CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD COLORADO RIVER BASIN REGION

ORDER R7-2014-0059 WASTE DISCHARGE REQUIREMENTS FOR SOUTHERN CALIFORNIA GAS COMPANY, OWNER/OPERATOR SOUTH NEEDLES COMPRESSOR STATION

South of Needles – San Bernardino County

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

- Southern California Gas Company (hereinafter also referred to as the Discharger), 9400 Oakdale Avenue, Chatsworth, CA 91313, owns and operates the South Needles Compressor Station, located 11 miles south of Needles on Highway 95 as shown on Attachment A, incorporated herein and made a part of this order by reference. The purpose of the South Needles Compressor Station is to increase natural gas pressure for transmission to Southern California.
- This discharge has been subject to Waste Discharge Requirements (WDRs) adopted in Order R7-2013-0061 on June 20, 2013. The Colorado River Basin Water Board has determined that WDRs for the discharge are in need of revision. The Facility and these WDRs are identified in the California Integrated Water Quality System (CIWQS) by WDID No. 7B362030031.
- 3. This Order updates the WDRs to comply with current laws and regulations, as set forth in the California Water Code and the California Code of Regulations, and to amend incorrect flow limits that were inadvertently adopted in Board Order R7-2013-0061.
- 4. Definition of terms used in this Order:
 - a. Waste Management Facility (WMF) the entire parcel of property where the South Needles Compressor Station industrial operations or related industrial activities are conducted. Such a facility may include one (1) or more Waste Management Units (WMUs).
 - b. Waste Management Units (WMUs) the area of lands, or the portions of the facility, where industrial waste or related wastes are discharged. The term includes containment (i.e. evaporation ponds, sumps, etc.) and ancillary features for precipitation and drainage control and monitoring appurtenances.
 - c. Discharger any person who discharges waste that could affect the quality of the waters of the State, and includes any person who owns the land, waste management unit or who is responsible for the operation of a waste management unit (Title 27 CCR).
- 5. The current discharge is governed by Waste Discharge Requirements (WDRs) Order No. 91-020. The purpose of this Order is to bring the discharge into compliance with the

requirements found in Title 27, CCR and to allow new discharges described in Finding 8.b., below.

- 6. The Discharger proposes to discharge an annual average of 28,000 gallons-per-day (gpd) of industrial wastewater from the compressor station into three evaporation ponds, which comply with the standards for Class II surface impoundments as defined in Title 27, CCR. These impoundments are located in the southwest quarter of the northwest quarter and the northwest quarter of the southeast quarter of Section 17, Township 7 North, Range 23 East, San Bernardino Base & Meridian.
- 7. The Class II surface water impoundments were constructed in 1991 in accordance with the standards of Chapter 15, Title 23, CCR, which preceded Title 27, CCR. The Discharger has been submitting semi-annual groundwater monitoring reports since 1992 under Order 91-020.
- 8. There are a total of seven (7) large natural gas fired engines that drive compressors, and four (4) smaller natural gas engines to provide electricity and compressed air for plant operations. Process supply water is provided from two (2) ground water supply wells, located about 10 miles away in Needles, due to the scarcity of groundwater available at the facility. An average of 18 million gallons of water per year is extracted from these wells. The water is mainly used in the cooling towers. The remaining portion of the extracted ground water goes through a water softener prior to use as domestic water. The domestic wastewater is treated and discharged through a septic tank and leachfield system. The system was installed in 1957, before the County of San Bernardino assumed permitting authority for septic tanks, and has been maintained by the Discharger. A layout of the South Needles Compressor Station is shown on Attachment B, incorporated herein and made part of this order by reference.
- 9. The current and proposed additional sources of wastewater from the South Needles Compressor Station are the following:
 - a. Current Discharges
 - i. Cooling Tower Currently, the cooling tower blowdown is discharged to three Class II surface impoundments . Bromine, Continuum 3108, and Depositrol are added to this system to prevent scaling, biological growth, corrosion, and to control pH. The wastewater from the cooling tower is collected in one (1) sump before being discharged to one of the three Class II surface impoundments. The sump is monitored for total dissolved solids (TDS) concentration. The TDS of the cooling tower discharge water is maintained from 6,000 ppm – 12,000 ppm.
 - ii. Water Softeners Brine wastewater from regenerating the softener averages 7,000 gpd from zeolite-brine softeners and is discharged to the Class II surface impoundments.
 - b. Proposed New Discharges

- i. Steam Cleaning Wash Pad/Clarifier A steam cleaning pad will be utilized for the purpose of cleaning engine components with steam. The clarifier capacity is 440 gallons and the projected flow rate is 1,000 gallons per year. Wastewater from the steam cleaning pad will go through a 3-stage clarifier that removes most of the oil, and then will be directed to the Class II surface impoundments. The remaining content of the clarifier will be pumped and disposed of according to federal and state regulations.
- ii. Closed Cooling Water System –Approximately 6,000 gallons of noncontact process water is used to cool the engines and the engine oil. Chemicals are added to the closed cooling water system to prevent scaling, biological growth, and corrosion. Wastewater from the closed cooling water systems will be discharged to the Class II surface impoundments as needed. (Expected Frequency: 1/Year).
- iii. Ground Water Monitoring Purge Water Approximately 4,000 gallons of purge water removed from the ground water monitoring wells during the required analytical testing methods will be discharged to the Class II surface impoundments. The characterization of this water will be similar to the requirements for ground water sampling as described in Monitoring and Reporting Program (MRP) R7-2014-0059, attached hereto and made part of this Order by reference.
- iv. Hydrostatic Test Water Approximately 50,000 gallons of water may be used to pressure test new piping, as needed, and will be discharged to the Class II surface impoundments (Expected Frequency: 1/Year).
- 10. The Discharger states that the Class II surface impoundments (under normal working conditions) have a capacity of 6,657,137 gallons, which is large enough to contain the current and additional proposed discharge and precipitation from a storm event with a 1000-year return frequency pursuant to Table 4.1 of Section 20320, which is referenced in Section 20375, Title 27, CCR.
- 11. No storm water runoff from the facility enters the Class II surface impoundments. Storm water runoff is collected and routed to several natural land drainages downgradient from the station. The facility utilizes a current Integrated Storm Water/Spill Prevention, Control, and Countermeasure (ISP/SPCC) plan for management of storm water.
- 12. Federal regulations for storm water discharges were promulgated by the United States Environmental Protection Agency (USEPA) (40 CFR Parts 122, 123, and 124). The regulations require specific categories of facilities which discharge storm water associated with industrial activity to obtain National Pollutant Discharge Elimination System (NPDES) permits and to implement Best Conventional Pollutant Technology (BCT) and Best Available Technology Economically Achievable (BAT) to reduce or eliminate industrial pollution.
- 13. The State Water Resources Control Board adopted Order No. 97-03-DWQ (General Permit No. CAS000001) specifying WDRs for discharges of storm water associated with

industrial activities, excluding construction activities, and requiring submittal of a Notice of Intent (NOI) by industries to be covered under the Permit.

