



Type 2.04 General APP

Drywell That Drains Areas at Motor Fuel Dispensing Facilities where Motor Fuels are Used, store or Loaded

Permittee:		Inventory No.:	
Reviewer:		LTF:	
Project Manager:		Drywell Reg. #:	
Today's Date:		NOI Received:	
Checked By:		TSU Memo #:	

Notice of Intent to Discharge - A.A.C. R18-9-C304 (B)	
B.	In addition to the requirements in R18-9-A301(B), an applicant shall submit:
Y: yes, meets the requirement; N: no, does not meet the requirement (see comment below); NA: does not apply	
	1. The Department registration number for the drywell, or, documentation that the drywell's registration form was submitted to the Department;
Comment	
	2. For a drywell constructed more than 90-days before submitting the Notice of Intent to Discharge to the Department, a certification signed, dated, and sealed by an Arizona-registered professional engineer or geologist that a site investigation concluded that:
	a. Analytical results from sampling sediment from the drywell settling chamber sediment for pollutants reasonably expected to be present do not exceed either the residential soil remediation levels or the groundwater protection levels;
Comment	
	b. The settling chamber does not contain sediment that could be used to characterize and compare results to soil remediation levels and the chamber has not been cleaned out within the last six months;
Comment	
	c. Neither a soil remediation level nor groundwater protection level is exceeded in soil samples collected from a boring drilled within 5-feet of the drywell and sampled in 5-foot increments starting at a depth of 5-feet below ground surface and extending to a depth of 10-feet below the base of the drywell injection pipe; or
Comment	
	d. If coarse-grained lithology prevents the collection of soil samples in a soil boring, a groundwater investigation demonstrates compliance with Aquifer Water Quality Standards in groundwater at the applicable point of compliance.
Comment	
	3. Design information to demonstrate that the requirements in subsection (C) are satisfied.
Comment	

Design Requirements - A.A.C. R18-9-C304(C)

C.

Design Requirements:

Y: yes, meets the requirement; N: no, does not meet the requirement (see comment below); NA: does not apply

	1.	An Applicant Shall:
	a.	Include a flow control or pretreatment device, or both, that removes, intercepts, or collects spilled motor fuel or hazardous substances before stormwater enters the drywell injection pipe;
Comment		
	b.	Calculate the volume of runoff generated in the design storm event and anticipate the maximum potential contaminant release quantity to design the treatment and holding capacity of the drywell;
Comment		
	c.	Follow local codes and regulations to meet retention periods for removing standing water;
Comment		
	d.	Locate the drywell at least 100-feet from a water supply well and 20-feet from an underground storage tank; and
Comment		
	e.	Locate the bottom of the drywell injection pipe at least 10-feet above groundwater. If during drilling and well installation the drywell borehole encounters saturated conditions, the applicant shall backfill the borehole with cement grout to a level at least 10-feet above the elevation at which saturated conditions were encountered in the borehole before constructing the drywell in the borehole.
Comment		
	f.	Record the accurate latitude and longitude of the drywell using a Global Positioning System device or site survey and record the location on the site plans;
Comment		
	g.	Clearly mark the drywell "Stormwater Only" on the surface grate or manhole cover;
Comment		
	h.	Develop and maintain a current site plan showing the location of the drywell, the latitude and longitude coordinates of the drywell, surface drainage patterns and the location of floor drains and French drains that are plumbed to the drywell or are used to alter drainage patterns, water supply wells, monitor wells, underground storage tanks, and chemical and waste usage, storage, loading, and treatment areas; and
Comment		
	i.	Prepare design plans showing details of drywell design and drainage design, including one or a combination of pre-approved technologies described in subsections (D)(1) and (2) designed to remove, intercept, and collect any pollutant that may be present at the operation with the potential to reach the drywell.
Comment		
	2.	For an existing drywell, an applicant that cannot meet the design requirements in subsections (C)(1)(d)&(e) shall provide the Department with:
		<ul style="list-style-type: none"> • the date of drywell construction;
Comment		
		<ul style="list-style-type: none"> • the depth of the drywell borehole and injection pipe;
Comment		
		<ul style="list-style-type: none"> • the distance from the drywell to the nearest water supply well;
Comment		

		<ul style="list-style-type: none"> the distance from the drywell to the underground storage tank;
Comment		
		<ul style="list-style-type: none"> the depth to groundwater from the bottom of the drywell injection pipe.
Comment		

