

Synopsis of Changes in the APP Rule Draft – April 2004

In 2000, the Arizona Department of Environmental Quality (ADEQ) prepared a major rewrite to the Aquifer Protection Permit program rules. The revised rules became effective on January 1, 2001, and included many revisions including the addition of many new general permits, primarily for on-site wastewater treatment facilities, and best available demonstrated control technology for sewage treatment facilities. At that time, ADEQ committed to develop nitrogen management language to address the cumulative discharge to groundwater from sources of nitrogen, including septic tank and similar on-site wastewater treatment systems.

Over the last three years of implementation of the new APP rules, ADEQ has identified many other areas that needed corrections and additions to the rules, in addition to the need to develop nitrogen management language. Many of these changes, particularly in the area of on-site wastewater treatment facility regulation, have been developed through stakeholder feedback and consultation. By release of this draft of changes to the APP rule, ADEQ is now initiating this next phase of informal stakeholder input. A summary of the major topic areas follows:

Major Topics

- **Nitrogen Management Area (R18-9-A317).** ADEQ has included a process for designating nitrogen management areas within the State of Arizona for the protection of groundwater. A nitrogen management area is an area where sources of nitrogen need to be controlled because the amount of nitrogen from those sources is high enough to cause (or threaten to cause) an exceedance of the Aquifer Water Quality Standard for nitrate. The process specifies conditions and criteria for ADEQ to consider in designating or modifying an area. ADEQ will report to local government entities of its preliminary plan to designate an area as a nitrogen management area. The draft rule specifies requirements for ADEQ to follow once it makes a final designation. ADEQ specifies requirements for various sources of nitrogen within these nitrogen management areas, including that new or replacement on-site wastewater treatment systems within these areas must denitrify. (R18-9-A317(D))
- **General Permit for Management, Operation and Maintenance of a Sewage Collection System (R18-9-C305).** As a means of allowing owners or operators to effectively manage existing sewage collection systems, ADEQ has included a new Type 2 general permit to deal with releases from sewage collection systems that are operation under a capacity, management, operation and maintenance (CMOM) plan.
- **Requirement to Line Impoundments at Concentrated Animal Feeding Operations (CAFOs). (R18-9-403).** In the Agricultural General Permit for CAFOs, ADEQ included a best management practice requiring the CAFO to line impoundments containing animal manure wastes. The lining requirement is necessary to minimize the discharge of nitrogen pollutant from the impoundment to groundwater.

Summary of Additional Changes by Category.

Definitions ADEQ added a definition of “AQL.” (R18-9-101(3))

BADCT for Sewage Treatment Facilities (18 AAC 9, Article 2, Part B).

- Clarifies how BADCT applied to expansions of sewage treatment facilities.
- Requires operation of a sewage treatment plant by an operator per ADEQ’s Operator Certification rules.
- Allows setbacks from a sewage treatment plant to be decreased if specified by a local ordinance or master plan.
- Requires the plant to operate so as not to emit a disagreeable odor on a persistent basis beyond the setback distances.
- Allows use of E. coli testing to demonstrate compliance with the microbial standard.
- Allows ADEQ to require submittal of engineering plans and specifications if construction does not conform to the design report.

Individual Permits

- Significantly revised the financial requirements (R18-9-A203). The rule simplifies the self-guarantee requirements and clarifies financial mechanism requirements.
- Closure Plans (R18-9-A209) – expands and clarifies.
- Request for coverage under a general permit (R18-9-A214) – provides means for permittees to transition from an individual permit to general permit.

General Permits

- Clarifies closure requirements for general permitted facilities. (R18-9-A306).
- New General Permits (R18-9-B301(J), R18-9-B301(K), R18-9-C305, R18-9-C306). ADEQ included new general permits to grandfather in existing sewage collection systems and cover other sewage collection system scenarios (GP 1.10, GP 1.11, and GP 2.05) and added a general permit for a discharge to a perennial surface water from a fish hatchery (GP 2.06).
- Revisions to GPs for dry wells. (R18-9-C301 (GP 2.01) and R18-9-C304 (GP2.04)).

General Permit Provisions Relating to On-site Wastewater Treatment Systems

- Modifies hookup requirement for a septic tank to a sewer to recognize any hookup provision in local ordinance, a 208 plan, or in a Nitrogen Management Area designated by ADEQ. (R18-9-A309(A)(5)(b) through (c))
- Specifies the threshold at which repairs to an on-site wastewater treatment system require submittal of a Notice of Intent to Discharge. (R18-9-A309(A)(9))
- Clarifies that flows from multiple on-site systems at a site are cumulated to determine the appropriate permit. (R18-9-101(25), R18-9-A309(A)(10), R18-9-E323(E))
- Requires submittal in the NOI of the name and license number of the licensed contractor that will do the installation of the on-site system. (R18-9-A309(C)(2)(f))
- Clarifies the site investigation process, specifies minimum qualifications for persons performing sit investigations (R18-9-A310), and clarifies the facility selection process (R18-9-A311).
- Modifies sections of the facility design section (R18-9-A312), including:
 - Clarifies setbacks through a complete rewrite of the table.
 - Eliminates the distinction between shallow and deep trenches.
 - Alters the adjusted SAR equation to allow for greater wastewater disposal per unit area.
 - Requires a reserve area of 25% of the primary area.

- Provides a clearer and more comprehensive table for fixture units.
- Clarifies how conflicts between the rule and a manufacturer's specification may be resolved.
- Modifies hydraulic analysis for dispersion works to prevent wastewater surfacing on the land.
- Clarifies the relationship of seasonal high water table to the compliance determination for minimum vertical separation.
- Utilizes term "dwelling" for residential systems.
- Requires performance of an "in-field" watertightness test for all septic tanks. (R18-9-A314)
- Extends the pre-sale inspection program for on-site systems to all systems at the time of property transfer and specifies minimum qualifications for persons performing pre-sale inspections. (R18-9-A316)

General Permits for Sewage Collection Systems. In addition to the new general permits dealing with sewage collection systems:

- Allows the use of additional ASTM standards for leakage tests of sewer lines and watertightness testing for manholes. (R18-9-E301(D)(2)(j)(iv) through (vi) and R18-9-E301(D)(3)(e)(iii))
- Requires operation of a sewage collection system by an operator per ADEQ's Operator Certification rules. (R18-9-E301(F)(2))

General Permits for Specific On-site Wastewater Treatment Facilities

- Allows crushed, washed, recycled concrete to be used as aggregate in a trench, but excludes the trench bottom from the allowable trench absorption area. (R18-9-E302(C)(2)(d))
- Revises the composting toilet general permit (GP 4.03) to provide criteria for disposal of non-toilet wastewater. (R18-9-E303).
- Significantly revises natural evapotranspiration bed requirements (GP 4.06). (R18-9-E306)
- Provides additional performance and design options for Wisconsin Mound. (R18-9-E308)
- Combines the two aerobic system general permits—by subsurface disposal (GP 4.15) and surface disposal (GP 4.16)—into a single aerobic system general permit (GP 4.15). (R18-9-E315)
- Provides a new general permit (GP 4.16) for a nitrate-reactive media filter. (R18-9-E316)
- Clarifies disinfection system requirements (GP 4.20). (R18-9-E320)
- Clarifies subsurface drip irrigation system requirements (GP 4.22). (R18-9-E322)