STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

In the Matter of the Petition of UNION OIL COMPANY OF CALIFORNIA For Review of Cease and Desist Order No. 86-11 and Resolution No. 86-003 of the California Regional Water Quality Control Board, San Francisco Bay Region Our File No. A-429.	)	ORDER NO. WQ 87- 8

BY THE BOARD:

On March 5, 1986, the California Regional Water Quality Control Board, San Francisco Bay Region (Regional Board) took two enforcement actions against Union Oil Company of California (petitioner; Unocal) relative to its San Francisco petroleum refinery. The refinery, located in Rodeo, has wastewater treatment facilities that discharge to San Pablo Bay. This discharge is regulated by a National Pollution Discharge Elimination System (NPDES) Permit. The Regional Board adopted Cease and Desist Order No. 86-11 which amends prior Cease and Desist Order No. 86-8 and establishes a time schedule for constructing necessary wastewater treatment system modifications to prevent future violations of Unocal's NPDES permit. The Regional Board also adopted Resolution No. 86-003 requesting the Attorney General to take appropriate enforcement action against Unocal for discharges of wastes and pollutants from

its San Francisco refinery to waters of the state and of the United States during the period from July 1977 through November 1985.[1]

The findings contained in Cease and Desist Order No. 86-11 and Resolution No. 86-003 indicate that there were seven parts of the relevant NPDES permits which were allegedly violated by Unocal and which served as the bases for the Regional Board's adoption of the Cease and Desist Order and Resolution: violation of the bypass of untreated wastewater prohibition, violation of the standard provision prohibiting bypass of facilities necessary to maintain compliance with terms and conditions of a permit, failure to comply with bypass reporting requirements, violations of certain effluent limitations, violation of a specific prohibition contained in the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan), violation of a prohibition against bypass of untreated waste contained in the Water Quality Control Policy for the Enclosed Bays and Estuaries of California (Bays and Estuaries Policy) and finally, violations of a standard provision in the permits that requires efficient operation of any facility or control system installed to achieve compliance with waste discharge requirements.

The petitioner has objected to the Regional Board's conclusions that impermissible bypasses have taken place and that there has not been compliance with bypass reporting requirements.[2] In addition, Unocal argues that the

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[1] Our policy in the past has been to not review referrals to the Attorney General. However, in this case the basis for the cease and desist order and the referral to the Attorney General are essentially the same. Therefore, a review of the basis for the referral is appropriate.

[2] The petitioner has not sought review of the cease and desist order and resolution of referral to the Attorney General to the extent that they were based on violations of certain effluent limitations, violations of a specific Basin Plan prohibition and violations of a standard provision regarding efficient operation of facilities. Therefore, our Order does not consider these findings by the Regional Board.

Cease and Desist Order deadline of July 1, 1988 for completion of modifications to the treatment plant is arbitrary and capricious and unsupported by the evidence in the record.

During a discussion of this petition at a State Water Resources Control Board (State Board) workshop in May 1987, an issue arose regarding the record upon which the State Board would base its decision. Agreement was subsequently reached among participants in a pre-hearing conference as to the record before the State Board and all interested persons were given the opportunity to comment on the new documents which were added to the record before the State Board.[3]

We note that, pursuant to Title 23 California Administrative Code, Chapter 3, Subchapter 6, Section 2052, the time has run for formal disposition of Unocal's petition. We are therefore reviewing on our own motion the issues raised by the petition. (Water Code Section 13320.)

I. BACKGROUND

Unocal operates a petroleum refinery with a crude-run throughput of 58,500 barrels per day. It manufactures fuels and lubricants. Treated process wastewater, stormwater runoff and other wastes are discharged into San Pablo

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[3] Prehearing conferences are authorized under Title 23 California Administrative Code, Section 648.8. This procedure is consistent with Title 23 California Administrative Code, Section 2064 which provides "when no hearing is held, the decision of the state board will be based on the record before the regional board. Except that...the record may be supplemented by any other evidence and testimony accepted by the state board pursuant to Section 2066." This section provides that any interested person may request the State Board to allow the submittal of factual evidence not contained in the Regional Board record. Other interested persons must then be given the opportunity to file responsive comments to the additional evidence.

Bay. The facility has a combined sewer system which collects all process wastewater generated at the plant (except for saltwater used for non-contact cooling water purposes) and all stormwater runoff from the developed areas of the refinery.

Prior to 1977 the refinery used oil removal equipment in conjunction with two storage basins to meet its waste discharge requirements. In 1977, in order to come into compliance with effluent limitations in its NPDES permit which were based on the EPA standards of "best practicable control technology currently available", Unocal constructed a biological treatment system. Under this system, the process waste stream was divided into two waste streams. One waste stream consists of high-phenolic process wastewater which contains a high concentration of the organic pollutants in the wastewater from the refinery. The second waste stream consists of low phenolic wastewater which is combined with stormwater runoff.

The segregated high-phenolic waste stream is pretreated for removal of oil and grease, and then biologically treated in a trickling filter prior to treatment in the bioplant.[4] The bioplant consists of an activated sludge unit and a clarifier which provides additional biological treatment to the waste before discharge to San Pablo Bay.

The low-phenolic waste stream and the other waste streams (sanitary wastes, stormwater runoff, ballast water, and boiler and cooling tower blowdowns) are treated for oil and grease and suspended solids removal in an oil/water separator (also referred to as an API Separator), and a dissolved air flotation unit (DAF).

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[4] A second activated sludge tank was added to the process in December 1982.

The Regional Board states that after API-DAF treatment, all of the low-phenolic wastestream was to be biologically treated in the bioplant together with the high-phenolic wastestream. This conclusion was based largely on Unocal's permit application in 1981 which said that there was "normally no flow" in the line which takes wastewater around the bioplant. On the other hand, the petitioner states that the low-phenolic waste stream is fully treated only if the combined flow does not exceed 2500 gallons per minute (gpm), the design capacity of the bioplant. Generally, if the combination of the two waste streams exceeded the design capacity of the bioplant, Unocal would route the excess low phenolic wastewater around the bioplant and then combine it with the wastewaters that had been treated in the bioplant and discharge it to San Pablo Bay. One of the issues raised by this petition is the point at which the Regional Board was advised that all of the low-phenolic wastestream did not routinely go through the bioplant.

