WAC 173-351-730 Contents of applications. (1) Applications for MSWLF permits and level of detail.

(a) General requirements for MSWLF permit applications and level of detail.

(i) An application for an MSWLF permit to construct, operate, and conduct post-closure activities at a facility must include all applicable information identified in this section.

(ii) The information in every application submitted under this regulation must be of sufficient detail so as to allow the jurisdictional health department to fulfill its responsibilities under SEPA and this regulation by:

(A) Having detail sufficient to be readily understood by the persons using the documents to enable them to determine how the facility will be constructed, operated, and closed and how it will be monitored and maintained after closure;

(B) Providing the jurisdictional health department with sufficient detail to ascertain the environmental impact of the proposed project; and

(C) Providing sufficient detail to demonstrate that the location, design, construction, operation, closure, and post-closure monitoring and maintenance of the MSWLF will be capable of compliance with the applicable requirements of this regulation.

(iii) If the facility is to be constructed in phases, the initial application must contain the conceptual design for the entire facility and the information of subsection (1)(b) of this section for the initial MSWLF unit and other MSWLF units that will be constructed during the active life of the facility.

(iv) Applications for new MSWLF units or lateral expansions must include documentation that all owners of property located within one thousand feet of the facility property boundary have been notified that the proposed facility may impact their ability to construct water supply wells in accordance with chapter 173-160 WAC, Minimum standards for construction and maintenance of wells.

(b) Specific requirements for permit applications. In addition to other requirements set forth in this section, complete applications for MSWLF permits must contain the following:

(i) Engineering plans that set forth the proposed facility's location, property boundaries, adjacent land uses, and detailed construction plans pursuant to subsection (5)(a) of this section;

(ii) How the facility will meet the location standards of WAC 173-351-130 and 173-351-140;

(iii) A hydrogeologic report and water quality monitoring plan prepared in accordance with the provisions of WAC 173-351-400;

(iv) A plan of operation that describes how the facility will meet the operating requirements set forth in WAC 173-351-200, 173-351-210, and 173-351-220;

(v) An engineering report describing the existing site conditions and an analysis of the facility, including closure and post-closure criteria conforming with subsection (5)(b) of this section;

(vi) A construction quality assurance and quality control plan prepared in accordance with subsection (6) of this section;

(vii) Closure and post-closure plans required by WAC 173-351-500;

(viii) A permit or signed permit application satisfying the applicable requirements for MSWLF units with leachate collection systems:

(A) Discharge under the Water Pollution Control Act, chapter 90.48 RCW;

(B) Either a legal document (contract, local permit, a signed permit application etc.) certifying acceptance of leachate by the operator of a wastewater treatment facility for the discharge of leachate to that facility;

(C) Surface impoundments or tanks under WAC 173-350-330; and

(D) Other environmental permits applicable to managing leachate at the facility.

(ix) Cost estimates and mechanisms the owner or operator will use to meet the financial assurance requirements of WAC 173-351-600;

(x) How the owner or operator will meet the certification requirements of chapter 173-300 WAC, Certification of operators of solid waste incinerator and landfill facilities;

(xi) A demonstration of how the MSWLF conforms to the approved local comprehensive solid waste management plan in place at the time of application; and

(xii) Any other information as required by the jurisdictional health department.

(2) Combined applications. Owners or operators may file a combined application for MSWLF units and other solid waste handling units, such as surface impoundments, composting facilities, and storage piles regulated under chapter 173-350 WAC, Solid waste handling standards, and MSWLF units closed under and/or regulated by chapter 173-304 WAC, Minimum functional standards for solid waste handling or other rules promulgated under the authority of chapter 70.95 RCW, including this regulation. The combined application must contain information required by each applicable regulation.

(3) Modification and renewal applications.

(a) Modification applications. An application specified by the jurisdictional health department and the department to modify a valid MSWLF permit issued pursuant to WAC 173-351-700 must include, and address, the following:

(i) A description of the proposed modification;

(ii) The reasons for the proposed modification;

(iii) A description of the impacts from the proposed modification upon the MSWLF unit or the facility as presently permitted;

(iv) A showing that, as modified, the MSWLF unit will be capable of compliance with the applicable requirements of this regulation; and

(v) Any other information as required by the jurisdictional health department.

