fees into the waste management fund provided for in s. 25.45., Stats.

2. For all hazardous waste disposal facilities with a plan of operation approved under s. 144.44(3), Stats., the owner shall choose to be responsible for the long-term care of the facility for either 20 or 30 years after facility closure. The fees to be paid by the owner or operator into the waste management fund shall be in accordance with par. (c)1. and 4., if applicable, or par. (c)2., whichever fee is greater.

3. All solid waste land disposal facilities approved and licensed under Ch. NR 180, shall pay the solid waste tonnage fees for all solid waste received and disposed of at the facility and the hazardous waste tonnage fees for all small quantities of hazardous waste received and disposed of at the facility. The fees to be paid by the owner or operator into the waste management fund shall be in accordance with par. (c)1. and 4., if applicable, or par. (c)2., whichever fee is greater.

4. For all hazardous waste or solid waste land disposal facilities without a plan of operation approved under s. 144.44(3), Stats., the fees to be paid by the owner or operator into the waste management fund shall be those indicated under the 30 year rate of payment in par. (c)1. and 4., if applicable, or par. (c)2., whichever fee is greater.

5. For those companies which have provided proof of financial responsibility by the net worth method under s. 144.443(4) and (8), Stats., the fees to be paid by the owner or operator into the waste management fund shall be in accordance with par. (c)3. and 4., if applicable, or par. (c)2., whichever fee is greater.

(b) Certification. The owner or operator of a licensed hazardous waste disposal facility shall certify, on a form provided by the department, the amount of hazardous 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 department shall mail the certification form to the owner or operator every January. The certification form shall be completed and returned to the department with the appropriate fee within ~~30~~ 45 days after mailing of the form by the department to the owner or operator. An owner or operator failing to submit the waste management certification form and appropriate fees within 45 days after mailing of the form to the owner or operator shall pay a late processing fee of \$50.

(c) Fees. 1. For all disposal facilities with an approved plan of operation the owner may choose to be responsible for the long-term care of the facility for either 20 years or 30 years after site closure. The fees to be paid into the fund shall be at a rate of payment of 35¢ per ton for 20-year responsibility and 15¢ per ton for 30-year responsibility, except for ashes or sludges from electric or process steam generating facilities, sludges produced by waste treatment or manufacturing processes at pulp or paper mills, manufacturing process solid wastes from foundries, or sludges produced by municipal wastewater treatment facilities for which the rate of payment shall be 3.5¢ per ton for 20-year responsibility and 1.5¢ per ton for 30-year responsibility. The hazardous waste tonnage fees established in s. 144.441(4), Stats., are summarized in table VIII.

TABLE VIII

WASTE MANAGEMENT FUND TONNAGE FEES

<u>Waste Type</u>	<u>Rate of Payment</u>	
	<u>20 Years</u>	<u>30 Years</u>
	<u>Period of Owner Responsibility</u>	
<u>a. Hazardous wastes</u>	<u>35¢/ton</u>	<u>15¢/ton</u>
<u>b. Hazardous ashes or sludges from</u> <u>electric and process steam</u> <u>generating facilities</u>	<u>3.5¢/ton</u>	<u>1.5¢/ton</u>
<u>c. Hazardous sludges produced by waste</u> <u>treatment or manufacturing processes</u> <u>at pulp or paper mills</u>	<u>3.5¢/ton</u>	<u>1.5¢/ton</u>
<u>d. Hazardous manufacturing process</u> <u>solid wastes from foundries</u>	<u>3.5¢/ton</u>	<u>1.5¢/ton</u>
<u>e. Hazardous sludges produced by</u> <u>municipal wastewater treatment facilities</u>	<u>3.5¢/ton</u>	<u>1.5¢/ton</u>

~~2. For all disposal facilities without an approved plan of operation, the fees to be paid shall be those indicated in subd. 1. at the 30-year responsibility rate of payment.~~ As provided in s. 144.441(5), Stats., the owner or operator shall pay to the department a waste management fund base fee of \$100 for each calendar year.

3. The facilities described in par. (a)5. shall increase the tonnage fees in subpar. 1. and if applicable, subpar. 4. by 25%.

4. The solid waste tonnage fees established in s. 144.441(4)(a) and (d), Stats., shall be paid for each ton of solid waste received and disposed of at a hazardous waste land disposal facility.

~~(d) Use of fund. Only facilities with an approved plan of operation are eligible for use of the money accumulated in the waste management fund. The owner or operator of any hazardous waste disposal site or facility in existence on the effective date of these rules shall be required to seek approval of a plan of operation before an operating license is issued. The monies in the waste management fund shall be expended exclusively as set forth in s. 144.441(3)(g), Stats.~~ Only an approved facility as defined in s. 144.441(2)(a)1., Stats., is eligible for use of the money accumulated in the waste management fund. The monies in the waste management fund shall be expended exclusively as set forth in s. 144.441(6), Stats.

(e) Determination of waste tonnages. 1. 'Determination by owner or operator.' The owner or operator shall use one of the following methods for determining the number of tons of waste received and disposed of at the land disposal facility.

a. The owner or operator may use actual weight or volume records.

b. The owner or operator may use manifest records.