Flow Control and Pretreatment - A.A.C. R18-9-C304(D)		
D.	A permittee shall ensure that motor fuels and other hazardous substances are not discharged to the subsurface. A permittee may use any of the following flow control (see D(1)) or pretreatment technologies (see D(2)).	
D.1	Flow Control Devices: A.A.C. R18-9-C304(D)(1)	
Y: yes, meets the requirement; N: no, does not meet the requirement (see comment below); NA: does not apply		
	1.	Flow Control: The permittee shall ensure that motor fuel and hazardous substance spills are removed before allowing stormwater to enter the drywell.
	a.	Normally closed manual or automatic valve: The permittee shall leave a normally closed valve in a closed position except when stormwater is allowed to enter the drywell;
Comment		
	b.	Raised drywell Inlet:
		<ul style="list-style-type: none"> The permittee shall raise the drywell inlet at least six inches above the bottom of the retention basin or other storage structure, or install a six-inch asphalt or concrete raised barrier encircling the drywell inlet to provide a non-draining storage capacity within the retention basin or storage structure for complete containment of a spill; and
Comment		
		<ul style="list-style-type: none"> The permittee shall ensure that the storage capacity is at least 110 percent of the volume of the design storm event required by the local jurisdiction and the estimated volume of a potential motor fuel spill based on the facility's past incident reports or incident reports for other facilities that are similar in design;
Comment		
	c.	Magnetic mat or cap: The permittee shall ensure that the drywell inlet is sealed with a mat or cap at all times, except after rainfall or storm event when the mat or cap is temporarily removed to allow stormwater to enter the drywell; and that the mat or cap is always used with a retention basin or other type of storage;
Comment		
	d.	Primary sump, interceptor, or settling chamber: The permittee may use a primary sump, interceptor, or settling chamber only in combination with another flow control or pre-treatment technology.
		<ul style="list-style-type: none"> The permittee shall remove motor fuel or hazardous substances from the sump, interceptor, or chamber before allowing stormwater to enter the drywell.
Comment		
		<ul style="list-style-type: none"> The permittee shall install a settling chamber or sump and allow the suspended solids to settle before stormwater flows into a drywell; install the drywell injection pipe in a separate chamber and connect (plumb) the sump, interceptor, or chamber to the drywell inlet to allow the stormwater to enter the drywell.
Comment		
		<ul style="list-style-type: none"> The permittee may install fuel hydrocarbon detection sensors in the sump, interceptor, or settling chamber that use flow control to prevent fuel from discharging into the drywell;
Comment		

D.2		Pretreatment Devices: A.A.C. R18-9-C304(D)(2)
	2.	Pretreatment: The permittee shall prevent the bypass of motor fuels and hazardous substances from the pretreatment system to the drywell during periods of high flow.
	a.	Catch basin inlet filter:
Comment		
		i. The permittee shall install a catch basin inlet filter to fit inside a catchment drain to prevent motor fuels and hazardous substances from entering the drywell,
Comment		
		ii. The permittee shall ensure that a motor fuel spill or a spill during a high rainfall does not bypass the system and directly release to the drywell injection pipe; and
Comment		
		iii. The permittee shall combine the catch basin inlet filter with a flow control technology to prevent contaminated stormwater from entering the drywell injection pipe;
Comment		
	b.	Combined settling chamber and an oil/water separator:
		i. The permittee shall install a system that incorporates a catch basin inlet, a settling chamber, and an oil/water separator.
Comment		
		ii. The permittee <i>may</i> incorporate a self-sealing mechanism, such as fuel hydrocarbon detection sensors that activate a valve to stop flow to the drywell inlet.
Comment		
	c.	Combined settling chamber and oil/water separator, and filter/adsorption:
		i. The permittee shall allow for adequate collection and treatment capacity for solid and liquid separation; and
Comment		
		ii. The permittee shall allow a minimum treated outflow from the system to the drywell inlet of 20-gallons per minute. If a higher outflow rate is anticipated, the applicant shall design a larger collection system with storage capacity.
Comment		
	d.	Passive skimmer:
		i. If a passive skimmer is used, the permittee shall install sufficient hydrocarbon adsorbent materials, such as pads and socks, or suspend the materials on top of the static water level in a sump or other catchment to absorb the entire volume of expected or potential spill.
Comment		
		ii. The permittee may use a passive skimmer only in combination with another flow control or pre-treatment technology.
Comment		