- 14. The Facility is classified as 4922 SIC code Gas Transmission. It is not a listed SIC code required for coverage under the SWRCB General Permit 97-03-DWQ, therefore coverage is not required.
- 15. The Water Quality Control Plan for the Colorado River Basin Region of California (Basin Plan), which was adopted on November 17, 1993, and amended on November 16, 2012, designates the beneficial uses of ground and surface waters in the Region. The beneficial uses of ground waters in the Piute Hydrologic Unit are:
 - a. Municipal supply (MUN)
 - b. Industrial supply (IND)
 - c. Agricultural supply (AGR)
- 16. Waste Discharge Requirements (WDRs) implement narrative and numeric water quality objectives for ground and surface waters established by the Basin Plan. The numeric objectives for groundwater designated for municipal and domestic supply are the maximum contaminant levels (MCLs), and bacteriological limits specified in Section 64421 et seq. of Title 22, California Code of Regulations (CCRs). The narrative objectives are:
 - a. Ground water for use as domestic or municipal water supply (MUN) shall not contain taste or odor-producing substances in concentrations that adversely affect beneficial uses as a result of human activity (Basin Plan, page 3-8).
 - b. Discharges of water softener regeneration brines, other mineralized wastes, and toxic wastes to disposal facilities which ultimately discharge in areas where such wastes can percolate to ground water usable for domestic and municipal purposes are prohibited (Basin Plan, page 3-8).
- 17. State Water Resources Control Board (State Water Board) Resolution 68-16 ("Policy with Respect to Maintaining High Quality Waters of the State") (hereinafter Resolution No. 68-16) requires a Regional Water Board in regulating the discharge of waste to maintain high quality waters of the state (i.e., background water quality) until it is demonstrated that any change in quality will be consistent with maximum benefit to the people of the State, will not unreasonably affect beneficial uses, and will not result in water quality less than as described in plans and policies (e.g., violation of any water quality objective). Moreover, the discharge is required to meet WDRs that result in the best practicable treatment or control (BPTC) of the discharge necessary to assure pollution or nuisance will not occur, and highest water quality consistent with maximum benefit to the people will be maintained.
- 18. The site is underlain by older alluvium consisting of a heterogeneous mixture of gravel, sand, and silt, with some clay. The origin of the alluvial sediment is characteristically of a clastic and lacustrine carbonate depositional environment. Specific to the site, it has been noted that massive granular, well-graded sand, rounded gravel and cobbles were observed during past excavations at the site.

19. The depth-to-ground water in the shallow aquifer beneath the Facility currently ranges from 40 feet to 115 feet below ground surface. The monitored intervals are referred to as the Fanglomerate and Bedrock intervals, both of which have been observed to yield very little water. The direction of ground water flow at the site is generally to the north-northeast; moving from the higher elevations of the subject site toward the lower elevations along the Colorado River. Based on historical hydrogeologic reports, the movement of groundwater is primarily controlled by fracture flow and faults in this region. As such, the potential for groundwater beneath the site to reach the Colorado River, approximately 8.05 miles to the north-northeast, is very low to negligible.

Based on the historical site use and existing groundwater quality data (from 1993 to 2013), it has been determined that a Detection Monitoring Program utilizing intra-well comparisons is the preferred methodology for evaluation of groundwater quality over time. Determination of Proposed Concentration Limits (PCLs) for each well is most appropriate due to the types of formations/intervals being monitored, and given the unique setting of the site, allowing existing water quality data to be utilized without bias or potential confounders using other parametric and non-parametric statistical methods.

- 20. The Board has notified the Discharger and all known interested agencies and persons of its intent to update WDRs for this discharge and has provided them with an opportunity for a public meeting and an opportunity to submit comments.
- 21. The Board, in a public meeting, heard and considered all comments pertaining to this discharge.
- 22. In accordance with Section 15301, Chapter 3, Title 14, CCR, 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 the California Environmental Quality Act (CEQA) (Public Resources Code, Section 21000 et seq).

IT IS HEREBY ORDERED, that Order No. 91-020 is rescinded, except for enforcement purposes, and in order to meet the provisions contained in Division 7 of the California Water Code, and the provisions of the Federal Clean Water Act, and regulations adopted thereunder, the Discharger shall comply with the following:

- A. Specifications
- 1. The Discharger shall implement the attached MRP R7-2014-0059 and revisions thereto, which is made a part of this Order by reference, in order to detect, at the earliest opportunity, any unauthorized discharge of waste constituents from the facility, or any impairment of beneficial uses associated with (caused by) discharges of waste to the WMU.
- 2. The three (3) Class II surface impoundments shall be maintained with a double-lined, 60mil, secondary High-Density Polyethylene (HDPE) liner, an 80-mil HDPE primary liner on top, and a layer of geonet in between. The annual average flow volume shall not exceed

28,000 gpd. Leachate detection monitoring sumps shall be maintained at each Class II surface impoundment.

- 3. Final disposal of residual wastes and cleanup of the Class II surface impoundments and sumps shall be accomplished to the satisfaction of the Colorado River Basin Water Board's Executive Officer upon abandonment or closure of operations.
- 4. Fluids and/or materials discharged to and/or stored in the Class II surface impoundments and sumps shall not overflow the impoundments.
- 5. Prior to the use of new chemicals for the purpose of adjustment or control of microbes, pH, scale and corrosion of the open and closed cooling water systems, the Discharger shall submit to the Colorado River Basin Water Board's Executive Officer a written request for approval.
- 6. The Class II surface impoundments shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods from a 24-hour storm event having a predicted frequency of once in 1000 years.
- 7. Each Class II surface impoundment shall contain an independent leak detection and removal system (LDRS) between the inner and outer liners.
- 8. The discharge of industrial wastewater shall be confined to the three Class II surface impoundments located and described in Finding No. 5 of this Order.
- 9. A minimum depth of two (2) freeboard feet shall be maintained at all times in each Class II surface impoundment. This includes capacity for seasonal precipitation and the 24-hour, 1000-year design storm event pursuant to Section 20375, Title 27, CCR
- 10. Adequate protective works shall be provided to ensure that flood or surface drainage water does not erode or otherwise render portions of the disposal facilities inoperable.
- 11. Residual solids obtained by evaporation of process wastewater shall be discharged only at a waste management facility approved to receive such wastes and as approved by the Colorado River Basin Water Board's Executive Officer.
- 12. The Discharger shall use the constituents listed in MRP R7-2014-0059 and revisions thereto, as "Monitoring Parameters".
- 13. The Discharger shall comply with the Water Quality Protection Standard (WQPS) for Detection Monitoring established by the Colorado River Basin Water Board in this Order pursuant to Section 20390, Title 27, CCR. The following are five (5) parts of the WQPS as established by the Colorado River Basin Water Board (the terms used in this Order regarding monitoring are defined in Part I.B. of MRP R7-2014-0059, and revisions thereto.
 - a. <u>Constituents of Concern</u> (Section 20395, Title 27, CCR). The Constituents of Concern shall be those constituents listed in Part III, "Summary of Self-Monitoring and Reporting Programs" of MRP R7-2014-0059 and revisions thereto.

