

**DRAFT PERMIT RENEWAL FOR CORRECTIVE ACTION AND POST-CLOSURE CARE
UNIVERSAL PROPULSION COMPANY, INC.
25401 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA
EPA I.D. NO. AZD 980 814 479**

This fact sheet was prepared in accordance with the Arizona Administrative Code (A.A.C.) R18-8-271.E(e) and R18-8-271.G. A fact sheet must accompany every Arizona Hazardous Waste Management Act (AHWMA) draft permit that the Arizona Department of Environmental Quality (ADEQ) has prepared that either raises major issues or involves a new facility. All references to the A.A.C. hereafter refer to the A.A.C. R18-8-260 et. seq., made effective on December 30, 2020, which incorporates and/or modifies parts of Title 40 Code of Federal Regulations (CFR) Parts 260 et. seq.

ADEQ has prepared a draft hazardous waste management act permit for Universal Propulsion Company, Inc. (UPCO). The draft permit allows UPCO to proceed with corrective action and post-closure care for the facility located at 25401 North Central Avenue, Phoenix, Arizona 85085 for a period of 10 years.

FACILITY DESCRIPTION

The former UPCO facility (UPCO) was in operation from 1972 to 2010 at its location in north Phoenix, Arizona. Today, the operating units have been removed, and the facility is subject to corrective action. The corrective action consists of five Solid Waste Management Units (four engineered caps and one rip rap cover), a groundwater treatment facility (GWTF) with ten remediation wells with conveyance lines, groundwater monitoring wells onsite and offsite, and security fencing. A site map of the current condition of the site is shown in Figure 1.

Corrective measures for soil and groundwater were implemented at UPCO and completed in 2018 and 2019, respectively. The following are the ADEQ-approved corrective measures for the Site:

- Soil Alternative SA-2 – Soil Excavation and Off-Site Disposal, Soil Capping, Rip-Rap Installation, and Deed Restrictions
- Groundwater Alternative GW-2 – Source Area Groundwater Extraction, Ex Situ Treatment with Anaerobic Bioreactor, Reinjection, and Alluvium In-Situ Biological Reduction.

The following cleanup standards were established:

Soils

- Perchlorate (soil) = 16 milligrams per kilogram (mg/kg)
- Lead = 400 mg/kg
- Arsenic = 10 mg/kg

Groundwater

- Perchlorate = 14 micrograms per liter ($\mu\text{g/L}$)
- 1,1-Dichloroethene = 7.0 $\mu\text{g/L}$
- 1,4-Dioxane = 3.5 $\mu\text{g/L}$

Soil Remedy

Soil Alternative SA-2 was implemented to achieve corrective action objectives that were developed to be protective of human health. This alternative and other soil remedies were discussed in a Corrective Measures Study. Soil Alternative SA-2 was implemented in accordance with the approved remedial approach described in the Corrective Measures Implementation Workplan (Arcadis 2016). The activities include the following:

- Excavation and off-site disposal of shallow soil containing constituents of concern (COCs) at concentrations above the cleanup goal at the Waterbore Area, C-Complex Area, New Burn Area, Old Burn Area, and the Storage Magazines Area, to eliminate the potential for leaching of COCs in soils to groundwater and eliminate the potential for direct contact with COCs in soil by potential receptors.
- Installation of four engineered caps in the Waterbore Area, C-Complex Area, and New Burn Area (two caps) to reduce the potential for receptors to contact COCs in soil and reduce the potential for leaching of COCs in soils to groundwater. Figures 2 through 5 show the four engineered caps. These units are identified in the Permit as Solid Waste Management Units (SWMUs) 1 through 4. These SWMUs are shown in Figures 2 through 5.
- Installation of a rip rap cover in the Old Burn Area to reduce the potential for receptors to contact COCs in soil and provide erosion control. Figure 6 shows the rip-rap cover. This unit is identified in the Permit as SWMU 5, and is shown in Figure 6.
- Placement of Declaration of Environmental Use Restrictions (DEURs) on the property to restrict the installation and use of groundwater wells, establish non-residential use areas of the property, and to restrict use of engineered cap areas. The Engineering Controls & Institutional Controls DEUR, Program File Number RID 32248, was recorded on January 24, 2020 and the Institutional Controls DEUR, Program File Number RID 32067, was recorded on December 7, 2018 with the Maricopa County Recorder Office.

