

CHAPTER 101
SANITARY DISPOSAL PROJECTS

DIVISION I
LANDFILL-SPECIFIC REQUIREMENTS

567—101.1(455B) Purpose. The purpose of this division is to provide sanitary landfill-specific requirements for sanitary disposal projects regulated in divisions II, III, and IV of this chapter.

567—101.2(455B) Applicability and compliance. All sanitary landfills regulated in divisions II, III, and IV of this chapter must comply with the provisions of this division and with 567 Chapter 100, except as noted below and in their respective divisions.

101.2(1) Municipal solid waste landfills that did not receive waste after October 9, 1994 shall be governed by the closure permit issued or the rules in place at the time for post-closure activities.

101.2(2) Construction and demolition debris landfills that did not receive waste after [TBD] shall be governed by the closure permit issued or the rules in place at the time for post-closure activities.

101.2(3) Industrial landfills that did not receive waste after [TBD] shall be governed by the closure permit issued or the rules in place at the time for post-closure activities.

101.2(4) Coal combustion residuals landfills that did not receive waste after [TBD] shall be governed by the closure permit issued or the rules in place at the time for post-closure activities.

567—101.3(455B) Definitions. For the purposes of this division, the definitions in Iowa Code section 455B.301 and in 567—Chapter 100, shall be incorporated by reference.

567—101.4(455B) Permits. In addition to the permit requirements in 567—Chapter 100, the following permit requirements shall apply to all sanitary landfills, unless otherwise noted:

101.4(1) Operating permits. An MSWLF, construction and demolition debris, or industrial landfill operating permit shall be issued and may be renewed for a period no longer than five years. A coal combustion residuals landfill operating permit shall be issued and may be renewed for a period no longer than ten years. If an MSWLF adopts research, development and demonstration (RD&D) provisions pursuant to 101.104(10) of this chapter, an MSWLF operating permit with RD&D provisions shall be issued and may be renewed for a period no longer than three years.

101.4(2) Closure permits. An MSWLF or industrial landfill closure permit shall be issued for a period of 30 years. A coal combustion residuals landfill closure permit shall be issued for a period of 10 years. A sanitary landfill requires a closure permit until the department determines that post-closure operations are no longer necessary. A request for a closure permit renewal or termination shall be filed at least 180 days before the expiration of the current permit. If the department finds that a sanitary landfill has completed all required post-closure activities and no longer presents a significant risk to human health or the environment, then the department shall issue written notification that a closure permit is no longer required for the facility. If the department extends the post-closure period, then the duration of the subsequent closure permit will be determined on a site-specific basis.

567—101.5(455B) Permit applications. Unless otherwise authorized by the department, a permit applicant shall submit on a form prescribed by the department, the requirements in 567—Chapter 100 and the following information:

101.5(1) Local siting approval. Documentation that local siting approval pursuant to Iowa Code section 455B.305A, if applicable, has been obtained.

101.5(2) Separation from groundwater. The base of a sanitary landfill unit shall be situated so that the base of the waste within the proposed unit is at least five feet above the high water table unless a

Commented [RBL1]: SIDEBAR: Formatting of the sidebar was changed between Draft5b and Draft6 to be consistent with other divisions. Other changes between the two drafts are noted by a “Draft6” in the sidebar. Draft 6.

Draft 7 on 12/19/24 corrected the numbering from 100.1## to 100.0##.

*Draft 8 changes are noted by an asterisk before the sidebar note (i.e. *SIDEBAR).

Commented [RBL2]: *SIDEBAR: Dates will be added to ensure that landfills closed under prior rules are not inadvertently brought under the proposed rules.

Commented [RBL3]: SIDEBAR: Current Chapter 113 is the only landfill chapter with definitions, and most definitions are verbatim from 40 CFR 258. Therefore, multiple definitions have been referenced to the CFR.

Commented [RBL4R3]: *Remaining definitions have been moved to Chapter 100. See Supplemental Information at the end of this division for additional information.

Commented [RBL5]: SIDEBAR: The permit periods are the same as in current rules. Clarifying language of “no longer than” has been added to be consistent between landfill types.

Commented [BLR6]: SIDEBAR: The permit periods for C&D and Industrial landfills were increased from 3 to 5 years. Clarifying language of “no longer than” has been added to be consistent between landfill types.

Commented [RBL7]: SIDEBAR: Note this does not apply to the expansion of an existing sanitary landfill owned by a private agency that disposes of waste that the agency generates on property owned by the agency.

Commented [RBL8]: SIDEBAR: Although the wording is from current Chapter 113, the requirements reflect the other landfill rules and/or permits. Thus, providing consistency for all landfill types.

greater separation is required to ensure that there will be no significant adverse effect on groundwater or surface waters or a lesser separation is unlikely to have a significant adverse effect on groundwater or surface waters. Artificial means of lowering the high water table are acceptable. The separation of the base of a sanitary landfill unit from the high water table shall be measured and maintained in a manner acceptable to the department.