- b. <u>Concentration Limit</u> (Section 20400, Title 27, CCR). For each Monitoring Point assigned to a Detection Monitoring Program (monitoring points described in MRP Part II.B.4.), the concentration limit for each Constituent of Concern (or Monitoring Parameter) shall be its background values obtained during that Reporting Period (defined in MRP R7-2014-0059 Part I.B.5.) as determined by using the non-statistical method as cited in Part III.A.2. The concentration limit(s) will be based on a concentration range established for each Monitoring Point, comparing the COC concentration value for that reporting period to the existing data at that Monitoring Point, as well as the Background Monitoring Points.
- c. <u>Monitoring Points and Background Monitoring Points for Detection Monitoring</u> (Section 20415, Title 27, CCR) shall be those listed in Part II.B.4. of attached MRP R7-201-0059, and any revised Monitoring and Reporting Program approved by the Colorado River Basin Water Board's Executive Officer. Monitoring Points are shown on Attachment C, incorporated herein and made a part of this Order by reference.
- d. <u>Points of Compliance</u> (Section 20405, Title 27, CCR) shall be those Monitoring Points listed in Part II.B.4, as shown on Attachment C, and extend down through the zone of saturation.
- e. <u>Compliance Period</u> (Section 20410, Title 27, CCR). The estimated duration of the compliance period for this WMF is six (6) years. Each time a Standard is not met (i.e. a release is discovered), the WMF begins a Compliance Period on the date the Colorado River Basin Water Board directs the Discharger to begin an Evaluation and Monitoring Program (EMP). If the Discharger's 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 Discharger shall not cause degradation of any groundwater aquifer or water supply in compliance with State Water Resource Control Board Resolution No. 68-16 as described in Findings 15-16 of this Order.
- 2. The Discharger shall not cause or permit the release of pollutants, or waste constituents, in a manner which could cause or contribute to a condition of contamination, nuisance, or pollution to occur.
- 3. Direct or indirect discharge of any wastewater from the facility to any surface waters or surface drainage courses is prohibited.
- 4. The use of hazardous chemicals including chromates may not be used in cooling tower water treatment process without prior approval from the Colorado River Basin Water Board's Executive Officer.

- 5. The discharge or deposit of hazardous waste (as defined in Title 27, CCR) at this site is prohibited.
- 6. The discharge of waste to land not owned or controlled by the Discharger is prohibited.
- 7. Discharge of treated or untreated wastewater at a location or in a manner different from that described in this Order is prohibited.
- The discharge shall not cause the concentration of any Constituent of Concern or Monitoring Parameter to exceed its respective background value in any monitored medium at any Monitoring Point assigned to Detection Monitoring pursuant to Part II.B.4. of MRP R7-2014-0059. Respective background value here refers to each well's evaluation (as determined by intra-well comparisons), and established Proposed Concentration Limits (PCLs).
- C. Provisions
- 1. The Discharger shall comply with MRP R7-2014-0059, and revisions thereto, as specified by the Colorado River Basin Water Board's Executive Officer.
- 2. The Discharger is the responsible party for the WDRs and the MRP for the facility. The Discharger shall comply with all conditions of these WDRs. Violations may result in enforcement actions, including Colorado River Basin Water Board Orders or court orders, requiring corrective action or imposing civil monetary liability, or modification or revocation of these WDRs by the Colorado River Basin Water Board.
- 3. The Discharger shall comply with all applicable provisions of Title 27 CCR that are not specifically referred to in this order.
- 4. In accordance with the requirements for ground water quality monitoring in Title 27, CCR, the Discharger shall implement a groundwater detection monitoring program (DMP) as described in MRP R7-2014-0059.
- 5. Any hazardous waste generated or stored at the facility will be stored and disposed in a manner compliant with federal and state regulations.
- 6. The Discharger shall ensure that all site-operating personnel are familiar with the content of this Order, and shall maintain a copy of this Order at the facility site.
- 7. The Discharger shall, at all times, properly operate and maintain all systems and components which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of this Order.

- 8. Unless otherwise approved by the Colorado River Basin Water Board's Executive Officer, all analyses shall be conducted at a laboratory certified for such analyses by the California Environmental Laboratory Accreditation Program (ELAP) within the State Water Resources Control Board Division of Drinking Water. All analyses shall be conducted in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants", promulgated by the United States Environmental Protection Agency.
- 9. The Discharger shall report any noncompliance that may endanger human health or the environment. The Discharger shall immediately report orally information of the noncompliance as soon as (1) the Discharger has knowledge of the discharge, (2) notification is possible, and (3) notification can be provided without substantially impeding cleanup or other emergency measures, to the Colorado River Basin Water Board office and the Office of Emergency Services. During non-business hours, the Discharger shall leave a message on the Colorado River Basin Water Board office voice recorder. A written report shall also be provided within five (5) 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. The Discharger shall report all intentional or unintentional significant spills that occur within the facility to the Colorado River Basin Water Board office in accordance with the above time limits.
- 10. The Discharger shall allow the Colorado River Basin Water Board, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:
 - a. Enter upon the premises regulated by this Order, or the place where records must be kept under the conditions of this Order;
 - b. Have access to and copy, at reasonable times, any records that shall be 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 California Water Code, any substances or parameters at this location.
- 11. The Discharger shall comply with the following:
 - a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
 - b. 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, copies of all reports required by this Order,

Board Order R7-2014-0059 Waste Discharge Requirements

and records of all data used to complete the application for this Order, for a period of at least 5 years from the date of the sample, measurement, report or application.

- c. Records of monitoring information shall include:
 - i. The date, exact place, and time of sampling or measurements
 - ii. The individual(s) who performed the sampling or measurements
 - iii. The date(s) analyses were performed.
 - iv. The individual(s) who performed the analyses
 - v. The results of such analyses.
- 12. Prior to any change in ownership or management of this operation, the Discharger shall transmit a copy of this Order to the succeeding owner/operator, and forward a copy of the transmittal letter to the Colorado River Basin Water Board.
- 13. 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 Colorado River Basin Water Board and obtain revised requirements before any modifications are implemented.
- 14. This Order does not authorize violation of any federal, state, or local laws or regulations.
- 15. The Discharger shall establish an irrevocable bond for closure in an amount acceptable to the Colorado River Basin Water Board's Executive Officer or provide other means to ensure financial security for closure when needed. The closure fund shall be established (or evidence of an existing closure fund shall be provided) within six (6) months of the adoption of this Order.
- 16. All regulated disposal systems shall be readily accessible for sampling and inspection.
- 17. 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 Colorado River Basin Water Board Executive Officer and in Monitoring and Reporting Program R7-2014-0059. Such specifications are subject to periodic revisions as may be warranted. Documents that are normally sent via mail by the Discharger, such as regulatory reports, documents, submissions, materials, data, and correspondence, to the Colorado River Basin Water Board shall be converted to Portable Document Format (PDF) or other appropriate Microsoft application, such as Excel, and emailed to <u>RB7-wdrs paperless@waterboards.ca.gov.</u>Documents that are 50 MB or larger should be transferred to a disk and mailed to the Colorado River Basin Water board office in Palm Desert.
- 18. 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 appropriate prescriptive standards and performance goals of Title 27, CCR. The Colorado

Board Order R7-2014-0059 Waste Discharge Requirements

River Basin Water Board considers the property owner to have a continuing responsibility for correcting any problems that may arise in the future as a result of this waste discharge.

