

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

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WASTE DISCHARGE REQUIREMENTS ORDER R7-2025-0031



ORDER INFORMATION

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| Order Type(s): | Waste Discharge Requirements (WDRs) |
| Status: | ADOPTED |
| Program: | Title 27 |
| Discharger(s): | Armtec Defense Products Company, Inc. |
| Facility: | Armtec Defense Products Facility |
| Address: | 85907 Avenue 53, Coachella, CA 92236 |
| County: | Riverside County |
| APN(s): | 778390008 |
| GeoTracker ID: | L10007426352 |
| WDID: | 7A332005012 |
| Prior Order(s): | WDRs Order R7-2013-0063, R7-2002-0106 |

GeoTracker ID: L10007426352
WDID: 7A332005012

CERTIFICATION

I, Michael Placencia, Executive Officer, hereby certify that the following is a full, true, and correct copy of the order adopted by the California Regional Water Quality Control Board, Colorado River Basin Region, on December 2 2025.

Original signed by _____

MICHAEL PLACENCIA

Executive Officer

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GLOSSARY

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| Antidegradation Policy | Statement of Policy with Respect to Maintaining High Quality Waters in California, State Water Resources Control Board Resolution 68-16 |
| Basin Plan | Water Quality Control Plan for Colorado River Basin Region (inclusive of all amendments) |
| BAT | Best Available Technology Economically Achievable |
| BCT | Best Conventional Pollutant Control Technology |
| bgs | Below Ground Surface |
| BPTC | Best Practicable Treatment and Control |
| Ca | Calcium |
| CAO | Cleanup and Abatement Order |
| CCC | Combustible Cartridge Cases |
| CCR | California Code of Regulations |
| CEQA | California Environmental Quality Act |
| Cl | Chlorine |
| CFR | Code Federal of Regulations |
| CWC | California Water Code |
| DDW | Division of Drinking Water |
| DPA | Diphenylamine |
| EIR | Environmental Impact Report |
| EIS | Environmental Impact Statement |
| ft/day | Feet per Day |
| HCO₃ | Bicarbonate |

| | |
|---------------------|---|
| K | Potassium |
| LCRS | Leachate Collection and Recovery System |
| MB | megabytes |
| MCL[s] | Maximum Contaminant Level[s] for Drinking Water under Title 22 |
| MDL | Method Detection Limit |
| Mg | Magnesium |
| mg/L | Milligrams per Liter |
| ml/L | Milliliters per Liter |
| MRP | Monitoring and Reporting Program |
| MSL | Above Mean Sea Level |
| MW | Monitoring Wells |
| Na | Sodium |
| ND | Non-Detect |
| NOD | Notice of Determination |
| NPDES | National Pollutant Discharge Elimination System |
| OES | Office of Emergency Services |
| pH | potential or power of hydrogen |
| PQL | Practical Quantitation Limit |
| QA/QC | Quality Assurance and Quality Control |
| ROWD | Report of Waste Discharge |
| SO4 | Sulfate |
| SMRs | Self-Monitoring Reports |

| | |
|--------------------------|---|
| State Water Board | State Water Resources Control Board |
| Title 22 | California Code of Regulations, Title 22 |
| Title 23 | California Code of Regulations, Title 23 |
| Title 27 | California Code of Regulations, Title 27 |
| TDS | Total Dissolved Solids |
| USEPA | United States Environmental Protection Agency |
| VOC | Volatile Organic Constituent |
| WDRs | Waste Discharge Requirements |
| WMU | Waste Management Unit |
| WQO[s] | Water Quality Objective[s] |
| µg/L | micrograms per Liter |

(findings begin on next page)

FINDINGS

The California Regional Water Quality Control Board, Colorado River Basin (Regional Water Board) hereby finds as follows:

Introduction

1. Armtec Defense Products Company, Inc. (Discharger), a defense contractor, owns and operates the Armtec Defense Products Facility (Facility) in Coachella, which manufactures fiber-based firearms ammunition components known as “combustible cartridge cases or containers” or “CCCs.” CCCs are designed to hold propellants and projectiles (e.g., for mortars, artillery and tanks) and then completely disintegrate upon firing.
2. The site is located in Coachella in the Northeast $\frac{1}{4}$ of the Southeast $\frac{1}{4}$ of Section 8, Township 6 South, Range 8 East, San Bernardino Base and Meridian (near the intersection of Tyler Street and Avenue 53), as shown in Attachment A, appended to and made part of this Order.
3. The Facility, which has been producing combustible ordinance components since 1968, only produces the initial components; subsequent processing, filling, and final assembly activities are performed offsite by other government contractors.
4. The Facility consists of approximately 40 acres, and is bounded by Avenue 53 on the north, Tyler Street on the east, and agricultural land on the south and west in Coachella, California. There is vacant property across Avenue 53 to the north, and a trailer park across Tyler Street to the east. According to the U.S. Geological Survey, the property lies at an elevation ranging from approximately 90 feet below mean sea level (MSL) in the northwest corner of the property to 95 feet below MSL in the southeast corner of the property.
5. Areas around the buildings and parking areas at the site are paved with asphaltic concrete, and the remainder of the site is unpaved. The property is enclosed with chain link fencing and access to the site is controlled through a guard shack on the north side of the site. The property is supplied with municipal water, sewer, and natural gas services.

Scope of Order

6. This Order prescribes updated Waste Discharge Requirements (WDRs) for the discharges of the Facility’s wastewater to two lined surface impoundments, which are subject to the prescriptive standards in California Code of Regulations, title

27, section 20005 et seq. (Title 27). The permitted waste management units (WMUs) under this Order are listed in [Table 1](#) below.

Table 1. Permitted Units under Order.

| Unit | Constructed | Capacity (Gallons) | Use |
|-------------|-------------|-----------------------|--------------------|
| "West Pond" | 2001-2002 | 850,000 | Process Wastewater |
| "East Pond" | 2001-2002 | 850,000 | Process Wastewater |

7. The Facility was previously regulated under Order R7-2013-0063 (2013 WDRs Order), which was adopted on November 14, 2013.
8. Pursuant to Water Code section 13264, subdivision (a), the Discharger is prohibited from initiating the discharge of new wastes (i.e., other than those described herein), or making material changes to the character, volume and timing of waste discharges authorized herein, without filing a new Report of Waste Discharge (ROWD) per Water Code section 13260. Failure to file a new ROWD before initiating material changes to the character, volume or timing of discharges authorized herein, will constitute an independent violation of these WDRs.
9. This Order is also strictly limited in applicability to those individuals and/or entities specifically designated above as "Discharger," subject only to the discretion to designate or substitute new parties in accordance with this Order.

Prior Investigation and Cleanup Activities

10. On September 28, 2000, the Regional Water Board issued Cleanup and Abatement Order 00-135 (2000 CAO), which required the Discharger to evaluate groundwater beneath the site's seven, unlined earthen ponds that were used for final disposal percolation and evaporation. The Discharger tested for certain constituents—specifically, acetone, ethylbenzene, xylenes, 4-methyl 2-pentanone and diphenylamine (DPA). In addition, the Discharger conducted an assessment of the presence of nitrocellulose (NC) in soils within the evaporation/percolation ponds.

11. According to the 2000 CAO, a tile drainage system had been constructed for the region to handle the rising semi-perched groundwater. This allowed the groundwater to maintain shallow water levels at depths below the root zone. At the time of the 2000 CAO, the Facility had one tile line beneath each of the seven ponds at a depth of about 5 feet beneath the bottom surface of the ponds. The tile lines captured both the rising groundwater and the percolation pond effluent. This system allowed the groundwater to remain 5 feet beneath the bottom of the ponds.
12. During February and March 2001, six (6) CPT soundings (CPT-01 through -06), four (4) Hydropunch borings (GW-01 through -04), and 15 shallow soil borings (S-1 through S-15) were advanced at the site. In addition, six (6) monitoring wells (MW-01 through MW-06) were installed to evaluate groundwater conditions in the shallow unconfined aquifer beneath the site. The results of the groundwater evaluation indicated that, with the exceptions of DPA, none of constituents listed in Finding [10](#) were detected in soil or groundwater samples collected during this investigation. DPA concentrations identified in groundwater during investigation were below the United States Environmental Protection Agency (USEPA) Reference Dose (calculated as a safe exposure level respect to non-cancer health effects) and Suggested No-Adverse-Response Level (SNARL), and significantly below the USEPA Region 9 levels for tap water.
13. Subsequent to completion of the requirements of the CAO, the Discharger redesigned its manufacturing process, with the goal of capturing and treating 100 percent of wash-down water.
14. In January 2002, the Discharger closed seven unlined settling/evaporation ponds, replacing them with two double-lined emergency/event ponds. This Order reflects removal of the old monitoring wells used to monitor the unlined ponds, and installation of new monitoring wells at the two double lined ponds.
15. The 2000 CAO was rescinded on November 18, 2002.

Facility Operations and Wastewater Disposal

16. Two manufacturing processes (post-impregnation process and the beater additive process) are employed at the Facility. The post-impregnation process produces CCCs for 120 mm tank ammunition, and utilizes a slurry consisting of less than 0.5 percent solids (fibrous nitrocellulose, Kraft process wood pulp and supporting chemicals) in recycled process water. The CCCs are formed by lowering a felting tool composed of fine metal screen into the slurry and applying a vacuum. The vacuum draws water through the screen and retains the fibrous material on the outer surface of the screen. The CCCs are then molded into final

form, immersed in resin to provide structural strength, and cured in an oven prior to final trimming and inspection. The beater additive process produces CCCs for mortars and artillery changes. The beater additive process involves the same slurry process as the post-impregnation process, but the resin is added to the slurry prior to performing the felting process. Once the CCCs are removed from the mold, they can go directly to final trimming and inspection. Process wastewater is managed and recycled using the same method as previously described for the post-impregnation process.

17. Wastewater generated during the manufacturing process is stored in tanks before entering the water reclamation area. In the water reclamation area, wastewater is passed through a roto shear or hydro screen to remove residual solids from the water. The Discharger refers to wastewater at this stage as “clean water.” Afterwards, the “clean water” is then recycled back into the manufacturing process. Any unused residual wastewater is discharged to the surface impoundments equipped with aerators to accelerate the rate of evaporation.