101.5(3) Wells and community water systems. A sanitary landfill unit shall not be within 1,000 feet of any water well in existence at the time of receipt of the original permit application or application to laterally expand the permitted sanitary landfill unit for the facility. Groundwater monitoring wells are exempt from this requirement. The department may also exempt extraction wells utilized as part of a remediation system from this requirement.

101.5(4) Floodplains. New sanitary landfill units or lateral expansions shall not be located in a 100-year floodplain. Existing sanitary landfills located in 100-year floodplains must demonstrate to the department that the unit will not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain, or result in washout of solid waste so as to pose a hazard to human health and the environment. The owner or operator must place the demonstration in the operating record and submit a copy of the demonstration to the department. For purposes of this subrule, the definitions for floodplain, 100-year flood, and washout are as provided in 40 CFR 258.11.

567—101.6(455B) General operating requirements. In addition to the general operating requirements in 567—Chapter 100, the following shall apply to all sanitary landfills unless otherwise noted:

101.6(1) Controlled access. Control public access and prevent unauthorized vehicular traffic and illegal dumping of wastes by using artificial barriers, natural barriers, or both, as appropriate to protect human health and the environment.

101.6(2) Scales and weights. A scale certified by the Iowa department of agriculture and land stewardship shall weigh all solid waste collection vehicles and solid waste transport vehicles. The owner or operator shall maintain a record of the weight of waste disposed.

101.6(3) All-weather access to disposal. A disposal area shall be accessible during all weather conditions when the landfill is open.

101.6(4) Salvaged and processed materials. Salvaged and processed materials (e.g., scrap metal, compost, mulch, aggregate, tire chips) from a sanitary landfill shall be managed and stored in an orderly manner that does not create a nuisance or encourage the attraction or harborage of vectors.

101.6(5) Vector control. Sanitary landfills shall prevent or control the on-site populations of vectors using techniques appropriate for the protection of human health and the environment.

101.6(6) Litter control. Sanitary landfills shall take steps to minimize the production of litter and the release of windblown litter off site of the facility. All windblown litter off site of the facility shall be collected daily unless prevented by unsafe working conditions. On-site litter shall be collected daily unless prevented by working conditions. A dated record of unsafe conditions that prevented litter collection activities shall be maintained by the facility.

101.6(7) Sanitary landfills shall take steps to minimize the production of dust so that unsafe or nuisance conditions are prevented. Leachate shall not be used for dust control purposes.

101.6(8) Sanitary landfills shall take steps to minimize the tracking of mud by vehicles exiting the facility so that slick or unsafe conditions are prevented.

101.6(9) Leachate and wastewater treatment. The leachate management system shall be managed and maintained pursuant to the requirements of divisions II, III, and IV of this chapter. Leachate collection pipes shall be cleaned and inspected as necessary, but not less than once every three years. Leachate and wastewater shall be treated as necessary to meet the pretreatment limits, if any, imposed by a publicly owned wastewater treatment works (POTW) or by the effluent discharge limits established by a National Pollutant Discharge Elimination System (NPDES) permit. Documentation of the pretreatment permit or pretreatment agreement with the POTW or

Commented [RBL9]: SIDEBAR: Although the wording is from current Chapter 113, the requirements reflect the other landfill rules and/or permits. Thus, providing consistency for all landfill types. The noted changes align with current and/or proposed IAC rules regarding water wells.

Commented [RBL10]: SIDEBAR: Current Chapter 113 allows a demonstration for new units and lateral expansions. However, practically this does not occur. Therefore, the demonstration has been removed to be consistent with the other current landfill chapters.

Definitions are verbatim from the CFR, so they are being referred to. Draft 6.

Commented [RBL11]: SIDEBAR: Although the original wording for these items is from current Chapter 113, the requirements are very similar to what is in the other landfill rules and/or permits and thus provide consistency for all landfill types.

Commented [RBL12]: SIDEBAR: This clarification was added to the definition from current Chapter 113.

Commented [RBL13]: *SIDEBAR: This does not preclude the recirculation of leachate for solidification of CCR, CKD, and other wastes allowed under Divisions III and IV.

Commented [RBL14]: SIDEBAR: The edits align terminology with those used in other DNR programs. The highlighted words will be cross-referenced with proposed terms used in other DNR programs. Also, the DNR's solid waste staff endeavor to define a demarcation between leachate collection and wastewater treatment.

NPDES permit must be submitted to the department. All leachate and wastewater treatment systems shall conform to the department's wastewater design standards.