2. 'Conversion factors.' The conversion factors in table IX shall be used. All conversion factors are based on wet densities.

TABLE IX  
CONVERSION FACTORS

<u>Liquid wastes</u>	<u>Actual weighing of the waste</u> <u>material is required.</u>
<u>Pulp and papermill sludge</u>	
<u>As delivered - uncompacted</u>	<u>1,800 pounds/cubic yard</u>
<u>In-field - compacted</u>	<u>2,200 pounds/cubic yard</u>
<u>Municipal wastewater sludge</u>	<u>1,684 pounds/cubic yard</u>
<u>Utility ash - fly and bottom</u>	
<u>As delivered - uncompacted</u>	<u>2,200 pounds/cubic yard</u>
<u>In-field - compacted</u>	<u>2,400 pounds/cubic yard</u>
<u>Foundry wastes</u>	
<u>As delivered - uncompacted</u>	<u>2,600 pounds/cubic yard</u>
<u>In-field - compacted</u>	<u>3,000 pounds/cubic yard</u>

3. 'Department estimates.' The department may estimate by waste category the number of tons received at a hazardous waste disposal facility. The department's estimate shall appear on the certification form and shall be the number of tons received and reported for the previous reporting period.

(f) Waste management fund expenditures. 1. 'Payments for long-term care after termination of owner responsibility.' The department shall determine the necessary maintenance requirements for the long-term care of an approved hazardous waste disposal facility after the termination of the owner's responsibility. The department shall comply with s. 16.75, Stats., when applicable, for contracting services for the required long-term care maintenance of hazardous waste disposal facilities.

2. 'Payments of related costs.' The department shall comply with s. 144.44(6)(f), Stats., prior to making any expenditures from the waste management fund under s. 144.44(6)(e), Stats.

3. 'Other payments.' The department may expend monies from the waste management fund in accordance with s. 144.441(6)(g) to (i), Stats.

The foregoing rules were approved and adopted by the State of Wisconsin Natural Resources Board on January 25, 1984.

The rules contained herein shall take effect as provided in ss. 227.026(1) (Intro.), Stats.

Dated at Madison, Wisconsin March 13, 1984

State of Wisconsin  
Department of Natural Resources

By: Carroll D. Besadny  
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(Seal)

ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCES BOARD

AMENDING RULES

.....  
 IN THE MATTER of amending s. NR 182.17, .  
 of the Wisconsin Administrative Code, .  
 pertaining to financial responsibility . SW-38-83e  
 for long-term care of mining waste disposal .  
 facilities. .  
 .....

Analysis Prepared by the Department of Natural Resources

Section 144.443, Stats., and Chapter NR 182 require owners and operators of approved mining waste disposal facilities to provide proof of financial responsibility for the long-term care of their facilities.

Chapter 374, Laws of 1981, effective on May 7, 1982, allows the use of a letter of credit or the net worth test as proof of financial responsibility, allows the use of other methods of proof of financial responsibility that are acceptable to the Department; and requires proof of financial responsibility for PCB commercial waste treatment and storage facilities. Since NR 182.17 is based on the statutes amended by Chapter 374, it was necessary to change the provisions of the rule. In addition, the Department reformatted the long-term care formulas for clarity; changed wording regarding a request for a hearing prior to converting a proof method in the event of the owner not performing closure or long-term care activities; included closure insurance and long-term care insurance as an acceptable method of proof of financial responsibility; and made other minor wording changes for clarity and completeness.

Pursuant to the authority vested in the State of Wisconsin Natural Resources Board by ss. 144.431, 144.435, 144.44, 144.441, 144.443, 144.80 through 144.94 and 227.014, Stats., the State of Wisconsin Natural Resources Board hereby amends rules interpreting ss. 144.44, 144.441 and 144.443, Stats., as follows:

SECTION 1. NR 182.17 is amended to read:

NR 182.17 FINANCIAL RESPONSIBILITY FOR LONG-TERM CARE. (1) DEFINITIONS. (a) "Actual dollar payments" means equal annual payments made by the facility owner into a long-term care account.

(b) "Approved mining waste facility" means an approved waste facility which is part of a mining site, as defined under s. 144.81(8), Stats., used for the disposal of waste resulting from mining as defined under s. 144.81(5), Stats., or prospecting, as defined under s. 144.81(12), Stats.

(c) "Certificate of deposit" means a certificate issued by a bank or financial institution acknowledging receipt of a specified sum of money in a special kind of time deposit, drawing interest and requiring written notice for withdrawal.

(d) "Closure period" means the 90-day period after the facility ceases to accept waste, unless otherwise specified in the approved plan of operation.

(e) "Equal annual outpayments" means estimated payments for long-term care which are the same amount in each year of the period of owner responsibility for the long-term care of the facility.

(f) "Interest bearing accounts" means escrow accounts, trust accounts or cash deposits with the department.

(g) "Non-interest bearing accounts" means letters of credit, performance bonds or forfeiture bonds.

