

By the Committee on Water & Resource Management and
 Representatives Alexander, Betancourt, K. Smith, Boyd and
 Cantens

1 A bill to be entitled
 2 An act relating to demineralization
 3 concentrate; amending s. 403.0882, F.S.;
 4 reorganizing and clarifying the section;
 5 providing findings and declaration; providing
 6 definitions; directing the Department of
 7 Environmental Protection to initiate
 8 rulemaking, by a specified date, to address
 9 facilities that discharge demineralization
 10 concentrate; creating a technical advisory
 11 committee to assist in rule development;
 12 providing permitting requirements relating to
 13 failure of toxicity tests due to naturally
 14 occurring constituents; providing requirements
 15 for discharge of demineralization concentrate
 16 from small water utility businesses; providing
 17 additional rulemaking authority; amending s.
 18 403.061, F.S.; providing an exemption allowing
 19 demineralization concentrate mixing zones in
 20 Outstanding Florida Waters if specific
 21 requirements are met; providing an effective
 22 date.

23
 24 Be It Enacted by the Legislature of the State of Florida:

25
 26 Section 1. Section 403.0882, Florida Statutes, is
 27 amended to read:
 28 (Substantial rewording of section. See
 29 s. 403.0882, F.S., for present text.)
 30 403.0882 Discharge of demineralization concentrate.--
 31

1 (1) The Legislature finds and declares that it is in
2 the public interest to conserve and protect water resources;
3 provide adequate water supplies and provide for natural
4 systems; and promote brackish water demineralization as an
5 alternative to ground and surface water withdrawals of
6 freshwater, by removing institutional barriers to
7 demineralization and through conducting research, including
8 demonstration projects, to advance water and water byproduct
9 treatment technology, sound waste byproduct disposal methods,
10 and regional solutions to water resources issues. In order to
11 promote the state objective of alternative water supply
12 development, including the use of demineralization
13 technologies, and encourage the conservation and protection of
14 Florida's natural resources, the concentrate resulting from
15 demineralization shall be classified as potable water
16 byproduct regardless of flow quantity and shall be
17 appropriately treated, and discharged or reused.

18 (2) For the purposes of this section, the term:

19 (a) "Demineralization concentrate" means the
20 concentrated byproduct water, brine, or reject water produced
21 by ion exchange or membrane separation technologies, such as
22 reverse osmosis, membrane softening, ultra-filtration,
23 membrane filtration, electrodialysis, and electrodialysis
24 reversal, used for desalination, softening, or reducing total
25 dissolved solids during water treatment for public water
26 supply purposes.

27 (b) "Small water utility business" means any facility
28 that distributes potable water to two or more customers with a
29 concentrate discharge of less than 50,000 gallons per day.

30 (3) The department shall initiate rulemaking no later
31 than October 1, 2000, to address facilities that discharge

1 demineralization concentrate. The department shall convene a
2 technical advisory committee to assist in the development of
3 the rules, which shall include one representative each from
4 the demineralization industry, local government, water and
5 wastewater utilities, the engineering profession, business,
6 and environmental organizations. The technical advisory
7 committee shall also include one member representing the five
8 water management districts. In convening the technical
9 advisory committee, consideration shall be given to
10 geographical balance. The rules shall address, at a minimum:
11 (a) Permit application forms for concentrate disposal.
12 (b) Specific options and requirements for
13 demineralization concentrate disposal, including a
14 standardized list of effluent and monitoring parameters, which
15 may be adjusted or expanded by the department as necessary to
16 protect water quality.
17 (c) Specific requirements and accepted methods for
18 evaluating mixing of effluent in receiving waters.
19 (d) Specific toxicity provisions.
20 (4)(a) For facilities that discharge demineralization
21 concentrate, the failure of whole effluent toxicity tests
22 predominately due to the presence of constituents naturally
23 occurring in the source water, limited to calcium, potassium,
24 sodium, magnesium, chloride, bromide, and other constituents
25 designated by the department, shall not be the basis for
26 denial of a permit, denial of a permit renewal, revocation of
27 a permit, or other enforcement action by the department, as
28 long as the volume of water necessary to achieve water quality
29 standards is available within a distance not in excess of two
30 times the natural water depth at the point of discharge under
31 all flow conditions.

1 (b) In the event failure of whole effluent toxicity
2 tests is due predominately to the presence of the naturally
3 occurring constituents identified in paragraph (a), or
4 designated by the department pursuant to paragraph (a), the
5 department shall issue a permit for the demineralization
6 concentrate discharge, if:

7 1. The volume of water necessary to achieve water
8 quality standards is available within a distance not in excess
9 of two times the natural water depth at the point of discharge
10 under all flow conditions; and

11 2. All other permitting requirements are met.

12
13 A variance for toxicity under the circumstance described in
14 this paragraph shall not be required.

15 (c) Facilities that fail to meet the requirements of
16 this subsection may be permitted in accordance with department
17 rule, including all applicable moderating provisions such as
18 variances, exemptions, and mixing zones.