II. CONTENTIONS AND FINDINGS

1. Contention: Unocal argues that both the Cease and Desist Order and Resolution of referral to the Attorney General are based in part on the incorrect conclusion that operation of its wastewater treatment plant as described above resulted in impermissible bypasses in violation of Unocal's NPDES permits.

Finding: The Regional Board based its Cease and Desist Order and Resolution in part on bypasses which were alleged to have occurred between July 1977 through November 1985. There were three relevant NPDES permits issued to Unocal that covered discharges during that time. Regional Board Order No. 74-152 (NPDES Permit No. CA0005053) which was adopted on November 19,

1974 and became effective November 29, 1974 states in Section C (Discharge Prohibitions): "There shall be no bypass of untreated wastewater to waters of the State." Regional Board Order No. 80-5 (NPDES Permit No. CA0005053) which was adopted on February 19, 1980 and became effective March 1, 1980 has the same prohibition.[5] The most recent waste discharge requirements, contained in Regional Board Order No. 85-29 (NPDES Permit No. CA0005053) which was adopted on February 20, 1985 and became effective on March 3, 1985, do not contain this prohibition of bypass of untreated wastewater, although the requirements do contain a standard provision relative to bypass of facilities necessary to maintain compliance with the terms and conditions of the Order. This latter provision is discussed on page 10 et seq. of this Order.

A. Bypass of Untreated Wastewater

The Regional Board asserts that a reasonable interpretation of the prohibition of bypass of untreated wastewater contained in the NPDES permits, particularly in light of the federal regulations regarding bypass, leads to the conclusion that Unocal was violating the bypass of untreated wastewater prohibition by allowing any of its wastewater to be routed around any of its treatment units. We do not agree.

The relevant provision of the NPDES permits prohibits the bypass "of untreated wastewater". Unocal interpreted that to mean that the discharge of partially treated wastewater, i.e., wastewater which had gone through an API separator and a dissolved flotation unit but not through the bioplant, was not in violation of the bypass prohibition as stated in its

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[5] See California Regional Water Quality Control Board, San Francisco Bay Region Order No. 80-5 (NPDES Permit No. CA0005053) Section C.1 and Section D.4.

permit. We find this to be a reasonable conclusion to be drawn from the wording of the prohibition.

Our conclusion is reinforced by a comparison of the wording of the prohibition with the wording of the bypass reporting requirement contained in the NPDES permits. The wording of the bypass prohibition states that "there shall be no bypass of untreated wastewater." The self-monitoring program for the relevant permits states in part that "a report on bypassing of untreated waste or bypassing of any treatment unit(s) shall be made...."[6] The fact that the reporting requirements require the reporting of bypassing of untreated wastewater and the reporting of bypassing of any treatment units leads us to conclude that the term "bypass of untreated wastewater" was not meant to be synonymous with "bypass of any treatment units".

The Regional Board urges us to look to the federal regulations for guidance in interpreting the Unocal permits' prohibition of bypass of untreated wastewater. Yet the wording of the permit prohibition is distinguishable from the wording of the relevant federal regulation. The permits prohibit the "bypass of untreated wastewater". The federal regulations state that "bypass is prohibited" (except under certain conditions which our conclusions today do not require us to consider) and defines bypass as "the intentional diversion of waste streams from any portion of a treatment facility".[7] Unocal's permits do not prohibit "bypass"; they prohibit "bypass

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[6] See Regional Board Order No. 74-152, Self Monitoring Program, Part A, Section F.2; Regional Board Order No. 80-5, Self Monitoring Program, Part A, Section F.2; Regional Board Order No. 85-29, Self Monitoring Program, Part A Section F.2.

[7] See 40 CFR § 122.41(m)(1)(i) and 40 CFR § 122.41(m)(4)(i). We note that
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of untreated wastewater". The federal regulations prohibit diversion of wastewater around any part of a treatment unit. Unocal's permits prohibit discharge of wastewater which has received no treatment at all. As such, the permit requirement, whether intentionally or not, seems to be less stringent than the requirement in the federal regulations.

The Sierra Club, an interested person regarding this petition, argues that if the federal regulation is found to be more stringent then the permit prohibition, then the federal regulation controls. In this instance, we disagree. The federal regulation prohibiting bypass is currently found in 40 CFR 122.41(m). The introductory part of that section states in part "[t]he following conditions apply to all NPDES permits....All conditions applicable to NPDES permits shall be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to these regulations (or the corresponding approved State regulations) must be given in the permit."[8] None of the NPDES permits under consideration today incorporated either expressly or by reference those conditions contained in the federal regulations. Therefore, the federal regulations regarding bypass do not control our decision today.[9]

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[7] (FOOTNOTE CONTINUED)

these regulations were first promulgated effective August 13, 1979 and at that time contained essentially the same wording as the currently effective regulation which we cite in this Order.

[8] See 40 CFR § 122.41. We note that the wording in the federal regulations has stayed essentially the same since its initial adoption effective August 13, 1979.

[9] The Regional Board should revise Unocal's current NPDES permit to incorporate the relevant federal regulations. The Regional Board has asserted (CONTINUED)

The Sierra Club also argues that one must look to Unocal's permit application for a description of the treatment train and then rely on that treatment train in defining "treated" vs. "untreated" wastewater for

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9 (FOOTNOTE CONTINUED)

that all wastewater should go through all portions of the treatment facility because Unocal's permit is based on EPA's effluent guidelines for "best available technology" for a petroleum refinery and these guidelines are based on the presumption that all waste streams are receiving biological treatment. Even if this was the basis for EPA's effluent guidelines, it does not necessarily follow that all petroleum refineries are thereby required to install biotreatment facilities to treat all waste streams. EPA's BAT requirements themselves do not establish effluent limitations that would require biological treatment of all waste streams. If the Regional Board wants to require this biological treatment, it should make the necessary findings that such treatment is needed and amend the effluent limitations in the permit accordingly.

