California Regional Water Quality Control Board
San Francisco Bay Region

RESPONSE TO WRITTEN COMMENTS
On the Issuance of Region-wide Waste Discharge Requirements for Discharge or Reuse of Extracted and Treated Groundwater Resulting from the Cleanup of Groundwater Polluted by Volatile Organic Compounds (VOC), Fuel Leaks and Other Related Wastes (VOC and Fuel General Permits)

A tentative order to reissue the VOC and Fuel General Permits was circulated for public comment from December 12, 2011, to January 12, 2012. The following organizations submitted comments:

Chevron Environmental Management Company - January 12, 2012

Terraphase Engineering Inc., on behalf of Upstream Point Molate, LLC, and the City of Richmond - January 12, 2012

CH2M HILL on behalf of Travis Air Force – January 11, 2012

URS Corporation on behalf of Port Costa Terminal and Chevron Environmental Management Company – January 11, 2012

Golder Associates Inc., on behalf of IBM – January 10, 2012

The response to each comment begins with quotes from the party's comments shown in *italics*, followed by staff's response. In some cases, similar comments were combined. The roman numeral(s) indicated in the parenthesis after each comment refers to the person(s) providing that comment. Interested persons should refer to the original letters to ascertain the full substance and context of each comment. As needed, text changes are shown using underline for added text and strikethrough for deleted text. Non-substantive editorial revisions were also made to the tentative order in response to other comments received that are not described below for brevity.

In addition, we made staff-initiated revisions to the tentative order to reduce the reporting level for 1,4-dioxane, to add a permit reopener for 1,4-dioxane, and to correct inconsistencies with, and omissions from, the VOC and Fuel General Permits.

Chevron Environmental Management Company - January 12, 2012, Comments

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1) ***Chevron Comment 1***

The Tentative Order indicates in the Fact Sheet, Attachment F, Page 4 that "Dischargers that combine extracted groundwater with stormwater before treatment are normally not eligible for coverage under this Order because the amount of rainwater varies and may exceed the treatment system capacity." Our systems are designed to combine extracted water with stormwater collected from the secondary containment, treat the combined volume, and not exceed our discharge flow rate. Engineering controls will shut down our systems if the amount of water (either from groundwater extraction or stormwater introduction) exceeds system processing capacity or permit limits. In this case, we would hope that we would still be eligible under the new permit.

Response to Chevron Comment 1
Chevron's systems would qualify for coverage provided Chevron retains at all times a professional engineer certified in the State of California to oversee the design, operation, and maintenance of the treatment system to achieve compliance with permit requirements.

2) ***Chevron Comment 2***
In our experience, there have been in the past many false permit excursions for TPHd. We believe these excursions result from (a) the effluent limit concentration being at the analytical reporting limit and (b) non-hydrocarbons being reported as TPHd. Addressing these two issues could alleviate many false permit excursions. We would recommend the following approach:

- ***a. Raise the effluent limit to 100 µg/l*** *– A 50 µg/l effluent limit for TPHg, TPHd or "other TPHs" does not accommodate the fact that 50 µg/l is typically the reporting limit (RL) for TPHg and for the extractable TPH analysis (Method 8015B). It is well known that permit excursions commonly occur when the concentration is close to the RL. A more appropriate effluent limit for TPHg and for TPHd/extractable TPH would be 100 µg/l, which is 2x the routine RL. 100 µg/l is also commonly-used as the taste and odor threshold for TPHd.*
- b. ***Require Silica Gel Cleanup ("SGC") prior to analysis*** *- The TPHd/extractable TPH analysis is not specific to hydrocarbons unless a silica gel cleanup (SGC) is used. Recent studies have demonstrated that non-hydrocarbons are commonly being measured as "TPHd". Non-hydrocarbons that may be measured as TPHd without SGC include natural organic material (such a humic acids), compounds from biodegradation of petroleum (primarily organic acids and alcohols, with possible ketones, phenols and aldehydes), sampling or laboratory equipment artifacts (such as phthalates), or non-petroleum-related chemicals (see draft revised LUFT Manual for more detailed discussion). SGC separates the hydrocarbons from non-hydrocarbons in the sample. The permit should require the use of a column SGC prior to TPHd/extractable TPH analysis so that the hydrocarbon component of the sample is measured and compared to the effluent limit for TPHd.*

Response to Chevron Comment 2
In regard to raising the TPH effluent limit to 100 µg/l, we disagree and did not revise the tentative order. If groundwater treatment systems are properly designed and operated, petroleum compounds (as diesel or gasoline) are normally removed from contaminated groundwater to less than the 50 µg/l reporting level.

