**Section 302.102 Allowed Mixing, Mixing Zones, and ZIDs**

a) Whenever a water quality standard is more restrictive than its corresponding effluent standard, or where there is no corresponding effluent standard specified at 35 Ill. Adm. Code 304, an opportunity will be allowed for compliance with 35 Ill. Adm. Code 304.105 by the mixture of an effluent with its receiving waters, provided the discharger has made every effort to comply with the requirements of 35 Ill. Adm. Code 304.102.

b) The portion, volume, and area of any receiving waters within which mixing is allowed pursuant to subsection (a) must be limited by the following:

1) Mixing must be confined in an area or volume of the receiving water no larger than the area or volume that would result after incorporation of outfall design measures to attain optimal mixing efficiency of effluent and receiving waters. These measures may include the use of diffusers and engineered location and configuration of discharge points.

2) Mixing is not allowed in waters that include a tributary stream entrance if the mixing occludes the tributary mouth or otherwise restricts the movement of aquatic life into or out of the tributary.

3) Mixing is not allowed in water adjacent to bathing beaches, bank fishing areas, boat ramps or dockages or any other public access area.

4) Mixing is not allowed in waters containing mussel beds; endangered species habitat; fish spawning areas; areas of important aquatic life habitat; or any other natural features vital to the well-being of aquatic life in a manner that maintaining aquatic life in the body of water as a whole would be adversely affected.

5) Mixing is not allowed in waters that contain intake structures of public or food processing water supplies, points of withdrawal of water for irrigation, or watering areas accessed by wild or domestic animals.

6) Mixing must allow for a zone of passage for aquatic life in which water quality standards are met. However, a zone of passage is not required in receiving streams that have zero flow for at least seven consecutive days recurring on average in nine years out of 10.

7) The area and volume in which mixing occurs, alone or in combination with other areas and volumes of mixing, must not intersect any area of any body of water in such a manner that the maintenance of aquatic life in the body of water as a whole would be adversely affected.

8) The area and volume in which mixing occurs, alone or in combination with other areas and volumes of mixing must not contain more than 25% of the cross-sectional area or volume of flow of a stream except for those streams for which the dilution ratio is less than 3:1. In streams where the dilution ratio is less than 3:1, the volume in which mixing occurs, alone or in combination with other volumes of mixing, must not contain more than 50% of the volume flow unless an applicant for an NPDES permit demonstrates, pursuant to subsection (d), that an adequate zone of passage is provided for pursuant to subsection (b)(6).

9) No mixing is allowed when the water quality standard for the constituent in question is already violated in the receiving water.

10) No body of water may be used totally for mixing of single outfall or combination of outfalls, except as provided in subsection (b)(6).

11) Single sources of effluents that have more than one outfall must be limited to a total area and volume of mixing no larger than that allowable if a single outfall were used.

12) The area and volume in which mixing occurs must be as small as is practicable under the limitations prescribed in this subsection (b), and in no circumstances may the mixing encompass a surface area larger than 26 acres.

c) All water quality standards of this Part must be met at every point outside of the area and volume of the receiving water within which mixing is allowed. The acute toxicity standards of this Part must be met within the area and volume within which mixing is allowed, except as provided in subsection (e).

d) Under the procedures of Section 39 of the Act and 35 Ill. Adm. Code 309, a person may apply to the Agency to include as a condition in an NPDES permit a formal definition of the area and volume of the waters of the State within which mixing is allowed for the NPDES discharge in question. The defined area and volume of allowed mixing will constitute a "mixing zone" for 35 Ill. Adm. Code Subtitle C. Upon proof by the applicant that a proposed mixing zone conforms with the requirements of Section 39 of the Act, this Section, and any additional limitations as may be imposed by the Clean Water Act (CWA) (33 U.S.C. 1251 et seq.), the Act, or Board regulations, the Agency must, under Section 39(b) of the Act, include within the NPDES permit a condition defining the mixing zone.

e) Under Section 39 of the Act and 35 Ill. Adm. Code 309, a person may apply to the Agency to include as a condition in an NPDES permit a ZID as a component portion of a mixing zone. The ZID must be limited to waters within which effluent dispersion is immediate and rapid. For this subsection, "immediate" dispersion means an effluent's merging with receiving waters without delay in time after its discharge and within close proximity to the end of the discharge pipe so as to minimize the length of exposure time of aquatic life to undiluted effluent, and "rapid" dispersion means an effluent's merging with receiving waters so as to minimize the length of exposure time of aquatic life to undiluted effluent. Upon proof by the applicant that a proposed ZID conforms with the requirements of Section 39 of the Act and this Section, the Agency must, under Section 39(b) of the Act, include within the NPDES permit a condition defining the ZID.

f) Under Section 39 of the Act and 35 Ill. Adm. Code 309.103, an applicant for an NPDES permit must submit data to allow the Agency to determine that the nature of any mixing zone or mixing zone in combination with a ZID conforms with the requirements of Section 39 of the Act and this Section. A permittee may appeal Agency determinations concerning a mixing zone or ZID under the procedures of Section 40 of the Act and 35 Ill. Adm. Code 309.181.

g) When a mixing zone is defined in an NPDES permit, the waters within that mixing zone, for the duration of that NPDES permit, constitutes the sole waters within which mixing is allowed for the permitted discharge. It will not be a defense in any action brought pursuant to 35 Ill. Adm. Code 304.105 that the area and volume of waters within which mixing may be allowed pursuant to subsection (b) is less restrictive than the area or volume of waters encompassed in the mixing zone.

h) When a mixing zone is explicitly denied in an NPDES permit, no waters may be used for mixing by the discharge to which the NPDES permit applies, all other provisions of this Section notwithstanding.

i) Where an NPDES permit is silent on the matter of a mixing zone, or when no NPDES permit is in effect, the burden of proof will be on the discharger to demonstrate compliance with this Section in any action brought pursuant to 35 Ill. Adm. Code 304.105.

(Source: Amended at 47 Ill. Reg. 4437, effective March 23, 2023)