With regard to incorporation of the federal bypass prohibition in the current NPDES permit, we do not agree with Unocal's assertion that a bypass prohibition in the permit is contrary to Water Code § 13360 which states in part that waste discharge requirements may not specify the design, location, type of construction or particular manner of compliance with the requirements. As we discussed in State Board Order No. WQ 80-19, In the Matter of the Petitions of Las Virgenes Municipal Water District, et al, the Porter-Cologne Water Quality Control Act, Division 7 of the Water Code, provides that, notwithstanding any other provision of the division, the State and Regional Boards shall issue NPDES permits as required or authorized by the federal Clean Water Act to ensure compliance with the Federal Act (Water Code § 13377). In this case, a bypass prohibition is required by the federal regulations and, to the extent such a prohibition may be inconsistent with Water Code § 13360, the authority to implement the federal Clean Water Act under Water Code § 13377 would prevail. See Water Code § 13372.

However, although Water Code § 13360 may not be a deterrent to inclusion of the federal bypass prohibition in a future Unocal permit, we caution the Regional Board not to rely solely on an incorporation of the federal prohibition of bypass and the related definition if it intends to require all of Unocal's waste streams to go through all portions of Unocal's treatment facilities. We do not believe that was the intent of the federal regulations. Rather, we believe that the federal regulations regarding bypass require treatment facilities to be used to the extent they were reported to the regional board as part of a specific treatment train. For example, some industries segregate sanitary waste streams for separate treatment thereby eliminating the need to disinfect large volumes of process water. Some POTW's discharging to the ocean routinely provide secondary treatment for only a portion of the influent wastewater, blending with primary treated wastewater to

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purposes of the bypass of untreated wastewater prohibition. We do not agree. The term "untreated wastewater" is sufficiently clear and unambiguous in itself that it is not necessary to look beyond its plain meaning. We note that the Sierra Club's reasoning would be appropriate if the federal definition of bypass had been incorporated in the permit. (See Footnote 9 in this Order.) However, as discussed above, the federal definition of bypass was not included in the Unocal permits at issue herein.

We note that the Regional Board also based its actions partly on alleged violations of the State Board's Water Quality Control Policy for the Enclosed Bays and Estuaries of California" which states "discharge or bypassing of untreated waste to bays and estuaries shall be prohibited". The wording of the Bays and Estuaries Policy is sufficiently similar to the wording of the bypass of untreated wastewater prohibition contained in the NPDES permits that our conclusions regarding its applicability are the same. The discharge of wastewater which did not go through the bioplant prior to discharge as described herein did not violate the Bays and Estuaries prohibition.

B. Bypass of Facilities Necessary to Maintain Compliance with Terms and Conditions of an Order

The Regional Board also based its Cease and Desist Order and referral to the Attorney General on a standard provision contained in two of the permits under consideration. The provision states in part that "any

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9 (FOOTNOTE CONTINUED)

meet ocean plan requirements. These do not constitute violations of the bypass prohibition. Therefore, the Regional Board should revise the effluent limitations in Unocal's NPDES permit to most effectively and clearly regulate the quality of Unocal's discharge.

diversion from or bypass of facilities necessary to maintain compliance with the terms and conditions of this Order is prohibited except...."[10] (The exceptions involve situations not relevant here.) We agree with the Sierra Club that in order to determine whether this provision was violated, it is necessary to first decide whether the bioplant is a "facility necessary to maintain compliance with the terms and conditions" of the permit.

In determining what terms and conditions are appropriate in a permit, the Regional Board must consider the application submitted by the discharger. An application outlines the treatment train to be followed for specific wastestreams and serves as the basis for the terms and conditions in a permit. The Regional Board relies on a discharger's commitment to utilize the facilities it describes in its application in the manner described in the application. Where a discharger represents in an application that a certain treatment train will be followed, that treatment train then becomes "necessary to maintain compliance with terms and conditions of an order". It is therefore necessary to review Unocal's permit applications.

As part of its permit application for the permit which was effective March 1, 1980, Unocal submitted a letter dated August 5, 1979 which states in part "we have attached a schematic diagram showing flow patterns and rates for our cooling water and process water systems". The diagram does not show a channel for routing wastewater around the bioplant. In fact, the diagram clearly shows all wastewater going through the bioplant. The Regional Board relied on this representation in adopting the permit which was effective

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[10] See Regional Board Order No. 80-5, Standard Provisions, Reporting Requirements and Definitions, Section A.13. See Regional Board Order No. 85-29, Standard Provisions, Reporting Requirements, and Definitions, Section A.13.

March 1, 1980. We find that Unocal was not following the entire treatment train which it had described in its application to the Regional Board as the basis for adoption of the 1980 permit. This failure constituted a violation of the standard provision because a discharger must utilize processes which it told the Regional Board it will follow.

The petitioner emphasizes the fact that its treatment facility was both designed and installed to route any wastewater in excess of 2,500 gpm around the bioplant. This may well be true; however, the crux of the issue before us today is not how the facility was built, but how that facility was described in the permit application submitted to the Regional Board. A discharger has the burden of describing its treatment process in an application to the Regional Board.[11] That process must then be followed to ensure that there is no "bypass of facilities necessary to maintain compliance with the

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[11] Federal regulations require that an application include a line drawing of the water flow through the facility with a water balance, showing operations contributing wastewater to the effluent and treatment units. The water balance must show approximate average flows at intake and discharge points and between units, including treatment units. [40 CFR Section 122.21(g)(2).] Federal regulations also require that an application include a narrative identification of each type of process, operation or production area which contributes wastewater to the effluent for each outfall and a description of the treatment the wastewater receives. [40 CFR Section 122.21(g)(3).] If any of the discharges are intermittent or seasonal, the application must contain a description of the frequency, duration and flow rate of each discharge occurrance (except for stormwater runoff, spillage or leaks). [40 CFR Section 122.21(g)(4).]