(b) Renewal applications. An application specified by the jurisdictional health department and the department to renew a permit issued pursuant to WAC 173-351-700 must include and address the following:

(i) Any changes in operating methods or other changes not falling under the definition of a permit modification;

(ii) Any changes as revealed by inspections, or complaints;

(iii) A list of documents added to the operating record according to WAC 173-351-200(10);

(iv) Evidence that all MSWLF unit operators have continued to comply with the certification requirements of chapter 173-300 WAC, Certification of operators of solid waste incinerator and landfill facilities; and

(v) Any other information as required by the jurisdictional health department.

(4) Reissuance/transition applications. An application to reissue a permit previously issued pursuant to this regulation or to convert a chapter 173-304 WAC permit to a valid MSWLF permit under the transi-

tion permit rules of WAC 173-351-700(2) must include and address the following:

(a) Review the original application and permit for compliance with these regulations and submit additional information as follows:

(i) A compliance summary showing how the facility's construction, operation, closure and post-closure activities, as applicable, have been undertaken either in compliance or not in compliance with the terms and conditions of the expiring permit;

(ii) Specify any changes proposed by the owner or operator to the design, construction, operation, closure, or post-closure care of the facility and describing how the proposed changes will comply with the applicable requirements of this regulation.

(b) Review information collected from inspections, complaints, or known changes in the operations including:

(i) Results of groundwater monitoring; and

(ii) Results of surface water and methane monitoring.

(5) Engineering plans, reports, and specifications. Unless otherwise specified in chapter 173-351 WAC, all engineering plans, reports, specifications, programs, and manuals must comply with the requirements of this subsection. Engineering plans, reports, specifications, programs, and manuals submitted to the jurisdictional health department or the department must be prepared and certified by an individual licensed to practice engineering in the state of Washington, in engineering disciplines associated with landfill design and construction or with experience in landfill design and construction and to practice engineering.

(a) Engineering plans. Unless otherwise specified in this chapter, engineering plans for all MSWLF units must be submitted using the following format:

(i) The sheet size with title blocks must be twenty-two inches by thirty-four inches or twenty-four inches by thirty-six inches.

(ii) The cover sheet must include the project title, owner's and operator's name, sheet index, legend of symbols, and the engineer's name, address, signature, date of signature, and seal.

(iii) The preliminary engineering plans relating the project to its environmental setting must include:

(A) A regional plan or map (having a minimum scale of 1:62,500) and indicate directions and distances to airports within six miles (ten kilometers) of the facility;

(B) A vicinity plan or map (having a minimum scale of 1:24,000) that shows the area within one mile (1.6 kilometers) of the property boundaries of the facility in terms of, the existing and proposed zoning and land uses within that area; and residences, public and private water supply wells, known private water supply aquifers, sole source aquifers, groundwater management areas, well-head protection zones, special protection areas and surface waters (with quality classifications), access roads, bridges, railroads, airports, historic sites, and other existing and proposed man-made or natural features relating to the facility; and

(C) An overall site plan (having a minimum scale of 1:2,400 with five foot (or one meter) minimum contour intervals) that must show the landfill's property boundaries (as certified by an individual licensed to practice land surveying in the state of Washington), offsite and onsite utilities (such as electric, gas, water, storm, and sanitary sewer systems) and right of way easements; the 100-year flood plain, wetlands, Holocene faults, unstable areas; the names and addresses of contiguous property owners; the location of soil borings, excavations,

test pits, gas venting structures, wells (including down-gradient drinking water supply wells within two thousand feet (six hundred ten meters) of the property boundary), lysimeters, piezometers, environmental and facility monitoring points and devices (with each identified in accordance with a numbering system acceptable to the jurisdictional health department and whose horizontal location are accurate to the nearest 0.5 foot (0.15 meter) and all orthometric evaluations should be related to a vertical benchmark based on the North American vertical datum of 1988 (NAVD88) and be established to 3rd order classification standards per federal geodetic control committee, as measured from the ground surface and top of well casing), benchmarks and permanent survey markers, and onsite buildings and appurtenances, fences, gates, roads, parking areas, drainage culverts, and signs; the delineation of the total landfill area including planned staged development of the landfill's construction and operation, and the lateral and vertical limits of previously filled areas; the location and identification of the sources of cover materials; the location and identification of special waste handling areas; a wind rose; and site topography with five foot (or one meter) minimum contour intervals.