(h) "Real dollar payments" means payments made by the facility owner, which increase each year at the rate of inflation, into a long-term care account.

(i) "Unequal annual outpayments" means estimated payments for long-term care which are higher in the early years of the period of owner responsibility for long-term care than they are later in the long-term care period after the facility has stabilized.

(j) "U.S. government securities" includes treasury bills, treasury bonds, treasury certificates, treasury notes, and treasury stocks guaranteed by the federal government.

↔(2) APPLICABILITY. (a) Purpose. The intent of this section is to coordinate the financial responsibility requirements of ch. NR 132 and this chapter as they affect the long-term care of ~~a mining site~~ an approved mining waste facility as defined in s. 144.441(2), Stats. The long-term care requirements of this chapter are to be incorporated in and made part of the mine reclamation plan. Financial responsibility for long-term care and release of the same, however, shall be made according to the provisions of this section. A demonstration of financial responsibility by whatever means shall not be required twice for the same obligation regardless of whether the same is set forth in more than one chapter of the administrative code. No plan of operation for a mining

waste disposal site facility may be approved unless the applicant submits, as ~~hereinafter provided,~~  
~~a bond, deposit, proof of an established escrow account or trust account~~ part of the initial  
operating license application and annually thereafter for the period of active facility life, proof  
of financial responsibility ensuring that the applicant and any successor in interest will comply  
with the long-term care requirements referenced in the plan and incorporated in and made part of the  
reclamation plan.

~~(2)~~(b) An owner of ~~a mine waste~~ an approved mining waste facility shall be responsible for the  
long-term care of the facility for 30 years after closure. The long-term care requirements of this  
chapter shall be incorporated in and made part of the reclamation plan submitted ~~pursuant to~~ under  
s. 144.85(3)(b), Stats., and s. NR 132.08 but shall be referenced in the plan of operation submitted  
~~pursuant to~~ under s. NR 182.09. The financial responsibility requirements of ~~sub. (1) par. (a)~~ par. (a) for  
such long-term care, however, shall be fulfilled by compliance with the provisions of any of  
sub. (3)(a) to ~~(d)~~(h) ~~during the active site life. After closure, financial responsibility~~  
~~for long-term care shall be fulfilled by compliance with the provisions of any of sub. (3)(b) to~~  
~~(d).~~

(c) Successors in interest. Any person acquiring rights of ownership, possession or operation  
of a licensed facility shall be subject to all requirements of the license for the facility and  
shall provide any required proof of financial responsibility to the department in accordance with  
this section. The previous owner is responsible for long-term care, and shall maintain any required  
proof of financial responsibility, until the person acquiring ownership, possession or operation of  
the facility establishes any required proof of financial responsibility.

(3) METHODS OF PROVIDING PROOF OF FINANCIAL RESPONSIBILITY. The owner shall specify, as part of  
the plan of operation submittal, which method of providing proof of financial responsibility will be  
used for long-term care. To provide proof of financial responsibility, the applicant shall use one  
of the following methods:

(a) Performance or forfeiture bond. 1. If the owner chooses to submit a bond, it shall be in the amount determined according to sub. (5)(b) conditioned upon faithful performance by the owner and any successor in interest, of all 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 long-term care of the ~~site~~ facility in lieu of cash payment to the department if the owner or any successor in interest fails to carry out the long-term care requirements of the approved plan of operation. The department shall mail notification of its intent to use the funds for that purpose to the last known address of the owner. If the owner submits a written request for a hearing to the secretary of the department within 20 days after the mailing of the notification, the department shall, prior to using the funds, hold a hearing for the purpose of determining whether or not the long-term care requirements of the approved plan of operation have been carried out.

3. Each bond shall provide that, as long as any obligation of the owner for long-term care remains, the bond ~~shall~~ may not be cancelled by the surety, unless a replacement bond or other proof of financial responsibility under this section is provided to the department by the owner. If the surety proposes to cancel ~~such~~ a bond, the surety shall provide 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 and the bond shall remain in effect as long as any obligation of the owner remains for long-term care.

4. 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 and the bond shall remain in effect as long as any obligation of the owner remains for long-term care.

(b) Deposit with the department. ~~if the~~ An owner ~~may deposits~~ deposit cash, certificates of deposit, or U.S. government securities with the department, the amount of the deposit shall be determined according to sub. (5)(a) and shall be submitted as part of the initial license application. ~~Deposits~~ Cash 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 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~~ submits a written request for a hearing in writing to the secretary of the department within ~~60~~ 20 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 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. (5)(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~~ A duplicate original of the escrow agreement with original signatures 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 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~~ submits a written request for a hearing in-writing to the secretary of the department within ~~60~~ 20 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 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 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 a federal agency. The trust corpus shall consist of cash, certificates of deposit or U.S. government securities in the amount determined according to sub. (5)(a). All interest payments shall be accumulated in the account. ~~An originally signed~~ A duplicate original of the trust agreement with original signatures shall be submitted to the department for approval as part of the initial operating license application. Trust forms ~~may~~ shall be supplied by the department. The trust agreement shall provide that there shall be no withdrawal from the trust fund except as authorized in writing 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 long-term care requirements of the approved plan of operation. 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~~ submits a written request for a hearing in writing to the secretary of the department within ~~60~~ 20 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 long-term care requirements of the approved plan of operation have been carried out.