- 19. The Discharger shall, within 60 days of a significant earthquake event (i.e. Modified Mercalli Intensity V or greater at or near the Facility), submit to the Colorado River Basin Water Board a detailed post-earthquake report describing any physical damages to the containment features, groundwater monitoring and/or leachate control facilities and a corrective action plan to be implemented at the facility.
- 20. This Order is subject to Colorado River Basin Water Board review and updating, as necessary, to comply with changing state or federal laws, regulations, policies, or guidelines, or changes in the discharge characteristics.
- 21. This 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.

I, Robert Perdue, 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 November 13, 2014.

original signed by ROBERT PERDUE Executive Officer

Board Order R7-2014-0059 Attachment A

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD COLORADO RIVER BASIN REGION

MONITORING AND REPORTING PROGRAM R7-2014-0059 FOR SOUTHERN CALIFORNIA GAS COMPANY, OWNER/OPERATOR SOUTH NEEDLES COMPRESSOR STATION

South of Needles - San Bernardino County

Location of Discharge: southwest quarter of the northwest quarter and the northwest quarter of the southeast quarter of Section 17, Township 7 North, Range 23 East, San Bernardino Base & Meridian

CONSISTS OF

PART I – GENERAL REQUIREMENTS PART II – MONITORING REQUIREMENTS PART III – STATISTICAL AND NON-STATISTICAL ANALYSIS SUMMARY OF SELF-MONITORING AND REPORTING REQUIREMENTS

PART I

A. GENERAL

- 1. This Monitoring and Reporting Program (MRP) describes requirements for monitoring a wastewater system and groundwater quality (when needed). This MRP is issued pursuant to California Water Code (Water Code) section 13267. The Discharger shall not implement any changes to this MRP unless and until a revised MRP is issued by the Executive Officer.
- 2. Water Code section 13267 states, in part:

"In conducting an investigation specified in subdivision (a), the Colorado River Basin Water Board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the Colorado River Basin Water Board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the Colorado River Basin Water Board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports."

3. Water Code section 13268 states, in part:

"(a) (1) Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of § 13267, or failing or refusing to furnish a statement of compliance as required by subdivision (b) of Section 13399.2, or falsifying any information provided therein, is guilty of a misdemeanor, and may be liable civilly in accordance with subdivision (b). (b) (1) Civil liability may be administratively imposed by a Colorado River Basin Water Board in accordance with Article 2.5 (commencing with § 13323) of Chapter 5 for a violation of subdivision (a) in an amount which shall not exceed one thousand dollars (\$1,000) for each day in which the violation occurs."

- 4. The Discharger owns and operates the wastewater system that is subject to Board Order R7-2014-0059. The reports are necessary to ensure that the Discharger complies with the Order. Pursuant to Water Cole section 13267, the Discharger shall implement the MRP and shall submit the monitoring reports described herein.
- 5. 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 sample chain of custody form. If composite samples are collected, the basis for

sampling (time or flow weighted) shall be approved by Colorado River Basin Water Board staff.

- 6. Field test instruments (such as those used to test pH, dissolved oxygen, and electrical conductivity) may be used provided that:
 - 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 as described in the "Reporting" section of this MRP.
- 7. The collection, preservation and holding times of all samples shall be in accordance with United States Environmental Protection Agency (USEPA) approved procedures. Unless otherwise approved by the Colorado River Basin Water Board Executive Officer, all analyses shall be conducted by a laboratory certified with the California Environmental Laboratory Accreditation Program (ELAP) within the State Water Resources Control Board Division of Drinking Water. All analyses shall be conducted in accordance with the latest edition of the "Guidelines Establishing Test Procedures for Analysis of Pollutants" (40 CFR Part 136), promulgated by the USEPA.
- B. DEFINITION OF TERMS
 - 1. The "Monitoring Parameters" consists of a short list of constituents and parameters used for the majority of monitoring activity.
 - "Matrix Effect" refers to any increase in the Method Detection Limit or Practical Quantitation Limit for a given constituent as a result of the presence of other constituents

 either of natural origin or introduced through a release - that are present in the sample of water or soil-pore gas being analyzed.
 - 3. "Facility-Specific Method Detection Limit (MDL)", for a given analytical laboratory using a given analytical method to detect a given constituent (in spite of any Matrix Effect) means the lowest concentration at which the laboratory can regularly differentiate with 99% reliability between a sample which contains the constituent and one (1) which does not.
 - 4. "Facility-Specific Practical Quantitation Limit (PQL)", for a given analytical laboratory using a given analytical method to determine the concentration of a given constituent (in spite of any Matrix Effect) means the lowest constituent concentration the laboratory can regularly quantify within specified limits of precision that are acceptable to the Colorado River Basin Water Board's Executive Officer.

Board Order R7-2014-0059 Waste Discharge Requirements

- 5. "Reporting period" means the duration separating the submittal of a given type of monitoring report from the time the next iteration of that report is scheduled for submittal. Therefore, the reporting period for monitoring parameters is semi-annually. An annual report, which is a summary of all the monitoring during the previous years, shall also be submitted to the Colorado River Basin Water Board. The submittal dates for each reporting period shall be as follows:
 - a. Semi-Annual Detection Monitoring Report

October 1 through March 31 – Report due by April 30 April 1 through September 30 – Report due by October 31

b. Annual Summary Report

April 1 through March 31 – Report due by April 30

C. SAMPLING AND ANALYTICAL METHODS

- 1. Sampling collection, storage, and analysis shall be performed according to the most recent version of Standard USEPA methods, and in accordance with an approved sampling and analysis plan. Water and waste analysis shall be performed by a laboratory approved for these analyses by the State of California. Specific methods of analysis must be identified. If methods other than USEPA-approved methods or Standard Methods are used, the exact methodology must be submitted for review and must be approved by the Colorado River Basin Water Board's Executive Officer prior to use. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Colorado River Basin Water Board. All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements. In addition, the Discharger is responsible for seeing that the laboratory analysis of all samples from Monitoring Points and Background Monitoring Points meets the following restrictions:
 - a. The methods and analysis and the detection limits used must be appropriate for the expected concentrations. For detection monitoring of any constituent or parameter that is found in concentrations which produce more than 90% non-numerical determinations (i.e. "trace" or "ND") in data from Background Monitoring Points for that medium, the analytical methods having the lowest "facility-specific method detection limit (MDL)", defined in Part I.B.3, shall be selected from among those methods which would provide valid results in light of any "Matrix Effects" (defined in Part I.B.2.) involved.
 - b. "Trace" results; results falling between the MDL and the facility-specific practical quantitation limit (PQL), shall be reported as such, and shall be accompanied both by the estimated MDL and PQL values for that analytical run and by an estimate of the constituents concentration.
 - c. MDLs and PQLs shall be derived by the laboratory for each analytical procedure, with the MDLs derived according to State of California laboratory accreditation procedures.