The above-cited regulations regarding information to be contained in an NPDES permit application have been in effect since July 18, 1980. Prior to that time, persons with existing permits were required to submit a new application if facility expansions, production increases, or process modifications would result in new or substantially increased discharges of pollutants or a change in the nature of the discharge of pollutants. (See 44 Federal Register 32854, June 7, 1979; effective August 13, 1979.)

terms and conditions" of an order. To conclude otherwise presumes a clairvoyance on the part of a Regional Board which we find untenable.

We note that the 1979 diagram, which was part of the permit application upon which we rely, shows neither the existing storm basins nor a bypass line for use during emergencies. We anticipate an assertion by Unocal that this schematic was therefore quite simplified and not to be relied upon as indicating its full treatment process. However, a discharger must submit an application containing a description of the treatment process which it will use. Given this, it was reasonable for the Regional Board to conclude, and thus adopt the 1980 permit based on the conclusion, that all wastewater would be routed through the bioplant.

Before turning to the applications which were the bases for the 1985 permit, we note that on August 9, 1977 Unocal sent the Regional Board a report regarding problems it was encountering in complying with the permit's total coliform limitation. The report is accompanied by a schematic which states relative to the pipeline leading into the bioplant "2,500 gpm design; 2,000 gpm normal". The diagram also shows a channel around the bioplant and states relative to it "xs flow (over 2,500 gpm)". The description is certainly specific but it is not contained in the permit application and, even more significantly, the schematic itself is labeled "2/3/76 status". Therefore, it was appropriate for the Regional Board to conclude that this was not a description of the treatment process which was intended to be the basis for the 1980 permit.

In December 1980 and June 1981, Unocal submitted applications for renewal of its NPDES permit. Both applications included diagrams which showed a pipeline which could take wastewater around the bioplant and stated relative to that line "normally no flow." On its face, this appears to be

consistent with Unocal's 1979 permit application. However, in a letter dated April 30, 1982, Unocal responded to a Regional Board letter concerning bypassing of the wastewater treatment plant. Unocal's letter states in part:

> "We agreed that we would furnish to you additional information in three general areas: (1) our record with respect to bypasses; (2) our wastewater management practices, relative to bypasses; and (3) our untreated wastewater storage capability."

At a later point, the letter states:

> "Wastewater Management
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> The following is a random listing of factors involved in our management of wastewater, particularly with respect to periods of heavy rainfall.
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> a. The nominal capacity of our treatment plant as a whole is 7000 gpm. The activated sludge system has a design capacity of 2500 gpm and a maximum feed (lift) pump hydraulic capacity of about 3700 gpm. Through the segregation of most of the treatment load into a small "phenolic process water" stream which is always treated in the trickling filter and activated sludge systems (see Attachment #1), we are normally able to meet our discharge limitations while discharging up to 4500 gpm of non-biotreated water in order to achieve a total rate of 7000 gpm."[12]

In light of the controversy which has followed, the letter could have stated more clearly that "discharging up to 4500 gpm of non-biotreated water" was occurring routinely during peak flow periods and not just during periods of heavy rainfall. However, we find that the description of the

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[12] Letter dated April 30, 1982 from A. L. Felderman, Chief Refinery Engineer, Union Oil Company of California to Mr. Steven C. Heikkila, California Regional Water Quality Control Board.

See also letter dated October 20, 1983, from A. L. Felderman, Chief Refinery Engineer, Union Oil Company of California to Mr. Michael D. Drennan, California Regional Water Quality Control Board. This letter referenced and included as an attachment a copy of the April 30, 1982 letter.

physical capacity of the different parts of the treatment facility was sufficient to put the Regional Board on notice that the permit applications for the 1985 permit indicated two waste streams going through two different treatment trains. If further clarification was needed, it was incumbent on the Regional Board to seek that clarification.

The Regional Board argues that the parts of the letter quoted in our Order must be considered in light of the entire letter which largely concerned bypasses and more particularly, six specific bypass incidents which took place during 1980 through 1982. However, we note that discussion of the capacity of the bioplant and the discharge of non-biotreated waste is contained in a part of the letter entitled "Wastewater Management", not in the parts of the letter entitled "'Bypass' History" or "Wastewater 'Bypass'". Moreover, the discussion of the general operation and use of the different treatment facilities seems to be logically placed in the letter so as to report general wastewater management prior to a more detailed discussion of wastewater management during times of "bypasses". Therefore, we do not concur with the Regional Board's interpretation of the letter.

We thus conclude that the standard provision in the permit effective March 3, 1985 which prohibits the "bypass of facilities necessary to maintain compliance with the terms and conditions of the order" was not violated. The 1980 and 1981 permit applications which were the basis for the 1985 permit indicated a line which could take wastewater around the bioplant but stated there was "normally no flow" in the line. The April 30, 1982 letter clarified that "normally" the low-phenolic waste stream was to be routed through the bioplant, however, when the combined flows exceeded the capacity of the bioplant, some low-phenolic wastewater was to be routed around the

bioplant. The routing of wastewater around the bioplant following issuance of the March 1985 permit which was based on a report of the routing to the Regional Board in a permit application and a detailed clarification of that application was not, in and of itself, a violation of the standard provision in the 1985 permit. Rather, the provision was violated only during those times that such routing caused a violation of terms and conditions of the 1985 permit.

Before leaving this issue, we want to discuss an argument put forth by both the Regional Board and the Sierra Club alleging that the federal Ninth Circuit Court of Appeals recent decision in Sierra Club v. Union Oil Company of California, 813 F.2d 1480 (9th Cir. 1987) holds that the bioplant was a facility necessary to maintain compliance with the permit's effluent limitations. The Sierra Club cites the part of this decision which states:

> "The rest of the unsegregated stream is routed around the bioplant.... As a result, during heavy storms, the water released from the plant may contain pollutants in quantities greater than those allowed under the permit." [Slip op. at 10]

We note, however, that the Sierra Club only cites part of the Court's discussion of this matter. The Court also states in the same paragraph:

> "The biological treatment system has a design capacity of 2500 gallons per minute and is designed to provide treatment at all times to the segregated stream, and under normal weather conditions, to most of the unsegregated wastestream." (Slip op. at 10, emphasis added.)

The Court goes on to state, at page 21, that:

> "The record indicates that Union Oil's facilities were not adequate to handle heavy rainfall."