(e) Letter of credit. 1. If the owner chooses to submit a letter of credit, it shall be in the amount determined according to sub. (5)(b) conditioned upon faithful performance by the owner and any successor in interest, of all long-term care requirements of the approved plan of operation. The original letter of credit shall be delivered to the department as part of the initial operating license application. Letter of credit forms shall be supplied by the department.

2. Letters of credit shall be issued by a bank or financial institution which is examined and regulated by a federal agency, or in the case of a bank or financial institution located within the state of Wisconsin, which is examined and regulated by the state or a federal agency. The department shall be the beneficiary of the letter of credit.

3. Each letter of credit shall provide that as long as any obligation of the owner for long-term care remains, the letter of credit may not be cancelled by the bank or financial institution, unless a replacement letter of credit or other proof of financial responsibility under this section is provided to the department by the owner. If the bank or financial institution proposes to cancel a letter of credit, the bank or financial institution shall provide notice 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 date of the 90-day notice period, the owner shall deliver to the department a replacement letter of credit or other proof of financial responsibility under this section, in the absence of which all disposal operations shall immediately cease and the letter of credit shall remain in effect as long as any obligation of the owner remains for closure or long-term care.

4. If the bank or financial institution 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, deliver to the department a replacement letter of credit or other proof of financial responsibility under this section, in the absence of which all disposal operations shall immediately cease and the letter of credit shall remain in effect as long as any obligation of the owner remains for closure or long-term care.

5. The letter of credit shall further provide that the department shall have the right to withdraw and use part or all of the funds to carry out the long-term care requirements of the plan of operation if the owner fails to do so. The department shall mail notification of its intent to use the funds for that purpose to the last known address of the owner. If the owner submits a written request for a hearing to the secretary of the department within 10 days after mailing of the notification, the department shall, prior to using the funds, hold a hearing for the purpose of determining whether or not the long-term care requirements of the approved plan of operation have been carried out.

(f) Net worth test. 1. Only a company that meets the definition in s. 144.443(1)(b), Stats., may use the net worth method of providing proof of financial responsibility.

2. The owner shall comply with the net worth test requirements of s. 144.443(4) and (6), Stats., and the minimum security requirements of s. 144.443(8), Stats., whichever is applicable.

3. Companies using the net worth test to provide proof of financial responsibility for more than one facility shall use the total cost of compliance for all facilities in determining the net worth to closure and long-term care cost ratio.

4. The department determinations under the net worth test shall be done in accordance with s. 144.443(5), Stats.

(g) Insurance. 1. If the owner chooses to submit an insurance policy for long-term care, it shall be issued for the maximum risk limit determined according to sub. (5)(c). A certificate of insurance shall be delivered to the department as part of the initial operating license application. Certificate of insurance forms shall be supplied by the department.

2. At a minimum, the agent or broker shall be licensed as a surplus lines insurance agent or broker. The department shall determine the acceptability of a surplus lines insurance company to provide coverage for proof of financial responsibility. The department shall base this determination on any evaluations prepared in accordance with s. 618.41(6)(d), Stats., by the office of the commissioner of insurance. The department shall be the beneficiary of the insurance policy.

3. The insurance policy shall provide that, as long as any obligation of the owner for long-term care remains, the insurance policy may not be cancelled by the insurer unless a replacement insurance policy or other proof of financial responsibility under this section is provided to the department by the owner. If the insurer proposes to cancel an insurance policy, the insurer shall provide notice 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 insurance policy or other proof of financial responsibility under this section, in the absence of which all disposal operations shall immediately cease and the policy shall remain in effect as long as any obligation of the owner remains for long-term care.

4. If the insurance company becomes bankrupt or insolvent or if the company receives an unfavorable evaluation under s. 618.41(6)(d), Stats., the owner shall, within 30 days after receiving written notice, deliver to the department a replacement insurance policy or other proof of financial responsibility under this section in the absence of which all disposal operations shall immediately cease and the policy shall remain in effect as long as any obligation of the owner remains for long-term care.

5. The insurance policy shall further provide that funds, up to an amount equal to the maximum risk limit of the policy, will be available to the department to carry out the 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 the funds for that purpose to the last known address of the owner. If the insurer or owner submits a written request for a hearing to the secretary of the department within 20 days after the mailing of the notification, the department shall, prior to using funds, hold a hearing for the purpose of determining whether or not the long-term care requirements of the approved plan of operation have been carried out.

6. Each insurance policy shall contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditioned upon the consent of the insurer, provided such consent is not unreasonably refused.

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

h. Other methods. The department shall consider other financial commitments made payable to or established for the benefit of the department to ensure the owner or operator will comply with the long-term care requirements of the approved plan of operation. The department shall review the request of any owner or operator to establish proof of financial responsibility to determine whether the proposed method provides a degree of assurance that is comparable to that provided by the methods listed in this section. The owner shall submit the request and all supporting information as part of the plan of operation.

