

SENATE FILE NO. SF0121

Performance based evaluation and design.

Sponsored by: Senator(s) Bebout, Cooper, Geis and Jennings
and Representative(s) Childers, Lockhart,
Miller and Quarberg

A BILL

for

1 AN ACT relating to environmental quality; providing for
2 performance based evaluation and performance based design
3 in the approval of municipal solid waste landfill permits;
4 providing definitions; making conforming amendments; and
5 providing for an effective date.

6

7 *Be It Enacted by the Legislature of the State of Wyoming:*

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9 **Section 1.** W.S. 35-11-523 and 35-11-524 are created
10 to read:

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12 **35-11-523. Performance based design and performance**
13 **based evaluation in consideration and approval of**
14 **engineered containment systems as part of municipal solid**
15 **waste landfill permits.**

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1 (a) A person submitting an application for a permit
2 pursuant to W.S. 35-11-502 which contains a performance
3 based design for a municipal solid waste landfill that does
4 not incorporate an engineered containment system utilizing
5 a composite liner and leachate collection system, shall
6 submit a report with the application. The report shall
7 contain the applicant's findings as to the proposed
8 performance based design's compliance with applicable state
9 and federal laws and regulations. The report shall contain
10 scientific and engineering data supporting the
11 implementation of the proposed design.

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13 (b) In reviewing scientific and engineering data
14 related to a permit application and report containing a
15 performance based design which does not incorporate an
16 engineered containment system utilizing a composite liner
17 and leachate collection system, the administrator shall
18 prepare a detailed performance evaluation based on applied
19 scientific and engineering data that adheres to W.S.
20 35-11-524. The administrator shall determine in the
21 performance evaluation whether to validate or invalidate
22 the performance based design or an alternative performance
23 based standard for landfill design contained in the permit
24 application. The administrator shall base the performance

1 based evaluation on acceptable applied scientific and
2 engineering data and an analysis of that data using
3 statistical procedures, including statistical power, when
4 applicable.

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6 (c) The applicant or other interested party may
7 appeal the administrator's determination contained in a
8 performance based evaluation of a permit pursuant to W.S.
9 35-11-502. If the council determines that the performance
10 based evaluation does not accurately or adequately identify
11 and evaluate all the data and criteria required under this
12 section and W.S. 35-11-524, the council shall direct the
13 administrator to reevaluate his determination. A decision
14 by the council that the performance based evaluation is
15 accurate and adequate shall be a final decision of the
16 agency pursuant to the Wyoming Administrative Procedure
17 Act.

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19 **35-11-524. Performance based design evaluation**
20 **criteria for municipal solid waste landfill units.**

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22 (a) New municipal solid waste landfill units and
23 lateral expansions approved by the administrator under W.S.
24 35-11-502 and 35-11-523 shall be constructed:

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2 (i) In accordance with a performance based
3 design approved by the administrator in a performance based
4 evaluation pursuant to W.S. 35-11-523. Any performance
5 based design approved must ensure that the concentration
6 values for pollutants listed in the National Primary
7 Drinking Water Regulations, 40 C.F.R. Part 141, will not be
8 exceeded in the uppermost aquifer at the relevant point of
9 compliance as determined under subsection (c) of this
10 section; or

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12 (ii) With an engineered containment system that
13 utilizes a composite liner and a leachate collection system
14 that is designed and constructed to maintain less than a
15 thirty (30) centimeter depth of leachate over the liner.

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17 (b) When approving a design that complies with
18 paragraph (a)(i) of this section, in addition to the
19 requirements of W.S. 35-11-523 the administrator shall
20 consider other relevant factors, including, but not limited
21 to:

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23 (i) The hydrogeologic characteristics of the
24 facility and surrounding land;

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2 (ii) The climatic factors of the area; and

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4 (iii) The physical and chemical characteristics
5 and volume of the leachate.

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7 (c) The relevant point of compliance specified by the
8 administrator for the allowable concentration values for
9 pollutants under paragraph (a)(i) of this section shall be
10 no more than one hundred fifty (150) meters from the waste
11 management unit boundary and shall be located on land owned
12 by the owner of the municipal solid waste landfill. In
13 determining the relevant point of compliance, the
14 administrator shall consider at least the following
15 factors:

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17 (i) The hydrogeologic characteristics of the
18 facility and surrounding land;

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20 (ii) The physical and chemical characteristics
21 and volume of the leachate;

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23 (iii) The quantity, quality and direction of
24 flow of ground water in the area;

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2 (iv) The proximity and withdrawal rate of ground
3 water users;

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5 (v) The availability of alternative sources of
6 drinking water supplies;

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8 (vi) The existing quality of the ground water,
9 including other sources of contamination and their
10 cumulative impacts on the ground water and whether the
11 ground water is currently used or reasonably expected to be
12 used for drinking water;

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14 (vii) Public health, safety and welfare effects;
15 and

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17 (viii) Practicable capability of the owner or
18 operator.

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20 **Section 2.** W.S. 35-11-103(d) by creating new
21 paragraphs (viii) through (x) is amended to read:

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23 **35-11-103. Definitions.**

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1 (d) Specific definitions applying to solid waste
2 management:

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4 (viii) "Composite liner" means a system
5 consisting of two (2) components; the upper component must
6 consist of a minimum thirty (30) mil flexible membrane
7 liner (FML) and the lower component shall consist of at
8 least a two (2) foot layer of compacted soil with a
9 hydraulic conductivity of no more than 1×10^{-7} centimeters
10 per second. A flexible membrane liner components
11 consisting of high density polyethylene (HDPE) shall be at
12 least sixty (60) mil thick. The flexible membrane liner
13 component shall be installed in direct and uniform contact
14 with the compacted soil component;

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16 (ix) "Leachate" means liquid that has passed
17 through or emerged from solid waste and contains soluble,
18 suspended or miscible materials removed from such wastes;

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20 (x) "Statistical power" means the probability of
21 detecting change given that a change has truly occurred.

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1 **Section 3.** This act is effective immediately upon
2 completion of all acts necessary for a bill to become law
3 as provided by Article 4, Section 8 of the Wyoming
4 Constitution.

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6

(END)