Waste and Unit Classification

18. Two Class II surface impoundments, identified as the “East Pond” and the “West Pond,” are currently being used at the Facility. Their locations are shown in Attachment B. They were constructed from 2001 to 2002.
19. The surface impoundments were constructed and designed with an 80-mil high density polyethylene (HDPE) primary liner and a 40-mil HDPE secondary membrane separated by a HDPE geonet. The leachate collection and recovery system (LCRS) used for leak detection consists of the HDPE geonet which conveys leachate that leaks through the secondary membrane to two sumps equipped with 8-inch pipe risers (one for each pond). The sumps are inspected on a weekly basis for any leaks. Each surface impoundment has a capacity of 850,000 gallons. Settled solids in the surface impoundments are sent to a permitted landfill in Arizona.
20. The Facility’s wastewater is classified as “designated waste,” which is defined in relevant part as a nonhazardous waste containing constituents that, under ambient environmental conditions at a WMU, could be released in concentration exceeding applicable water quality objectives (WQOs) or reasonably expected to affect beneficial uses of the waters of the state. (Wat. Code, § 13173.)
21. The Discharger reports that the following chemicals are used in the Facility’s process as supporting chemicals: nitrocellulose, akardit, kraft, nalcon 7647, ethyl centralite, synthomer, aluminum potassium sulfate, soda ash, polyester fibers, and acrylic fibers. These chemicals contain constituents that, unless contained

within lined WMUs, may reasonably be expected to affect the beneficial uses of groundwater.

Geology, Hydrogeology, Surface Water, and Climate

22. The Facility is located in Coachella Valley which is a 65-mile-long arid rift valley in the Colorado Desert of Southern California in Riverside County. The Coachella Valley is bounded from the northwest by the Little San Bernardino Mountains, from the southeast by the Santa Rosa Mountains, from the west by the San Jacinto Mountains and San Gorgonio mountains, and from the east by the Salton Sea.
23. The site is underlain by Quaternary lake deposits of ancient Lake Coahuila generally consisting of interbedded clay, silt, sand and beach gravel.
24. The San Andreas fault is the most notable fault system in the area, spanning the northeastern side of the Coachella Valley.
25. Groundwater is stored primarily in unconsolidated Pleistocene sediments, which are thicker than 1,000 feet in the Valley. A clay aquitard extends from the Salton Sea north to an area west of Indio and overlies the domestic supply use aquifers, and underlies lenses of permeable sediments and perched groundwaters, which are recharged by percolating irrigation water.
26. A semi-perched unconfined aquifer is present at an approximate depth of four (4) to seven (7) feet below ground surface (bgs) beneath the site. However, groundwater in the semi-perched unconfined aquifer has high total dissolved solids (TDS) concentration of approximately 3,000 mg/l and is not presently used for municipal or agricultural supply.
27. A deeper confined aquifer is separated from the upper semi-perched confined aquifer by a clay aquitard. The top of the uppermost confined aquifer is located at an approximated depth of 200 feet bgs in the vicinity of the site. An upper confined aquifer is present at an approximate depth of 215 to 305 feet bgs beneath the site and is separated from a deeper confined aquifer (present at an approximate depth of 485 to 665 feet bgs).
28. The closest surface water body is Whitewater River which lies approximately 0.5 miles to the east at its closest point. The Salton Sea lies approximately 12 miles southeast of the Facility.

29. Based on data from the nearest weather station (Desert Resorts RGNL AP, CA, 048892), the Facility has an annual average precipitation of 2.96 inches.¹
30. According to National Oceanic and Atmospheric Administration (NOAA) Precipitation Frequency Atlas 14, Vol. 6, Version 2, the 100-year and 1,000-year, 24-hour rainfall events are estimated to result in 4.28 and 7.71 inches of precipitation, respectively.²
31. According to the Federal Emergency Management Agency's (FEMA) [Flood Insurance Rate Map](https://msc.fema.gov/portal) (<https://msc.fema.gov/portal>), the Facility is not located within a 100-year floodplain.
32. The climate at Armtec Defense Products is typically arid with high temperatures (97 to 107 °F) in the summer and moderate temperatures in the winter, generally 41-69°F.

Monitoring Systems

33. The Facility's current groundwater monitoring well network, as of the date of this Order, is listed in the Monitoring and Reporting Program (MRP), which is attached hereto as Attachment B.
34. The Facility contains two leachate collection and removal systems (LCRS), with a separate leachate collection sumps for each pond.
35. The Facility contains three (3) groundwater monitoring wells, one upgradient well and two downgradient wells.
36. There are no adjacent surface water bodies that could be affected by a release from the Facility's surface impoundments. Accordingly, surface water monitoring is not required under Title 27. (See Title 27, § 20415, subd. (c)(1).)
37. Title 27 requires that, as part of a Detection Monitoring Program (DMP), groundwater samples be analyzed for all Constituents of Concern (COCs) every five years. COCs are the list of "waste constituents, reaction products, and hazardous constituents that are reasonably expected to be in or derived from

¹ [Desert Resorts Weather Station](#)

² Source: [NOAA Precipitation Frequency Data Server](https://hdsc.nws.noaa.gov/pfds/pfds_map_cont.html?bkmrk=ca)
(https://hdsc.nws.noaa.gov/pfds/pfds_map_cont.html?bkmrk=ca)

waste contained in the [WMU].” (Title 27, §§ 20395(a), 20420(g).) To date, the Discharger has not fully characterized the wastewater that is being discharged to the WMUs. Without a full characterization, the full list of COCs cannot be identified. This Order therefore requires the Discharger to submit a Wastewater Characterization Report for Executive Officer approval. Once the report has been approved, the Discharger will be required to analyze groundwater samples for all COCs every five years.

38. Under Title 27, a DMP also requires that Monitoring Parameters and Five-Year COCs be compared to established Concentration Limits to determine whether there has been a release to groundwater or the unsaturated zone. (Title 27, §§ 20400, 20420(i)(1).) To date, the Discharger has not developed Concentration Limits for its monitored constituents. This Order therefore requires the Discharger to develop Concentration Limits for its Monitoring Parameters and COCs.

Closure of Class II Surface Impoundments

39. Unless the Discharger demonstrate that it would be infeasible to do so (and such demonstration is approved in writing by the Regional Water Board or its Executive Officer), the Discharger will be required to *clean-close* all surface impoundments, as described in subdivision (f) of Title 27, section 21090.
40. As described in Title 27, section 21400, subdivision (b)(1), the Clean-Closure process consists of the following:
- a. Remaining free liquid contents are removed and discharged to a permitted landfill. All residual liquid is treated to eliminate free liquid (Title 27, § 21400, subd. (a));
 - b. All residual wastes (including sludges, precipitates, settled solids, and liner materials contaminated by wastes) are completely removed from the unit and also disposed at a permitted landfill;
 - c. Remaining containment features are inspected for contamination and, if not contaminated, may be dismantled;
 - d. Any natural geologic materials beneath or adjacent to the closed impoundment that have been contaminated are removed for disposal at a permitted landfill; and
 - e. Additional activities may be required for the removal of all waste and contaminated materials from the Unit, as well as from the underlying and

surrounding environs, such that the waste and Unit no longer poses a threat to water quality. (Title 27, § 20950, subd. (a)(2)(B).)

41. Each surface impoundment must be closed in accordance with an approved Final Closure Plan³ that meets the requirements of Title 27, section 21410, as well as all of the other Title 27 prescriptive standards incorporated by reference in section 21410.
42. As of the date of this Order, the Discharger does not have an approved Preliminary Closure Plan. Although such a document is ordinarily required to be submitted as part of the Report of Waste Discharge (ROWD), the Discharger will be allowed to submit it at a later date. Specifically, this Order requires the Discharger to submit a Preliminary CPCMP for the closure of each surface impoundment within **180 days** of adoption. (A Final Closure Plan will be required to be approved prior to the undertaking of any closure activities.)

Financial Assurances

43. The State Water Board-promulgated provisions of Title 27 require maintenance of appropriate financial assurance mechanisms to cover all expenses related to the following:
 - a. Closure Activities (Title 27, § 22207) – In at least the amount of the current closure cost estimate;
 - b. Post-closure maintenance (Title 27, § 22212) – in at least the amount of the current post-closure cost estimate⁴; and

³ Preliminary Closure and Post-Closure Maintenance Plans are a required component of a Report of Waste Discharge. (Title 27, §§ 22470(a), 21750(i), 21769(b).) In this case, the Board is exercising its discretion to require their submittal after the adoption of updated WDRs. Because the Facility only contains Surface Impoundments, which are almost always required to be clean-closed, the preliminary plan need not incorporate post-closure maintenance.

⁴ If the Discharger's Preliminary Closure Plan proposes to clean-close the Surface Impoundments (and demonstrates their ability to pay for clean-closure), there will be no post-closure maintenance required under Title 27. In other words, no demonstration will be required if all other requirements are satisfied.

- c. Corrective Action (Title 27, § 22222) – for initiating and completing corrective action for all known or reasonably foreseeable corrective action.
44. This Order requires the Discharger to provide financial assurances of its ability to pay for closure, post-closure maintenance (unless clean-closure occurs) and corrective action.

Regulatory Considerations

Permitting Authority

45. This Order is issued pursuant to Water Code section 13263, subdivision (a), which provides that “[t]he regional board, after any necessary hearing, shall prescribe requirements as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge with relation to the conditions existing in the disposal area or receiving waters upon, or into which, the discharge is made or proposed.”
46. Water Code section 13263, subdivision (a) further provides that WDRs “shall implement water quality control plans and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance⁵, and the provisions of Section 13241.”
47. The ability to discharge waste is a privilege, not a right. The adoption of this Order shall not be construed as establishing a vested right in the continuance of discharge activities. (Wat. Code, § 13263, subd. (g).)
48. For the purposes of assessing waste discharge fees under California Code of Regulations, title 23 (Title 23), section 2200, the Facility has a threat-complexity rating of **2-B**.

⁵ “Nuisance” is defined by statute as a condition that: “(1) Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property[;] [¶] (2) Affects at the same time an entire community or neighborhood, or any considerable number of persons...[;] [and] [¶] (3) Occurs during, or as a result of, the treatment or disposal of wastes.” (Wat. Code, § 13050, subd. (m).)

- a. Threat Category “2” reflects waste discharges that can impair receiving water beneficial uses, cause short-term water quality objective violations, cause secondary drinking water standard violations, and cause nuisances.
- b. Complexity Category “B” reflects any discharger not included in Category A, with either (1) physical, chemical or biological treatment systems (except for septic systems with subsurface disposal), or (2) any Class II or Class III WMUs.