In regard to requiring Silica Gel Cleanup prior to analysis, we disagree and did not revise the tentative order. We understand that non-diesel and non-gasoline hydrocarbons may be present in the effluent of a number of groundwater treatment systems. For that reason, we set a trigger for *petroleum hydrocarbons other than gasoline and diesel* in the 2006 Fuel General Permit, 2009 VOC General Permit, and this tentative order. This trigger is the level at which additional investigation is warranted to determine if a numeric limit is necessary. Silica Gel Cleanup is not the only tool for that investigation, and other methods may result in a lower reporting level for *petroleum hydrocarbons other than gasoline and diesel*. As such, the tentative order does not require a specific method at this time. We recommend that dischargers work with their contracted analytical laboratory to find the most cost-effective method(s) to characterize pollutants in groundwater.

Terraphase Engineering Inc., on behalf of Upstream Point Molate, LLC, and the City of Richmond - January 12, 2012

3) Terraphase Comment 1

The total petroleum hydrocarbon (TPH) as bunker fuel C (TPHbc) trigger value is 50 µg/L, however the existing Fuel General Permit – Attachment F (Fact Sheet) had an explanation for the trigger value being 300 µg/L. This was detailed in the Fact Sheet (existing Fuel General Permit) due to US Navy not being able to meet 300 µg/L. This information has been removed from this draft VOC and Fuel General Permit. No mention has been made regarding the feasibility of dischargers to consistently meet the trigger value of 50 µg/L. In addition, no mention of the ability of analytical laboratories to have a reporting limit of 50 µg/L for TPHbc is present in this draft VOC and Fuel General Permit. Our analytical laboratory (Curtis & Tompkins Laboratory), which is certified by the State of California, has a reporting limit of 300 µg/L for TPHbc (see attachment). If the RWQCB has new information regarding the treatment feasibility of TPHbc and analytical laboratories' ability to have a reporting limit of 50 µg/L, this should be provided as part of the Fact Sheet in the draft VOC and Fuel General Permit. If no new information exists, we recommend that the trigger value of 300 µg/L for TPHbc be used and the information from the existing Fuel General Permit (Attachment F – Fact Sheet, page F-12 and 13) regarding TPHbc be included in the draft VOC and Fuel General Permit.

Response to Terraphase Comment 1

We disagree and did not revise the tentative order trigger value of 50 µg/L for *total petroleum hydrocarbons other than gasoline and diesel* to 300 µg/L because the reporting level of 300 µg/L for bunker fuel can be reduced to 50 µg/L. Based on our communication with Curtis and Tompkins Laboratory, lower detection levels can be achieved for bunker fuel by increasing the initial sample volume to reduce the reporting levels by at least a factor of five. However, the Laboratory reports a method detection limit of 100 ug/L for Bunker Fuel, so we have revised Note 7 in Table 3 to include:

> In case of Bunker C Fuel, any non-detect result with reporting levels not exceeding 100 µg/L will not be deemed to be out of compliance with the 50 ug/L trigger level.

4) Terraphase Comment 2

This (Provision VI.C.6) *requires collection of three additional influent and effluent samples for each constituent above the trigger limit during the following calendar quarter. To clarify, should this section be modified to require additional influent and effluent samples for three consecutive months following exceedence of the constituent? Our interpretation of the current draft would allow for up two months to pass during the previous quarter prior to additional sampling (for example if the trigger was exceeded in the first month of a quarter). In addition, it is not specified if the samples have to be monthly or could be collected all on the same day.*

Response to Terraphase Comment 2

We agree and revised the tentative order as follows (changes shown in bold):

If any constituent in the discharge exceeds the corresponding trigger as listed in Table 3, below, the Discharger shall take **monthly influent and effluent samples for three consecutive months** ~~three additional influent and three additional effluent samples~~ for each exceeded constituent ~~during the following calendar quarter~~ and conduct activities as required in Provisions VI.C.7 or VI.C.8.

