

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION**

ORDER NO. R7-2002-0106

**WASTE DISCHARGE REQUIREMENTS
FOR
ARMTEC DEFENSE PRODUCTS COMPANY, OWNER/OPERATOR
South of Coachella - Riverside County**

The California Regional Water Quality Control Board, Colorado River Basin Region finds that:

1. On July 12, 2001, Armtec Defense Products Company, Inc. (hereinafter referred to as the discharger), 85-901 Avenue 53, P.O. Box 848, Coachella, CA 92236, submitted an updated report of waste discharge. The site is located in Coachella on the NE $\frac{1}{4}$ of the SE $\frac{1}{4}$ of Section 8, T6S, R8E, SBB&M (near the intersection of Tyler Street and Avenue 53).
2. The Armtec facility consists of approximately 40 acres 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 mean sea level (MSL) in the southeast corner of the property. 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.
3. Armtec is a government defense contractor that manufactures fiber-based ammunition components known as combustible cartridge cases or containers (CCCs). The facility has been producing components for combustible ordinance for the U.S. government since 1968. The containers manufactured at the facility are designed to hold propellants and projectiles for military weapons systems such as mortars, artillery charges and tank ammunition. Subsequent processing, filling and final assembly of the CCCs manufactured at the site is conducted offsite by other government contractors.

Two (2) 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. The post-impregnation process utilizes a slurry consisting of less than 0.5% 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. Wastewater generated during the manufacturing process is passed through a rotoshear or hydroscreen to remove residual solids from the water. The wastewater is then recycled. The beater additive process produces CCCs for mortars and artillery charges. 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 handled by the same method as previously described for the post-impregnation process.

4. The discharger recently redesigned its manufacturing process, with the goal of capturing and treating 100% of wash-down water. In January 2002, the discharger closed seven (7) unlined settling/evaporation ponds at the facility and has replaced the unlined ponds with two (2) double-lined emergency/event ponds.
5. The site is located north of the Salton Sea and southeast of Indio in the Coachella Valley area of Southern California. The site is underlain by Quaternary lake deposits of ancient Lake Coahuila generally consisting of interbedded clay, silt, sand and beach gravel. The Coachella Valley and its physiographic equivalents to the south; the Imperial and Mexicali Valleys, make up the Salton Trough, a deep basin that represents the structural extension of the Gulf of California into North America. The topographic high created by the deltaic deposits of the Colorado River prevent the marine inundation of the Imperial and Mexicali valleys which are now below sea level. The Salton Trough is bounded by the Western Mojave Desert Province to the north, the Peninsular Range Batholith to the west, the Basin and Range Province to the east, and the Gulf of California to the south beyond the Colorado River delta.
6. Groundwater is stored primarily in unconsolidated Pleistocene sediments, which are thicker than 1,000 feet in the Valley. Well yields as high as 4,000 gpm have been reported in the Valley. A clay aquitard extends from the Salton Sea north to an area west of Indio and overlies the domestic use aquifers, and underlies lenses of permeable sediments and perched ground waters, which are recharged by percolating irrigation water. 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. 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.

Based on a drillers log (No. 073717, dated November 21, 1980) for a water well installed at the site between October and November 1980, it appears that two (2) distinct confined aquifers underlie 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) by an approximately 180-foot thick clay layer. Well construction details present on the log indicate a well was constructed in the bore-hole with screened sections over the intervals from 500 to 570 feet bgs and 612 to 660 feet bgs. The well drillers report also indicated that a four-hour pumping test performed on the well suggested a production rate of 250 gallons per minute.

Numerous surface and shallow subsurface drains that transport irrigation drainage and stormwater to the Salton Sea are present throughout the project vicinity. The main purpose of the tile drains that underlie much of the Coachella Valley is to maintain the semi-perched unconfined aquifer at an approximate depth of five (5) to ten (10) feet bgs.

7. On September 28, 2000, Cleanup and Abatement Order (CAO) No. 00-135 was issued by the Regional Board. CAO No. 00-135 required Armtec to evaluate groundwater beneath the site for the presence of acetone, ethylbenzene, xylenes, 4-methyl 2-pentanone and diphenyl Amine, (DPA), collectively, the constituents of concern (COC). In addition, the discharger conducted an assessment of the presence of nitrocellulose (NC) in soils within the evaporation/percolation ponds. 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 -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 exception of DPA, none of the COCs were detected in soil or groundwater samples collected during this investigation. DPA concentrations identified in groundwater during our investigation are below the United States Environmental

Protection Agency (USEPA) Reference Dose (calculated as a safe exposure level with respect to non-cancer health effects) and Suggested No-Adverse-Response Level (SNARL), and significantly below the USEPA Region 9 levels for tap water.