19 (5) Blending of demineralization concentrate with
20 reclaimed water shall be allowed in accordance with the
21 department's reuse rules.

22 (6) This subsection applies only to small water
23 utility businesses.

24 (a) The discharge of demineralization concentrate from
25 small water utility businesses shall be presumed to be
26 allowable and permittable in all waters in the state, if:

27 1. The discharge meets the effluent limitations in s.
28 403.086(4), except that high-level disinfection shall not be
29 required unless the presence of fecal coliforms in the source
30 water will result in the discharge not meeting applicable
31 water quality standards;

1 2. The discharge of demineralization concentrate
2 achieves a minimum of 4-to-1 dilution within a distance not in
3 excess of two times the natural water depth at the point of
4 discharge under all flow conditions; and

5 3. The point of discharge is located at a reasonably
6 accessible point that minimizes water quality impacts to the
7 greatest extent possible.

8 (b) The presumption in paragraph (a) that the
9 discharge of demineralization concentrate from a small water
10 utility is allowable and permittable may be overcome only by a
11 demonstration that one or more of the following conditions are
12 present:

13 1. The discharge will be made directly into an
14 Outstanding Florida Water, except as provided in chapter
15 90-262, Laws of Florida.

16 2. The discharge will be made directly to Class I or
17 Class II waters.

18 3. The discharge will be made to a water body having a
19 total maximum daily load established by the department and the
20 discharge will cause or contribute to a violation of the
21 established load.

22 4. The discharge fails to meet the requirements of the
23 antidegradation policy contained in the department rules.

24 5. The discharge will be made to a sole-source
25 aquifer.

26 6. The discharge fails to meet applicable surface
27 water and groundwater quality standards.

28 7. The results of any toxicity test performed by the
29 applicant under paragraph (d) or by the department indicate
30 the discharge does not meet toxicity requirements at the
31 boundary of the mixing zone under subparagraph (a)2.

1 (c) If one or more of the conditions in paragraph (b)
2 has been demonstrated, the department may:

- 3 1. Require more stringent effluent limitations;
4 2. Require relocation of the discharge point or a
5 change in the method of discharge;
6 3. Limit the duration or volume of the discharge; or
7 4. Prohibit the discharge if there is no alternative
8 that meets the conditions of subparagraphs 1.-3.

9 (d) For facilities owned by small water utility
10 businesses, the department shall not:

11 1. Require such businesses to perform toxicity testing
12 at other than the time of permit application, permit renewal,
13 or any requested permit modification, unless the initial
14 toxicity test or any subsequent toxicity test performed by the
15 department does not meet toxicity requirements.

16 2. Require such businesses to obtain a
17 water-quality-based effluent limitation determination.

18 (7) The department may adopt additional rules for the
19 regulation of demineralization and to implement the provisions
20 of this section and s. 403.061(11)(b).

21 Section 2. Paragraph (b) of subsection (11) of section
22 403.061, Florida Statutes, is amended to read:

23 403.061 Department; powers and duties.--The department
24 shall have the power and the duty to control and prohibit
25 pollution of air and water in accordance with the law and
26 rules adopted and promulgated by it and, for this purpose, to:

27 (11) Establish ambient air quality and water quality
28 standards for the state as a whole or for any part thereof,
29 and also standards for the abatement of excessive and
30 unnecessary noise. The department is authorized to establish
31 reasonable zones of mixing for discharges into waters.

- 1 (b) No mixing zone for point source discharges shall
2 be permitted in Outstanding Florida Waters except for:
- 3 1. Sources which have received permits from the
4 department prior to April 1, 1982, or the date of designation,
5 whichever is later. ~~†~~
- 6 2. Blowdown from new power plants certified pursuant
7 to the Florida Electrical Power Plant Siting Act. ~~†~~ ~~and~~
- 8 3. Discharges of water necessary for water management
9 purposes which have been approved by the governing board of a
10 water management district and, if required by law, by the
11 secretary.
- 12 4. The discharge of demineralization concentrate which
13 has been determined permittable under s. 403.0882 and which
14 meets the specific provisions of s. 403.0882(4)(a) and (b), if
15 the proposed discharge is clearly in the public interest.

16 Section 3. This act shall take effect upon becoming a
17 law.

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19 HOUSE SUMMARY

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21 Directs the Department of Environmental Protection to
22 initiate rulemaking, by October 1, 2000, to address
23 facilities that discharge demineralization concentrate as
24 defined in the act. Directs the department to convene a
25 technical advisory committee to assist in such
26 rulemaking, and provides for membership. Specifies
27 minimum contents of the rules. Provides permitting
28 requirements for facilities that fail toxicity tests due
29 to certain naturally occurring water constituents.
30 Provides requirements for discharge of demineralization
31 concentrate from small water utility businesses as
defined in the act. Provides an additional exemption for
point source discharges into Outstanding Florida Waters
to allow demineralization concentrate mixing zones if
specified requirements are met.