Basin Plan Implementation

- 49. The Water Quality Control Plan for the Colorado River Basin Region (Basin Plan) designates beneficial uses of groundwater and surface water within the region, establishes numeric and narrative WQOs protective of such uses, and incorporates applicable State Water Board plans and policies.
- 50. Groundwater in the Coachella Hydrologic Unit is designated for municipal and domestic beneficial uses (MUN), Industrial Supply (IND), and Agricultural Supply (AGR).
- 51. The Basin Plan establishes the following WQOs for MUN-designated groundwater:
 - a. Tastes and Odors (Narrative): Groundwater shall not contain taste or odor-producing substances that adversely affect beneficial uses as a result of human activity (Ch. 3, § IV.A);
 - b. Chemical Constituents (Numeric): Groundwater shall not contain organic and inorganic chemical constituents in concentrations exceeding the Primary Maximum Contaminant Levels (MCLs) established for drinking water per Title 22, sections 64431, 64444 and 64678 (Ch. 3, § IV.C).

Antidegradation Policy

- 52. The Basin Plan incorporates the State Water Board’s *Statement of Policy with Respect to Maintaining High Quality Waters in California*, Resolution 68-16 (Antidegradation Policy), which prohibits the Regional Water Board from authorizing discharges that will result in the degradation of “high quality waters,” unless it is demonstrated that any such degradation in water quality:

- a. Will not unreasonably affect beneficial uses,⁶ or otherwise result in water quality less than that prescribed in applicable plans and policies (e.g., violation of WQOs);
 - b. Is minimized through best practicable treatment or control (BPTC);
 - c. Is consistent with maximum benefit to the people of the state of California.
53. This Order complies with the Antidegradation Policy by requiring the Discharger to maintain waste containment systems that prevent releases of waste to waters of the state, thereby preventing any water quality degradation. Although no degradation is expected to occur, the Facility is equipped with sufficient controls to detect releases. Further, any detected releases will be required to be addressed through corrective action and appropriate remedial measures.

Stormwater

54. Federal regulations for stormwater discharges were promulgated by the U.S. Environmental Protection Agency (USEPA) on November 16, 1990 (40 C.F.R. parts 122, 123, and 124) to implement the Clean Water Act's stormwater program set forth in Clean Water Act section 402(p) (33 U.S.C. § 1342(p)). In relevant part, the regulations require specific categories of facilities that discharge stormwater associated with industrial activity to "waters of the United States" to obtain National Pollutant Discharge Elimination System (NPDES) permits and to require control of such pollutant discharges using Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) to prevent and reduce pollutants and any more stringent controls necessary to meet water quality standards.
55. The State Water Board adopted Order 2014-0057-DWQ (NPDES No. CAS000001), General Permit for Storm Water Discharges Associated with Industrial Activities (Industrial General Permit), as amended in 2015 and 2018 which became effective on July 1, 2020. The Industrial General Permit regulates discharges of stormwater associated with certain industrial activities, excluding construction activities, and requires submittal of a Notice of Intent (NOI) to be covered under the permit. When requested by the Water Boards to obtain General Permit coverage, entities must meet these "No Discharge" eligibility

⁶ The Water Code defines "Pollution" in relevant part as the "alteration of the quality of the waters of the state by waste to a degree which unreasonably affects ... [t]he waters for beneficial uses." (Wat. Code, § 13050, subd. (l)(1)(A).)

requirements or obtain General Permit coverage. This Order makes no determination as to the Discharger's need for enrollment under the Industrial General Permit.

56. In December 2020, the Discharger submitted a No Discharge Technical Report in accordance with Section XX.C of the Industrial General Permit. The Facility was determined to be a NONA (Notice of Non-Applicability) Facility due to the Facility not discharging to any waters of the United States.

Additional Considerations

57. Water Code section 106.3, subdivision (a) provides that it is “the established policy of the state that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.” Although subdivision (a) does not apply directly to the prescribing of WDRs (see Wat. Code, § 106.3, subd. (b)), this Order nevertheless furthers the stated policy by requiring that the receiving groundwater comply with WQOs protective of MUN beneficial uses.
58. Water Code section 13149.2, subdivision (d) requires that the Regional Water Board, “[w]hen issuing ... individual WDRs ... that regulate activity or a Facility that may impact a disadvantaged^[7] or tribal community,^[8] and that includes a time schedule in accordance with subdivision (c) of Section 13263 for achieving an applicable water quality objective, an alternative compliance path that allows time to come into compliance with water quality objectives, or a water quality variance...,” must include finding(s) regarding “potential environmental justice,^[9]

⁷ For the purposes of this requirement, a “disadvantaged community” is defined as a “community in which the median household income is less than 80 percent of the statewide annual median household income level.” (CWC, § 13149.2, subd. (f)(1).)

⁸ For the purposes of this requirement, a “tribal community” is defined as a “community within a federally recognized California Native American tribe or non-federally recognized Native American tribe on the contact list maintained by the Native American Heritage Commission for the purposes of Chapter 905 of the Statutes of 2004.” (CWC, § 13149.2, subd. (f)(2).)

⁹ Water Code section 13149.2 incorporates the general definition of “environmental justice” in Public Resources Code section 30107.3, subdivision (a): “the fair treatment and meaningful involvement of people of all races, cultures, incomes, and national

tribal impact, and racial equity considerations” that are relevant to the permitting action. This Order does not incorporate a time schedule for compliance with applicable WQOs, or any of the other provisions described in Water Code section 13149.2, subdivision (d). Accordingly, no additional findings are necessary under section 13149.2.

California Environmental Quality Act

59. Pursuant to California Code of Regulations, title 14, section 15301, the issuance of these WDRs, which govern the operation of an existing facility involving negligible or no expansion of use beyond that previously existing, is exempt from the provisions of CEQA (Public Resources Code, § 21000 et seq.).

Monitoring and Reporting Requirements

60. This Order is also issued pursuant to Water Code section 13267, subdivision (b)(1), which provides that the Regional Water Board may require that persons discharging waste within the region “shall furnish, under penalty of perjury, technical or monitoring program reports,” provided that the discharger’s burdens of compliance, including costs, is reasonable relative to the need for the submittals and the benefits to be obtained.
61. The various notifications, technical reports and monitoring program reports required under this Order, including those contained within the MRP in **Attachment A**, are necessary to ensure compliance with the WDRs.
62. In accordance with section 13267, the burdens of monitoring and reporting imposed on the Discharger under this Order and the separately adopted MRP, are reasonable relative to the need for compliance described above.
63. The Executive Officer may issue a Revised MRP as a standalone order, pursuant to their delegated authority under Water Code section 13223 and Resolution R7-2022-0036. Upon issuance, the Revised MRP shall supersede the provisions of Attachment A.

[continued from previous page] origins, with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.” (Wat. Code, §13149.2, subd. (f).)

In this case, it is specifically intended that a Revised MRP will be issued based on further information obtained from the Discharger. The Discharger will provide an accurate wastewater characterization. This will lead to updated Monitoring Parameters and Five-Year Constituents of Concern.

Public Participation

64. In developing these WDRs, Colorado River Basin Water Board staff have complied with Water Code section 189.7, subdivision (a)(1), which requires “equitable, culturally relevant community outreach to promote meaningful civil engagement from potentially impacted communities of proposed discharges of waste that may have disproportionate impacts on water quality in disadvantaged communities or tribal communities....”
65. The Discharger and other interested public agencies and persons were notified of the Regional Water Board’s intent to prescribe the WDRs in this Order and provided an opportunity to submit their written views and recommendations at a public hearing. (Wat. Code, § 13167.5.)
66. The Regional Water Board, in a public meeting, heard and considered all timely comments pertaining to this discharge.

REQUIREMENTS

IT IS HEREBY ORDERED, pursuant to Water Code sections 13263 and 13267, that R7-2013-0063 is rescinded (except for enforcement purposes), and that the Discharger shall comply with the following requirements.

A. Discharge Prohibitions

1. Wastes shall not be discharged to the Surface Impoundments if such wastes potential to reduce or impair the integrity of containment structures or which, if commingled with other wastes, could produce violent reaction, heat or pressure, fire or explosion, toxic by-products, or reaction products, which, in turn: require a higher level of containment; or impair the integrity of containment structures. (Title 27, § 20200, subd. (b).)
2. Except as otherwise expressly authorized under a separate order, the wastes shall not be discharged or released to any areas outside of the Surface Impoundments. This prohibition specifically includes, without

limitation, the discharge of solid or liquid waste or leachate to surface waters, surface water drainage courses, or groundwater.

3. "Hazardous Waste," as defined per California Code of Regulations, title 23 (Title 23), section 2510 et seq., shall not be discharged to the Surface Impoundments or any other portion of the Facility.
4. The pressure head on any secondary liner of the Surface Impoundments shall not be permitted to exceed one foot, except for LCRS sump area where liquid depth shall be kept at the minimum needed for safe pump operation.

B. Discharge Specifications

1. Wastes shall be discharged only into the Surface Impoundments listed in [Table 1](#).
2. All ponds and open containment structures (including stormwater retention ponds) shall be managed to prevent breeding of mosquitoes. Specifically:
 - a. An erosion control program shall be implemented to ensure that small coves and irregularities are not created around the perimeter of the water surface;
 - b. Weeds shall be minimized through control of water depth, harvesting, or herbicides;
 - c. Dead algae, vegetation, and debris shall not accumulate on the water surface; and
 - d. The Discharger shall consult and coordinate with the local Mosquito Abatement District to minimize the potential for mosquito breeding as needed to supplement the above measures.
3. The Discharger shall accurately characterize wastes, including determinations of whether wastes will be compatible with containment features and other wastes in the Surface Impoundments, and whether the wastes are required to be managed as a "hazardous" waste.
4. The Discharger shall maintain at least five feet of separation between the bottom of the Surface Impoundments and the highest anticipated elevation of underlying groundwater. (Title 27, § 20240, subd.(c).)

5. The Discharger shall promptly remove and properly dispose of any unauthorized wastes that are discharged at the Facility; such instances shall be reported to the Regional Water Board within 48 hours.
6. In the event of any seeps near a permitted the Surface Impoundments, the Discharger shall take all necessary actions to fully contain the seepage and prevent any discharges to surface waters.