5) Terraphase Comment 3

The pollutant chromium (VI) is listed in column one (Table 3)*, but Note 3 on the trigger value (column 3) states: "If total chromium concentration exceeds 11 mg/L, then analysis for chromium (VI) shall also be conducted." Should the pollutant in column one be chromium (total)?*

Response to Terraphase Comment 3

No, the trigger in Table 3 is appropriately stated for chromium (VI). However, the total chromium result should be sufficient to show compliance with this trigger if the result of total chromium does not exceed the 11 mg/L trigger for chromium (VI). Otherwise, the effluent sample should be analyzed for chromium (VI).

6) Terraphase Comment 4

The order reads (Provision VI.C.8)*, "If the results of any one of the three additional discharge samples including the first discharge sample, show exceedence of the same trigger." This language is unclear as "the first discharge sample" is referring to the reported concentration from the discharge sample that was above the trigger concentration. The phrase "included the first discharge sample" should be removed from the permit.*

Response to Terraphase Comment 4

We agree and revised the tentative order.

7) *Terraphase Comment 5*

Self monitoring reports (SMR) are to be submitted within 45 days and the annual report within 45 days, but the letter "Amendment of Self-Monitoring Program, Clarification on Submittal of Reports, and Termination of Coverage for Fuels General Permit, NPDES No. CAG912002, Order No. R2-2006-007" (dated September 11, 2008 and signed by Lila Tang) requires SMRs to be submitted within 30 days of the end of the monitoring quarter. Please clarify whether a 45 day or 30 day deadline for SMR submittal will be enforced.

Response to Terraphase Comment 5

After a discharger receives authorization to discharge under the new permit, the new due dates for SMRs will apply, because all previous requirements will no longer be applicable. Pursuant to Section IX.B.2.a of Attachment E, dischargers are to submit SMRs by the due dates, and with the contents, specified below:

a. The Discharger shall submit quarterly SMRs no later than 45 days after the end of each calendar quarter, including the results of all required monitoring.

b. The Discharger shall submit annual reports by February 15 of each year, covering the previous calendar year. The annual report shall contain all data required for the fourth quarter in addition to summary data required

for annual reporting. This report may be submitted in lieu of the report for the fourth quarter of a calendar year.

8) Terraphase Comment 6

The heading (Attachment E, Section IX.B.4) *contains ML and MDL (method detection limit), but the section discuss reporting limits (RL) and MDLs. Should the section heading be ML or RL?*

Response to Terraphase Comment 6

We have removed the Minimum Level (ML) and Method Detection Limit (MDL) heading. However, as defined in Attachment A, Reporting Level (RL) is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order.

9) Terraphase Comment 7

Volatile organic compounds (VOC) monitoring is increased to twice a year (currently annually in the existing Fuel General Permit) for the influent and to possibly monthly (currently annually in the existing Fuel General Permit) for the effluent depending on the influent results. As this is now a combined draft VOC and Fuel General Permit, the VOC monitoring appears to be appropriate for treatment system operating with VOC contaminated groundwater. However, for TPH contaminated groundwater this represents a substantial increase in monitoring requirements under the existing draft VOC and Fuel General Permit, if even small VOC levels (beyond TPH, BTEX, fuel oxygenates, methanol, and alcohol) are detected in the influent, as monthly monitoring will be required. This will cause an increased cost for Fuel General Permit holders than what had been required previously. Therefore, we recommend two tiers of VOC monitoring should be specified rather than grouping both types of systems together.

Response to Terraphase Comment 7

We agree and revised Table E-2 by adding a separate tier for fuel cleanup dischargers as follows (changes highlighted in gray):

Table E-2. Schedule for Sampling, Measurements, and Analysis

Required Analytical Test Method Number, Technique, Standard Methods (SM), USEPA Method Number (EPA), 40 CFR Part (or equivalent)/Sampling Station	Column 1 Minimum Sampling Frequency for Influent INF-001	Column 2 Minimum Sampling Frequency for Effluent EFF-001 or Effluent for Reuse REU-001	Column 3 Minimum Sampling Frequency for Receiving Surface Water RSW-001U and RSW-001D
Unit is "µg/L" and Type of Sample is "Grab" unless noted otherwise	**Grab**	**Grab**	**Grab**
Volatile Organic Compounds, EPA 8260b for discharges from sites contaminated with fuel leaks and other related wastes	Y	Y	V
Volatile Organic Compounds, EPA 8260b for dischargers from sites contaminated with VOCs not associated with fuels	2/Y	D/M	V

10) Terraphase Comment 8

Additional monitoring has been added to the VOC and Fuel General Permit. This increased monitoring (quarterly for influent and monthly for effluent) includes BOD_5, ammonia as

nitrogen, and TSS. What is the rationale for the additional monitoring, as this will cause an increased cost for permit holders?

