

City of Phoenix
Pollution Control Division

POLICY 61: Storm, Surface, Cooling & Uncontaminated Process Waters

DISCUSSION

I. Introduction

The City of Phoenix (City) has established the following policy (P-61) to address storm, surface, cooling and uncontaminated process water* discharges to the City Sanitary and Storm Sewer Systems. This policy identifies the allowable methods for discharge of each type of wastewater within the jurisdictional authority of the City. **Discharge of these wastewaters to the sanitary sewer or to the storm sewer by other methods than those described (unless otherwise approved by the Water Services Department Director and the Street Transportation Department Director, respectively) shall be a violation of Chapter 28 and/or 32C of the Phoenix City Code (PCC) and punishable by the provisions set forth therein.** This guidance information is not expected to substitute or replace existing City ordinances and/or provisions of any PCC which relate to these types of wastewaters. Questions about this policy and its interpretation should be directed to the indicated oversight authority for further clarification and information.

The City operates and maintains extensive separate sanitary and storm sewer systems to handle these types of wastewater.

City sanitary sewers (sanitary sewer system) are designed to carry domestic and certain industrial wastes and do not normally have adequate capacity to receive and transport storm waters. Excessive discharges of storm water can overload a sanitary sewer collection system causing sewage to overflow manholes at low points in the system. Also, excessive flows can hydraulically overload a sewage treatment plant. High storm flows also increase treatment costs and may reduce treatment efficiencies.

The City storm sewer system (storm sewer system) is comprised of storm drains, basins, ditches, pipes, graded areas and gutters that are used for collecting, retaining, and/or conveying storm water. Pursuant to the Environmental Protection Agency's (EPA) National Pollutant Discharge Elimination System (NPDES) Regulations for Storm Water Discharges, the City is required to implement and enforce regulations so as to reduce, to the maximum extent possible, the addition of pollutants to storm water in quantities or concentrations that could reasonably be expected to cause or contribute a violation of a storm water NPDES permit issued to the City.

Other act that causes or contributes to damage to a public storm dray system.

II. STORM WATER/SURFACE DRAINAGE WATER

A) Applicable City Code Requirements:

1. Chapter 28 (SEWERS), Section 8(a):

“Unless otherwise approved by the Water Services Department Director...It shall be unlawful for any user to discharge or cause to be discharged to any entry point into the publicly owned sanitary sewer system any storm water or surface drainage water that may constitute inflow as defined herein.”

2. Chapter 32C (STORM WATER MANAGEMENT):

“It shall be unlawful for any person to use, treat or dispose of storm water, pollutants, or significant materials in a manner that creates a public nuisance as defined in Section 32C-102 of this Chapter.”

B) Restrictions

1. To prevent storm water from entering the sanitary sewer system, all open areas, which are, or are intended to be, connected and drained into the sanitary sewer shall be covered with a suitable roofed structure; or a pump and storm water diversion system shall be installed to prevent discharge to the sanitary sewer. *(For an exception, see C.2. below.)*
2. To prevent surface water drainage (of stormwater) from adjacent ground areas from entering the sanitary sewer, elevate each connected area sufficiently above the ground area, or surround the connected areas with a curb sufficiently high to exclude surface run-off waters.

C) Allowable Discharge Methods

1. Discharge to storm drains or channels is allowable, provided such discharge is in accordance with EPA NPDES Application Regulations for Storm Water Discharges, and with Chapter 32C of the Phoenix City Code *(For more information, contact the City Storm Water Management Program @ 256-3190).*
2. Stormwater discharge (from un-roofed, open areas) and surface drainage water to the sanitary sewer system is permitted for paved vehicle washing aprons or other paved areas of similar usage, provided that:
 - a) The total area is **1600 square feet or less**;
 - b) The connected area drains to an approved interceptor; and
 - c) The connected area is so located and so constructed that run-off water from adjacent roofs and/or ground areas is prevented from entering the sanitary sewer system.

Areas meeting these criteria may connect to the sanitary sewer system without being covered by a roofed structure.

3. Un-roofed, paved areas having a total area **greater than 1600 square feet** may be allowed to discharge to the sanitary sewer system provided that:
 - a) The connected area drains to an approved interceptor;
 - b) The area receives a combination of **both stormwater and allowable wastewater** (which is generated regularly and not generated as a result of a spill incident) and meets PCC Section 28-8; General User Requirements); and
 - c) The connected area is so located and so constructed that run-off water from adjacent roofs and/or ground areas is prevented from entering the sanitary sewer system. *(For more information, contact the City Pollution Control Division at (602) 262-1859.)*

III. COOLING WATER/UNCONTAMINATED PROCESS WATER*

A) Applicable City Code Requirements

1. Chapter 28 (SEWERS), Section 8(a):

Unless otherwise approved by the Water Services Department Director,... It shall be unlawful for any user to discharge or cause to be discharged to any entry point into the publicly owned sanitary sewer system any cooling water or uncontaminated process water that may constitute inflow as defined herein.

2. Phoenix Plumbing Code; Section 609 (Cooling Water):

“...clean running water used exclusively as a cooling medium in an appliance, device or apparatus, may discharge into, the drainage system...”

3. Phoenix Mechanical Code; Sections 510(a) (Condensate Disposal) and 1701(c) (Cooling Towers; Wastewater Disposal):

Sec. 510(a)- “Condensate from air-cooling units, fuel burning condensing appliances and the overflow from evaporative coolers and similar water-supplied equipment shall be collected and discharged to an approved plumbing fixture or disposal area.”