C. Leachate Collection and Removal System Specifications

1. The Surface Impoundments shall maintain a *blanket-type* leachate collection and removal system (LCRS) that meets the requirements set forth in subdivisions (b)-(e) of Title 27, section 20340.
2. Each LCRS shall be operated to function without clogging until the surface impoundments' scheduled closure and, if clean-closure does not occur, the post-closure maintenance period. (Title 27, § 20340, subd. (d).)
3. Leachate accumulation within LCRS sumps shall not exceed 85 percent of the design capacity.
4. Fluids shall be removed from LCRS sumps as often as needed to prevent the liquid in the sump from backing up into the collection portion of the LCRS. The removed liquid may be discharged back into the Surface Impoundment for that sump. If leachate generation exceeds the volume needed for safe pump operation, then the Discharger shall notify the Regional Water Board in writing within **seven days**. Notification shall include a timetable for a remedial action to repair the containment structures or other action necessary to reduce leachate production.
5. The Surface Impoundments shall be operated and maintained in a condition that protects the integrity of berms to prevent overtopping and/or structural failure.
6. The Discharger shall maintain at least two feet of freeboard within each Surface Impoundment, as measured vertically from the lowest possible point of overflow, as well as any additional freeboard necessary to

accommodate seasonal precipitation and to contain a 1,000-year, 24-hour storm event.¹⁰

7. Each Surface Impoundment shall contain a permanent staff gauge or other markings that will allow for the immediate determination of available freeboard.¹¹
8. The Discharger shall prepare, submit, and implement an Operation Plan providing for Surface Impoundment operation levels and monthly waste input quantities based on anticipated precipitation and past precipitation conditions for the year.¹² (Title 27, § 20375, subd. (b).)
9. Direct pipeline discharge to the Surface Impoundments shall be either equipped with devices or shall have fail-safe operating procedures to prevent overfilling. Discharges shall be stopped in the event of any containment system failure which causes a threat to water quality. (Title 27, § 20375, subd. (c).)
10. Residual solids within each Surface Impoundment shall be periodically removed and disposed offsite at a permitted solid waste management facility (landfill). Regardless of wherever such solids are ultimately disposed, the Discharger shall maintain legible records for the volume and type of waste removed and transported offsite, as well as the ultimate destination.
11. Whenever the bottom of a Surface Impoundment is cleaned down to the liner, a liner inspection shall be performed prior to refilling to confirm that it has not been damaged.

¹⁰ The “design storm” for surface impoundments is a 24-hour storm event with a return period of 1,000 years (Title 27, § 20375, subd. (a) & Table 4.1).

¹¹ The requirements in this section shall become effective 45 days following issuance of this Order.

¹² The Operations Plan shall be submitted to Regional Water Board staff on request. The Discharger shall implement any changes to the Operations Plan specified by staff for compliance with Title 27.

D. Stormwater Specifications

1. The Surface Impoundments shall be operated, and maintained to prevent overtopping, inundation, washout or erosion due to a 100-year storm and any resulting floods.
2. To the extent practicable, outside surface and subsurface drainage shall be diverted away from the Surface Impoundments.
3. As applicable,¹³ diversion and drainage features at the Facility shall be designed, constructed, and maintained to:
 - a. Accommodate the anticipated volume of precipitation and peak flows from surface runoff and under the precipitation conditions for the Surface Impoundment;
 - b. Effectively divert sheet flow runoff laterally, via the shortest distance, into the drainage and collection facilities;
 - c. Prevent surface erosion through the use of energy dissipators where required to decrease the velocity of runoff, slope protection, and other erosion control measures where needed to prevent erosion;
 - d. Control and intercept run-on, in order to isolate uncontaminated surface waters from water that might have come into contact with waste within the Surface Impoundment; and
 - e. Preserve the system's function. The Discharger shall periodically remove accumulated sediment from the sedimentation or detention basins as needed to preserve the design capacity of the system. (Title 27, § 20365, subd. (c)(1)-(6).)

E. Construction and Closure Specifications

1. No additional Surface Impoundments for wastewater shall be constructed at the Facility until expressly authorized under new WDRs.

¹³ These requirements are based on Title 27 prescriptive standards for all types of waste management units. Some requirements may be inapplicable to surface impoundment-type units under normal operations.

2. All Surface Impoundments at the Facility shall be clean-closed, or alternatively, closed as a landfill, in accordance with the requirements of Title 27. Closure shall be conducted in the most expeditious manner that is practicable under the circumstances once a Surface Impoundment is no longer needed for waste disposal or storage purposes.
3. Unless otherwise approved in writing by the Colorado River Basin Water Board Executive Officer and revised WDRs are issued by the Board, the Discharger shall undertake “clean-closure” of the Surface Impoundments, as described in Title 27, section 21400, subdivision (b)(1):
 - a. All residual wastes (including sludges, precipitates, settled solids, and liner materials contaminated by wastes) shall be completely removed from the Surface Impoundment and disposed at a permitted solid waste facility;
 - b. Remaining containment features shall be inspected for contamination and, if not contaminated, can be dismantled;
 - c. Any natural geologic materials beneath or adjacent to the closed impoundment that have been contaminated shall be removed for disposal at a permitted solid waste facility; and
 - d. The Discharger shall take any additional activities required to meet the applicable performance standard—i.e., the removal of all waste and contaminated materials from the Surface Impoundment, as well as from the underlying and surrounding environs, such that the waste and Surface Impoundment no longer poses a threat to water quality. (Title 27, § 20950, subd. (a)(2)(B).)
4. At least 180 days prior to the anticipated commencement of closure activities (clean-closure or otherwise), the Discharger shall submit a Final Closure Plan that complies with the requirements of Title 27, section 21769, subdivision (c).
5. The Discharger shall not undertake any clean-closure activities until the Executive Officer has approved the Final Closure Plan.

F. Financial Assurances Requirements

1. The Discharger shall provide financial assurances of its ability to pay for the costs of closure and, as applicable, post-closure maintenance of each Surface Impoundment at the Facility. (Title 27, § 21400.)

2. Following approval of the Preliminary Closure Plan (see § [H.3](#)), the Discharger shall annually update its cost estimates for closure and corrective action (e.g., to reflect any inflation). Whenever the cost estimates are revised, the revised cost estimates shall be accompanied by new demonstrations/mechanisms. See section [A.2](#) for submittal requirements.

G. Monitoring, Reporting and Notification Specifications

1. Compliance with Monitoring and Reporting Program.

The Discharger shall comply with the MRP in Attachment A, or in the event of a subsequently issued Revised MRP, the provisions of that Revised MRP (which supersedes the provisions of Attachment A as the operative MRP). The Discharger shall report the results of all onsite monitoring in accordance with the operative MRP.

2. Financial Assurances Reporting.

The Discharger shall submit, by **June 1** of each year, a report calculating the increase in cost estimates for closure and corrective action due to the inflation factor (specified in Title 27, §22236) for the previous calendar year. Whenever cost estimates are revised, the report shall be accompanied by documentation reflecting a new mechanism corresponding to the new estimate.

3. Notification Requirements

a. Change in Operators or Owners.

- i. Regulatory coverage under this Order is not transferable to any person without written approval from the Regional Water Board's Executive Officer. The Board may require modification or revocation and reissuance of this Order to change the name of the new permittee and incorporate other requirements as may be necessary.
- ii. Prior to any change in the operators of the Facility, the Discharger shall notify the Regional Water Board's Executive Officer in writing at least **30 days** in advance.

- iii. Prior to any change in the ownership of the land underlying the Facility, the Discharger shall notify the Regional Water Board's Executive Officer in writing at least **30 days** in advance.
- b. **Noncompliance.** The Discharger shall report any noncompliance that may endanger human health or the environment. Information shall be provided orally to the Regional Water Board and the Office of Emergency Services (OES) within **24 hours** of when the Discharger becomes aware of the incident. If noncompliance occurs outside of business hours, the Discharger shall leave a message on the Regional Water Board's voicemail.

A written report shall also be provided within **five business days** of the time the Discharger becomes aware of the incident. The written report shall contain a description of the noncompliance and its cause, the period of noncompliance, the anticipated time to achieve full compliance, and the steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. A final certified report must be submitted through online GeoTracker. Additional information may be added to the certified report, in the form of an attachment, at any time. All other forms of noncompliance shall be reported in the next scheduled SMR, or earlier if requested by the Executive Officer.
- c. **Slope Failures.** The Discharger shall promptly correct any slope failure which threatens the integrity of containment features or the unit in accordance with the method approved by the Regional Water Board's Executive Officer.
- d. **Earthquakes.** Following an earthquake that generates significant ground shaking (Modified Mercalli Intensity Scale V or greater) at or near the Facility, the Discharges shall submit a detailed post-earthquake inspection and corrective action plan (if necessary). The plan shall address damage to and corrective measures for: containment structures; leachate control and stormwater management systems; wells and equipment to monitor groundwater; and any other system/structure potentially impacted by static and seismic deformations of the waste management unit (i.e., Surface Impoundment). The Discharger shall notify the Executive Officer immediately, but no later than **24 hours**, of damage to the Facility due to an earthquake, and provide a post-earthquake inspection report within **15 business days**.

4. General Reporting Requirements

- a. **Electronic Submittal.** All materials shall be submitted electronically via the [GeoTracker Database](https://geotracker.waterboards.ca.gov) (<https://geotracker.waterboards.ca.gov>).¹⁴ After uploading, the submitting party shall notify Regional Water Board staff via email to RB7_WDRs_paperless@waterboards.ca.gov, or another address specified by staff. The following information shall be included in the body of the email:

| | |
|-----------------------|----------------------------------|
| Attention: | Land Disposal Unit |
| Report Title: | [Report Title] |
| Upload ID: | [Number] |
| Facility : | Armtec Defense Products Facility |
| County: | Riverside County |
| GeoTracker ID: | L10007426352 |

- b. **Qualified Professionals.** All technical reports¹⁵ submitted under this Order shall be prepared by, or under the direct supervision of, a competent licensed civil engineer or engineering geologist (Qualified Professional). The submittal shall be signed and stamped by the Qualified Professional and contain a brief summary of the Qualified Professional's qualifications.
- c. **Certification.** All submittals under this Order shall be accompanied by a transmittal containing the certification language below that is signed by either the Required Signatory, as identified in the table below, or their Authorized Representative. To act as an Authorized Representative for a Required Signatory, an individual must be identified¹⁶ and duly authorized in writing by the Required Signatory; this written authorization shall be provided to the

¹⁴ Large files must be split into appropriately labelled, manageable file sizes and uploaded into GeoTracker.

¹⁵ A "technical report" is a one incorporating the application of scientific or engineering principles.

¹⁶ This identification may be in reference to the Authorized Representative's title or position, provided it is one that customarily has the responsibility of supervising the Facility's overall operation (e.g., facility manager, superintendent).