The SWMUs will be subject to future inspection and maintenance requirements as a part of the hazardous waste permit. The ongoing inspection and maintenance program is known as Post-Closure Care (PCC), and will last for thirty years. Because the term of the hazardous waste permit is ten years, the permit will be updated and renewed in order to remain current with the conditions of the site and the PCC.

Groundwater Remedy

The selected remedy for groundwater includes construction of the GWTF to address COCs present in groundwater at concentrations exceeding the ADEQ-approved groundwater cleanup standards. The

GWTF consists of wells to extract groundwater, a Groundwater Treatment Plant (GWTP), and wells used to reinject the treated groundwater.

- Ten (10) remediation wells are used for extraction and/or injection. Each remediation well is housed inside of a traffic rated concrete vault approximately 4 feet by 4 feet and 3 feet deep. Each well vault is flush with ground level and always locked except during maintenance.
- The GWTP is a standalone building containing process equipment for treatment of groundwater. The groundwater is first pretreated with granular activated carbon (GAC) to address residual concentrations of 1,4-dioxane and 1,1-dichloroethene, then it is treated within a fluidized bed reactor (FBR) to address perchlorate. Outside of the GWTP is a tank for fire protection, and a storm-water detention basin to collect and discharge stormwater. The GWTP is located within the center of the UPCO site, covering an area of approximately 33,000 square feet. Figures 7 and 8 show the GWTP.
- Conveyance lines consist of piping, electrical power conduits, and control conduits, consolidated in common trenches connected from each remediation well vault to the GWTP. All conveyance lines are buried at a minimum depth of 24-inches below ground surface with a utility tracing tape above them for field locating.

Groundwater remediation performance monitoring will be conducted to demonstrate that the GWTF eliminates further migration of the constituent plume, provide hydraulic control of constituent plume to minimize further migration of perchlorate, achieves the site-wide groundwater cleanup goal, and achieves the groundwater cleanup goals.

PERMIT DESCRIPTION AND STATEMENT OF BASIS

The draft permit prepared by ADEQ consists of four parts and ten attachments. All conditions are based on the Arizona Hazardous Waste Management Act Permit Application submitted to ADEQ on May 27, 2021.

Permit Part I contains general permit conditions. These conditions include definitions, permit actions, duties and requirements, confidentiality, document maintenance, and modifications. They are required by Arizona Administrative Code (A.A.C.) R18-8-270.A (40 CFR §270.30 and 40 CFR §270.32).

Permit Part II contains the general facility conditions. These conditions include operations, security, general inspections, contingency plan, record keeping and reporting, general financial assurance, waste analysis, and any schedules of compliance that may be required. These permit conditions are required by A.A.C. R18-8-264.A (40 CFR §264), R18-8-270.A (40 CFR §270), 40 CFR §266.100, 40 CFR §266.112, the omnibus requirements of R18-8-270.A and N (40 CFR 270.32(b), hereafter referred to as Omnibus), and R18-8-270.A (40 CFR §270.33 (hereafter referred to as Schedule of Compliance, or SOC)). The Permit includes two SOC permit conditions:

- Within sixty (60) days of permit issuance, the Permittee must update the financial assurance mechanisms it has established to specify coverage for the SWMUs and for PCC.

- Within 270 days of permit issuance, the Permittee must submit an updated security plan for the SWMUs and the GWTP. The updated plan must include details on upgraded fencing and new security gates.

Permit Part III contains the specific conditions for PCC. These conditions are required by A.A.C. R18-8-264.A, 40 CFR 264.97 and 264.99, and Omnibus. PCC will be required for the five SWMUs at the facility. PCC includes inspections and maintenance of the SWMUs, groundwater monitoring, financial assurance, site security, and compliance with the Declaration of Environmental Use Restriction (DEUR) for the property. The DEUR is a form of restrictive covenant, required by Arizona regulations. PCC will last for thirty years; however, it may be reduced if the Director finds that PCC is no longer required, or it may be extended if he finds that PPC continues to be necessary to protect human health and the environment.

Permit Part IV contains specific conditions regarding corrective action. Permit Condition IV.B describes the remedies that have been approved for groundwater and soils. Permit Condition IV.C describes the specific corrective action requirements that apply to the five SWMUs and the GWTP. Other conditions in this Part relate to the identification and investigation of any new releases of solid waste that may occur during the term of the permit. Corrective action is authorized by the Arizona Revised Statutes §49-922.B and Section 3004(u) of the federal Resource Conservation and Recovery Act, as amended by the Hazardous and Solid Waste Amendments. The regulatory basis for corrective action can be found in A.A.C. R18-8-264.A and 40 CFR 264.101 and by Omnibus.