(4) COST ESTIMATES. (a) For the purpose of determining the amount of proof of financial responsibility that is required in sub. ~~(4)~~(3), the owner shall estimate the annual cost of long-term care of the ~~site~~ facility for the period of owner responsibility and submit the estimated long-term care costs together with all necessary justification to the department for approval as part of the plan of operation submittal. The costs shall be based on a third party performing the work and reported on a per unit basis. The source of estimates shall be indicated.

(b) 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.

(c) The estimated annual rate of inflation shall be ~~calculated by dividing~~ the latest published percent change in the annual gross national product implicit price deflator ~~by the deflator published for the previous year~~ in the survey of current business of by the bureau of economic analysis, U.S. department of commerce. ~~The result is the estimated annual rate of inflation.~~

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

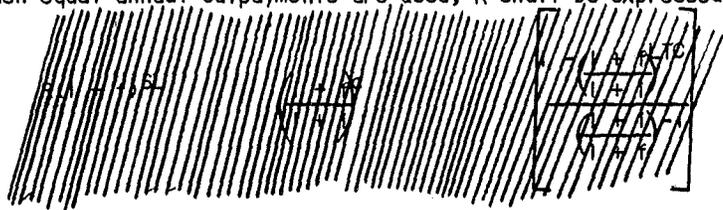
(5) FORMULAS FOR CALCULATING THE AMOUNT OF THE PROOF OF FINANCIAL RESPONSIBILITY. The owner shall, as part of the plan of operation submittal perform the calculation of the formula for the chosen method of providing proof of financial responsibility for long-term care. (a) Deposits in escrow, trust or department accounts.

1. 'Interest bearing accounts for long-term care.' a. The following ~~statistic~~ information used in calculating the amounts deposited to the long-term care account shall be specified in the plan of operation submittal: the rate of outpayment during the period of long-term care, expressed in equal annual outpayments or unequal annual amounts outpayments, and the equal annual rate of inpayment, expressed as either ~~"real" or "actual" dollars~~ real dollar inpayments or actual dollar inpayments.

2. ~~The following general formula shall be used in the calculation:~~

A = R

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



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

~~$$R = \frac{A(1+i)^N - C}{(1+i)^N - 1}$$~~

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

~~$$A = \frac{C(1+i)^N - R(1+i)^N + R}{(1+i)^N - 1}$$~~

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

~~$$A = \frac{C(1+i)^N - R(1+i)^N + R}{(1+i)^N - 1}$$~~

b. When equal annual outpayments, actual dollar payments and a closure period are used, the formula shall be expressed as:

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

c. When equal annual outpayments, actual dollar payments and no closure period are used, the formula shall be expressed as:

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

d. When unequal annual outpayments, actual dollar inpayments and a closure period are used, the formula shall be expressed as:

$$A = \left[ \sum \left[ R_x (1+f)^{SL} \left( \frac{1+f}{1+i} \right)^{x+c} \right] \right] \div \left[ (1+i) \left[ \frac{(1+i)^{SL} - 1}{i} \right] \right]$$

e. When unequal annual outpayments, actual dollar inpayments and no closure period are used, the formula shall be expressed as:

$$A = \left[ \sum \left[ R_x (1+f)^{SL} \left( \frac{1+f}{1+i} \right)^x \right] \right] \div \left[ (1+i) \left[ \frac{(1+i)^{SL} - 1}{i} \right] \right]$$

f. When equal annual outpayments, real dollar inpayments and a closure period are used, the formula shall be expressed as:

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

g. When equal annual outpayments, real dollar inpayments and no closure period are used, the formula shall be expressed as:

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

h. When unequal annual outpayments, real dollar inpayments and a closure period are used, the formula shall be expressed as:

$$A = \left[ \sum \left[ R_x (1+f)^{SL} \left( \frac{1+f}{1+i} \right)^{x+c} \right] \right] \div \left[ (1+i)^{SL} + 1 \left[ \frac{1 - \left( \frac{1+f}{1+i} \right)^{SL}}{1-f} \right] \right]$$

i. When unequal annual outpayments, real dollar inpayments and no closure period are used, the formula shall be expressed as:

$$A = \left[ \sum \left[ R_x (1+f)^{SL} \left( \frac{1+f}{1+i} \right)^x \right] \right] \div \left[ (1+i)^{SL} + 1 \left[ \frac{1 - \left( \frac{1+f}{1+i} \right)^{SL}}{1-f} \right] \right]$$

In which:

A = the unknown ~~annual~~ inpayment for long-term care per year of active facility life

i = the estimated annual rate of interest

f = the estimated annual rate of inflation

SL = the estimated active life of the ~~site~~ facility in years

R = the estimated annual costs

$R_x$  = the estimated unequal annual costs

x = the year of long-term care

LTC = the period of long-term care

c = the ~~period-of~~ closure period as a fraction of one year

$\Sigma$  = the sum from year 1 through the last year of LTC

(b) Bonds and letters of credit. 1. 'Non-interest bearing accounts for long-term care'. The rate of outpayment shall be as specified in sub. (5)(a), and the rate of inpayment shall be in equal actual dollars as specified in the plan of operation actual dollar inpayments.

