IOWA DEPARTMENT OF NATURAL RESOURCES
WATER SUPPLY ENGINEERING SECTION

CONSTRUCTION PERMIT APPLICATION

SCHEDULE-8, Aeration

Date Prepared _____ Date Revised _____	Project Name/Description

1. If the aerator is designed to remove any of the following gases, give the concentration of gas in the raw water:
   a. Carbon dioxide: _____ mg/L
   b. Hydrogen sulfide: _____ mg/L
   c. Other _____ (contaminant) _____ mg/L
   _____ (contaminant) _____ mg/L
2. If the aerator is being provided for the removal of VOC contamination, what is its gas transfer efficiency? _____
3. What provisions have been made for aerator bypass?

   _____
4. What provisions have been made for influent and effluent sampling?

   _____
5. If natural, forced, or induced aerators are provided: ☐ N/A
   a. Capacity: _____ gpm
   b. Number of splash trays: _____
   c. Tray separation distance: _____ inches
   d. Total tray area: _____ square feet
   e. Tray loading rate: _____ gpm/ft^2
6. If pressure aeration is provided: ☐ N/A
   a. Capacity: _____ gpm
   b. Has a pilot plant study been conducted to verify that a pressure aerator will perform satisfactorily? ☐ Yes ☐ No
   c. How is mixing of the compressed air and water provided? _____
   d. What type of screen or filter is provided for the intake of the air compressor? _____
   e. Air compressor capacity: _____ cfm
7. If spray aeration nozzles are provided: ☐ N/A
   a. Capacity: _____ gpm
   b. Type: _____
   c. Number of nozzles: _____
   d. Spacing of nozzles: _____
   e. Discharge pressure: _____ psi
8. Has the aerator exhaust port been located outside the treatment plant area in a location that will prevent potential noxious fumes from entering work areas? ☐ Yes ☐ No

   Spec. Page No. _____

   If no, explain:

   _____