8. The annual precipitation in the area is approximately 3.6 inches and the average temperature is 73.6 degrees Fahrenheit. The evaporation rate is approximately 90 inches annually.
9. The Water Quality Control Plan for the Colorado River Basin Region of California (Basin Plan) was adopted on November 17, 1993 and designates the beneficial uses of ground and surface waters in this Region.
10. The beneficial uses of waters in the Colorado Hydrological Unit are as follows:
 - a. Municipal Supply (MUN)
 - b. Industrial Supply (IND)
 - c. Agricultural Supply (AGR)
11. The SWRCB adopted Order No. 91-13-DWQ (General Permit No. CAS000001), as amended by Water Quality Order No. 92-12-DWQ, specifying waste discharge requirements (WDRs) for discharges of storm water associated with industrial activities, excluding construction activities, and requiring submittal of a Notice of Intent by industries to be covered under the Permit.
12. Federal regulations for storm water discharges were promulgated by the USEPA on November 16, 1990 (40 CFR parts 122, 123, and 124). The regulations require specific categories of facilities which discharge storm water associated with industrial activity to obtain NPDES permits and to implement Best Conventional Pollutant Technology (BCT) to reduce or eliminate industrial storm water pollution.
13. In accordance with Section 15301, Chapter 3, Division 6, Title 14 of the California Code of Regulations, the issuance of these WDRs, which governs the operation of an existing facility involving negligible or no expansion of use beyond that previously existing, is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000 et. Seq.
14. The discharge has been subject to waste discharge requirements adopted in Board Order No. 91-043.
15. The Board has notified the discharger and all known interested agencies and persons of its intent to update WDRs for the discharge and has provided them with an opportunity for a public meeting and an opportunity to submit comments.
16. The Board, in a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, that in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, the discharger shall comply with the following:

A. Discharge Specifications

1. The treatment or disposal of wastes at this facility shall not cause pollution or nuisance as defined in Section 13050 of Division 7 of the California Water Code.
2. A minimum depth of freeboard of two (2) feet shall be maintained at all times in the ponds.
3. The ponds shall be protected from any washout or erosion of wastes or covering material, and from inundation, which could occur as a result of floods having a predicted frequency of once in 100 years.
4. Each pond shall be double lined. A leak detection and removal system shall be installed between the liners. The upper liner shall be at least 60 mil high-density polyethylene (HDPE) or equivalent. The lower liner shall be 40 mil high-density polyethylene or equivalent.
5. There shall be no discharge of liquid wastes, other than to the lined ponds, at this site unless approved by the Regional Board's Executive Officer.
6. The discharger shall implement the attached Monitoring and Reporting Program No. R7-2002-0106 in order to detect at the earliest opportunity, any unauthorized discharge of waste constituents from the ponds, or any unreasonable impairment of beneficial uses associated with (caused by) discharges of waste to the ponds.
7. The discharger shall not cause the release of pollutants, or waste constituents in a manner which could cause a condition of contamination, or pollution to occur, as indicated by the most appropriate statistical (or non-statistical) data analysis method and retest method listed in Part III of the attached Monitoring and Reporting Program No. R7-2002-0106.
8. The discharger shall follow the Water Quality Protection Standards (WQPS) for detection monitoring established by the Regional Board in this Board Order pursuant to Title 27, Section 20390. The following are five (5) parts of WQPS as established by the Regional Board (the terms of art used in this Board Order regarding monitoring are defined in Part I of the attached Monitoring and Reporting Program No. R7-2002-0106 and revisions thereto, which is hereby incorporated by reference):
 - a. The discharger shall test for the monitoring parameters and the COCs listed in Monitoring and Reporting Program No. R7-2002-0122, and revisions thereto.
 - b. Concentration Limit – The concentration limits for each monitoring parameter and COC for each monitoring point (as stated in Detection Monitoring Program Part II), shall be its background value as obtained during that reporting period.
 - c. Monitoring points and background monitoring points for detection monitoring shall be those listed in Part II.B of the attached Monitoring and Reporting Program No. R7-2002-0106.
 - d. Points of Compliance – (Section 20405, Title 27) shall be those Monitoring Points listed in Part II.B of attached Monitoring and Reporting Program No. R7-2002-0106.
 - e. Compliance Period – The estimated duration of the compliance period for this WMF is six (6) years. Each time the Standard is not met (i.e., releases discovered), the Landfill begins a compliance period on the date the Regional Board directs the dischargers to begin an Evaluation Monitoring Program. If the dischargers' Corrective Action Program (CAP) has not achieved compliance with the standard by the scheduled end of the compliance period, the

compliance period is automatically extended until the WMF has been in continuous compliance for at least three (3) consecutive years.