Therefore, although the Court concluded that the capacity of Unocal's storm basins was inadequate, we do not find that it determined that the bioplant was a "facility necessary to maintain compliance" for all of the low-phenolic wastestream. In fact, the Court acknowledges that not all of the low-phenolic wastestream goes through the bioplant under normal conditions. Nonetheless, although we do not rely on the Court of Appeals decision as the basis for our conclusion, we do agree with the Regional Board that this standard provision in the 1980 permit was violated as discussed above.

We have concluded that the provision in the 1980 permit which prohibits "the bypass of facilities necessary to maintain compliance with the terms and conditions of an order" has been violated because Unocal did not follow the treatment train which it described to the Regional Board in its application as the basis for adoption of the 1980 permit. Although the Regional Board did not abuse its discretion in referring such violations to the Attorney General for appropriate enforcement action, we believe that the Regional Board's receipt of a letter in 1982 which put it on notice of the limited capacity of the bioplant and the discharge of non-biotreated water should be considered by a court in determining appropriate civil monetary liability.

2. Contention: Unocal argues that both the Cease and Desist Order and Resolution of referral to the Attorney General are based in part on the incorrect conclusion that Unocal failed to report bypasses of untreated wastewater or bypassing of any treatment units as required by its NPDES permits.

Finding: The three relevant NPDES permits all contain a Self Monitoring Program, Part A, Section F.2 which states in part that "a report on

bypassing of untreated waste or bypassing of any treatment unit(s) shall be made which will include cause, time, and date, duration and estimated volume of waste bypassed, method used in estimating volume, and persons notified, for planned and/or unplanned bypass".

We agree with the Regional Board that this requirement is more specific than the bypass of untreated wastewater prohibition contained in the permit. Reports were to be made of the bypassing of any treatment unit and the reports were to cover both planned and/or unplanned bypasses. This provision was violated to the extent that Unocal reported in a permit application that certain wastewater flows were to be treated in specific treatment units and those flows were not sent through those treatment units and Unocal failed to report this to the Regional Board.

The application which Unocal submitted in 1971 which was the basis for the NPDES permit which became effective on November 29, 1974 does not discuss the use, or non-use, of the bioplant facility since the bioplant system was not even designed until 1975. Therefore, there was no description of the bioplant as part of the treatment units and no violation of the reporting requirement in the 1974 permit when Unocal failed to report channeling of some wastewater around the bioplant.

As discussed earlier in this order, the application which was the basis for the permit issued in 1980 indicated that all wastewater would be routed through the bioplant for treatment prior to discharge. Therefore, to the extent wastewater was diverted around the bioplant while the 1980 permit was in effect without reporting it to the Regional Board, we agree with the Regional Board that a violation of the reporting requirements in the 1980 permit took place.

Unocal argues that the April 30, 1982 letter quoted in part above serves as a report of the "bypassing of any treatment unit" so as to satisfy the reporting requirement at least from that date onward. We do not agree. We have already concluded that the April 30, 1982 letter served as a clarification of the permit applications which preceded the 1985 permit. However, the letter reported a "material change" in the character of the discharge which could only be dealt with in the context of an amended application. (Water Code Section 13260.) We conclude that any routing of wastewater around the bioplant which took place after the 1985 permit was issued and which was consistent with the description of treatment in the April 30, 1982 letter was not required to be reported to the Regional Board. However, wastewater diverted around the bioplant while the 1980 permit was in effect had to be reported to the Regional Board.

Before turning to Unocal's final contention, we want to point out that although there was very definitely a violation of the reporting requirement in the 1980 permit, we believe that the Regional Board's receipt of the letter in 1982 which put it on notice of the limited capacity of the bioplant and of the discharge of non-biotreated water should be considered by a court in determining appropriate civil monetary liability.

3. Contention: Unocal asserts that the time schedule in the Cease and Desist Order for constructing necessary wastewater treatment system modifications is arbitrary and capricious and unsupported by evidence in the record.

Finding: The completion date set forth in Cease and Desist Order No. 86-11 for the construction of modifications to the treatment system is

July 1, 1988. Unocal states that the earliest reasonable date for completion of construction is ten months later, on May 1, 1989.

Our review of the record leads us to conclude that there is insufficient evidence to determine whether either of these dates are appropriate. However, we note that the Cease and Desist Order requires the submittal by May 1, 1987, of a time schedule for implementation of the selected alternative. The Regional Board should review the final completion date in light of the more detailed information which is now available for Regional Board consideration.

III. SUMMARY AND CONCLUSIONS

1. The petitioner did not violate the prohibition on bypass of untreated wastewater provision of its NPDES permits nor the prohibition on bypass of untreated waste provision of the Bays and Estuaries Policy.

2. The petitioner violated the standard provision in two of the permits regarding bypass of facilities necessary to maintain compliance with terms and conditions of a permit. These violations took place to the extent that the low-phenolic wastestream was routed around the bioplant from February 1980 to March 3, 1985. After March 3, 1985, the petitioner violated the standard provision only to the extent that such bypasses resulted in violation of effluent limitations or other terms and conditions of the permit.

3. The petitioner violated the bypass reporting requirements in its NPDES permits to the extent it failed to report bypassing of the bioplant which took place from March 1, 1980 to March 3, 1985.

4. The Regional Board must reconsider the question of an appropriate final date for construction of necessary wastewater treatment system modifications in light of Unocal's proposed time schedule for implementation of

modifications in light of Unocal's proposed time schedule for implementation of the selected alternative.

IV. ORDER

We hereby remand Cease and Desist Order No. 86-11 and Resolution No. 86-003 to the Regional Board for reconsideration. The Regional Board must either rescind the Cease and Desist Order and Resolution or revise them based on the effluent limitation violations and violations of the Basin Plan prohibition which Unocal did not challenge on appeal and based on the Standard Provision requiring a discharger to operate as efficiently as possible any facility installed to achieve compliance with waste discharge requirements. Unocal did not challenge the applicability of this provision. The revised Order and Resolution can also rely on the Standard Provision contained in two of the permits prohibiting bypass of facilities necessary to maintain compliance with terms and provisions of the permits. This provision was violated to the extent that all of the low-phenolic wastestream was not routed through the bioplant from February 1980 to March 3, 1985 and thereafter to the extent other permit terms were violated as a result of bypass of the bioplant. Finally, the revised Cease and Desist Order and Resolution can be based on the violations of the bypass reporting requirements which took place between March 1, 1980 and March 3, 1985.