Regional Water Board beforehand, or concurrently with the first submittal signed by the Authorized Representative.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Table 9. Required Signatories for Submittals.

| Category of Discharger | Required Signatory |
|---|--|
| Corporations | Senior Vice President or Equivalent Principal Executive |
| Limited Liability Companies (LLCs) | Manager |
| General Partnerships and Limited Partnerships (LPs) | General Partner |
| Sole Proprietorships | Sole Proprietor |
| Public Agencies | Principal Executive or Ranking Elected/Appointed Official |

H. Special Provisions¹⁷

- 1. Sample Collection and Analysis Plan.** Within 90 days, the Discharger shall submit to the Regional Water Board for review and approval a comprehensive Sample Collection and Analysis Plan (SCAP) that shall describe in detail the methods to be used to perform all monitoring activities for all onsite features, including:
 - a. Sample collection procedures describing purging techniques, sampling equipment, and decontamination of sampling equipment;
 - b. Sample preservation information and shipment procedures;
 - c. Sample analytical methods and procedures;
 - d. Sample quality assurance/quality control (QA/QC) procedures;
 - e. Chain of custody control; and
 - f. Sample analysis information including sample preparation techniques to avoid matrix interferences, method detection limits (MDLs), practical quantitation limits (PQLs) and reporting limits (RLs), and procedures for reporting trace results between the MDL and PQL.
- 2. Spill Prevention Plan.** Within 90 days, the Discharger shall submit the Spill Prevention Plan for approval by the Board's Executive Officer. The Discharger shall develop and implement a plan for immediate detection of leaks or failures in the integrity of the Surface Impoundments' liners or LCRS. The plan shall include daily inspection of the Surface Impoundments.
- 3. Preliminary Closure Plan.** Within 180 days, the Discharger shall submit a Preliminary Closure Plan¹⁸ for Executive Officer review and approval. The

¹⁷ Unless otherwise specified, all deadlines in this section are relative to the date that this Order was adopted.

¹⁸ The purpose of this plan is to provide a reasonable estimate of the maximum expected cost that would be incurred at any time during the Surface Impoundment projected life for a third party to fully clean-close the Surface Impoundment. (Title 27, § 21769, subd. (b)(1).)

plan shall contain all information specified in Title 27, section 21750, subdivision (i) and section 21769, subdivision (b). In particular, the plan shall include the following:

- a. An identification of all actions necessary to successfully clean-close both Surface Impoundments as provided in section [E.3](#), accounting for reasonably foreseeable site-specific circumstances;
- b. Volumetric estimates for materials that will be excavated or deconstructed and taken offsite for disposal;
- c. Cost estimates for each of the proposed clean-closure actions; and.
- d. An estimated cost for responding to a release from each Surface Impoundment (Title 27, §§ 21750(i), 21769(b), 22222.)

4. Initial Financial Assurances Demonstrations. Within 90 days of Executive Officer approval of the Preliminary Closure Plan required per section [H.3](#), the Discharger shall submit documentation that it has obtained mechanisms for providing closure and corrective action financial assurances corresponding to the respective cost estimates included in the Preliminary Closure Plan. Available mechanisms shall be limited to those specified in sections 22225 through 22254 of Title 27.¹⁹

5. Wastewater Characterization Report. Within 180 days, the Discharger must submit, for Executive Officer review and approval, a Wastewater Characterization Report and identifies all Constituents of Concern²⁰ (COCs), and also includes the following:

- a. A complete waste characterization that includes, but is not limited to, design and actual flows, a list of constituents and the discharge concentration of each constituent, a list of other appropriate waste discharge characteristics, a description and schematic drawing of all treatment processes, a description of any Best Management Practices (BMPs) used, and a description of disposal methods. The

¹⁹ For example, Title 27, section 22246 does not allow the “financial means test” to be used for purposes of closure or corrective action.

²⁰ COCs are the list of “waste constituents, reaction products, and hazardous constituents that are reasonably expected to be in or derived from waste contained in the [Surface Impoundment].” (Title 27, § 20395, subd. (a).)

Discharger shall also develop accurate monitoring parameters for the COC list; and

- b. Prepared and reviewed by a civil engineer or a certified engineering geologist appropriately licensed by the State of California.
6. **As-Built Report for Existing Surface Impoundments.** Within 180 days, the Discharger shall submit a technical report that contains as-built construction document and engineering design of the existing Surface Impoundments. The report shall contain the depth to groundwater beneath the Surface Impoundments. This report shall be prepared and reviewed by a civil engineer or a certified engineering geologist appropriately licensed by the State of California.
7. **Initial Concentration Limits.** Within 180 days of Executive Officer approval of the Wastewater Characterization Report, the Discharger shall submit, for Executive Officer review and approval, a technical report proposing initial Concentration Limits for all Monitoring Parameters and COCs. (Title 27, § 20400, subd. (a).)
8. **Final Closure Plan.** A Final Closure Plan must be approved before the Discharger may commence closure activities (clean-closure or otherwise). See section [E.4](#).

I. Other Facility Provisions

1. **Operation and Maintenance.** The Discharger shall at all times properly operate and maintain all systems and components the Facility installed or used to achieve compliance with this Order. Proper operation and maintenance include effective performance, adequate process controls, and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities/systems when necessary to achieve compliance with this Order. All systems in service or reserved shall be inspected and maintained on a regular basis. Records of inspections and maintenance shall be retained and made available to the Regional Water Board on request.
2. **Duty to Mitigate.** The Discharger shall take all reasonable steps to minimize or prevent any discharge in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment.

3. **Operational Personnel.** The Facility shall be supervised and operated by persons possessing the necessary expertise in the operation and maintenance of the Facility. Further, the Discharger shall ensure that all site-operating personnel are familiar with the content of this Order and maintain a copy of this Order at the Facility.
4. **Inspection and Entry.** The Discharger shall allow the Regional Water Board, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:
 - a. Enter the premises regulated by this Order, or the place where records are kept under the conditions of this Order;
 - b. Have access to and copy, at reasonable times, records kept under the conditions of this Order;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
 - d. Sample or monitor at reasonable times, for the purpose of assuring compliance with this Order or as otherwise authorized by the Water Code, any substances or parameters at this location.
5. **Records Retention.** The Discharger shall retain copies of all reports required by this Order and the associated MRP. Records shall be maintained for a minimum of five years from the date of the sample, measurement, report, or application. Records may be maintained electronically. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Executive Officer.

LIST OF ATTACHMENTS

Attachment A—Monitoring and Reporting Program
Attachment B—Maps and Facility Diagrams

ENFORCEMENT

If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement, may issue a complaint for administrative civil liability, or may take other enforcement actions. Failure to comply with this Order may result in the assessment of Administrative Civil Liability of up to \$10,000 per violation, per day,

depending on the violation, pursuant to the Water Code, including sections 13268, 13350 and 13385. The Regional Water Board reserves the right to take any enforcement actions authorized by law.

ADMINISTRATIVE REVIEW

Any person aggrieved by this Regional Water Board action may petition the State Water Board for review in accordance with Water Code section 13320 and California Code of Regulations, title 23, section 2050 et seq. To be timely, the petition must be received by the State Water Board by 5:00 pm on the 30th day after the date of this Order; if the 30th day falls on a Saturday, Sunday or state holiday, the petition must be received by the State Water Board by 5:00 pm on the next business day. The law and regulations applicable to filing petitions are available on the [State Water Board website](http://www.waterboards.ca.gov/public_notices/petitions/water_quality) (http://www.waterboards.ca.gov/public_notices/petitions/water_quality). Copies will also be provided upon request.

ATTACHMENT A—MONITORING AND REPORTING PROGRAM

A. General Monitoring Requirements

1. **Representative Sampling.** All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. The time, date, and location of each grab sample shall be recorded on the chain of custody form for the sample. If composite samples are collected, the basis for sampling (time or flow weighted) shall be approved in writing by Regional Water Board staff.
2. **Instrumentation and Calibration.** All monitoring instruments and devices used by the Discharger shall be properly maintained and calibrated to ensure their continued accuracy. Any flow measurement devices shall be calibrated at least once per year to ensure continued accuracy of the devices. In the event that continuous monitoring equipment is out of service for a period greater than **24 hours**, the Discharger shall obtain representative grab samples each day the equipment is out of service. The Discharger shall correct the cause(s) of failure of the continuous monitoring equipment as soon as practicable. The Discharger shall report the period(s) during which the equipment was out of service and if the problem has not been corrected, shall identify the steps which the Discharger is taking or proposes to take to bring the equipment back into service and the schedule for these actions.
3. **Field Test Instruments.** Field test instruments (e.g., those used to test pH, dissolved oxygen, and electrical conductivity) may be used provided:
 - a. The user is trained in proper use and maintenance of the instruments,
 - b. The instruments are field calibrated prior to monitoring events at the frequency recommended by the manufacturer,
 - c. Instruments are serviced and/or calibrated by the manufacturer at the recommended frequency, and
 - d. Field calibration reports are submitted.
4. **30-Day Sample Collection Limitation.** For any given monitored medium, the samples collected from all monitoring points and background monitoring points to satisfy the data analysis requirements for a given reporting period shall all be collected within a span not to exceed 30 days, unless a longer time period is approved by the Executive Officer and shall

be collected in a manner that ensures sample independence to the greatest extent feasible.²¹

5. **Testing and Analytical Methods.** The collection, preservation, and holding times of all samples shall be performed in accordance with USEPA-approved procedures. Except as otherwise specified in the MRP or as approved in writing by the Executive Officer, all analyses shall be conducted in accordance with the latest editions of either of the USEPA's *Guidelines Establishing Test Procedures for Analysis of Pollutants Under the Clean Water Act* (40 C.F.R. part 136); or *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods Compendium* (SW-846).
6. **Laboratory Certification.** Except as otherwise approved in writing by the Executive Officer, all analyses shall be conducted by a laboratory certified by the State Water Board, Division of Drinking Water Environmental Laboratory Accreditation Program (ELAP).
7. **Records Retention.** The Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, for a minimum of five years from the date of the sampling or measurement. Records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurement(s);
 - b. The individual(s) who performed the sampling or measurement(s);
 - c. The methods used for groundwater purging/sampling;
 - d. The date(s) analyses were performed;
 - e. The individual(s) who performed the analyses;
 - f. The analytical techniques or method used; and

²¹ The 30-day limit does not apply to media that (1) are resampled to confirm the results of the initial round of samples, or (2) are resampled due to errors in the original sampling and analysis, but the Discharger shall conduct the resampling as expeditiously as practical.

- g. All sampling and analytical results, including units of measurement used, minimum reporting limit for the analyses, results less than the reporting limit but above the method detection limit (MDL), data qualifiers and a description of the qualifiers, quality control test results (and a written copy of the laboratory quality assurance plan), dilution factors, if used, and sample matrix type.