B. Prohibitions

1. The direct discharge of any wastes to any surface waters or surface drainage courses is prohibited.
2. The discharge of waste to land not owned or controlled by the discharger is prohibited.
3. The discharge or deposit of hazardous waste (as defined in CCR, Title 22) at this site is prohibited.
4. The discharge shall neither cause nor contribute to the contamination or pollution of ground water via the release of waste constituent in either liquid or gaseous phase.
5. The discharger shall not cause nor contribute in the concentration of waste constituents in soil-pore gas, soil-pore liquid, soil, or other geologic materials outside of the unit if such waste constituents could migrate to waters of the State, in either the liquid or the gaseous phase, and cause a condition of contamination or pollution.

C. Provisions

1. The discharger shall comply with Monitoring and Reporting Program No. R7-2002-0106 and future revisions thereto, as specified by the Regional Board's Executive Officer.
2. Prior to any modifications in this facility which would result in material change in the quality or quantity of wastewater treated or discharged, or any material change in the location of discharge, the discharger shall report all pertinent information in writing to the Regional Board and obtain revised requirements before any modifications are implemented.
3. Prior to any change in ownership or management of this operation, the discharger shall transmit a copy of this Board Order to the succeeding owner/operator, and forward a copy of the transmittal letter to the Regional Board.
4. The discharger shall ensure that all site-operating personnel are familiar with the content of this Board Order, and shall maintain a copy of this Board Order at the site.
5. This Board Order does not authorize violation of any federal, state, or local laws or regulations.
6. Facilities shall be available to prevent wastewater release to the environment in the event of commercial power failure.

7. The discharger shall allow the Regional Board, or an authorized representative, upon presentation of credentials and other documents as may be required by law, and subject to the facility's routine securing procedures, to:
 - a. Enter upon the premises regulated by this Board Order, or the place where records must be kept under the conditions of this Board Order;

- b. Have access to and copy, at reasonable times, any records that shall be kept under the conditions of this Board Order;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Board Order; and
 - d. Sample or monitor at reasonable times, for the purpose of assuring compliance with this Board Order or as otherwise authorized by the California Water Code, any substances or parameters at this location.
8. The discharger shall neither cause nor contribute to the contamination or pollution of ground water via the release of waste constituents in either liquid or gaseous phase.
 9. This Board Order does not convey any property rights of any sort or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.
 10. Unless otherwise approved by the Regional Board's Executive Officer, all analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. All analyses shall be conducted in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants", promulgated by the USEPA.
 11. All regulated disposal systems shall be readily accessible for sampling and inspection.
 12. Adequate measures shall be taken to assure that flood or surface drainage waters do not erode or otherwise render portions of the discharge facilities inoperable.
 13. The discharger is the responsible party for the WDRs and the Monitoring and Reporting Program for the facility. The discharger shall comply with all conditions of these WDRs. Violations may result in enforcement actions, including Regional Board Orders or court orders, requiring corrective action or imposing civil monetary liability, or in modification or revocation of these WDRs by the Regional Board.
 14. The discharger shall furnish, under penalty of perjury, technical monitoring program reports, and such reports shall be submitted in accordance with the specifications prepared by the Regional Board's Executive Officer. Such Specifications are subject to periodic revisions as may be warranted.
 15. All containment structures and erosion and drainage control systems shall be designed and constructed under direct supervision of a California Registered Civil Engineer or Certified Engineering Geologist, and shall be certified by the individual as meeting the prescriptive standards and performance goals of Title 27.
 16. The Regional Board considers the property owner to have a continuing responsibility for correcting any problems, which may arise in the future as a result of this waste discharge.
 17. The discharger shall submit a Notice of Intent (NOI) to the SWRCB to be covered under the Statewide General NPDES Permit for Storm Water Discharges Associated with Industrial Activities, Order No. 97-03-DWQ, NPDES No. CAS000001. The discharger shall comply with all the discharge prohibitions, receiving water limitations, and provisions of the General Permit.
 18. The discharger shall submit a sampling and monitoring plan for storm water discharges to the

Regional Board's Executive Officer for review and approval no later than 90 days after the adoption of this Board Order. The plan shall meet the minimum requirements of Section B, Monitoring and Reporting Requirements of the Statewide General NPDES Permit for Storm Water Discharges Associated with Industrial Activities, Order No. 97-O3-DWQ, NPDES No. CAS000001.

19. Within 180 days of the adoption of this Board Order, the discharger shall submit to the Regional Board, in accordance with Section 20380(b) of Title 27, assurance of financial responsibility acceptable to the Regional Board's Executive Officer for initiating and completing corrective action for all known or reasonable foreseeable release for the WMU.
20. This Board Order is subject to Regional Board review and updating, as necessary, to comply with changing state or federal laws, regulations, policies, or guidelines, or changes in the discharger characteristics.

I, Philip A. Gruenberg, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Colorado River Basin Region, on June 26, 2002.

Executive Officer