The Regional Board must reconsider the date for completion of construction which is contained in Cease and Desist Order No. 86-11. This review should be based upon the submittal from Unocal which details a time schedule for implementation of the selected alternative.

In all other respects the petition is denied.

CERTIFICATION

The undersigned, Administrative Assistant to the Board, does hereby certify that the foregoing is a full, true, and correct copy of an Order duly and regularly adopted at a meeting of the State Water Resources Control Board held on October 22, 1987.

AYE: W. Don Maughan
Darlene E. Ruiz
Edwin H. Finster
Danny Walsh

NO: None

ABSENT: Eliseo M. Samaniego

ABSTAIN: None

Maureen Marche
Administrative Assistant to the Board

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

In the Matter of the Petition of UNION OIL COMPANY OF CALIFORNIA For Review of Cease and Desist Order No. 86-11 and Resolution No. 86-003 of the California Regional Water Quality Control Board, San Francisco Bay Region Our File No. A-429.	ORDER NO. WQ 87- 8

87-08

BY THE BOARD:

On March 5, 1986, the California Regional Water Quality Control Board, San Francisco Bay Region (Regional Board) took two enforcement actions against Union Oil Company of California (petitioner; Unocal) relative to its San Francisco petroleum refinery. The refinery, located in Rodeo, has wastewater treatment facilities that discharge to San Pablo Bay. This discharge is regulated by a National Pollution Discharge Elimination System (NPDES) Permit. The Regional Board adopted Cease and Desist Order No. 86-11 which amends prior Cease and Desist Order No. 86-8 and establishes a time schedule for constructing necessary wastewater treatment system modifications to prevent future violations of Unocal's NPDES permit. The Regional Board also adopted Resolution No. 86-003 requesting the Attorney General to take appropriate enforcement action against Unocal for discharges of wastes and pollutants from

its San Francisco refinery to waters of the state and of the United States during the period from July 1977 through November 1985.[1]

The findings contained in Cease and Desist Order No. 86-11 and Resolution No. 86-003 indicate that there were seven parts of the relevant NPDES permits which were allegedly violated by Unocal and which served as the bases for the Regional Board's adoption of the Cease and Desist Order and Resolution: violation of the bypass of untreated wastewater prohibition, violation of the standard provision prohibiting bypass of facilities necessary to maintain compliance with terms and conditions of a permit, failure to comply with bypass reporting requirements, violations of certain effluent limitations, violation of a specific prohibition contained in the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan), violation of a prohibition against bypass of untreated waste contained in the Water Quality Control Policy for the Enclosed Bays and Estuaries of California (Bays and Estuaries Policy) and finally, violations of a standard provision in the permits that requires efficient operation of any facility or control system installed to achieve compliance with waste discharge requirements.

The petitioner has objected to the Regional Board's conclusions that impermissible bypasses have taken place and that there has not been compliance with bypass reporting requirements.[2] In addition, Unocal argues that the

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[1] Our policy in the past has been to not review referrals to the Attorney General. However, in this case the basis for the cease and desist order and the referral to the Attorney General are essentially the same. Therefore, a review of the basis for the referral is appropriate.

[2] The petitioner has not sought review of the cease and desist order and resolution of referral to the Attorney General to the extent that they were based on violations of certain effluent limitations, violations of a specific Basin Plan prohibition and violations of a standard provision regarding efficient operation of facilities. Therefore, our Order does not consider these findings by the Regional Board.

Cease and Desist Order deadline of July 1, 1988 for completion of modifications to the treatment plant is arbitrary and capricious and unsupported by the evidence in the record.

During a discussion of this petition at a State Water Resources Control Board (State Board) workshop in May 1987, an issue arose regarding the record upon which the State Board would base its decision. Agreement was subsequently reached among participants in a pre-hearing conference as to the record before the State Board and all interested persons were given the opportunity to comment on the new documents which were added to the record before the State Board.[3]

We note that, pursuant to Title 23 California Administrative Code, Chapter 3, Subchapter 6, Section 2052, the time has run for formal disposition of Unocal's petition. We are therefore reviewing on our own motion the issues raised by the petition. (Water Code Section 13320.)

I. BACKGROUND

Unocal operates a petroleum refinery with a crude-run throughput of 58,500 barrels per day. It manufactures fuels and lubricants. Treated process wastewater, stormwater runoff and other wastes are discharged into San Pablo

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[3] Prehearing conferences are authorized under Title 23 California Administrative Code, Section 648.8. This procedure is consistent with Title 23 California Administrative Code, Section 2064 which provides "when no hearing is held, the decision of the state board will be based on the record before the regional board. Except that...the record may be supplemented by any other evidence and testimony accepted by the state board pursuant to Section 2066." This section provides that any interested person may request the State Board to allow the submittal of factual evidence not contained in the Regional Board record. Other interested persons must then be given the opportunity to file responsive comments to the additional evidence.

Bay. The facility has a combined sewer system which collects all process wastewater generated at the plant (except for saltwater used for non-contact cooling water purposes) and all stormwater runoff from the developed areas of the refinery.

Prior to 1977 the refinery used oil removal equipment in conjunction with two storage basins to meet its waste discharge requirements. In 1977, in order to come into compliance with effluent limitations in its NPDES permit which were based on the EPA standards of "best practicable control technology currently available", Unocal constructed a biological treatment system. Under this system, the process waste stream was divided into two waste streams. One waste stream consists of high-phenolic process wastewater which contains a high concentration of the organic pollutants in the wastewater from the refinery. The second waste stream consists of low phenolic wastewater which is combined with stormwater runoff.