Sec. 1701(c) - “Unrecirculated cooling water shall not be discharged to the sanitary sewer.”

The City of Phoenix Water Services Department Pollution Control Division, in cooperation with other City departmental programs, has recently revised the existing Policy 61 (P-61) which addresses Storm, Surface, Cooling and Uncontaminated Process Water discharges to the City’s sanitary and storm sewer systems.

The revised P-61 has been updated to reflect the current program authorities and applicable policies. Attached is P-61 (Rev. 11/1995) for your information and future reference.

**City of Phoenix
Pollution Control Division**

POLICY 61: Storm, Surface, Cooling And Uncontaminated Process Waters

Type of Water	Applicable Code/Citation	Allowable Discharge Methods	Restrictions
<p>STORM WATER/ SURFACE DRAINAGE</p>	<p>PCC 28-8(a); General User Requirements:</p> <p><i>Unless otherwise approved by the Water Services Department Director, ... it shall be unlawful for any user to discharge or cause to be discharged to any entry point into the publicly owned sanitary sewer system any storm water or surface drainage that may constitute inflow as defined herein.</i></p>	<p>Storm water discharge (from unroofed, open areas) and surface drainage water to the sanitary sewer system is permitted for paved vehicle washing aprons, loading docks or other paved areas of similar usage, provided that: a) the total area is 1600 square feet or less; b) the connected area drains to an approved interceptor; and, c) the connected area is located and constructed so that run-off water from adjacent roofs and/or ground areas is prevented from entering the sanitary sewer system.</p> <p><i>[Exception: Unroofed, paved areas having a total area greater than 1600 square feet may be allowed to discharge to the sanitary sewer system provided that: a) The connected area drains to an approved interceptor; b) the area receives a combination of both storm water and allowable wastewater (which is generated regularly and not as a result of a spill incident) and meets PCC 28-8; and, c) the connected area is located and constructed so that run-off water from adjacent roofs and/or ground areas is prevented from entering the sanitary sewer system. [For more information, contact the City Pollution Control Division at 534-2054].</i></p> <p>AREAS MEETING THE ABOVE CRITERIA MAY CONNECT TO THE SANITARY SEWER SYSTEM WITHOUT BEING COVERED BY A ROOFED STRUCTURE.</p>	<p>To prevent storm water from entering the sanitary sewer system, all open areas, which are, or are intended to be, connected and drained to the sanitary sewer system shall be covered with a suitable roofed structure; or a pump and storm water diversion system shall be installed to prevent discharge to the sanitary sewer system.</p> <p>To prevent surface drainage (of storm water) from adjacent ground areas from entering the sanitary sewer system, elevate each connected area sufficiently above the ground area, or surround the connected areas with a curb sufficiently high to exclude surface run-off waters.</p>
	<p>PCC 32C; Storm Water Management Program</p>	<p>Discharge to storm drains or channels is allowable, provided such discharge is in accordance with EPA NPDES Application Regulations for Storm Water Discharges, and with PCC 32C [For more information, contact the City Storm Water Management Program at 256-3190].</p>	
<p>COOLING WATER/ UNCONTAMINATED PROCESS WATER</p> <p><i>[Uncontaminated Process Water means water which has not significantly changed in chemical or physical quality from its source, after being used in a process or operation. The source must have a chemical and physical quality which does not exceed any treatment parameter or Instantaneous Effluent Limitation.]</i></p>	<p>PCC 28-8(a); General User Requirements:</p> <p><i>Unless otherwise approved by the Water Services Department Director, ... it shall be unlawful for any user to discharge or cause to be discharged to any entry point into the publicly owned sanitary sewer system any cooling water or uncontaminated process water that may constitute inflow as defined herein.</i></p> <p>Phoenix Plumbing Code; Section 609; Cooling Water:</p> <p><i>Clean running water used exclusively as a cooling medium in an appliance, device or apparatus, may discharge into the plumbing system.</i></p>	<p>Cooling towers or evaporative condensers which are equipped with a positive water discharge to prevent excessive build-up of alkalinity and are used for water-cooled condensing units or absorption units may discharge wastewater into the sanitary sewer system.</p>	<p>Unrecirculated cooling water shall not be discharged to the sanitary sewer (Phoenix Mechanical Code; Section 1701(c); Cooling Towers, Wastewater Disposal). <i>[Unrecirculated Cooling Water may be: 1) Discharged to appropriate storm drains or drainage channels; provided an EPA Storm Water Discharge Permit is obtained for the discharge; 2) Discharged to a dry well located on the premises; if approved for such discharge by the Arizona Department of Environmental Quality (For more information contact ADEQ @ 207-4696); or 3) Be used for the on-site irrigation of lawns, agricultural land, etc., provided a public hazard or nuisance is not created.</i></p> <p>Cooling tower or condenser water obtained from sources other than the City public water system (i.e. private wells) shall not be discharged into the sanitary sewer or storm sewer system (unless a permit for such discharge is obtained).</p>
	<p>Phoenix Mechanical Code; Section 510(a); Condensate Disposal:</p> <p><i>Condensate from air-cooling units, fuel burning condensing appliances and the overflow from evaporative coolers or similar water-supplied equipment shall be connected and discharged to an approved plumbing fixture or disposal area.</i></p> <p>PCC 32C; Storm Water Management Program</p>	<p>Condensate from air-cooling coils, fuel burning condensing appliances and the overflow from residential evaporative coolers and similar water-supplied equipment must be collected and discharged to an approved plumbing fixture or disposal area which connects to the storm sewer system.</p>	