B. Detection Monitoring Program

1. General Requirements

- a. To detect a release at the earliest possible opportunity (Title 27, § 20420, subd. (b)), the Discharger shall implement a Detection Monitoring Program (DMP) for groundwater, the unsaturated zone and surface water in accordance with the provisions of Title 27, particularly sections 20415 and 20420.²²
- b. Additional monitoring points shall be added as necessary to provide the best assurance of the earliest possible detection of a release. (Title 27, § 20415, subd. (b)(1)(B)2.)

2. Groundwater

- a. **General Standards.** The Discharger shall operate and maintain a groundwater monitoring system that complies with the applicable provisions of Title 27, sections 20415 and 20420. Monitoring shall be performed in accordance with the locations, frequencies, and parameters described below.
- b. **Monitoring Well Locations.** The Facility's groundwater monitoring network currently consists of the wells listed below in [Table B-1](#). The groundwater monitoring system shall include a sufficient number of monitoring points, installed at appropriate locations and depths, to yield groundwater samples from the uppermost aquifer and any perched groundwater that represents the quality of

²² The Colorado River Basin Water Board Executive Officer may waive detection monitoring for the unsaturated zone and/or surface waters, based on demonstrations in the WQMP. (See Title 27, § 20415, subds. (c)(1), (d)(5).)

groundwater that has not been affected by a release from each Unit. (Title 27, §§ 20415(b)(1)(A)-(B), 20420(b).)

Table B-1. Groundwater Monitoring Well Network.

| Well | Location | Function |
|------|----------------------|------------|
| MW-4 | SE of the East Pond. | Detection |
| MW-5 | S of the West Pond. | Detection |
| MW-6 | Parking lot. | Background |

- c. **Groundwater Conditions.** Each quarter, the Discharger shall monitor Groundwater Conditions specified in [Table B-2](#). To the extent feasible, this information shall be determined separately for: (1) the uppermost aquifer; (2) any zones of perched water; and (3) any additional zone of saturation monitored based upon water level elevations taken prior to the collection of the water quality data submitted in the report. (Title 27, § 20415, subd. (e)(15).) Such information shall be reported semiannually.

Table B-2. Groundwater Conditions Monitoring.

| Conditions | Units | GeoTracker Code | Monitoring Freq. | Reporting Freq. |
|---------------------------|------------|-----------------|------------------|-----------------|
| Elevation (Well-Specific) | ft bgs | ELEV | Quarterly | Semi-annually |
| Gradient / Direction | - | (none) | Quarterly | Semi-annually |
| Flow Rate | ft. / year | (none) | Quarterly | Semi-annually |
| Depth to Groundwater | ft | | Quarterly | Semiannually |

- d. **Monitoring Parameters.** All monitoring wells shall be sampled and analyzed for the Monitoring Parameters listed in [Table B-3](#), in accordance with the specified frequencies. (Title 27, § 20420, subds. (e)-(f).) Whenever a well is sampled, the groundwater elevation, temperature, electrical conductivity, turbidity, and pH shall be accurately measured at each well. (Title 27, § 20415, subd. (e)(13).)

Table B-3. Monitoring Parameters.

| Monitoring Parameter | Units | GeoTracker Code | Monitoring Freq. | Reporting Freq. |
|---|----------|-----------------|------------------|-----------------|
| Temperature | °F | TEMP | Semiannually | Annually |
| Electrical Conductivity | µmhos/cm | SC | Semiannually | Annually |
| pH | SU | PH | Semiannually | Annually |
| Total Dissolved Solids (TDS) | mg/L | | Semiannually | Annually |
| VOCs | µg/L | | Semiannually | Annually |
| Diphenylamine | µg/L | | Semiannually | Annually |
| Major Ions (Na, Mg, Ca, K, Cl, SO ₄ , HCO ₃) | | | | |

- e. **Five-Year Constituents of Concern.** Following Executive Officer approval of the Discharger’s Wastewater Characterization Report, the Discharger shall analyze groundwater samples for the Constituents of Concern (COCs) identified in the Wastewater Characterization Report. (Title 27, § 20395, subd. (a).)²³ Results of

²³ COCs are the list of “waste constituents, reaction products, and hazardous constituents that are reasonably expected to be in or derived from waste contained in the [Mining] Unit.” (Title 27, § 20395, subd. (a).)

such monitoring shall be reported in the next Semiannual Monitoring Report.

3. Establishment of Concentration Limits

- a. The Discharger shall establish a Concentration Limit (i.e., background value) for each Monitoring Parameter and Constituent of Concern (COC) at each Monitoring Point, in accordance with the statistical methods in subdivision (e)(8) of Title 27, section 20415.²⁴ (Title 27, § 20400, subds. (a), (b).)
- b. Updated Concentration Limits shall be proposed by the Discharger every five years, and submitted via the Annual Monitoring Report. Unless expressly rejected by the Regional Water Board's Executive Officer in writing, the updated Concentration Limits shall be used to determine whether there has been a release from the Unit.
- c. If the Discharger fails to submit updated Concentration Limits, the existing ones shall remain operative, provided that, where appropriate, the Regional Water Board's Executive Officer may revert to lower concentrations where so warranted by existing monitoring data.

4. Procedures to Confirm Evidence of Release

- a. **Verification Sampling after Detection of Constituent of Concern.** Whenever a COC is detected at a Monitoring Point at a concentration exceeding the applicable Concentration Limit the Discharger shall conduct verification sampling to confirm if the exceedance is due to a release, or if it is a false-positive (unless previous monitoring has already confirmed a release for that constituent at that monitoring point). An exceedance of the Concentration Limit shall be considered "measurably significant

²⁴ The Concentration Limit for organic compounds that are neither naturally occurring, nor detected in background groundwater samples, shall be taken as the detection limit of the analytical method used (e.g., USEPA Methods 8260, 8270).

evidence of a release” that shall be either confirmed or denied through the applicable verification procedure specified below.

- b. **Procedure for Analytes Detected in Less than 10 Percent of Background Samples (Non-Statistical Method).**
- i. **Initial Determination.** The Discharger shall identify each analyte in the current DMP Monitoring Point sample that exceeds either its respective MDL or PQL, and for which a release has not been previously confirmed. The Discharger shall conclude that the exceedance provides a preliminary indication of a release or a change in the nature or extent of the release, at that monitoring point, if either: (i) The data contains two or more analytes that equal or exceed their respective MDLs; or (ii) the data contains one or more analyte that equals or exceeds its PQL.
 - ii. **Notification to Regional Water Board Staff.** Upon determining that there is a preliminary indication of a release, the Discharger shall immediately notify Regional Water Board staff by phone or email (not required if Board staff made the determination in writing and notified Discharger).
 - iii. **Discrete Retest.** Within 30 days of either the Discharger or the Regional Water Board determining that there is a preliminary indication of a release, the Discharger shall collect two new (retest) samples from the relevant monitoring point(s), and analyze the samples for COCs at issue. (Title 27, §§ 20415(e)(8)(E), 20420(j)(1)-(3).)
 - iv. **Confirmation of Release.** As soon as the retest data are available, the Discharger shall conclude that measurably significant evidence of a release is confirmed if (not including the original sample) two or more analytes equal or exceed their respective MDLs or if one or more analyte equals or exceeds its PQL. The Discharger shall then immediately verbally notify the Regional Water Board whether or not the retest confirmed measurably significant evidence of a release for the analyte at the monitoring point, and follow up with written notification submitted by certified mail within seven days of the verbal notification.

- c. **Procedure for Analytes Detected in 10 Percent or More of Background Samples (Statistical or Non-Statistical Method).**
- i. **Initial Determination.** The Discharger shall compare the value reported by the laboratory for each analyte to the statistically-derived Concentration Limit from the most recent report (e.g., Annual Report) that uses the approved statistical procedure. If the value exceeds the Concentration Limit for that analyte, the Discharger shall conclude that there is “measurably significant evidence of a release.” (Title 27, § 20420, subd. (i).)
 - ii. **Notification to Regional Water Board Staff.** Upon determining that there is a preliminary indication of a release, the Discharger shall *immediately notify Regional Water Board staff* by phone or email (not required if Board staff made the determination in writing and notified Discharger).
 - iii. **Retest Method.** Within 30 days of either the Discharger or the Regional Water Board determining that there is a preliminary indication of a release, the Discharger shall implement a verification procedure/retest option in accordance with Title 27, section 20415, subdivision (e)(8)(E) and section 20420, subdivision (j)(2). (Title 27, §§ 20415(e)(8)(E), 20420(j).) The verification procedure shall include either a single “composite” retest (i.e., a statistical analysis that augments and reanalyzes the data from the monitoring point that indicated a release), or shall consist of at least two “discrete” retests (i.e., statistical analyses each of which analyzes only newly acquired data from the monitoring point that indicated a release).²⁵ (Title 27, § 20415, subd. (e)(8)(E).)

The retest samples shall be collected from the monitoring

²⁵ The Discharger may use an alternate method previously approved in writing by the Regional Water Board. The verification procedure shall comply with the requirements of Title 27, section 20415, subdivision (e)(8)(E), in addition to the performance standards of section 20415, subdivision (e)(9).

point where the release is preliminarily indicated and shall be analyzed for the constituents that caused the need for the retest. For any indicated monitoring parameter or constituent of concern, if the retest results of one or more of the retest data suites confirm the original indication, the Discharger shall conclude that measurably significant evidence of a release has been confirmed.

The Discharger shall then immediately verbally notify the Regional Water Board whether or not the retest confirmed measurably significant evidence of a release for the analyte at the monitoring point, and follow up with written notification submitted by certified mail within seven days of the verbal notification.

- d. **Next Steps After Confirmation.** If a release has been confirmed under either of the procedures above, the Discharger shall comply with the Response to Release Requirements in Section [A.5](#) below. If the analyte at issue is a Five-Year COC, that analyte shall be added to list of Monitoring Parameters that are monitored on a more frequent basis.
- e. **Physical Evidence of a Release.** If the Discharger determines that there is significant physical evidence of a release, the Discharger shall immediately verbally notify Regional Water Board staff and provide written notification by certified mail within seven days of such determination. (Title 27, §§ 20385(a)(3), 20420(l)(1)-(2).)