Response to Terraphase Comment 8
BOD_5, ammonia as nitrogen, and TSS are generally not present in groundwater contaminated with VOC or fuel leaks and related wastes. For this reason, we are removing these additional monitoring requirements from Table E-2. However, pursuant to Provision VI.B.2 in the Attachment E, a few dischargers authorized under this Order may be required to comply with additional monitoring requirements. The Executive Officer will specify such additional monitoring requirements in the Authorization to Discharge letter.

11) Terraphase Comment 9
No startup procedures or reporting requirements for temporary shutdown of the treatment system are included in this draft VOC and Fuel General Permit. Original startup phase monitoring is required in Attachment E. The existing Fuel General Permit has specified temporary shutdown procedures and submittals. Are temporary shutdown restarts supposed to follow the original startup procedures?

Response to Terraphase Comment 9
We agree and revised the tentative order by adding the following clarification at the end of Provision VIII.A.2 on page E-7:

> In case of a temporary shutdown, if the facility reported effluent limit violation(s) during the previous three years, then any re-startup shall follow the original startup procedures.

12) Terraphase Comment 10
Section II.E (page 4) – There are no longer Attachments G and H as stated in this section. This likely was a remnant of the previous order (No. R2-2006-0075).

Response to Terraphase Comment 10
We agree and revised the tentative order to remove references to Attachments G and H.

CH2MHILL on behalf of Travis Air Force – January 11, 2012

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*13) **CH2MHILL Comment 1***
Page 4, Paragraph II. E. references Attachments G through H, but these attachments are not included in the tentative order.

Response to CH2MHILL Comment 1
We agree and revised the tentative order to remove references to Attachments G and H.

14) CH2MHILL Comment 2
Attachment E, Page E-6, Paragraph VIII. A.1. states that the treatment system may be shut down after the first day's sampling to await the analyses results from the first day's samples. However, Pages E-6 and E-7, Paragraph VIII. A.2. state that if the treatment system is shut

down for more than 72 hours during the original startup, the original startup procedures and sampling must be repeated. It is unclear whether the 72-hour limit on shutdown periods applies to only the fifth day's sampling event or applies to both the fifth day's and the first day's sampling events. If the 72-hour limit also applies to the first day's sampling event (i.e., the period between the first day's and fifth day's sampling events), we recommend revising Paragraph VIII. A.1 to include this requirement.

Response to CH2MHILL Comment 2
Yes, the 72-hour limit applies to the first day's sampling event. To clarify this point, the following sentence was deleted from Provision VIII. A. 2 and moved to Provision VII.A.1:

> If the treatment system is shut down more than 72 hours during the original startup (awaiting analyses results, etc.), the original startup procedures and sampling must be repeated.

Additionally, to provide more flexibility to dischargers, we revised the tentative order so that the system may be shut down for a longer period of 120 hours. As such, the above sentence was modified as follows (change shown in bold):

> If the treatment system is shut down more than ~~72~~ **120** hours during the original startup (awaiting analyses results, etc.), the original startup procedures and sampling must be repeated.

URS Corporation on behalf of Port Costa Terminal and Chevron Environmental Management Company – January 11, 2012

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15) URS Comment No. 1
Tentative Order R2-2012-XXXX, Section VI, Provisions, C8.b, proposes more frequent sampling requirements when trigger limits are exceeded. The trigger limits proposed in Table 3 of the Tentative Order are lower than both the reporting limits (RLs) and method detection limits (MDLs) achievable by standard analytical laboratories for some compounds, including PAHs. Table 3 (Footnote 2) allows the discharger to report non-detect data with reporting limits higher than the trigger limits, provided the reason for the higher detection level is consistent with Appendix 4 of the State Implementation Plan. However, several PAHs are not listed in Appendix 4. For compounds such as these—including, but not limited to benzo[a]anthracene and benzo[b]fluoranthene—we request that an additional footnote (similar to Footnote 2 to Table 2) be added to Table 3, so that a non-detect result using an appropriate RL will not be deemed out of compliance. Based on our correspondence with three State of California–Certified analytical laboratories, we believe that non-detect results for benzo[a]anthracene and benzo[b]fluoranthene using a 0.050 microgram per liter (µg/L) reporting limit should not be deemed to be out of compliance, and should not result in an increased sampling frequency.