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

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

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

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

~~$$PB(SL) = \sum_{x=1}^{LTC} \left[ R_x(1+f)^{SL+x} + c \right]$$~~

$$PB = \left[ \sum_{x=1}^{LTC} \left[ R_x(1+f)^{SL+x} + c \right] \right] \div SL$$

In which:

PB = the unknown annual performance bond or letter of credit amount for long-term care to increase per year of active facility life.

f = the estimated annual rate of inflation

SL = the estimated active life of the state facility in years

R = the estimated annual costs

$\frac{R_x}{x}$  = the estimated unequal annual costs

LTC = the long-term care period

x = the year of long-term care

$c$  = the ~~period-of~~ closure period as a fraction of one year

$\Sigma$  = the sum from year 1 through the last year of LTC

(c) Insurance. 1. 'Long-Term Care'. a. The rate of outpayment shall be as specified in sub. (5)(a)1.

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

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

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

$$INS = \left[ \Sigma \left[ R_x (1+f)^{SL+x+c} \right] \right]$$

In which:

INS = the unknown amount of the long-term care insurance

f = the estimated annual rate of inflation

SL = the estimated active life of the facility in years

R = the estimated annual costs

$R_x$  = the estimated unequal annual costs

LTC = the long-term care period

x = the year of long-term care

c = the closure period as a fraction of a year

$\Sigma$  = the sum of year 1 through the last year of LTC

(6) CHANGING METHODS OF PROOF OF FINANCIAL RESPONSIBILITY. The owner of an approved mining waste facility may change from one method of providing proof of financial responsibility under sub. (3) to another, but not more than once per year. A change may only be made on the anniversary of the submittal of the original method of providing proof of financial responsibility.

~~(6)~~(7) ADJUSTMENT OF FINANCIAL RESPONSIBILITY. The owner of a ~~site~~ facility for the land disposal of ~~settled~~ mining waste shall prepare a new long-term care cost estimate whenever a substantial change in the long-term care requirements ~~of~~ in the approved plan of operation affects the cost of long-term care. Proof of the increase in ~~value~~ the amount of all bonds, letters of credit, escrow accounts and trust accounts, or other approved methods 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 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~~ adjust the amount of proof of financial responsibility accordingly.

~~(7)~~(8) 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 ~~settled~~ an approved mining waste site facility is in violation of any of the requirements for long-term care specified in the approved plan of operation, the department and its designees shall have the right to enter upon the facility and carry out the 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, or letters of credit, or funds accumulated under other approved methods to carry out ~~these~~ the long-term care requirements.

~~(8)~~(9) AUTHORIZATION TO RELEASE FUNDS. 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 other approved methods, or for reduction ~~in~~ of the bond, insurance or letter of credit equal to the estimated costs for long-term care for that year. ~~Such~~ The 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 in writing the release of funds or approve a reduction in the bond or letter of credit. Prior to authorizing a release of the funds or bond a reduction of the bond or letter of credit, the department shall determine that adequate funds exist to complete required long-term care work for the remaining period of owner responsibility. ~~Such determinations~~ Determinations shall be concluded made 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 the period of owner responsibility shall be released to the owner.

~~(9) Any person acquiring rights of ownership, possession or operation of a licensed facility shall be responsible for the closure and long-term care of the facility and shall provide such evidence as the department shall require.~~

(10) EARLY TERMINATION. (a) The owner of a mine an approved mining waste facility may apply to the department for termination of its responsibility for long-term care at any time after the facility has been closed for at least 10 years. Within 30 days of the receipt of such application in writing, the department shall, using the procedures set forth in par. (b), provide notice to the public and to the owner and an opportunity for a hearing on the termination of its responsibility. In this proceeding the burden shall be on the applicant to prove by a preponderance of the evidence that additional long-term care is not necessary for adequate protection of public health or the environment.

(b) The department shall publish a class 1 notice under ch. 985, Stats., in the official newspaper designated under s. 985.04 or 985.05, Stats., or, if none exists, in a newspaper likely to give notice in the area of the proposed facility. The notice shall invite the submission of written comments by any person within ~~to~~ 30 days from the time the notice is published, and shall describe the method by which a hearing may be demanded under par. (c). Notice shall also be given ~~pursuant-~~ ~~to-the-provisions-of~~ under s. 144.836(3)(b)1. and 2., Stats.

(c) Within 30 days after the notice required under par. (b) is published, a written demand for a hearing on the matter may be filed by any county, city, village, town, tribal government or by any 6 persons. The demand shall indicate the interest of the municipality or persons who file it and state the reasons why the hearing is demanded. A hearing demanded under this paragraph shall be held within 60 days after the deadline for demanding a hearing and shall be conducted as provided in s. 227.07, Stats. The hearing shall be held in an appropriate place designated by the department in one of the counties, cities, villages or towns which are substantially affected by the operation of the facility. Notice of the hearing shall be given ~~pursuant-to-the-provisions-of~~ under s. 144.836(3)(b)1. and 2., Stats., except the hearing may be scheduled ~~with~~ upon 30 days notice.