101.6(10) Facilities that are open to the public shall have signs or pavement markings indicating on-site traffic patterns.

101.6(11) Adequate queuing distance shall be provided for vehicles entering and exiting the property.

567—101.7(455B) Sanitary landfill operator certification. Sanitary landfill operators shall be trained, tested, and certified by a department-approved certification program.

101.7(1) A sanitary landfill operator shall be on duty during all hours of operation of all sanitary landfills, except coal combustion residuals sanitary landfills, consistent with the respective certification.

101.7(2) To become a certified operator, an individual shall complete a basic operator training course that has been approved by the department or an alternative, equivalent training approved by the department and shall pass a departmental examination as specified by this subrule. An operator certified by another state may have reciprocity subject to prior approval by the department.

101.7(3) A sanitary landfill operator certification is valid until June 30 of the following even-numbered year.

101.7(4) The required basic operator training course for a certified sanitary landfill operator shall have at least 20 contact hours and shall address the following areas, at a minimum:

- a. Description of types of wastes.
- b. Interpreting and using engineering plans.
- c. Construction surveying techniques.
- d. Waste decomposition processes.
- e. Geology and hydrology.
- f. Landfill design.
- g. Landfill operation.
- h. Environmental monitoring.
- i. Applicable laws and regulations.
- j. Permitting processes.
- k. Leachate control and treatment.

101.7(5) Alternate basic operator training must be approved by the department. The applicant shall be responsible for submitting any documentation the department may require to evaluate the equivalency of alternate training.

101.7(6) Fees.

- a. The examination fee for each examination is \$20.
- b. The initial certification fee is \$8 for each one-half year of a two-year period from the date of issuance to June 30 of the next even-numbered year.
- c. The certification renewal is \$24.
- d. The penalty fee is \$12.

101.7(7) Examinations.

- a. The operator certification examinations shall be based on the basic operator training course curriculum.
- b. All individuals wishing to take the examination required to become a certified operator of a sanitary incinerator shall complete an operator certification examination application on a form prescribed by the department. A listing of dates and locations of examinations is available from the department upon request. The application form requires the applicant to indicate the basic operator training course taken. Evidence of training course completion must be submitted with the application for certification. The completed application and the application fee shall be sent to the Iowa Department of Natural Resources, 6200 Park Avenue, Des Moines, Iowa 50321. Application for examination must be received by the department prior to the date of examination.

Commented [RBL15]: SIDEBAR: These were brought in from current Chapter 113 but are applicable to all facilities. Draft 6.

Commented [RBL16]: SIDEBAR: Added from Chapter 113.

Commented [RBL17]: *SIDEBAR: Clarification language was added since the current CCR rule does not require their operators to be certified.

Commented [RBL18]: *SIDEBAR: The workgroup concurred with DNR's proposal to reduce contact hours from 25 to 20.

- c. A properly completed application for examination shall be valid for one year from the date the application is approved by the department.
- d. Upon failure of the first examination, the applicant may be reexamined at the next scheduled examination. Upon failure of the second examination, the applicant shall be required to wait a period of 180 days between each subsequent examination.
- e. Upon each reexamination when a valid application is on file, the applicant shall submit to the department the examination fee at least ten days prior to the date of examination.
- f. Failure to successfully complete the examination within one year from the date of approval of the application shall invalidate the application.
- g. Completed examinations will be retained by the department for a period of one year after which they will be destroyed.
- h. Oral examinations may be given at the discretion of the department.

101.7(8) Certification.

- a. All operators who passed the operator certification examination by July 1, 1991, are exempt from taking the required operator training course. Beginning July 1, 1991, all operators are required to take the basic operator training course and pass the examination in order to become certified.
- b. Application for certification must be received by the department within 30 days of the date the applicant receives notification of successful completion of the examination. All applications for certification shall be made on a form prescribed by the department and shall be accompanied by the certification fee.
- c. Applications for certification by examination that are received more than 30 days but less than 60 days after notification of successful completion of the examination shall be accompanied by the certification fee and the penalty fee. Applicants who do not apply for certification within 60 days of notice of successful completion of the examination will not be certified on the basis of that examination.
- d. For applicants who have been certified under other state mandatory certification programs, the equivalency of which has been previously reviewed and accepted by the department, certification without examination will be approved.
- e. For applicants who have been certified under voluntary certification programs in other states, certification will be considered. The applicant must have successfully completed a basic operator training course and an examination generally equivalent to the Iowa examination. The department may require the applicant to successfully complete the Iowa examination.
- f. Applicants who seek Iowa certification pursuant to subparagraphs 101.7(8)"d" and "e" shall submit an application for examination accompanied by a letter requesting certification pursuant to this subrule. Application for certification pursuant to this subrule shall be received by the department in accordance with subparagraphs 101.7(8)"b" and "c".