Note: All horizontal locations must be based upon a control station related to a horizontal datum specified in chapter 58.20 RCW and chapter 332-130 WAC (NAD.83).

(D) Detailed plans of the landfill that clearly show in plan and cross-sectional views, the original, undeveloped site topography before excavation or placement of solid waste; the existing site topography (if different from the original, undeveloped site topography) including the location and approximate thickness and nature of any existing solid waste; the seasonal high groundwater table; generalized geologic units; known and interpolated bedrock elevations; the proposed limits of excavation and waste placement; the location and placement of each liner system and of each leachate collection system, locating and showing all critical grades and elevations of the collection pipe inverts and drainage envelopes, manholes, cleanouts, valves, sumps, and drainage blanket thicknesses; all berms, dikes, ditches, swales and other devices as needed to divert or collect surface water runon or runoff; the final elevations and grades of the landfill cover system including the grading and gas venting layer, low permeability barrier, topsoil layers; the system used for monitoring and venting the decomposition gases generated within the landfill; groundwater monitoring wells; geophysical and geochemical monitoring devices or structures; leachate storage, treatment and disposal systems including the collection network, sedimentation ponds and any treatment, pretreatment, or storage facilities; typical roadway sections, indicating the pavement type, dimensions, slopes and profiles; the building floor plans, elevations, appurtenances; and plans detailing the landfill entrance area including gates, fences, and signs.

(b) Engineering reports. The engineering reports for a facility must:

(i) Contain a cover sheet, stating the project title and location, the owner's or operator's name, and the engineer's name, address, signature, date of signature, and seal;

(ii) Have its text printed on 8 1/2" by 11" pages (paginated consecutively);

(iii) Contain a table of contents or index describing the body of the report and the appendices;

(iv) Include a body of report whose content is described by (c) of this subsection; and

(v) Include all appendices.

(c) An engineering report must contain a description of the existing site conditions and, at a minimum, an analysis of the proposed facility that must:

(i) Describe current operating practices, expected life and any pending litigation or remedial actions relating to the existing or past facilities;

(ii) Specify the proposed design capacity of the MSWLF unit for which approval is being sought, describing the number, types, and the minimum specifications of all the necessary machinery and equipment needed to effectively operate the landfill at the proposed design capacity;

(iii) Contain a site analysis including:

(A) The location of the closest population centers;

(B) A comprehensive description of the primary transportation systems and routes in the facility service area (i.e., highways, airports, railways, etc.);

(C) An analysis of the existing topography, surface water and subsurface geological conditions in accordance with the hydrogeologic report requirements of WAC 173-351-490;

(D) A description of the materials and construction methods used for the placement of each groundwater monitoring well pursuant to the requirements of WAC 173-351-400 and gas monitoring well pursuant to WAC 173-351-200(4); all gas venting systems; each liner and leachate collection and removal system; leachate storage, treatment, and disposal systems; and cover systems to demonstrate conformance with the design requirements found in WAC 173-351-300, 173-351-320, and 173-351-500. This description also must include a discussion of provisions to be taken to prevent frost action upon each liner system in areas where refuse has not been placed;

(E) An estimate of the expected quantity of leachate to be generated, including:

(I) An annual water budget that estimates leachate generation quantities during operation, upon application of intermediate cover, and following MSWLF unit or all MSWLF units closure. At a minimum, the following factors must be considered in the preparation of the water budget to determine the amount of leachate generated as a result of precipitation infiltration into the MSWLF unit or all the MSWLF units: Average monthly temperature, average monthly precipitation, evaporation, evapotranspiration which considers the vegetation type and root zone depth, surface/cover soil conditions and their relation to precipitation runoff which must account for the surface conditions and soil moisture holding capacity and all other sources of moisture contribution to the landfill;

(II) Liner and leachate collection system efficiencies that must be calculated using an appropriate analytical or numerical assessment. The factors to be considered in the calculation of collection system efficiency must include, at a minimum, the saturated hydraulic conductivity of the liner, the liner thickness, the saturated hydraulic conductivity of the leachate collection system, the leachate collection system porosity, the base slope of the liner and leachate collection and removal system interface, the maximum flow distance across the liner and leachate collection and removal system interface to the nearest leachate collection pipe, the estimated leachate generation quantity as computed in accordance with the requirements of (c)(iii)(E)(I) of this subsection; and

(III) Predictions of the static head of leachate on the liners, volume of leachate to be collected, and the volume of leachate that

may permeate through the entire liner system, all on a monthly basis. Information gained from the collection efficiency calculations required in (c)(iii)(E)(I) and (II) of this subsection must be used to make these predictions. This assessment also must address the amount of leachate expected to pass through the liner system in gallons per acre per day (liters per square meter per day).