Response to URS Comment No. 1
For pollutants not listed in Appendix 4, an explanation similar to the above should be sufficient provided that a letter from each of the three State of California–certified analytical

laboratories is attached to your monitoring report. The following sentence was added to Note 2 of Table E-2:

> For pollutants not listed in Appendix 4 of the SIP, the Discharger shall provide the reason for the higher detection level along with any supporting documentation in the monitoring reports. Water Board staff shall make a compliance determination based on data provided.

16) URS Comment No. 2

Footnote 2 to Table E-2, Schedule for Sampling, Measurements, and Analysis, lists required "reporting levels" for metals, some of which are significantly lower than the trigger limits, and unattainable using standard analytical methods. The following table summarizes the proposed maximum "reporting levels" provided in Footnote 2 to Table E-2, the corresponding trigger level, and reasonably attainable detection levels using standard analytical laboratories and analytical methods, based on our correspondence with three State of California–Certified analytical laboratories.

Analyte	***Proposed Maximum "Reporting Level" from Table E-2 of Tentative Order***	***Trigger Level from Table 3 of Tentative Order***	***Range of Reasonably Attainable Method Detection Limits***
Arsenic	*2.0 µg/L*	*10 µg/L*	*2.4 – 5.1 µg/L*
Chromium (total)	*0.5 µg/L*	*11 µg/L*	*0.6 – 1.5 µg/L*
Zinc	*1 µg/L*	*86 µg/l*	*3.2 – 9.6 µg/L*

Based on the information summarized in the above table, we request that Footnote 2 to Table E-2 be modified to clarify that compliance with the trigger limit using established analytical methods with reporting levels greater than those specified in Footnote 2, Table E-2, will not be deemed out of compliance, because the reporting levels specified in Table E-2 are not attainable in some cases.

Response to URS Comment No. 2

We revised Table E-2, Note 2 to include: "If the Discharger cannot attain the reporting levels for Zinc, Arsenic, or Total Chromium, the reason(s) along with any supporting documentation shall be documented in the monitoring reports. Compliance shall be based on data provided."

17) URS Comment No. 3

Table E-2, Schedule for Sampling, Measurements, and Analysis, requires quarterly influent and monthly effluent sampling for "other pollutants such as non-VOC-related odor, sulfate and foaming agents" if they are known to be present in the influent. For those compounds that are not necessarily "pollutants" and were not associated with site activities (e.g., sulfate, a naturally occurring anion), we request that the RWQCB consider reducing the requirement for monthly sampling if the levels are consistently below the trigger level.

Response to URS Comment No. 3

We agree and revised Table E-2 as follows (highlighted in gray):

Table E-2. Schedule for Sampling, Measurements, and Analysis

Required Analytical Test Method Number, Technique, Standard Methods (SM), USEPA Method Number (EPA), 40 CFR Part (or equivalent)/Sampling Station	Column 1 Minimum Sampling Frequency for Influent INF-001	Column 2 Minimum Sampling Frequency for Effluent EFF-001 or Effluent for Reuse REU-001	Column 3 Minimum Sampling Frequency for Receiving Surface Water RSW-001U and RSW-001D
Unit is "µg/L" and Type of Sample is "Grab" unless noted otherwise	**Grab**	**Grab**	**Grab**
Other pollutants such as non VOC-related odor, sulfate and foaming agents (See Footnote 1), SM	D/Q/Q/Y	D/M/Q/Y	V
Legend: D/M/Q/Y Once during the first and fifth day of startup; monthly for first year of operation, quarterly for the second year, and annually thereafter. In case of pH analysis, this monitoring requirement is only for facilities with a treatment process that would cause no pH variances in the effluent. If any chemical used in the treatment process may cause pH variances in the effluent, the frequency of pH monitoring in the effluent shall be increased to twice per week for the first month of operation and weekly thereafter if pH monitoring data for the first month of operation demonstrate compliance with pH effluent limits.			

Golder Associates Inc., on behalf of IBM – January 10, 2012

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18) Golder Comment 1

Should we be testing the background levels of the receiving waters? If yes, how frequently? Since the only time we measure this is when we have an effluent limit violation.