(d) Within 120 days after posting notice of the pending termination or within 60 days after any hearing is adjourned, whichever is later, the department shall determine either that long-term care of the facility is no longer required, in which case the applicant shall be relieved of such responsibility; or that additional long-term care of the facility as specified in the plan of operation is still required, in which case further application under this subsection ~~shall~~ may not be permitted until at least 5 years have elapsed since the previous application.

The foregoing rules were approved and adopted by the State of Wisconsin Natural Resources Board on January 25, 1984.

The rules contained herein shall take effect as provided in s. 227.026(1) (intro.), Stats.

Dated at Madison, Wisconsin March 13, 1984

STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES

By Carroll D. Besadny  
Carroll D. Besadny, Secretary

(SEAL)

ORDER OF THE STATE OF WISCONSIN  
NATURAL RESOURCES BOARD

AMENDING RULES

.....  
IN THE MATTER of s. NR 182.18, of the .  
Wisconsin Administrative Code, .  
pertaining to the Waste Management Fund . SW-38-83f  
for mining waste disposal facilities. .  
.....

Analysis Prepared by the  
Department of Natural Resources

Section 144.441, Stats., and Chapter NR 182 require all owners or operators of licensed mining waste disposal facilities to pay for each ton of waste received and disposed of at the facility.

Chapter 374, Laws of 1981, effective on May 7, 1982, requires each licensed land disposal facility to pay a \$100 waste management base fee; companies using the net worth method of financial responsibility to pay a 25% tonnage fee surcharge; and the Department to provide volumes which are equivalent to a ton of waste. Since NR 182.18 is based on statutes which were amended by Ch. 374, it was necessary to change the provisions of this rule. In addition, to the amendments required by the statutory changes, the Department increased the return time of the form and fees from 30 to 45 days and to encourage prompt payment, has included a \$50 late processing fee.

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Pursuant to the authority vested in the State of Wisconsin Natural Resources Board by ss. 144.441 and 227.014, Stats., the State of Wisconsin Natural Resources Board hereby amends rules interpreting s. 144.44 and 144.441, Stats., as follows:

SECTION 1. NR 182.18 is amended to read:

NR 182.18 WASTE MANAGEMENT FUND. (1) APPLICABILITY. (a) All owners or operators of licensed mining waste disposal sites facilities shall contribute to the waste management fund established by s. 25.45, Stats. pay to the department a tonnage fee, for each ton of waste received and disposed of at the site facility, or a minimum waste management fund base fee of \$100, whichever is greater, until the facility no longer receives waste and begins closure activities, except as otherwise provided in s. 144.441(3)(b) or (c), Stats. The department shall deposit all tonnage and waste management base fees into the waste management fund provided for in s. 25.45, Stats.

(b) For all mining waste facilities with a plan of operation approved under s. 144.44(3), Stats., after May 20, 1978, the owner shall be responsible for the long-term care of the facility for 30 years after facility closure. The fees to be paid by the owner or operator into the waste management fund shall be in accordance with sub. (3)(a) or (b), whichever fee is greater.

(c) For all mining waste facilities not approved as set forth in par. (b), the fees to be paid by the owner or operator into the waste management fund shall be those indicated in sub. (3)(a) or (b), whichever fee is greater. The owner or operator of a mining waste facility in existence on May 21, 1978 may, but will not be required to, seek approval of the facility's plan of operation under s. 144.44(3)(a), Stats.

(d) For those companies which have provided proof of financial responsibility by the net worth method under s. 144.44(4) and (8), Stats., the fees to be paid by the owner or operator into the waste management fund shall be in accordance with sub. (3)(c), if applicable, or sub. (3)(b), whichever fee is greater.

(2) CERTIFICATION. ~~For purpose of this chapter, the monies in the waste management fund shall be expended by the department on its own motion or upon petition by any 6 persons after hearing, providing that the money authorized to be spent shall be limited to payment for all costs of long term care of the mine waste facility after the responsibility of the owner has been terminated pursuant to s. 144.44(2)(d), Stats., and s. NR-182.17(9)(d), and payment of the costs of repairing a mine waste facility, as a result of an occurrence which poses a substantial hazard to public health or welfare and which was not anticipated in an approved plan of operation submitted pursuant to s. NR-182.09. Prior to making any expenditure under this section, the department shall publish a class notice, under ch. 985, Stats., of its intent to do so, specifying the amount and purpose of the proposed expenditure and shall afford a hearing to any persons who so demand within 30 days for the purpose of determining whether the proposed expenditure meets the requirements of this section. If requested, the department shall set the matter for a contested public hearing~~