5. Response to Release Requirements

- a. If the Discharger confirms that there is “measurably significant evidence of a release” per Section [B.b](#) or [B.c](#), the Discharger shall comply with the time schedule of required actions in [Table B-4](#) below.
- b. If the Discharger confirms that there is measurably significant evidence of a release from the surface impoundment at any monitoring point, the Discharger may attempt to demonstrate that a source other than the surface impoundment caused the evidence of a release or that the evidence is an artifact caused by an error in

sampling, analysis, or statistical evaluation or by natural variation in groundwater, surface water, or the unsaturated zone.

- c. The Discharger may make a demonstration pursuant to section 20420, subdivision (k)(7); however, the Discharger is not relieved of the requirements and due dates of Title 27, sections 20420, subdivision (k)(6)-(7), unless Regional Water Board staff concur that the demonstration successfully shows that a source other than the surface impoundment caused the evidence of a release or that the evidence resulted from error in sampling, analysis, or statistical evaluation or from natural variation in groundwater, surface water, or the unsaturated zone.
- d. In order to make this demonstration, the Discharger shall notify the Regional Water Board by certified mail of the intent to make the demonstration **within seven days** of determining measurably significant evidence of a release, and shall submit a report **within 90 days** of determining measurably significant evidence of a release. (Title 27, § 20420, subd. (k)(7).)

Table B-4. Time Schedule of Required Actions After Confirming Measurably Significant Evidence of Release.

| Deadline | Required Action |
|--------------------------------|---|
| Immediately after Confirmation | <p><i>Additional Sampling</i></p> <p>The Discharger shall sample all monitoring points in the affected medium at that surface impoundment and determine the concentration of all monitoring parameters and constituents of concern for comparison with established concentration limits (CLs). Because this constituent of concern (COC) scan does not involve statistical testing, the Discharger will need to collect and analyze only a single water sample from each monitoring point in the affected medium (Title 27, § 20420, subd. (k)(1))</p> |

| Deadline | Required Action |
|---------------------------------|---|
| Within 90 Days of Confirmation | <p><i>Submit Evaluation Monitoring Program</i></p> <p>The Discharger shall submit a Report of Waste Discharge (ROWD) with a proposed Evaluation Monitoring Program (EMP) in accordance with Title 27, section 20420, subdivision (k)(5)(A)-(D), and incorporating the results of the immediate post-confirmation sampling activities required above. Specifically, the EMP shall be designed for the collection and analysis of all data necessary to assess the nature and extent of the release and to determine the spatial distribution and concentration of each constituent throughout the zone affected by the release. (Title 27, §§ 20420(k)(5), 20425(b).)</p> <p><i>The EMP is subject to Regional Water Board Executive Officer approval, including with specified revisions. The EMP shall be considered established upon its approval.</i></p> |
| Within 180 Days of Confirmation | <p><i>Submit Corrective Action Feasibility Study</i></p> <p>The Discharger shall submit, for Regional Water Board Executive Officer approval, an initial engineering feasibility study for a Corrective Action Program necessary to meet the requirements of Title 27, section 20430. At a minimum, the feasibility study shall contain a detailed description of the corrective action measures that could be taken to achieve background concentrations for all constituents of concern. (Title 27, § 20420, subd. (k)(6).)</p> |
| Within 90 Days of EMP Approval | <p>The Discharger shall complete and submit the following:</p> <ol style="list-style-type: none"> (1) Technical Report with EMP results and assessment. (Title 27, § 20425, subd. (b).) (2) Updated Engineering Feasibility Study for corrective action based on data collected to delineate the release and data from the ongoing monitoring program per Title 27, section 20425, subdivision (e). (Title 27, § 20425, subd. (c).) (3) Proposed Corrective Action Program in accordance Title 27, section 20430, based on data collected to delineate the release the updated engineering feasibility study. (Title 27, § 20425, subd. (d).) |

C. Other Facility Monitoring

1. Stormwater Monitoring

After each Significant Storm Event,²⁶ the Discharger shall record the remaining freeboard (vertical feet) and storage capacity (gallons and/or acre-feet) of each stormwater retention basin shall be identified. If the remaining storage capacity of a stormwater retention basin drops below the volume needed to retain a 100-year storm event, the Discharger shall take steps to remove water from the stormwater basin until the remaining capacity is at least enough to hold a 100-year storm event. Any stormwater-related actions shall be reported in the next monitoring report.

2. Seep Monitoring

- a. Whenever any seeps (i.e., liquid wastes) are observed emerging from the ground near a permitted Surface Impoundment, the Discharger shall record the location, flow rate and any other relevant characteristics (e.g., color or odor). This information shall be emailed to Regional Water Board staff as soon as possible and in no case more than **24 hours** after the initial discovery.
- b. Observed seepages shall, within 30 days of first observance, be collected, sampled and analyzed for the Monitoring Parameters (see [Table B-3](#)) and the established Constituents of Concern, as well as any other constituents or parameters specified in writing by Regional Water Board staff. Results of such analyses shall be reported within **seven days** of receipt of laboratory report.
- c. Discharger shall inspect the integrity of the liners and hydraulic head for seeps that last longer than one reporting period. The seep liquid shall also continue to be sampled, analyzed, and included in the annual monitoring report.

3. Leachate Collection and Removal System Monitoring

- a. Each Leachate Collection and Removal System (LCRS) shall be tested annually to demonstrate proper operation, with the results of

²⁶ For purposes of this Order, a “Significant Storm Event” is a weather event that results in at least 1 inch of precipitation within a 24-hour period.

each test being compared to the results of prior testing under similar conditions. (Title 27, § 20340, subd. (d).) Results shall be reported annually.

- b. Each LCRS sump shall be inspected monthly for presence of leachate, whereupon the volume of leachate shall be measured. Any leachate present in a sump shall, within 30 days of first observance, be sampled and analyzed for Specific Conductance and pH.
- c. Per [Table B-5](#), the total volume and flow rate shall be calculated, recorded and reported semiannually.
- d. If an automated sump-pump is installed, an alarm shall also be installed to indicate if the sump fills beyond the upper limit of the sump-pump settings. Automated systems shall also include a means of monitoring changes in the height of liquid in the sump and measuring the frequency and volume of pumping. This data shall be converted to a daily leakage rate and summarized in the Semiannual Monitoring Report. Automated sump pumps shall be tested at least quarterly to ensure they are functioning properly.²⁷

Table B-5. LCRS Sump Monitoring, Monthly Inspection Parameters.

| Physical Parameter | Units | Sampling Freq. | Reporting Freq. |
|---|-------------|----------------|-----------------|
| Total Volume Collected | Gallons | Monthly | Semiannually |
| Estimated Flow Rate | Gallons/Day | Monthly | Semiannually |
| Percentage of Sump Capacity ²⁸ | % | Monthly | Semiannually |

4. Surface Impoundment Monitoring

²⁷ If the existing manual sump-pump at the Facility is replaced with an automatic sump-pump, the Discharger shall include this information in the semi-annual monitoring report.

²⁸ The total sump capacity shall be specified when reporting this information.

The following shall be monitored reported annually:

- a. Each month, the Discharger shall measure the available freeboard for each surface impoundment at the Facility. (Title 27, § 20375, subd. (a).) The available freeboard and calculated storage capacity for the surface impoundments shall be recorded and reported annually.
- b. Each month, the Discharger shall inspect the overall condition of each surface impoundment. The Discharger shall record any observed erosion, settlement or subsidence along the visible areas of the surface impoundment(s), including the top of the berm, outer slopes, and upper region of the inner slope. Repairs shall be performed as needed and documented in the inspection logs. Observations and repairs shall be included in the next annual monitoring report.
- c. Weekly liner inspections on all visible portions of synthetics shall be done until all free liquid is removed from the surface impoundments as part of closure pursuant to section 21400, subdivision (a). If during the active life of the impoundment, the wastes are removed and the bottom of the impoundments is cleaned down to the liner, an inspection shall be made of the bottom of the liner prior to refilling the impoundment (Title 27, § 20375, subd. (a)).

Table B-6. Surface Impoundment Monitoring.

| Parameter | Unit | Monitoring Freq. | Reporting Freq. |
|--|---------|------------------|-----------------|
| Available Freeboard | Feet | Monthly | Semi-annually |
| Storage Capacity | Gallons | Monthly | Semi-annually |
| Visual Inspection for Erosion, etc. (see § C.4.b) | N/A | Monthly | Semi-annually |
| Visual Inspection of Exposed Liner (§ 20375, subd. (f).) | N/A | Weekly | Semi-annually |

D. Reporting Requirements

1. Annual Reporting

For each monitored medium, all monitoring results shall be reported annually. Annual monitoring reports shall include, at a minimum, the following:

- a. A cover letter containing:
 - i. A summary of essential points in report; and
 - ii. An identification/discussion of any violations occurring since the last report was submitted, as well as any actions taken or planned for correcting those violations (or, if no violations occurred since last submittal, a statement to that effect).²⁹
- b. Maps depicting the Facility layout and the location of sampling points and monitoring wells, as well as groundwater elevations in the monitoring wells, including the inferred direction of groundwater flow.
- c. Written summary of the monitoring results—including a discussion of the groundwater flow rate/direction or any other information suggesting a change in the underlying hydrogeologic conditions.
- d. Written summary of the monitoring results—including a discussion of the groundwater flow rate/direction or any other information suggesting a change in the underlying hydrogeologic conditions.
- e. Results of any sampling/analyses/investigations conducted in addition to what is otherwise required under this MRP.

²⁹ If the Discharger previously submitted a report describing corrective actions and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory. If no violations have occurred since the last submittal, this shall be stated.