Response to Golder Comment 1

No, receiving water monitoring is required only during violations or triggered monitoring (please see V and T on last column of Table E-2).

19) Golder Comment 2

In regard to (Section V.A.2.e) *"Nutrients - Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses", what is supposed to be measured, NO3, PO4, etc? If so, provide examples and concentration limits.*

Response to Golder Comment 2

The cited requirement is a narrative receiving water limit, and compliance is to be determined through results from standard observations required by Attachment E of the permit. If from a discharger's or another's observations that a discharge is causing biostimulatory effects, we will investigate either through our own sampling or by imposing additional monitoring requirements on the discharger.

20) Golder Comment 3

Who at the SWRCB is this supposed to be sent to? (Attachment D, Section V.B.3.c)

Response to Golder Comment 3
We deleted the requirement of submitting a copy of the written authorization to the State Water Board because it is not applicable to this tentative order.

21) Golder Comment 4
Since we are not an "Existing manufacturing" operation, does this (Attachment D, Section VII.A) *apply to us? Please clarify.*

Response to Golder Comment 4
No, Attachment D Section VII.A would not apply to facilities where there are no existing manufacturing operations.

22) Golder Comment 5
Who needs to take these measurements - the discharger or the lab while performing the bio-assay testing? Do they need to be done even if no toxicity is observed? (Attachment E, Section V.E)

Response to Golder Comment 5
The laboratory conducting bioassays must monitor the following parameters in the bioassay water on a daily basis: pH, dissolved oxygen, ammonia (if toxicity is observed), temperature, hardness, and alkalinity. To comply with the permit, a discharger must ensure that its contract laboratory does this.

23) Golder Comment 6
How would you characterize, determine the source and distance of travel, if it is coming from upstream? You mean best possible guess or something else. (Attachment E, Section VIII.C.3)

Response to Golder Comment 6
Please work with the professional engineer in charge of the treatment system and apply best professional judgment.

24) Golder Comment 7
Are approximate values for air temperature, wind velocity and direction acceptable? (Attachment E, Section VIII.C.6)

Response to Golder Comment 7
Yes.

25) Golder Comment 8
Is the RWQCB eliminating the requirement to upload these to GeoTracker? That requirement is in our current VOC General Permit and Authorization Letter (Attachment E, Section IX.B).

Response to Golder Comment 8
No, all current VOC General Permit dischargers must continue uploading their monitoring reports to GeoTracker unless they receive a new Authorization Letter with a different requirement. The tentative order does not change the VOC General Permit requirements

until 2014, after VOC General Permit dischargers receive authorization letters under this new Fuels and VOC General Permit. All authorization letters issued under this permit will specify submittal requirements.

26) Golder Comment 9

In regard to (Attachment F, Section I.C) *"This Order requires Dischargers to submit monitoring data according to the requirements contained in the Monitoring and Reporting Program (Attachment E). If monitoring data indicate significant contamination by metals, pesticides, or other conservative pollutants, Dischargers authorized under this Order may be required to apply for an individual NPDES permit",*
Does this mean we'll need to do "startup" testing again or will we need to submit test data for any newly listed analytes, e.g. BOD, etc? Please clarify.

Response to Golder Comment 9

If you are required to apply for an individual NPDES permit, then you will be required to collect all data necessary to complete a permit application. This includes and is not limited to startup phase monitoring and BOD, etc.

27) Golder Comment 10

Does this mean we need to update our NOI, do "startup" testing, etc. if we install a new extraction well? Please clarify. (Attachment F, Section VII.C.6.a)

Response to Golder Comment 10

Yes, adding a new extraction well does trigger startup testing if the pollutants in the new extraction well are different than the pollutants considered in the design of the treatment system.

Regional Water Board Staff-Initiated Changes

***28)* Staff-Initiated Change 1**

We revised the tentative order to reduce the Reporting Level for 1, 4-dioxane from 3 µg/L to 1 µg/L to meet the Notification Level set by the California Department of Public Health in November 2010 as follows:

> Note 3: Use techniques such as selective ion mode or isotope dilution to achieve reporting levels **not exceeding 1 ug/l** ~~below 3ug/l~~."