The above permit parts refer to the following permit attachments:

- Attachment A – Facility Description
- Attachment B – Security Plan
- Attachment C – Contingency Plan
- Attachment D – GWTP Performance and Sitewide Groundwater Monitoring Plan
- Attachment E – Quality Assurance Project Plan (2004)
- Attachment F – Quality Assurance Project Plan Addendum
- Attachment G – Financial Assurance
- Attachment H – Corrective Action Schedule of Compliance
- Attachment I – Post Closure Care
- Attachment J – Arizona Administrative Code

The term of the permit will be for 10 years, and UPCO may then apply for renewal in order to continue PCC and any remaining corrective actions that may be required.

APPLICANT REQUESTED VARIANCES

None have been requested by the applicant.

PUBLIC PARTICIPATION PROCESS - PROCEDURES FOR REACHING A FINAL DECISION ON THE PERMIT

The administrative record for the draft permit contains all data submitted by the applicant. A copy of portions of the administrative record, including the draft permit, is available for public review on the ADEQ My Community page for UPCO at <http://www.azdeq.gov/node/4900>. The permit application can be found on the repository established by the applicant at <http://www.upcoc3permit.com>, and a copy of the full administrative record is available for public review Monday-Friday (excluding state holidays) from 8:30 a.m. through 4:30 p.m. at the ADEQ address given below.

Arizona Department of Environmental Quality
Records Management Center
1110 West Washington Street, 1st Floor
Phoenix, Arizona 85007
For appointments call: (602) 771-4380 or visit
<http://www.azdeq.gov/records-center>

The draft permit and supporting documents can be viewed under the public comment start date on the Public Notice Calendar at [azdeq.gov/notices](http://www.azdeq.gov/notices).

As required by A.A.C. R18-8-271(L) and 40 CFR §124.13, all persons, including applicants, who believe any condition of the draft permit or the tentative decision to prepare and issue this draft proposed permit is inappropriate, must raise all reasonable ascertainable issues and submit all reasonably available arguments and supporting materials by the close of the public comment period. All comments submitted during the public comment period shall discuss the appropriateness of the draft permit.

The 45-day public comment period will open on September 23, 2021. During the public comment period, any interested person may submit written comments on the draft permit. These comments and supporting materials must be submitted to ADEQ by the last day of the public comment period (i.e., **November 7, 2021**) to:

Arizona Department of Environmental Quality
Anthony Leverock, Associate Engineer
ADEQ Waste Permits and Support Unit
1110 West Washington Street
Phoenix, Arizona 85007
email: leverock.anthony@azdeq.gov

All written comments delivered or postmarked by the last day of the public comment period will be considered in ADEQ's final determination regarding the draft permit. After all comments have been considered, a final permit decision will be made by the Director. The applicant, each person who has submitted written or oral comments, and each person who has so requested will receive a notice of this final permit decision. This notice shall include reference to procedures for appealing a decision

on a draft permit. The final permit decision shall become effective on the date specified in the final permit notice.

At the time that the final decision is made, the Director shall also issue a response to any significant comments. The response to comments shall consider all items as specified in A.A.C. R18-8-271.O and 40 CFR §124.17. The response to comments shall be made available to the public for review. Any person who desires to be placed on the mailing list for all future permitting activities for this facility or for facilities in a specific geographic area may request so in writing to the above address, pursuant to A.A.C. R18-8-271.I(c)(1)(ix) and 40 CFR §124.10(c)(1)(ix)(a).

In addition to submitting public comment, any person may request the Director to schedule a public hearing. **Written requests for a public hearing must be submitted to ADEQ by not later than close of the comment period, November 7, 2021, and must state the nature of the issues proposed to be raised in the hearing.**

The Director will hold such a hearing if:

- 1) He finds, on the basis of requests, a significant degree of public interest in the draft permit, or
- 2) He finds that the hearing might clarify one or more issues involved in the permit decision, or
- 3) A formal written notice of opposition to the draft permit is received within the comment period.

PERSONS TO CONTACT FOR ADDITIONAL INFORMATION

For additional information, please contact Mr. Anthony Leverock, Associate Engineer, ADEQ, Waste Permits and Support Unit, ADEQ, at (602) 771-4160 or toll free at (800) 234-5677, extension 771-4160 or at the ADEQ address above.