These MDLs and PQLs shall reflect the detection and quantitation capabilities of the specific analytical procedure and equipment used by the lab, rather than simply being quoted from USEPA analytical method manuals. If the lab suspects that, due to a change in matrix or other effects, the true detection limit or quantitation limit for a particular analytical run differs significantly from the laboratory-derived MDL/PQL values, the results shall be flagged accordingly, along with an estimate of the detection limit and quantitation limit actually achieved.

- d. All QA/QC data shall be reported, along with the sample results to which it applies, including the method, equipment, and analytical detection limits, the recovery rates, an explanation of any recovery rate that is less than normal recovery rates as established by EPA and inter-laboratory studies, the results of equipment and method blanks, the results of spiked and surrogate samples, the frequency of quality control analysis, and the name and qualifications of the person(s) performing the analyses. Sample results shall be reported unadjusted for blank results or spike recovery.
- e. Upon receiving written approval from the Colorado River Basin Water Board's Executive Officer, an alternative statistical or non-statistical procedure can be used for determining the significance of analytical results for a constituent that is a common laboratory contaminant (i.e., methylene chloride, acetone, diethylhexyl phthalate, and di-n-octyl phthalate) during any given Reporting Period in which QA/QC samples show evidence of laboratory contamination for that constituent. Nevertheless, analytical results involving detection of these analytes in any background or downgradient sample shall be reported and flagged for easy reference by Colorado River Basin Water Board staff.
- f. 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.
- g. The MDL shall always be calculated such that it represents a concentration associated with a 99% reliability of a non-zero result.

D. RECORDS TO BE MAINTAINED

Written reports shall be maintained by the Discharger or laboratory, and shall be retained for a minimum of five (5) years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Colorado River Basin Water Board. Such records shall show the following for each sample:

- 1. Identity of sample and of the Monitoring Point or Background Monitoring Point from which it was taken, along with the identity of the individual who obtained the sample;
- 2. Date and time of sampling;
- 3. Date and time that analyses were started and completed, and the name of the personnel performing each analysis;

- 4. Complete procedure used, including method of preserving the sample, and the identify and volumes of reagents used;
- 5. Calculations of results; and
- 6. Results of analyses, and the MDL and PQL for each analysis.
- E. REPORTS TO BE FILED WITH THE BOARD
 - 1. DETECTION MONITORING

A written "Detection Monitoring Report" shall be submitted twice annually (Part II.B.2.), in addition to an "Annual Summary Report" (Part I.E.3.). The reports shall be comprised of at least the following:

a. Letter of Transmittal

A letter transmitting the essential points in each report shall accompany each report. Such a letter shall include a discussion of any requirement violations found since the last such report was submitted, and shall describe actions taken or planned for correcting those violations. If the Discharger has previously submitted a detailed time schedule for correcting said requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. If no violations have occurred since the last submittal, this shall be stated in the letter of transmittal. Monitoring reports and the letter transmitting the monitoring reports shall be signed by a principal executive officer at the level of vice-president or above, or by his/her duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates. The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true, complete, and correct;

- b. Each Detection Monitoring Report shall include a compliance evaluation summary. The summary shall contain at least:
 - i. For each monitored ground water body, a description and graphical presentation of the velocity and direction of the ground water flow under/around the Unit, based upon water level elevations taken during the collection of the water quality data submitted in the report;
 - ii. Pre-Sampling Purge for Samples Obtained From Wells: For each monitoring well addressed by the report, a description of the method and time of water level measurement, of the type of pump used for purging and the placement of the pump in the well, and of the method of purging (the pumping rate, the equipment and methods used to monitor field pH, temperature, and conductivity during purging, the calibration of the field equipment, results of the pH, temperature, conductivity, and turbidity testing, the well recovery time, and the method of disposing of the purge water);

- iii. Sampling: For each Monitoring Point and Background Monitoring Point addressed by the report, a description of the type of pump or other device used and its placement for sampling, and a detailed description of the sampling procedure (number and description of the samples, field blanks, travel blanks, and duplicate samples taken, the type of containers and preservatives used, the date and time of sampling, the name and qualifications of the person actually taking the samples, and any other observations).
- c. A map or aerial photograph showing the locations of observation stations, Monitoring Points, and Background Monitoring Points;
- d. For each Detection Monitoring Report, include laboratory statements of results of all analyses demonstrating compliance with Part I.C.;

2. CONTINGENCY REPORTING

- a. The Discharger shall report by telephone concerning any seepage from the disposal area immediately after it is discovered. A written report shall be filed with the Colorado River Basin Water Board within seven (7) days, containing at least the following information:
 - i. A map showing the location(s) of seepage;
 - ii. An estimate of the flow rate;
 - iii. A description of the nature of the discharge (e.g., all pertinent observations and analyses); and
 - iv. Corrective measures underway or proposed.
- b. Should the initial statistical comparison (Part III.A.1.) or non-statistical comparison (Part III.A.2.) indicate, for any Constituent or Concern or Monitoring Parameter, that a release is tentatively identified, the Discharger shall immediately implement an internal investigation and notify the Colorado River Basin Water Board verbally as to the Monitoring Point(s) and constituents(s) or parameter(s) involved, shall provide written notification by certified mail within seven (7) days of such determination (Section 20420(j)(I) of Title 27, California Code of Regulations (CCR)). Within 30 days the release shall be characterized, and, if determined to be a tentative release, the Discharger shall carry out a discrete retest in accordance with Parts II.B.1, and III.A.3. If the retest confirms the existence of a release, the Discharger shall carry out the requirements of Part I.E.2.d. In any case, the Discharger shall inform the Colorado River Basin Water Board of the outcome of the retest as soon as the results are available, following up with written results submitted by certified mail within seven (7) days of completing the retest.
- c. If either the Discharger or the Colorado River Basin Water Board determines that there is significant physical evidence of a release (Section 20385(3) of Title 27, CCR,), the Discharger shall immediately notify the Colorado River Basin Water Board of this fact

by certified mail (or acknowledge the Colorado River Basin Water Board's determination) and shall carry out the requirements of Part I.E.2.d. for all potentially affected monitored media.

- d. If the Discharger concludes that a release has been discovered:
 - i. The Discharger shall, within 90 days of discovering the release, submit a Revised Report of Waste Discharge proposing an Evaluation Monitoring Program meeting the requirements of Section 20420(k)(5) of Title 27, CCR, and Section 20425 of Title 27, CCR; and
 - The Discharger shall, within 180 days of discovering the release, submit a preliminary engineering feasibility study meeting the requirements of Section 20420(k)(6) of Title 27, CCR,.
- e. Any time the Discharger concludes or the Colorado River Basin Water Board Executive Officer has sufficient cause to conclude that a liquid-phase release from the Unit has proceeded beyond the facility boundary, the Discharger shall so notify all persons who either own or reside upon the land that directly overlies any part of the plume (Affected Persons).
 - i. Initial notification to Affected Persons shall be accomplished within 14 days of making this conclusion and shall include a description of the Discharger's current knowledge of the nature and extent of the release; and
 - ii. Subsequent to initial notification, the Discharger shall provide updates to all Affected Persons including any newly Affected Persons within 14 days of concluding there has been any material change in the nature or extent of the release.
- 3. ANNUAL SUMMARY REPORT