101.7(9) Duration and renewal of certification. All certificates shall expire every two years, on even-numbered years, and must be renewed every two years to maintain certification. Application and fee are due prior to expiration of certification.

- a. Late application for renewal of a certificate may be made, provided that such late application shall be received by the department or postmarked within 30 days of the expiration of the certificate. Such late application shall be on forms prescribed by the department and accompanied by the penalty fee and the certification renewal fee.
- b. If a certificate holder fails to apply for renewal within 30 days following expiration of the certificate, the right to renew the certificate automatically terminates. Certification may be allowed at any time following such termination, provided that the applicant successfully completes an examination. The applicant must then apply for certification in accordance with paragraph 101.7(8).
- c. An operator shall not continue to operate a sanitary landfill after expiration of a certificate

Commented [RBL19]: *SIDEBAR: We changed this from discretionary to definitive, considering a prior review and acceptance is part of the process.

without renewal thereof.

- d. Continuing education must be earned during the two-year certification period. All certified operators must earn 8 contact hours per certificate during each two-year period. The two-year period will begin upon issuance of certification.
- e. Only those operators fulfilling the continuing education requirements before the end of each two-year period will be allowed to renew their certificates. The certificates of operators not fulfilling the continuing education requirements shall be void upon expiration, unless an extension is granted by the department.
- f. All activities for which continuing education credit will be granted must be related to the subject matter of the particular certificate to which the credit is being applied.
- g. The department may, in individual cases involving hardship or extenuating circumstances, grant an extension of time of up to three months within which the applicant may fulfill the minimum continuing education requirements. Hardship or extenuating circumstances include documented health-related confinement or other circumstances beyond the control of the certified operator which prevent attendance at the required activities. All requests for extensions must be made 60 days prior to expiration of certification.
- h. The certified operator is responsible for notifying the department of the continuing education credits earned during the period. The continuing education credits earned during the period shall be shown on the application for renewal.
- i. A certified operator shall be deemed to have complied with the continuing education requirements of this subrule during periods that the operator serves honorably on active duty in the military service; or for periods that the operator is a resident of another state or district having a continuing education requirement for operators and meets all the requirements of that state or district for practice there; or for periods that the person is a government employee working as an operator and is assigned to duty outside the United States; or for other periods of active practice and absence from the state approved by the department.

101.7(10) Discipline of certified operators.

- a. Disciplinary action may be taken on any of the following grounds:
 - (1) Failure to use reasonable care or judgment or to apply knowledge or ability in performing the duties of a certified operator. Duties of certified operators include compliance with rules and permit conditions applicable to sanitary landfill operation.
 - (2) Failure to submit required records of operation or other reports required under applicable permits or rules of the department, including failure to submit complete records or reports.
 - (3) Knowingly making any false statement, representation, or certification on any application, record, report or document required to be maintained or submitted under any applicable permit or rule of the department.
- b. Disciplinary sanctions allowable are:
 - (1) Revocation of a certificate.
 - (2) Probation under specified conditions relevant to the specific grounds for disciplinary action. Additional education or training or reexamination may be required as a condition of probation.
- c. The procedure for discipline is as follows:
 - (1) The department shall initiate disciplinary action. The commission may direct that the department investigate any alleged factual situation that may be grounds for disciplinary action under subparagraph 101.7(10)"a" and report the results of the investigation to the commission.
 - (2) A disciplinary action may be prosecuted by the department.
 - (3) Written notice shall be given to an operator against whom disciplinary action is being considered. The notice shall state the informal and formal procedures available for determining the matter. The operator shall be given 20 days to present any relevant facts and indicate the operator's position in the matter and to indicate whether informal resolution of the matter may be reached.

Commented [RBL20]: SIDEBAR: The workgroup concurred with DNR's proposal to reduce contact hours from 10 to 8.

- (4) An operator who receives notice shall communicate verbally, in writing, or in person with the department, and efforts shall be made to clarify the respective positions of the operator and department.
- (5) The applicant's failure to communicate facts and positions relevant to the matter by the required date may be considered when determining appropriate disciplinary action.
- (6) If agreement as to appropriate disciplinary sanction, if any, can be reached with the operator and the commission concurs, a written stipulation and settlement between the department and the operator shall be entered into. The stipulation and settlement shall recite the basic facts and violations alleged, any facts brought forth by the operator, and the reasons for the particular sanctions imposed.
- (7) If an agreement as to appropriate disciplinary action, if any, cannot be reached, the department may initiate formal hearing procedures. Notice and formal hearing shall be in accordance with 567—Chapter 7 related to contested and certain other cases pertaining to license discipline.

101.7(11) Revocation of certificates. Upon revocation of a certificate, application for certification may be allowed after two years from the date of revocation. Any such applicant must successfully complete an examination and be certified in the same manner as a new applicant.