- f. Narrative evaluation of the groundwater monitoring data and whether the data indicates a release from any surface impoundment.
- g. A summary of leachate data for each applicable surface impoundment, including any laboratory results and measurements of gas concentrations and liquids in the gas monitoring wells and the LCRS sumps.
- h. Tables of the data collected. The tables shall include all the data collected, to date, at each monitoring point, organized in chronological order, with the oldest data in the top row and progressively newer data in rows below the top row. Each row shall be a separate date and each column shall be a separate parameter at a single location (or a single average, as appropriate). The tables shall be submitted in electronic (Excel or other tab delimited) format. The data shall be summarized in such a manner as to clearly illustrate whether the Facility is operating in compliance with the WDRs. Where appropriate, the Discharger shall include supporting calculations (e.g., for averages or comparison of liquids removed to a specific reporting threshold).
- i. Graphs depicting groundwater elevations through time, and TDS concentrations through time, at each monitoring point, with the concentrations being the y-axis and time being the x-axis. Logarithmic scales can be used for values that vary by order of magnitude. Individual graphs can combine multiple locations and/or multiple chemicals if it allows data to be compared more easily.
- j. Field logs used during well purging and sampling. At a minimum, the field logs should include the following:
 - i. The well number;
 - ii. The sampling date and time;
 - iii. The method of monitoring Field Monitoring Parameters and calibration of equipment used to monitor Field Monitoring Parameters;
 - iv. The purge method (if a pump is used, include the depth of pump placement in each well and the pumping rate); and

- v. The purge and sample collection information such as: date each well was purged; well recovery time; method of disposal of the purged water; an estimate of the volume of water purged from each well; the results of all field analyses; depth to groundwater prior to purging, at the conclusion of purging, and when the sample was collected; the method of measuring the water level; and field personnel names and signature.
- vi. Documentation showing the calibration of flow meters and other sampling/monitoring equipment as performed in a timely manner.
- vii. Copies of the laboratory data sheets for analyses within the semiannual monitoring period.
- k. Repair Logs for any repairs to surface impoundments.
- l. An overall evaluation of the performance of the Facility.
- m. **[Optional]** Any proposed changes to Monitoring Parameters or Constituents of Concern, monitoring points, monitoring frequencies or analytical methods.³⁰
- n. Annual updates to financial assurances cost estimates.
- o. **[Every Five Years]** Revised Concentration Limits for all Monitoring Parameters and Constituents of Concern.

2. Data Presentation Requirements for Monitoring Reports

- a. In reporting monitoring data, the Discharger shall arrange data in tabular form so that the date, the constituents, the concentrations, and the units are readily discernible. Additionally, data shall be summarized in a manner that clearly illustrates compliance/noncompliance.

³⁰ These changes may also be proposed in a separate technical report.

- b. Unless reporting limits are specified in the same table, non-detections and sub-RL concentrations shall be reported as “< [limit]” (e.g., “< 5 µg/L”).
- c. Absent specific justification, all monitoring data shall be reported in the units specified herein.
- d. All analytical data shall be reported with method detection limits (MDLs) and with either the reporting level or limits of quantitation (LOQs) according to 40 C.F.R. part 136, Appendix B. The laboratory reporting limit for all reported monitoring data shall be no greater than the practical quantitation limit (PQL).
- e. Quality assurance / quality control (QA/QC) data shall be reported, along with the sample results to which they apply, including the method, equipment, and analytical detection limits, the recovery rates, an explanation of any recovery rate that is less than 80 percent, the results of equipment and method blanks, the results of spiked and surrogate samples, the frequency of quality control analyses, and the name and qualifications of the person(s) performing the analyses. Sample results shall be reported unadjusted for blank results or spike recovery. In cases where contaminants are detected in QA/QC samples (i.e., field, trip, or lab blanks), the accompanying sample results shall be appropriately flagged, but the analytical results shall not be adjusted.

ATTACHMENT B—MAPS AND FACILITY DIAGRAMS

Figure 1. Site Map.

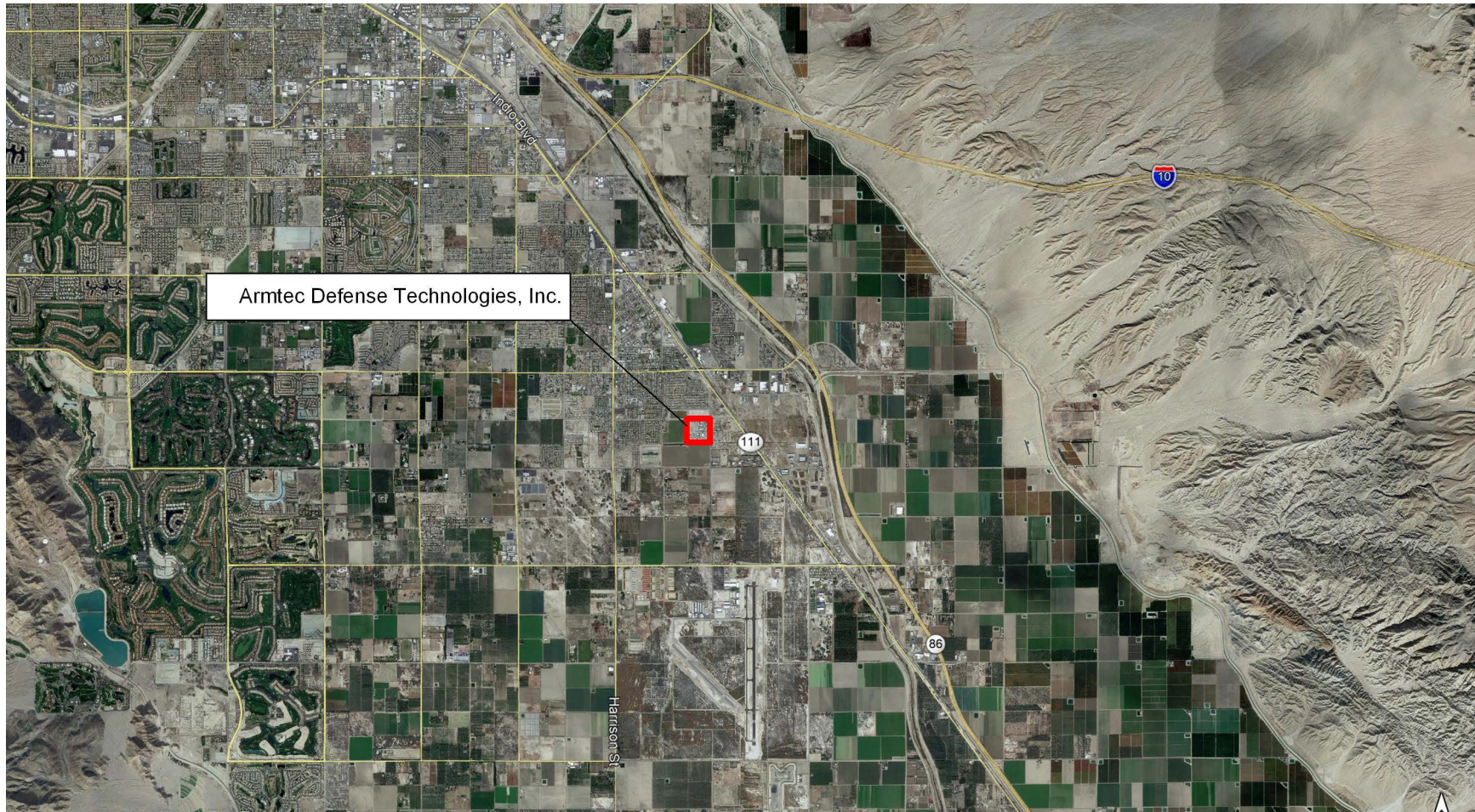


Figure 2. Surface Impoundments and Stormwater Basins.

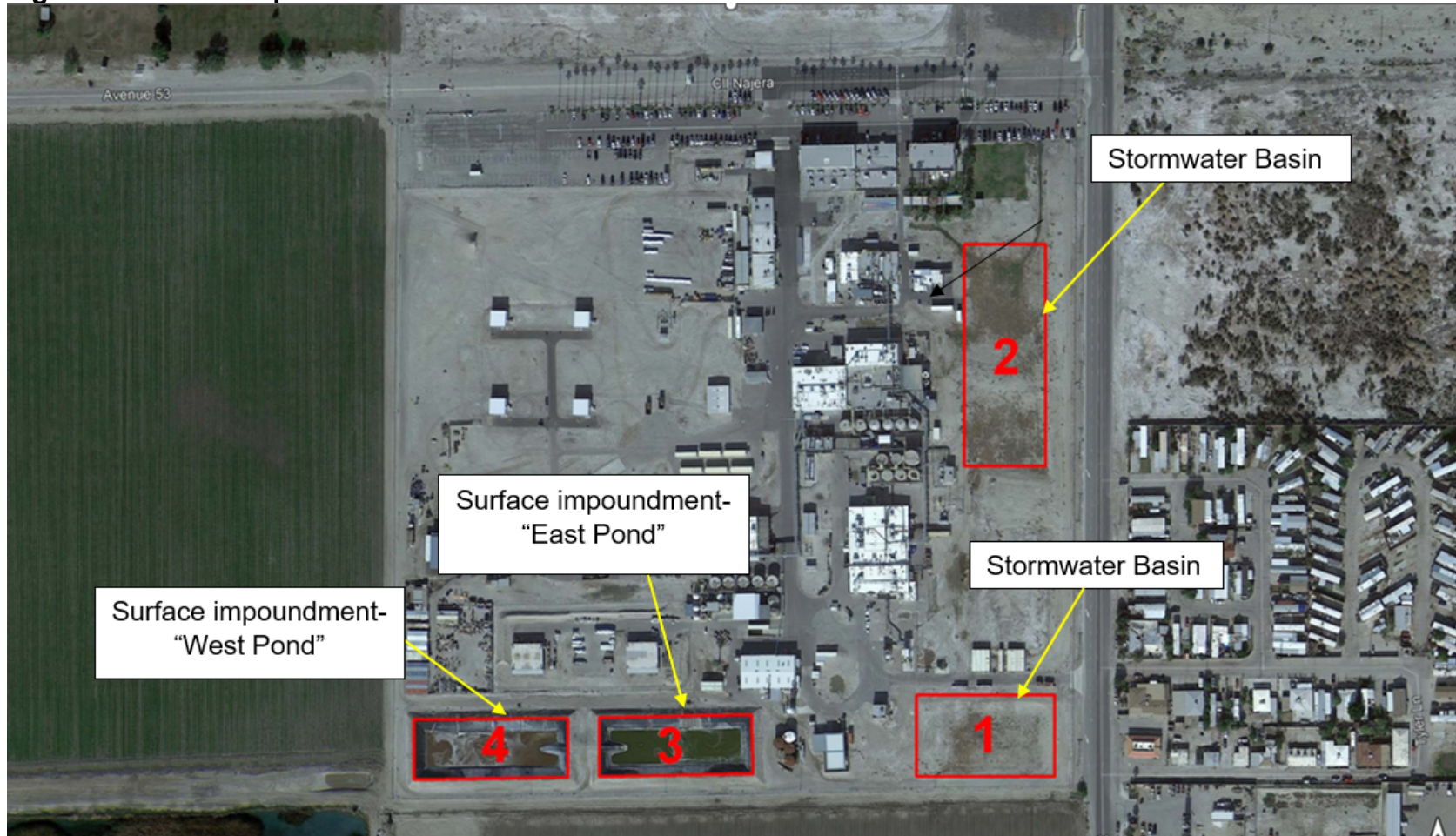


Figure 3. Monitoring Well Map.

