

Frito-Lay, Inc. - Casa Grande Facility
Aquifer Protection Permit No. P-100381
Place ID 873, LTF No. 114044
Significant Amendment

I. Introduction:

The Arizona Department of Environmental Quality (ADEQ) proposes to issue an Aquifer Protection Permit (APP) for the subject facility that covers the life of the facility, including operational, closure, and post-closure periods unless suspended or revoked pursuant to Arizona Administrative Code (A.A.C.) R18-9-A213. The requirements contained in this permit will allow the permittee to comply with the two key requirements of the Aquifer Protection Program: 1) meet Aquifer Water Quality Standards (AWQS) at the Point of Compliance (POC); and 2) demonstrate Best Available Demonstrated Control Technology (BADCT). BADCT's purpose is to employ engineering controls, processes, operating methods or other alternatives, including site-specific characteristics (i.e., the local subsurface geology), to reduce discharge of pollutants to the greatest degree achievable before they reach the aquifer or to prevent pollutants from reaching the aquifer.

II. Permittee and Facility Location:

Frito-Lay, Inc.
1450 West Maricopa Highway
Casa Grande, Arizona 85193

III. Facility Description:

Frito-Lay, Inc. (Frito-Lay) owns and operates a snack food manufacturing facility in Casa Grande, Arizona. The facility has been in operation since 1984 and manufactures potato chips and corn chips. Frito-Lay uses ingredients that include proprietary potatoes patented by Frito-Lay, whole kernel corn and wheat in selected products. Frito-Lay operates a newly constructed industrial wastewater treatment system (IWTS) at the facility to treat process wastewater. The IWTS consists of primary clarification, nitrification and denitrification systems, and activated sludge treatment utilizing a membrane bioreactor (MBR), and may receive further treatment by a low-pressure reverse osmosis (LPRO) membrane process. Process wastewater treated by the new IWTS is of high quality and is ideally recycled back into the manufacturing facility. Recycling of the high-quality effluent from the new IWTS will enable Frito-Lay to reduce water demand by 80 percent. The APP provides Frito-Lay with ultimate flexibility to discharge MBR and/or LPRO effluent to the North Branch of the Santa Cruz Wash (NBSCW) during times when the treated water cannot be recycled back into the manufacturing facility. Treated water from the MBR and the MBR in combination with the LPRO shall meet the AWQS prior to discharge to the permitted Arizona Pollutant Discharge Elimination System (AZPDES) Outfall 001.

Process wastewater treated at the IWTS includes water used to clean the potatoes, cook and clean the corn, discharge from starch recovery operations, oily wastewater, and battery neutralization tank overflow. Wastewater generated at the facility consists of 10,000 gallons per day (gpd) of domestic wastewater and 590,000 gpd of industrial wastewater. Sanitary wastewater, LPRO reject, and all other emergency discharges shall be discharged to the City of Casa Grande Publicly Owned

Treatment Works (POTW) facility. Laboratory wastewater shall be disposed of off-site at a licensed facility.

IV. Amendment Description:

ADEQ has reviewed and approved the following items under this amendment:

1. Permit monitoring tables in section 4.2 have been updated.
 - a. Monitoring frequencies in tables 10, 11, 12, and 13 have been revised.
 - b. AL's and AQL's have been inserted into table 13.
 - c. Table 14 has been added to capture ambient groundwater monitoring parameters.
 - d. Subsequent tables have been renumbered.
2. CSI #6 has been updated to reflect the extension of ambient groundwater monitoring for nitrogen species at POC #3.
3. Table 15 (previously table 14) title has been updated for clarity in the Table of Tables.
4. AZDHS Lab search portal link has been added to section 2.6: Analytical Methodology.
5. Typographic corrections have been made throughout the permit.

V. Regulatory Status:

There are currently no open enforcement actions.

VI. Best Available Demonstrated Control Technology (BADCT):

The IWTS has been designed to meet AWQS prior to discharge to the AZPDES permitted outfall Permit No. AZ0025798. Sanitary wastewater, LPRO reject, and all other emergency discharges shall be discharged to the City of Casa Grande POTW. Laboratory wastewater shall be disposed of off-site at a licensed facility. The wastewater management systems and operational methods are included as part of the BADCT design. All quality assurance and control procedures applicable to construction and operation of the treatment components, as approved by the ADEQ, shall be followed.

VII. Compliance with Aquifer Water Quality Standards (AWQS):

Routine discharge quality monitoring and daily flow monitoring shall be performed for the discharge from the MBR and/or LPRO to the AZPDES Outfall 001. Daily flow monitoring and discharge quality shall be monitored for the operational life of the facility. The permittee shall collect representative samples from the AZPDES Outfall 001 according to Section 4.2, Table 9: Flow Monitoring and Table 10: Routine Discharge Monitoring.

Routine groundwater monitoring is required in accordance with Section 4.2, Tables 12 and 13: Compliance Groundwater Monitoring (POC Well MW-2/MW-2b). Ambient groundwater monitoring for nitrogen species at POC #3 (MW-7R) has been extended due to apparent trends in recent monitoring data.

Facility inspection and operational monitoring will be performed on a routine basis (see Section 4.2, Table 16, in the permit).