101.7(12) Temporary certification. A temporary operator of a sanitary landfill may be designated for a period of six months when an existing certified operator is no longer available to the facility. The facility must make application to the department, explain why a temporary certification is needed, identify the temporary operator, and identify the efforts which will be made to obtain a certified operator. A temporary operator designation shall not be approved for greater than a six-month period except for extenuating circumstances. In any event, not more than one six-month extension to the temporary operator designation may be granted. Approval of a temporary operator designation may be rescinded for cause as set forth in paragraph 101.7(10). All sanitary landfills, with the exception of coal combustion residuals landfills, shall have at least one sanitary landfill operator trained, tested and certified by a department-approved program.

567—101.8(455B) Groundwater monitoring and reporting.

101.8(1) The planning, monitoring, and reporting for groundwater monitoring at a sanitary landfill shall be performed by a qualified groundwater scientist.

101.8(2) Monitoring wells must be constructed and cased by a well contractor certified pursuant to 567—Chapter 82 in a manner that maintains the integrity of the monitoring well borehole. This casing must be screened or perforated and packed with gravel or sand, where necessary, to enable collection of groundwater samples. The annular space (i.e., the space between the borehole and well casing) above the sampling depth must be sealed to prevent contamination of samples and the groundwater. Monitoring wells constructed in accordance with the rules in effect at the time of construction shall not be required to be abandoned and reconstructed as a result of subsequent amendments to these rules unless the department finds that the well is no longer providing representative groundwater samples. See Figure 1 for a general diagram of a properly constructed monitoring well.

a. The owner or operator must notify the department that the design, installation, development, and decommission of any monitoring wells, piezometers and other measurement, sampling, and analytical devices documentation has been placed in the operating record.

b. The monitoring wells, piezometers, and other measurement, sampling, and analytical devices must be operated and maintained so that they perform to design specifications throughout the life of the monitoring program.

c. Each groundwater monitoring point must have a unique and permanent number, and that number must never change or be used again at the sanitary landfill. The types of groundwater monitoring points shall be identified as follows:

1. Monitoring wells by "MW# (Insert unique and permanent number)".
2. Piezometers by "PZ# (Insert unique and permanent number)".
3. Groundwater underdrain systems by "GU# (Insert unique and permanent number)".

Commented [RBL21]: SIDEBAR: The current expectation for non-MSW landfills is that a professional engineer or groundwater scientist perform the monitoring and reporting. This provides clarity and consistency to all landfill types.

Commented [RBL22]: SIDEBAR: Although this wording is from current Chapter 113, it aligns with the requirements and/or expectations in the other landfill chapters and permits. Thus, providing consistency between the landfill types. MSWLF was replaced with solid waste landfill.

d. Monitoring well construction shall be performed by a certified well contractor (pursuant to 567—Chapter 82) and shall comply with the following requirements:

1. In all phases of drilling, well installation and completion, the methods and materials used shall not introduce substances or contaminants that may alter the results of water quality analyses.

2. Drilling equipment that comes into contact with contaminants in the borehole or aboveground shall be thoroughly cleaned to avoid spreading contamination to other depths or locations. Contaminated materials or leachate from wells must not be discharged onto the ground surface or into waters of the state so as to cause harm in the process of drilling or well development.

3. The owner or operator must ensure that, at a minimum, the well design and construction log information is maintained in the facility's permanent record on a form prescribed by the department and that a copy is sent to the department.

e. Monitoring well casings shall comply with the following requirements:

1. The diameter of the inner well casing (see Figure 1) of a monitoring well shall be at least 2 inches.

2. Plastic-cased wells shall be constructed of materials with threaded and non-glued joints that do not allow water infiltration under the local subsurface pressure conditions and when the well is evacuated for sampling.

3. Well casing shall provide sufficient structural stability so that a borehole or well collapse does not occur. Flush joint casing is required for small diameter wells installed through hollow stem augers.

f. Monitoring well screens shall comply with the following requirements:

1. Slot size shall be based on sieve analysis of the sand and gravel stratum or filter pack. The slot size must keep out at least 90 percent of the filter pack.

2. Slot configuration and open area must permit effective development of the well.

3. The screen shall be no longer than 10 feet in length, except for water table wells, in which case the screen shall be of sufficient length to accommodate normal seasonal fluctuations of the water table. The screen shall be placed 5 feet above and below the observed water table, unless local conditions are known to produce greater fluctuations. Screen length for piezometers shall be 2 feet or less. Multiple-screened, single-cased wells are prohibited.

g. Monitoring well filter packs shall comply with the following requirements:

1. The filter pack shall extend at least 18 inches above and 12 inches below the well screen.

2. The size of the filter pack material shall be based on sieve analysis when sand and gravel are screened. The filter pack material must be 2.5 to 3 times larger than the 50 percent grain size of the zone being monitored.