The segregated high-phenolic waste stream is pretreated for removal of oil and grease, and then biologically treated in a trickling filter prior to treatment in the bioplant.[4] The bioplant consists of an activated sludge unit and a clarifier which provides additional biological treatment to the waste before discharge to San Pablo Bay.

The low-phenolic waste stream and the other waste streams (sanitary wastes, stormwater runoff, ballast water, and boiler and cooling tower blowdowns) are treated for oil and grease and suspended solids removal in an oil/water separator (also referred to as an API Separator), and a dissolved air flotation unit (DAF).

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[4] A second activated sludge tank was added to the process in December 1982.

The Regional Board states that after API-DAF treatment, all of the low-phenolic wastestream was to be biologically treated in the bioplant together with the high-phenolic wastestream. This conclusion was based largely on Unocal's permit application in 1981 which said that there was "normally no flow" in the line which takes wastewater around the bioplant. On the other hand, the petitioner states that the low-phenolic waste stream is fully treated only if the combined flow does not exceed 2500 gallons per minute (gpm), the design capacity of the bioplant. Generally, if the combination of the two waste streams exceeded the design capacity of the bioplant, Unocal would route the excess low phenolic wastewater around the bioplant and then combine it with the wastewaters that had been treated in the bioplant and discharge it to San Pablo Bay. One of the issues raised by this petition is the point at which the Regional Board was advised that all of the low-phenolic wastestream did not routinely go through the bioplant.

II. CONTENTIONS AND FINDINGS

1. Contention: Unocal argues that both the Cease and Desist Order and Resolution of referral to the Attorney General are based in part on the incorrect conclusion that operation of its wastewater treatment plant as described above resulted in impermissible bypasses in violation of Unocal's NPDES permits.

Finding: The Regional Board based its Cease and Desist Order and Resolution in part on bypasses which were alleged to have occurred between July 1977 through November 1985. There were three relevant NPDES permits issued to Unocal that covered discharges during that time. Regional Board Order No. 74-152 (NPDES Permit No. CA0005053) which was adopted on November 19,

1974 and became effective November 29, 1974 states in Section C (Discharge Prohibitions): "There shall be no bypass of untreated wastewater to waters of the State." Regional Board Order No. 80-5 (NPDES Permit No. CA0005053) which was adopted on February 19, 1980 and became effective March 1, 1980 has the same prohibition.[5] The most recent waste discharge requirements, contained in Regional Board Order No. 85-29 (NPDES Permit No. CA0005053) which was adopted on February 20, 1985 and became effective on March 3, 1985, do not contain this prohibition of bypass of untreated wastewater, although the requirements do contain a standard provision relative to bypass of facilities necessary to maintain compliance with the terms and conditions of the Order. This latter provision is discussed on page 10 et seq. of this Order.

A. Bypass of Untreated Wastewater

The Regional Board asserts that a reasonable interpretation of the prohibition of bypass of untreated wastewater contained in the NPDES permits, particularly in light of the federal regulations regarding bypass, leads to the conclusion that Unocal was violating the bypass of untreated wastewater prohibition by allowing any of its wastewater to be routed around any of its treatment units. We do not agree.

The relevant provision of the NPDES permits prohibits the bypass "of untreated wastewater". Unocal interpreted that to mean that the discharge of partially treated wastewater, i.e., wastewater which had gone through an API separator and a dissolved flotation unit but not through the bioplant, was not in violation of the bypass prohibition as stated in its

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[5] See California Regional Water Quality Control Board, San Francisco Bay Region Order No. 80-5 (NPDES Permit No. CA0005053) Section C.1 and Section D.4.

permit. We find this to be a reasonable conclusion to be drawn from the wording of the prohibition.

Our conclusion is reinforced by a comparison of the wording of the prohibition with the wording of the bypass reporting requirement contained in the NPDES permits. The wording of the bypass prohibition states that "there shall be no bypass of untreated wastewater." The self-monitoring program for the relevant permits states in part that "a report on bypassing of untreated waste or bypassing of any treatment unit(s) shall be made...."[6] The fact that the reporting requirements require the reporting of bypassing of untreated wastewater and the reporting of bypassing of any treatment units leads us to conclude that the term "bypass of untreated wastewater" was not meant to be synonymous with "bypass of any treatment units".

The Regional Board urges us to look to the federal regulations for guidance in interpreting the Unocal permits' prohibition of bypass of untreated wastewater. Yet the wording of the permit prohibition is distinguishable from the wording of the relevant federal regulation. The permits prohibit the "bypass of untreated wastewater". The federal regulations state that "bypass is prohibited" (except under certain conditions which our conclusions today do not require us to consider) and defines bypass as "the intentional diversion of waste streams from any portion of a treatment facility".[7] Unocal's permits do not prohibit "bypass"; they prohibit "bypass

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[6] See Regional Board Order No. 74-152, Self Monitoring Program, Part A, Section F.2; Regional Board Order No. 80-5, Self Monitoring Program, Part A, Section F.2; Regional Board Order No. 85-29, Self Monitoring Program, Part A Section F.2.

[7] See 40 CFR § 122.41(m)(1)(i) and 40 CFR § 122.41(m)(4)(i). We note that (CONTINUED)

of untreated wastewater". The federal regulations prohibit diversion of wastewater around any part of a treatment unit. Unocal's permits prohibit discharge of wastewater which has received no treatment at all. As such, the permit requirement, whether intentionally or not, seems to be less stringent than the requirement in the federal regulations.

The Sierra Club, an interested person regarding this petition, argues that if the federal regulation is found to be more stringent then the permit prohibition, then the federal regulation controls. In this instance, we disagree. The federal regulation prohibiting bypass is currently found in 40 CFR 122.41(m). The introductory part of that section states in part "[t]he following conditions apply to all NPDES permits....All conditions applicable to NPDES permits shall be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to these regulations (or the corresponding approved State regulations) must be given in the permit."[8] None of the NPDES permits under consideration today incorporated either expressly or by reference those conditions contained in the federal regulations. Therefore, the federal regulations regarding bypass do not control our decision today.[9]

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[7] (FOOTNOTE CONTINUED)

these regulations were first promulgated effective August 13, 1979 and at that time contained essentially the same wording as the currently effective regulation which we cite in this Order.