The Discharger shall submit an annual report by April 30 of the following year to the Colorado River Basin Water Board covering the previous monitoring year. This report shall contain:

a. <u>A Graphical Presentation of Analytical Data</u> (Section 20415(e)(14) of Title 27, CCR). For each Monitoring Point and Background Monitoring Point, submit in graphical format the laboratory analytical data for all samples taken within at least the previous five (5) calendar years. Each such graph shall plot the concentration of one (1) or more constituents over time for a given Monitoring Point and Background Monitoring Point, at a scale appropriate to show trends or variations in water quality. The graphs shall plot each datum, rather than plotting mean values. For any given constituent or parameter, the scale for background plots shall be the same as that used to plot downgradient data. On the basis of any aberrations noted in the plotted date, the Colorado River Basin Water Board's Executive Officer may direct the Discharger to carry out a preliminary investigation (Section 20080(d)(2) of Title 27, CCR), the results of which will determine whether or not a release is indicated;

- b. All monitoring analytical data obtained during the previous annual Reporting Period, presented in tabular form as well as on compact disk (CD), either in MS-DOS/ASCII format or in any other file format acceptable to the Colorado River Basin Water Board's Executive Officer. Data sets too large to fit on a single CD may be submitted in a commonly available compressed format (e.g., PK-ZIP or NORTON BACKUP). The Colorado River Basin Water Board regards the submittal of data in hard copy and on CD as "...the form necessary for..." statistical or non-statistical analysis (Section 20420(h) of Title 27, CCR) in that this facilitates periodic review by the Colorado River Basin Water Board's statistical consultant;
- A comprehensive discussion of the compliance record, and the result of any correction actions taken or planned which may be needed to bring the Discharger into full compliance with the WDRs;
- d. A written summary of the ground water analyses, indicating any changes made since the previous annual report.
- e. An evaluation of the effectiveness of the leachate monitoring/control facilities, pursuant to Section 20340, Title 27, CCR.

PART II MONITORING AND OBSERVATION SCHEDULE

A. WASTEWATER MONITORING

Report twice annually, as part of the Semi-Annual Monitoring Report (Winter/Spring and Summer/Fall reporting periods on April 30 and October 31, respectively):

1. The volume and source of all wastewater discharged to the evaporation ponds.

B. GROUND WATER SAMPLING / ANALYSIS FOR DETECTION MONITORING

- <u>Thirty-Day Sample Procurement Limitation</u>. For any given monitored medium, the samples taken from all Monitoring Points and Background Monitoring Points to satisfy the data analysis requirements for a given reporting period shall all be taken within a span not exceeding 30 days, and shall be taken in a manner that insures sample independence to the greatest extent feasible (Section 20415(e)(12)(B) of Title 27, CCR). Ground water sampling shall also include an accurate determination of the ground water surface elevation and field parameters (temperature, electrical conductivity, turbidity) for that Monitoring Point or Background Monitoring Point (Section 20415(e)(13) of Title 27, CCR); groundwater elevations taken prior to purging the well and sampling for Monitoring Parameters shall be used to fulfill the quarterly ground water flow rate/direction analyses required under Part II. Statistical or non-statistical analysis shall be carried out as soon as the data is available, in accordance with Part III of this program.
- 2. <u>Monitoring Parameter</u>: All Monitoring Points assigned to detection monitoring and all background Monitoring Points shall be monitored semi-annually, and for parameters listed in the Summary of Self Monitoring and Reporting Program R7-2014-0059.
- Initial Background Determination: For the purpose of establishing an initial pool of background data for each Monitoring Parameter at each Background Monitoring Point in each monitored medium (Section 20415(e)(6), Title 27,CCR):
 - a. Whenever a new Monitoring Parameter is added to this permit including any added by the adoption of this Board Order, the Discharger shall collect at least one (1) sample quarterly for at least one (1) year from each Background Monitoring Point in each monitored medium and analyze for the newly-added constituent(s); and
 - b. Whenever a new Background Monitoring Point is added, including any added by this Board Order, the Discharger shall sample it at least quarterly for at least one (1) year, analyzing for all Monitoring Parameters.
- 4. <u>Monitoring Points and Background Monitoring Points for Each Monitored Medium</u>: The Discharger shall sample the following Monitoring Points and Background Monitoring Points in accordance with the sampling schedule given under Parts II.B.2, taking enough samples to qualify for the most appropriate test under Part III.
 - a. For ground water in the uppermost aquifer the Monitoring Points shall be:

- i. Background Points (MW-6 and MW-7)
- ii. Downgradient Monitoring Points (MW-8 to MW-13)
- iii. Point of Compliance (MW-5)
- iv. Evaporation Ponds
- v. Sludge from Evaporation Ponds

Monitoring points are shown on Attachment C.

 Semi- Annual Determination of Ground Water Flow Rate/Direction (Section 20415 of Title 27, CCR): The Discharger shall measure the water level in each well and determine ground water flow rate and direction in each ground water body described in Part II.B.4. semi-annually, including the times of expected highest and lowest elevations of the water level for the respective ground water body. This information shall be included in the semiannual monitoring reports required under Title 27, CCR, Section 20415(e)915).

PART III STATISTICAL AND NON-STATISTICAL ANALYSES OF SAMPLE DATA DURING A DETECTION MONITORING PROGRAM

A. DATA ANALYSIS METHODS

The Discharger shall propose appropriate data analysis method(s) for the approval of the Colorado River Basin Water Board's Executive Officer, for comparing downgradient concentrations for each monitored constituent or parameter with its respective background concentration to determine if there has been a release from the WMF. Unless or until the Discharger proposes an alternative data analysis method(s) acceptable to the Colorado River Basin Water Board's Executive Officer, the Discharger shall assess the applicability of the statistical analysis methods listed in Part III.A.1, followed by the non-statistical method in Part III.A.2, using the first method for which the data qualifies. If an analysis tentatively indicates the detection of a release, the Discharger shall implement the retest procedure under Part III.A.3.

- <u>Statistical Methods</u>. The Discharger shall use one (1) of the following statistical methods to analyze Monitoring Parameters, which exhibit concentrations exceeding their respective MDL in at least 10 percent of the background samples taken during that Reporting Period. Each of these statistical methods is more fully described in the Statistical Methods Discussion, which is attached to this Program and is hereby incorporated by reference. Except for pH, which uses a two (2)-tailed approach, the statistical analysis for all constituents and parameters shall be one (1)-tailed (testing only for statistically significant increase relative to background):
 - a. <u>One (1)-Way Parametric Analysis of Variance ANOVA followed by multiple</u> <u>comparisons</u> (Section 20415(e)(8)(A)). This method requires at least four (4) independent samples from each Monitoring Point and Background Monitoring Point during each sampling episode. It shall be used when the background data from the parameter of constituent, obtained during a given sampling period, has not more than 15% of the data below PQL. Prior to analysis, replace all 'trace' determinations with a value halfway between the PQL and the MDL values reported for that sample run, and replace all "non-detect" determinations with a value equal to half the MDL value reported for that sample run. The ANOVA shall be carried out at the 95% confidence level. Following the ANOVA, the data from each downgradient Monitoring Point shall be tested at a 99% confidence level against the pooled background data. If these multiple comparisons cause the Null Hypothesis (i.e., that there is no release) to be rejected at any Monitoring Point, the Discharger shall conclude that a release is tentatively indicated from that parameter or constituent;
 - b. <u>One (1)-Way Non-Parametric ANOVA (Kruskal-Wallis Test)</u>, followed by multiple <u>comparisons</u>. This method requires at least nine (9) independent samples from each Monitoring Point and Background Monitoring Point, therefore, the Discharger shall anticipate the need for taking more than four (4) samples per Monitoring Point, based upon past monitoring results. This method shall be used when the pooled background data for the parameter or constituent, obtained within a given sampling period, has not

more than 50% of the data below the PQL. The ANOVA shall be carried out 95% confidence level. Following the ANOVA, the data from each downgradient Monitoring Point shall be tested at 99% confidence level against the pooled background data. If these multiple comparisons cause the Null Hypothesis (i.e., that there is no release) to be rejected at any Monitoring Point, the Discharger shall conclude that a release is tentatively indicated for that parameter or constituent; or