***29)* Staff-Initiated Change 2**

We revised the tentative order to include Provision VI.C.1.f as follows:

> The California Department of Public Health established a notification level for 1, 4-dioxane in November 2010 and has determined that it is reasonably anticipated to be a human carcinogen Although this Order does not provide an effluent limit for 1,4-dioxane, the Regional Water Board may reopen this Order prior to its expiration to revise permit provisions pertaining to 1,4-dioxane.

30) Staff-Initiated Change 3

We changed the Tentative Order Table E-2, to make it more consistent with the VOC General NPDES Permit, by adding a separate tier for VOC cleanup dischargers as follows (changes highlighted in gray):

Table E-2. Schedule for Sampling, Measurements, and Analysis

Required Analytical Test Method Number, Technique, Standard Methods (SM), USEPA Method Number (EPA), 40 CFR Part (or equivalent)/Sampling Station	Column 1 Minimum Sampling Frequency for Influent INF-001	Column 2 Minimum Sampling Frequency for Effluent EFF-001 or Effluent for Reuse REU-001	Column 3 Minimum Sampling Frequency for Receiving Surface Water RSW-001U and RSW-001D
Unit is "µg/L" and Type of Sample is "Grab" unless noted otherwise	**Grab**	**Grab**	**Grab**
Antimony (EPA 204.2), Arsenic (EPA 206.3), Beryllium (GFAA or ICPMS), Cadmium (GFAA or ICPMS), Hexavalent and Total Chromium (SM 3500), Copper (EPA 200.9), Cyanide (SM 4500-CN C or I), Lead (EPA 200.9), Mercury (EPA 1631), Nickel (EPA 249.2), Selenium (SM 3114B OR C), Silver (EPA 272.2), Thallium (EPA 279.2), and Zinc (EPA 200.8) (See Note 2) for dischargers from sites contaminated with VOCs		3Y	
Antimony (EPA 204.2), Arsenic (EPA 206.3), Beryllium (GFAA or ICPMS), Cadmium (GFAA or ICPMS), Hexavalent and Total Chromium (SM 3500), Copper (EPA 200.9), Cyanide (SM 4500-CN C or I), Lead (EPA 200.9), Mercury (EPA 1631), Nickel (EPA 249.2), Selenium (SM 3114B OR C), Silver (EPA 272.2), Thallium (EPA 279.2), and Zinc (EPA 200.8) (See Note 2) for discharges from sites contaminated with fuel leaks and other related wastes	-	D/Y	-

Notes:

Note 2: Inorganic compounds samples shall be analyzed for total (unfiltered) constituents with the reporting levels not exceeding the following: 0.002 ug/l for Mercury; 0.25 ug/l for Cadmium and Silver; 1 ug/l for Nickel, Thallium, and Zinc; 2.0 ug/l for Arsenic and Selenium; 1 ug/l for Cyanide; and 0.5 ug/l for Antimony, Beryllium, Total Chromium, Copper, and Lead (SIP Appendix 4 Minimum Levels http://www.waterboards.ca.gov/iswp/docs/final.pdf). If the Discharger cannot attain the reporting levels for Zinc, Arsenic, or Total Chromium, the reason(s) along with any supporting documentation shall be documented in the monitoring reports. Water Board staff shall make a compliance determination based on data provided. If the Discharger exceeds the trigger for mercury of 0.025, the Discharger may consider re-sampling and re-analyzing another sample using ultra-clean techniques as described in USEPA methods 1669 and 1631 to eliminate the possibility of artifactual contamination of the sample. For pollutants not listed in Appendix 4 of the SIP, the Discharger shall provide the reason for the higher detection level along with any supporting documentation in the monitoring reports. Water Board staff shall make a compliance determination based on data provided.

Definitions: ug/L = microgram per liter or parts per billion (ppb); g/day = grams per day; gpm = gallons per minute; mg/L = milligram per liter or parts per million (ppm); gpd = gallons per day; MFL = million fibers per liter
GC = Gas Chromatography; GCMS = Gas Chromatography/Mass Spectrometry; FAA = Flame Atomic Absorption; GFAA = Graphite Furnace Atomic Absorption; Hydride = Gaseous Hydride Atomic Absorption; ICP = Inductively Coupled Plasma; and ICPMS = Inductively Coupled Plasma/Mass Spectrometry.

Legend:

3Y Once during the first week of startup; every three years thereafter.
D/Y Once during the first and fifth day of startup; annually thereafter.