(d) Discuss the closure and post-closure maintenance and operation of the facility which must include, but not be limited to:

(i) A closure design consistent with the requirements of WAC 173-351-500;

(ii) A post-closure water quality monitoring program consistent with the requirements of WAC 173-351-400 and 173-351-500;

(iii) An operation and closure plan for the leachate collection, treatment, and storage facilities consistent with the requirements of this regulation and chapter 173-350 WAC;

(iv) An estimate of the time required following closure of each MSWLF unit or all MSWLF units to meet the criteria in WAC 173-351-500 (2)(b)(iii); and

(v) A discussion of the future use of the facility, including the specific proposed or alternative uses during the post-closure period. Future uses must not adversely affect the final cover system. See WAC 173-351-500 (2)(c)(iii).

(e) Appendices must be submitted as part of an engineering report with an application to construct a new or laterally expanded MSWLF unit and must contain:

(i) Appropriate charts and graphs;

(ii) Copies of record forms used at the MSWLF unit;

(iii) Test pit logs, soil boring logs, and geological information (such as stratigraphic sections, geophysical and geochemical surveys, and water quality analyses);

(iv) Engineering calculations (including the raw data from which they were made);

(v) Other supporting data, including literature citations.

(6) Construction quality assurance and construction quality control plans.

The construction quality assurance (QA) and construction quality control (QC) plan must address the construction of the MSWLF unit according to the designs set forth in chapter 173-351 WAC. (Construction QA and construction QC are defined in WAC 173-351-100.) The owner or operator may submit separate construction QA plans and construction QC plans. For each phase of construction, these plans must include:

(a) A delineation of responsibilities for the QA management organization and the QC management organization, including the chain of command of the QA inspectors and contractors and the QC inspectors and contractors; quality assurance must be performed by a third-party organization that is independent of the landfill owner/operator/contractor.

(b) A description of the required level of experience and training for the contractor, his/her crew, and QA and QC inspectors for every phase of construction in sufficient detail to demonstrate that the approved installation methods and procedures will be properly implemented; and

(c) A description of the QA and QC testing protocols for every major phase of construction, which must include, at a minimum, the frequency of inspection, field testing, sampling for laboratory testing, the sampling and field testing procedures and equipment to be utilized, the calibration of field testing equipment, the frequency of

performance audits, the sampling size, the laboratory procedures to be utilized, the calibration of laboratory equipment and QA/QC of laboratory procedures, the limits for test failure, and a description of the corrective procedures to be used upon test failure.

Note: It is intended that owners or operators will select and pay for the independent third party construction quality assurance firm, who will report to the owner or operator.

(7) Signature and verification of applications.

(a) All applications for permits must be accompanied by evidence of authority to sign the application and must be signed by the owner or operator as follows:

(i) In the case of corporations, by a duly authorized principal executive officer of at least the level of vice president; in the case of a partnership or limited partnership, by:

(ii) A general partner;

(iii) Proprietor; or

(iv) In the case of a sole proprietorship, by the proprietor;

(v) In the case of a municipal, state, or other governmental entity, by a duly authorized principal executive officer or elected official.

(b) Applications must be sworn to by, or on behalf of, the owner or operator, in respect to the veracity all statements therein; or must bear an executed statement by, or on behalf of, the owner or operator to the effect that false statements made therein are made under penalty of perjury.

[Statutory Authority: RCW 70.95.020(3), 70.95.060(1), and 70.95.260 (1), (6). WSR 12-23-009 (Order 07-15), § 173-351-730, filed 11/8/12, effective 12/9/12. Statutory Authority: Chapter 70.95 RCW and 40 C.F.R. 258. WSR 93-22-016, § 173-351-730, filed 10/26/93, effective 11/26/93.]