- c. <u>Method of Proportions</u>. This method shall be used if the "combined data set", the data from a given Monitoring Point in combination with the data from the Background Monitoring Points, has between 50% and 90% of the data below the MDL for the constituent or parameter in question. This method (1) requires at least nine (9) downgradient data points per Monitoring Point per Reporting Period, (2) requires at least 30 data points in the combined data set, and (3) requires that N * P > 5 (where N is the number of data points in the combined data set and P is the proportion of the combined set that exceeds the MDL); therefore, the Discharger shall anticipate the number of samples required, based upon past monitoring results. The test shall be carried out at the 99% confidence level. If the analysis results in rejection of the Null Hypothesis (i.e., that there is no release), the Discharger shall conclude that a release is tentatively indicated for that constituent or parameter; or
- d. <u>Other Statistical Methods</u>. These include methods pursuant to Section 20415(e)(8)(ce) of Title 27, CCR.
- 2. <u>Non-Statistical Method</u>. The Discharger shall use the following non-statistical method for all Monitoring Parameters/Constituents of Concern (COCs), which are not amenable to the statistical tests under Part III.A.1. Site-specific water-quality data will be utilized to determine whether changes in concentrations of the constituents are a result of on-going facility operations. The existing historical data allows for the water-quality character to be established at each Monitoring Point, providing both well-specific characterization, as well as, site-wide evaluation. Given the site-specific parameters being monitored, this non-statistical site evaluation method lends itself to a more thorough and accurate accounting of a "potential" release, taking into account numerous site variables that should be considered in determining the cause of an exceedance.

Water quality and appropriate hydraulic data will be collected from all Monitoring Points at the site. Background shall be represented by the data from all samples taken from the appropriate Background Monitoring Points during that Reporting Period (at least one (1) sample from each Background Monitoring Point). The evaluation method shall be implemented as follows:

a. <u>For Monitoring Parameters/Constituents of Concern (COCs)</u>: During each reporting period, compile a list of constituents that fall outside of the respective concentration range "established" by the existing historical and background water-quality data from each well located at the site. COC's that exceed the MDL at the Monitoring Point or falls outside of the "established" concentration range will be reported; however, a preliminary investigation will be conducted by comparing the exceedance to the existing data at that Monitoring Point and Background Monitoring Points before establishing that a release has occurred.

i. PRELIMINARY INVESTIGATION OF A TENTATIVE RELEASE:

The Discharger shall report that a release is tentatively indicated if the COC exceedance falls outside of an "established" analyte concentration range for that well by 10 to 15% at either end of the range. The groundwater character will be determined at each well by calculating percentages of the COCs each monitoring period, and comparing it to its existing historical data. Evaluation of the exceedance will be made in light of several technical factors before confirming and reporting a tentative release has occurred for purposes of triggering a retest pursuant to Title 27. CCR. Such technical factors may include, but not be limited to: 1) changes in the guality/guantity of discharge to the ponds that would have been directly related to the specific COC exceedance; 2) historical data in which above MCLs have previously been detected and reported; 3) evaluation of monitoring data related to the wastewater pond(s) leak detection monitoring system; 4) location of the Monitoring Point exceedance in relation to: the wastewater pond(s), site background Monitoring Point COC water-quality concentration(s), whether the exceedance occurred at an individual Monitoring Point or related to changes in water-guality occurring on a site-wide basis; 5) COC concentration exceedance in relation to an agreed to "Point of Compliance"; and 6) further assessing external hydrogeologic factors (rainfall, ponding of water and leaching factors unrelated to pond activities, soil conditions, etc.), and facility/management operational factors that may have contributed to the exceedance. Should the evaluation indicate that a tentative release has indeed occurred, then discrete retesting will be implemented.

- 3. <u>Discrete Retest</u> (Section 20415(e)(8)(E) of Title 27, CCR). In the event that the Discharger concludes that a release has been tentatively indicated (under Parts III.A.1. or III.A.2.), the Discharger shall, within 30 days of this indication, collect two (2) new suites of samples for the indicated COC or Monitoring Parameter(s) at each indicating Monitoring Point, collecting at least as many samples per suite as were used for the initial test. Re-sampling of the Background Monitoring Points is optional. As soon as the data is available, the Discharger shall rerun the statistical method (or non-statistical comparison) separately upon each suite of retest data. For any indicated Monitoring Parameter /COC at an affected Monitoring Point, if the test results of either (or both) of the retest data suites confirms the original indication, the Discharger shall conclude that a release has been discovered and there is no other plausible explanation for the exceedance as outlined (Part III.A.2.a). All retests shall be carried out only for the Monitoring Point(s) for which a release is tentatively indicated, and only for the COC or Monitoring Parameter, which triggered the indication there, as follows:
 - a. If an ANOVA method was used, the retest shall involve only a repeat of the multiple comparison procedure, carried out separately on each of the two (2) new suites of samples taken from the indicating Monitoring Point;
 - b. If the Method of Proportions statistical test was used, the retest shall consist of a full repeat of the statistical test for the indicated constituent or parameter, using the new sample suites from the indicating Monitoring Point;

- c. If the non-statistical method was used:
 - i. Because all Monitoring Parameters/COCs that are jointly addressed in the nonstatistical testing under Part III.A.2.a. remain as individual Constituents of Concern, the scope of the laboratory analysis for the non-statistical retest samples shall be narrowed to involve only those constituents detected in the sample, which initiated the retest.
- B. SAMPLING AND ANALYTICAL METHODS
 - 1. The collection, preservation and holding times of all samples shall be in accordance with United States Environmental Protection Agency (USEPA) approved procedures. All analyses shall be conducted by a laboratory certified for such analysis 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" (40 CFR 136), promulgated by the USEPA. Specific methods of analysis must be identified. If methods other than USEPA approved methods or Standard Methods are used, the exact methodology must be submitted for review and must approved by Colorado River Basin Water Board's Executive Officer prior to use. The director of the laboratory shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Colorado River Basin Water Board. All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.
 - 2. If the facility is not in operation, or there is no discharge during a required reporting period, the Discharger shall either forward a letter, or write a notation on the required monitoring report to the Colorado River Basin Water Board, indicating that there has been no activity during the required reporting period.