3. In stratum that is neither sand nor gravel, the size of the filter pack material shall be selected based on the particle size of the zone being monitored.

h. Monitoring well annular space shall comply with the following requirements:

1. Grouting materials must be installed from the top of the filter pack up in one continuous operation with a tremie tube.

2. The annular space between the filter pack and the frostline must be backfilled with bentonite grout.

3. The remaining annular space between the protective casing and the monitoring well casing must be sealed with bentonite grout from the frostline to the ground surface.

i. Monitoring well heads shall be protected as follows:

1. Monitoring wells shall have a protective metal casing installed around the upper portion of the monitoring well casing as follows:

- The inside diameter of the protective metal casing shall be at least 2 inches larger than the outer diameter of the monitoring well casing.

- The protective metal casing shall extend from a minimum of 1 foot below the frostline to slightly above the well casing top; however, the protective casing shall be shortened if such a depth would cover a portion of the well screen.

- The protective casing shall be sealed and immobilized with a concrete plug around the outside.

The bottom of the concrete plug must extend at least 1 foot below the frostline; however, the concrete plug shall be shortened if such a depth would cover a portion of the well screen. The top of the concrete plug shall extend at least 3 inches above the ground surface and slope away from the well. Soil may be placed above the plug and shall be at least 6 inches below the cap to improve runoff.

- The inside of the protective casing shall be sealed with bentonite grout from the frostline to the ground surface.

- A vented cap shall be placed on the monitoring well casing.

- A vented, locking cap shall be placed on the protective metal casing. The cap must be kept locked when the well is not being sampled.

2. All monitoring wells shall have a ring of brightly colored protective posts or other protective barriers to help prevent accidental damage.

3. All monitoring wells shall have a sign or permanent marking clearly identifying the permanent monitoring well number (MW#).

4. Run-on shall be directed away from all monitoring wells.

j. Well development is required prior to the use of the monitoring well for water quality monitoring purposes. Well development must loosen and remove fines from the well screen and gravel pack. Any water utilized to stimulate well development must be of sufficient quality that future samples are not contaminated. Any gases utilized in well development must be inert gases that will not contaminate future samples. Following development, the well shall be pumped until the water does not contain significant amounts of suspended solids.

101.8(3) Groundwater monitoring points that are no longer functional must be sealed. Groundwater monitoring points that are to be sealed and are in a future waste disposal area shall be reviewed to determine if the method utilized to seal the monitoring point needs to be more protective than the following requirements. All abandoned groundwater-monitoring points (e.g., boreholes, monitoring wells, and piezometers) shall be sealed by a well contractor certified pursuant to 567—Chapter 82 and in accordance with the following requirements.

a. The following information shall be placed in the operating record on a form prescribed by the department and a copy sent to the department:

1. The unique, permanent monitoring point number.
2. The reasons for abandoning the monitoring point.
3. The date and time the monitoring point was sealed.
4. The method utilized to remove monitoring point materials.
5. The method utilized to seal the monitoring point.

b. The monitoring point materials (e.g., protective casing, casing, screen) shall be removed. If drilling is utilized to remove the materials, then the drilling shall be to the maximum depth of the previously drilled monitoring point. All drilling debris shall be cleaned from the interior of the borehole.

c. The cleared borehole shall be sealed with impermeable bentonite grout via a tremie tube. The end of the tremie tube shall be submerged in the grout while filling from the bottom of the borehole to the top of the ground surface. Uncontaminated water shall be added from the surface as needed to aid grout expansion.

d. After 24 hours, the bentonite grout shall be retopped if it has settled below the ground surface.

101.8(4) Appendix I and Appendix II to 40 CFR Part 258 are incorporated by reference.

101.8(5) Groundwater samples shall not be field-filtered prior to laboratory analysis.

Commented [RBL23]: SIDEBAR: Since these are frequently referenced for other than MSWLFs, they are being included in this Division.

Commented [RBL24R23]: *The appendices are being included by reference.

Commented [RBL25]: SIDEBAR: Unfiltered groundwater samples have been incorporated into all permits, so this clarifies this in rule.