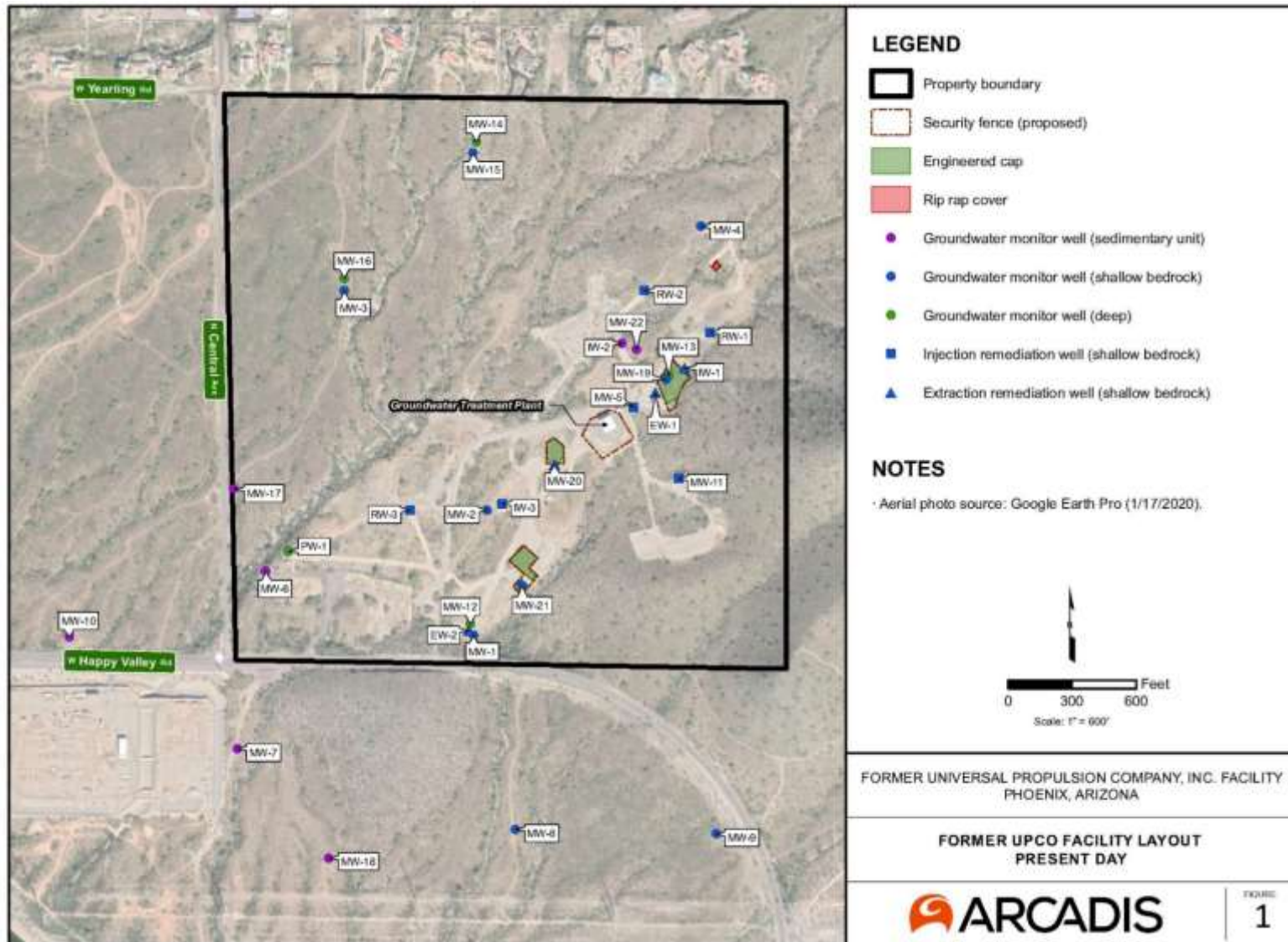


Figure 1 - Site Map



Figure 2 - SWMU 1, Engineered Cap at Waterbore Area



Figure 3 - SWMU 2, Engineered Cap at C-Complex Area



Figure 4 - SWMU 3, Engineered Cap (large cap) at New Burn Area



Figure 5- SWMU 4, Engineered Cap (Small Cap) at New Burn Area)



Figure 6- SWMU 5, Rip-Rap Cover at Old Burn Area



Figure 7- Groundwater Treatment Plant - Front



Figure 8- Groundwater Treatment Plant - Back