SUMMARY OF SELF-MONITORING AND REPORTING PROGRAMS

The Discharger shall monitor the evaporation ponds, groundwater, and leak detection and recovery system in accordance with the following:

- A. Evaporation Pond Monitoring
 - 1. During plant operation, grab wastewater samples shall be taken from each pond near the point of discharge, composited into a single sample in the laboratory and analyzed for the parameters and frequencies listed below:

Constituents	Unit	Type of Sam	ples	Reporting Frequency
Constituents pH Total Dissolved Solids Specific Conductance Fluoride Calcium Magnesium Potassium Sodium Boron Total Chromium Sulfates Chlorides Nitrates Volume of wastewater	Unit mg/L ¹ µmhos/cm ² mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	Type of Sam Grab Grab Grab Grab Grab Grab Grab Grab	ples Semi- Semi- Semi- Semi- Semi- Semi- Semi- Semi- Semi- Semi- Semi- Semi- Semi-	Reporting Frequency Annually Annually Annually Annually Annually Annually Annually Annually Annually Annually Annually Annually Annually Annually Annually Annually Annually
Semi-Annually	0.		0	

¹ mg/L – milligrams-per-Liter ² micromhos per centimeter

B. Goundwater Monitoring

1. Groundwater samples shall be taken from each groundwater monitoring well and analyzed for the following constituents:

<u>Constituents</u>	Unit	Reporting Frequency	
pH Temperature	 E or C	Semi- Annually	
Static Water Level	feet bgs ¹	Semi- Annually	
Total Dissolved Solids	mg/L	Semi- Annually	

Board Order R7-2014-0059 Waste Discharge Requirements

Specific Conductance	µmhos/cm	Semi- Annually
Sulfate	mg/L	Semi- Annually
Fluoride	mg/L	Semi- Annually
Calcium	mg/L	Semi- Annually
Magnesium	mg/L	Semi- Annually
Potassium	mg/L	Semi- Annually
Sodium	mg/L	Semi- Annually
Boron	mg/L	Semi- Annually
Total Chromium	mg/L	Semi- Annually
Chlorides	mg/L	Semi- Annually
Nitrates	mg/L	Semi- Annually

¹ bgs – below ground surface

- 2. Semi-annually, the groundwater potentiometric surface shall be illustrated on a copy of the site plan showing the static water level in feet below ground surface, monitoring well locations, the locations of the evaporation ponds, direction of ground water flow and the ground water gradient.
- C. Sludge Sampling
 - 1. On an annual basis, grab sludge samples shall be taken from each pond that has sludge present and tested for the following constituents:

Constituents	Unit	Reporting Frequency
Antimony Arsenic Barium	mg/kg ¹ mg/kg mg/kg	Annually Annually Annually
Beryllium Cadmium Tatal Chromium	mg/kg mg/kg	Annually Annually
Cobalt Copper	mg/kg mg/kg mg/kg	Annually Annually Annually
Lead Mercury Melybdenum	mg/kg mg/kg	Annually Annually Annually
Nickel Selenium	mg/kg mg/kg	Annually Annually
Silver Thallium Vanadium Zinc	mg/kg mg/kg mg/kg mg/kg	Annually Annually Annually Annually
		, an loany

¹mg/kg – milligrams-per-kilogram

The collection, preservation, and holding times of all samples shall be in accordance with the U.S. Environmental Protection Agency (EPA) recommended methods for all the aforementioned constituents.

- D. Leak Detection and Recovery System (LDRS)
 - 2. Leak detection systems for the evaporation ponds shall be monitored monthly. If any liquid is found in the sump, the amount shall be recorded. The top liner shall not exceed a permeability of 1 X 10-11 cm/sec. If no leak occurs, or if the permeability in the top liner does not exceed 1 X 10-11 cm/sec, the Colorado River Basin Water Board should be informed with the normal semi-annual monitoring report. If the top liner does have permeability greater than 1 X 10-11 cm/sec, it should be reported to the Colorado River Basin Water Board immediately.
- E. Reporting
 - 3. The Discharger shall arrange the data in tabular form so that the specified information is readily discernible. The data shall be summarized in such a manner as to clearly illustrate whether the facility is operating in compliance with waste discharge requirements (WDRs).
 - 4. 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 individual(s) responsible for assuring the accuracy of the analyses;
 - d. The analytical techniques or methods used; and
 - e. The results of such analyses.
 - 5. The results of any analysis performed, more frequently than required using test procedures and locations specified in this Monitoring and Reporting Program shall be reported to the Colorado River Basin Water Board.
 - 6. Monitoring reports shall be certified under penalty of perjury to be true and correct, and shall contain the required information at the frequency designated in this monitoring report.
 - 7. Each report shall contain the following statement:

"I declare under the penalty of law that I have personally examined and am familiar with the information submitted in this document, 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 a fine and imprisonment for knowing violations."

- 8. A duly authorized representative of the Discharger may sign the documents if:
 - a. The authorization is made in writing by the person described above;

- b. The authorization specified an individual or person having responsibility for the overall operation of the regulated disposal system; and
- c. The written authorization is submitted to the Colorado River Basin Water Board's Executive Officer.
- 9. Monitoring reports shall be submitted to the Colorado River Basin Water Board in accordance with the following schedule:
 - a. Semi-Annual Detection Monitoring Report

October 1 through March 31 – Report due by April 30 April 1 through September 30 – Report due by October 31

b. Annual Summary Report

April 1 through March 31 – Report due by April 30.

10. The Discharger shall submit, technical monitoring and all documents that are normally mailed by the Discharger, such as regulatory documents, submissions, materials, data, and correspondence electronically. All information required to be submitted in accordance to this Board Order must be emailed prior to the regulatory due date. To accomplish electronic submittal of documents the Discharger shall convert the signed original report to Portable Document Format (PDF), other appropriate Microsoft application, such as Excel documents may also be emailed. Email all the documents to <u>RB7-wdrs paperless@waterboards.ca.gov</u>. Documents that are 50 MB or larger should be transferred to a disk and sent mailed to:

California Regional Water Quality Control Board Colorado River Basin Region 73-720 Fred Waring Drive, Suite 100 Palm Desert, CA 92260

> Ordered by: original signed by ROBERT PERDUE Executive Officer Date:

Board Order R7-2014-0059 Attachment A

South Needles Station No. 24

9 miles South of Needles on Hwy. 95 Needles, CA 92363



ATTACHMENT A – Site Location Map

SOUTHERN CALIFORNIA GAS COMPANY, OWNER/OPERATOR SOUTH NEEDLES COMPRESSOR STATION South of Needles – San Bernardino County



Attachment B – Site Layout Diagram

SOUTHERN CALIFORNIA GAS COMPANY, OWNER/OPERATOR SOUTH NEEDLES COMPRESSOR STATION South of Needles – San Bernardino County



Attachment C – Groundwater Monitoring Well Locations

GROUNDWATER MONITORING WELL MAP SOUTHERN CALIFORNIA GAS COMPANY, OWNER/OPERATORSOUTH NEEDLES COMPRESSOR STATION South of Needles – San Bernardino County