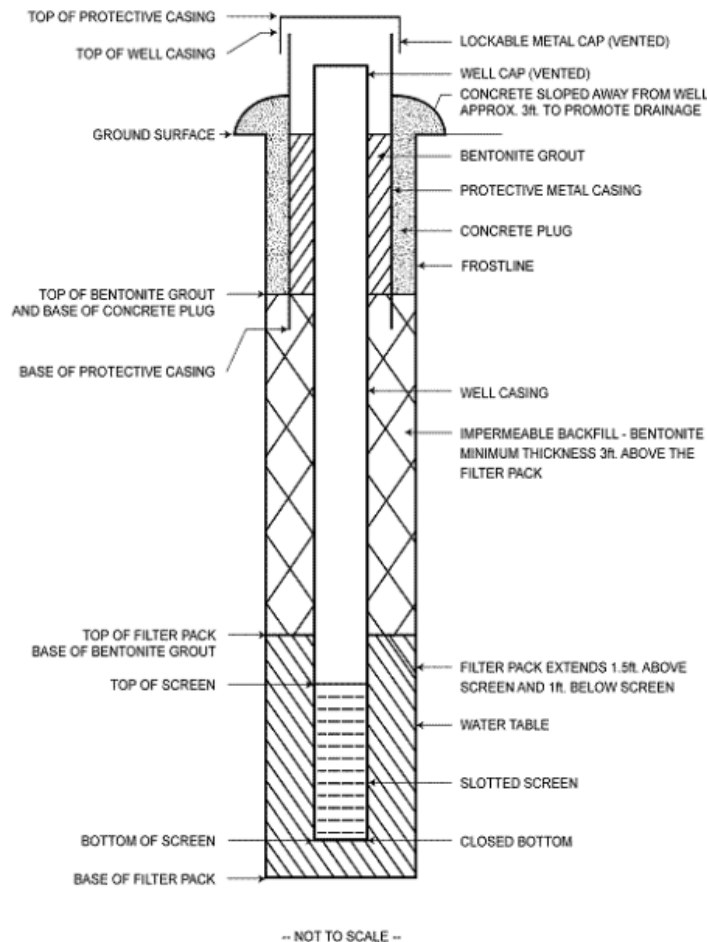


Figure 1 – Typical Monitoring Well Cross-Section

567—101.9(455B) Predesign meeting. A potential applicant for a new sanitary landfill unit may schedule a predesign meeting with the department's landfill permitting staff prior to beginning work on the plans and specifications of a modified or new sanitary landfill. The purpose of this meeting is to help minimize the need for revisions upon submittal of the official designs and specifications.

567—101.10(455B) Contingency Plan. In addition to the emergency response and remedial action plan (ERRAP) requirements in 567—Chapter 100, all sanitary landfills shall include a contingency plan in their ERRAP detailing specific procedures to be followed in case of equipment breakdown, maintenance downtime, or fire in equipment or vehicles, including methods to be used to remove or

Commented [RBL26]: SIDEBAR: Brought in from current Chapter 113. Draft6.

Commented [RBL27]: *SIDEBAR: Since this is not mandatory, it is not enforceable and thus removed.

Commented [RBL28]: SIDEBAR: This wording from current Chapter 115 for a contingency plan aligns with the proposed changes to ERRAP in the proposed Chapter 100.

411 dispose of accumulated waste.

412
413 **567—101.11(455B) Disruption and excavation of sanitary landfills or closed dumps.** No
414 person shall excavate, disrupt, or remove any deposited material from any active or discontinued
415 sanitary landfill or closed dump without first having notified the department in writing.

416 **101.11(1)** Notification shall include an operational plan stating the area involved, lines and
417 grades defining limits of excavation, estimated number of cubic yards of material to be excavated,
418 sanitary disposal project where material is to be disposed, and estimated time required for
419 excavation procedures.

420 **101.11(2)** An excavation shall be confined to an area consistent with the number of pieces of
421 digging equipment and trucks used for haulage.

422 **101.11(3)** The disposal of all solid waste resulting from excavation shall be in conformity with
423 Iowa Code chapter 455B and applicable solid or hazardous waste regulations.

424
425 **567—101.12(455B) Transfer of title.** If title of a closed sanitary disposal project is transferred,
426 any future waste exhumation activities, excluding repairs or maintenance activities, are considered
427 to be operation of the landfill due to the similar environmental effects possible from the two
428 activities due to waste exposure.

429 These rules are intended to implement Iowa Code section 455B.304 and Iowa Code chapter
430 455D.

431 **567—101.13 to 101.99** Reserved.
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Commented [RBL29]: *SIDEBAR: From current 567 IAC 102.16.

Commented [RBL30]: *SIDEBAR: Added to close a potential loophole.

Supplemental Information

Definitions

As noted in the sidebar in this division, these definitions have been moved to Chapter 100. Since this has recently occurred, they are not yet shown in the draft of Chapter 100 that is publicly available.

“Active life” means the period of operation beginning with the initial receipt of solid waste and ending at the completion of closure activities.

“Active portion” means that part of a facility or unit that has received or is receiving wastes and that has not been closed.

“Commercial solid waste” has the same meaning as in 40 CFR Section 258.2.