pursuant to s. 227.07, Stats., Notice of such hearing shall be given pursuant to the provisions of s. 144.836(3)(b) and 2, Stats., except the hearing may be scheduled with 30 days notice, if an expenditure would not have been necessary had the person responsible for the operation or long term care of the facility substantially complied with the requirements of the plan of operation; a right of action in favor of the fund shall accrue to the state against such person, and the attorney general shall take such action as is appropriate to enforce this right of action by recovering any amounts so expended. The net proceeds of any such recovery shall be paid into the waste management fund. The 6 person petition shall indicate the interest of the petitioners and the reasons why a hearing is warranted. Within 90 days after the close of the hearing, the department shall make and file its determination. (3) The owner or operator of a licensed mining waste site facility shall certify, on a form provided by the department, the amount of 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 department shall mail the certification form to the owner or operator every January. The certification form shall be completed and returned to the department with the appropriate fee within 30 45 days after mailing of the form by the department to the owner or operator. An owner or operator failing to submit the waste management certification form and appropriate fees within 45 days after mailing of the form to the owner or operator shall pay a late processing fee of \$50.

(3) FEES. (a) The mining waste tonnage fees established in s. 144.441(4), Stats., are summarized in table 2.

TABLE 2  
WASTE MANAGEMENT FUND  
TONNAGE FEES

<u>Waste Type</u>	<u>Fee</u>
<u>1. Hazardous tailing solids</u>	<u>1.5¢/ton</u>
<u>2. Nonhazardous tailings solids or nonacid producing taconite tailings solids</u>	<u>0.2¢/ton</u>
<u>3. Hazardous sludge</u>	<u>1.0¢/ton</u>
<u>4. Nonhazardous sludge</u>	<u>0.5¢/ton</u>
<u>5. Hazardous waste rock</u>	<u>0.3¢/ton</u>
<u>6. Nonhazardous waste rock or nonacid producing taconite waste rock</u>	<u>0.1¢/ton</u>
<u>7. Any prospecting or mining waste not specified in categories 1 to 6 above</u>	<u>0.5¢/ton</u>

(b) As provided in s. 144.441(5), Stats., the owner or operator shall pay to the department a waste management fund base fee of \$100 for each calendar year.

(c) The facilities described in sub. (1)(d) shall increase the tonnage fees in par. (a) by 25%.

(4) USE OF FUND. The fees to be paid into the fund shall be as follows for specific waste types:

(a) For hazardous tailings solids, 1.5¢ per ton.

(b) For nonhazardous tailings solids or for nonacid producing taconite tailings solids, 0.2¢ per

ton.

(c) For hazardous sludge, 1.0¢ per ton.

(d) For nonhazardous sludge, 0.5¢ per ton.

(e) For hazardous waste rock, 0.3¢ per ton.

(f) For nonhazardous waste rock or for nonacid producing taconite waste rock, 0.1¢ per ton.

(g) For any prospecting or mining waste not specified in pars. (a) to (f), 0.5¢ per ton. Only

an approved mining waste facility as defined in s. 144.441(2)(a)2., Stats., is eligible for use of

the money accumulated in the waste management fund. The monies in the waste management fund shall

be expended exclusively as set forth in s. 144.441(6), Stats.

(5) DETERMINATION OF WASTE TONNAGES. ~~The fees shall be paid for the first 6 years of operation of the licensed site or until the state of Wisconsin investment board certifies to the department that the balance in the waste management fund exceeds \$15 million, whichever is later. At such time as the balance in the fund should drop below \$12 million, payments shall resume until the fund again reaches \$15 million.~~ (a) Determination by owner or operator. The owner or operator shall, subject to department approval, use one of the following methods for determining the number of tons of waste received and disposed of at the mining waste facility.

1. The owner or operator may use actual weight or volume records as recorded under s. NR 182.14(1)(b)1.b.

2. The owner or operator may establish by field measurement the volume of waste disposed and convert to a weight using an assumed compaction density.

(b) Department estimates. The department may estimate by waste category the number of tons received at a mining waste facility. The department's estimate shall appear on the certification form and shall be based on the number of tons received and reported on for the previous reporting period.

(6) WASTE MANAGEMENT FUND EXPENDITURES. (a) Payments for long-term care after termination of owner responsibility. The department shall determine the necessary maintenance requirements for the long-term care of an approved mining waste facility after the termination of the owner's responsibility. The department shall comply with s. 16.75, Stats., when applicable, for contracting services for the required long-term care maintenance of mining waste facilities.

(b) Payments of related costs. The department shall comply with s. 144.441(6)(f), Stats., prior to making any expenditures from the waste management fund under s. 144.441(6)(e), Stats.

(c) Other payments. The department may expend monies from the waste management fund in accordance with s. 144.441(6)(g) to (i), Stats.

The foregoing rules were approved and adopted by the State of Wisconsin Natural Resources Board  
on January 25, 1984 .

The rules contained herein shall take effect as provided in s. 227.026(1) (Intro.), Stats.

Dated at Madison, Wisconsin March 13, 1984

State of Wisconsin

Department of Natural Resources

By Carroll D. Besadny  
Carroll D. Besadny, Secretary

(SEAL)