~~“Existing MSWLF unit” has the same meaning as in 40 CFR Section 258.2.~~

“Facility” means all contiguous land and structures, other appurtenances, and improvements on the land used for the disposal of solid waste. The facility is formally defined in the permit issued by the department. Buffer lands around a facility are not required to be included in the permitted boundary of a facility.

“Household waste” has the same meaning as in 40 CFR Section 258.2.

“Industrial solid waste” means solid waste generated by manufacturing or industrial processes that is not a hazardous waste regulated under Subtitle C of the Resource Conservation and Recovery Act (RCRA). Such waste may include, but is not limited to, waste resulting from the following manufacturing processes: electric power generation; fertilizer and agricultural chemicals; food and related products and by-products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing and foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; textile manufacturing; transportation equipment; and water treatment. “Industrial solid waste” does not include mining waste or oil and gas waste.

“Lateral expansion” means a horizontal expansion of the waste boundaries of an existing sanitary landfill.

“Municipal solid waste landfill (MSWLF) unit” means a discrete area of land or an excavation that receives household waste, and that is not a land application site, surface impoundment, injection well, or waste pile, as those terms are defined under 40 CFR Section 257.2. An MSWLF unit also may receive other types of RCRA Subtitle D wastes, such as commercial solid waste, nonhazardous sludge, construction and demolition debris, and industrial solid waste. An MSWLF unit may be publicly or privately owned.

“Point of compliance” or “POC” means the point at which the sanitary landfill owner or operator demonstrates compliance with the liner performance standard, if applicable, and with the groundwater protection standard. The point of compliance is a vertical surface located hydraulically downgradient of the waste management area that extends down into the uppermost aquifer underlying the regulated sanitary landfill unit(s) and where groundwater monitoring shall be conducted.

“Qualified groundwater scientist” means a scientist or an engineer who has received a baccalaureate or postgraduate degree in the natural sciences or engineering and has sufficient training and experience in groundwater hydrology and related fields demonstrated by state registration, professional certifications, or completion of accredited university programs that enable that individual to make sound professional judgments regarding groundwater monitoring, contaminant fate and transport, and corrective action.

“Residential lead-based paint waste” has the same meaning as in 40 CFR Section 258.2.

“Runoff” has the same meaning as in 40 CFR Section 258.2.

Commented [RBL31]: *SIDEBAR: This information is provided to stakeholders but is not part of the rule/division itself.

Commented [RBL32]: SIDEBAR: “Existing MSWLF unit” and “New MSWLF unit” are being removed and not referenced to the CFR as the definition as written is not applicable to the rules.

Commented [RBL33]: SIDEBAR: This is the same definition as in current Chapter 113.

Commented [RBL34R33]: *instead of moving to Chapter 100, this may be included in this division as part of the permit requirements.

Commented [RBL35]: SIDEBAR: “Industrial solid waste” in current Chapter 113 is verbatim from the CFR. However, this does not reflect our regulatory practices. Therefore, we have updated it.

Commented [RBL36]: SIDEBAR: “Lateral expansion” is in the CFR. The proposed definition has replaced “MSWLF” with “sanitary landfill”.

Commented [RBL37]: SIDEBAR: The last sentences of the current definition were removed as they do not apply to the rules.

Commented [RBL38]: SIDEBAR: “POC” is not in the CFR but is in current Chapter 113. The proposed definition has replaced “MSWLF” with “sanitary landfill”.

Commented [RBL39]: SIDEBAR: Added from current Chapter 113.

485 “Run-on” has the same meaning as in 40 CFR Section 258.2.
486 “Saturated zone” has the same meaning as in 40 CFR Section 258.2.
487 “Sanitary landfill unit” means a designated portion of a sanitary landfill’s footprint to
488 distinguish the area from other areas.
489 “Statistically significant increase” or “SSI” means a statistical difference large enough to
490 account for data variability and not thought to be due to chance alone.
491 “Uppermost aquifer” means the geologic formation nearest the natural ground surface that is
492 an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within
493 the facility’s property boundary.
494 “Vertical expansion” means additional waste placement on top of or against the side slopes of
495 a previously filled sanitary landfill unit, whether active, closed, or inactive.
496 “Waste management unit boundary” has the same meaning as in 40 CFR Section 258.2

Commented [RBL40]: *SIDEBAR: Workgroup requested that this be defined to avoid confusion.

Commented [RBL41]: SIDEBAR: This definition is in current Chapter 113 and derived from the wording in the CFR.

Commented [RBL42]: SIDEBAR: Reverted to the definition in current Chapter 113 after workgroup input.

Commented [RBL43]: SIDEBAR: “Vertical expansion” is not in the CFR but is in current Chapter 113. The proposed definition has replaced “MSWLF” with “sanitary landfill”.