[8] See 40 CFR § 122.41. We note that the wording in the federal regulations has stayed essentially the same since its initial adoption effective August 13, 1979.

[9] The Regional Board should revise Unocal's current NPDES permit to incorporate the relevant federal regulations. The Regional Board has asserted (CONTINUED)

The Sierra Club also argues that one must look to Unocal's permit application for a description of the treatment train and then rely on that treatment train in defining "treated" vs. "untreated" wastewater for

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[9] (FOOTNOTE CONTINUED)

that all wastewater should go through all portions of the treatment facility because Unocal's permit is based on EPA's effluent guidelines for "best available technology" for a petroleum refinery and these guidelines are based on the presumption that all waste streams are receiving biological treatment. Even if this was the basis for EPA's effluent guidelines, it does not necessarily follow that all petroleum refineries are thereby required to install biotreatment facilities to treat all waste streams. EPA's BAT requirements themselves do not establish effluent limitations that would require biological treatment of all waste streams. If the Regional Board wants to require this biological treatment, it should make the necessary findings that such treatment is needed and amend the effluent limitations in the permit accordingly.

With regard to incorporation of the federal bypass prohibition in the current NPDES permit, we do not agree with Unocal's assertion that a bypass prohibition in the permit is contrary to Water Code § 13360 which states in part that waste discharge requirements may not specify the design, location, type of construction or particular manner of compliance with the requirements. As we discussed in State Board Order No. WQ 80-19, In the Matter of the Petitions of Las Virgenes Municipal Water District, et al, the Porter-Cologne Water Quality Control Act, Division 7 of the Water Code, provides that, notwithstanding any other provision of the division, the State and Regional Boards shall issue NPDES permits as required or authorized by the federal Clean Water Act to ensure compliance with the Federal Act (Water Code § 13377). In this case, a bypass prohibition is required by the federal regulations and, to the extent such a prohibition may be inconsistent with Water Code § 13360, the authority to implement the federal Clean Water Act under Water Code § 13377 would prevail. See Water Code § 13372.

However, although Water Code § 13360 may not be a deterrent to inclusion of the federal bypass prohibition in a future Unocal permit, we caution the Regional Board not to rely solely on an incorporation of the federal prohibition of bypass and the related definition if it intends to require all of Unocal's waste streams to go through all portions of Unocal's treatment facilities. We do not believe that was the intent of the federal regulations. Rather, we believe that the federal regulations regarding bypass require treatment facilities to be used to the extent they were reported to the regional board as part of a specific treatment train. For example, some industries segregate sanitary waste streams for separate treatment thereby eliminating the need to disinfect large volumes of process water. Some POTW's discharging to the ocean routinely provide secondary treatment for only a portion of the influent wastewater, blending with primary treated wastewater to

(CONTINUED)

purposes of the bypass of untreated wastewater prohibition. We do not agree. The term "untreated wastewater" is sufficiently clear and unambiguous in itself that it is not necessary to look beyond its plain meaning. We note that the Sierra Club's reasoning would be appropriate if the federal definition of bypass had been incorporated in the permit. (See Footnote 9 in this Order.) However, as discussed above, the federal definition of bypass was not included in the Unocal permits at issue herein.

We note that the Regional Board also based its actions partly on alleged violations of the State Board's Water Quality Control Policy for the Enclosed Bays and Estuaries of California" which states "discharge or bypassing of untreated waste to bays and estuaries shall be prohibited". The wording of the Bays and Estuaries Policy is sufficiently similar to the wording of the bypass of untreated wastewater prohibition contained in the NPDES permits that our conclusions regarding its applicability are the same. The discharge of wastewater which did not go through the bioplant prior to discharge as described herein did not violate the Bays and Estuaries prohibition.

B. Bypass of Facilities Necessary to Maintain Compliance with Terms and Conditions of an Order

The Regional Board also based its Cease and Desist Order and referral to the Attorney General on a standard provision contained in two of the permits under consideration. The provision states in part that "any

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9 (FOOTNOTE CONTINUED)

meet ocean plan requirements. These do not constitute violations of the bypass prohibition. Therefore, the Regional Board should revise the effluent limitations in Unocal's NPDES permit to most effectively and clearly regulate the quality of Unocal's discharge.

diversion from or bypass of facilities necessary to maintain compliance with the terms and conditions of this Order is prohibited except...."[10] (The exceptions involve situations not relevant here.) We agree with the Sierra Club that in order to determine whether this provision was violated, it is necessary to first decide whether the bioplant is a "facility necessary to maintain compliance with the terms and conditions" of the permit.

In determining what terms and conditions are appropriate in a permit, the Regional Board must consider the application submitted by the discharger. An application outlines the treatment train to be followed for specific wastestreams and serves as the basis for the terms and conditions in a permit. The Regional Board relies on a discharger's commitment to utilize the facilities it describes in its application in the manner described in the application. Where a discharger represents in an application that a certain treatment train will be followed, that treatment train then becomes "necessary to maintain compliance with terms and conditions of an order". It is therefore necessary to review Unocal's permit applications.

As part of its permit application for the permit which was effective March 1, 1980, Unocal submitted a letter dated August 5, 1979 which states in part "we have attached a schematic diagram showing flow patterns and rates for our cooling water and process water systems". The diagram does not show a channel for routing wastewater around the bioplant. In fact, the diagram clearly shows all wastewater going through the bioplant. The Regional Board relied on this representation in adopting the permit which was effective

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[10] See Regional Board Order No. 80-5, Standard Provisions, Reporting Requirements and Definitions, Section A.13. See Regional Board Order No. 85-29, Standard Provisions, Reporting Requirements, and Definitions, Section A.13.

March 1, 1980. We find that Unocal was not following the entire treatment train which it had described in its application to the Regional Board as the basis for adoption of the 1980 permit. This failure constituted a violation of the standard provision because a discharger must utilize processes which it told the Regional Board it will follow.

The petitioner emphasizes the fact that its treatment facility was both designed and installed to route any wastewater in excess of 2,500 gpm around the bioplant. This may well be true; however, the crux of the issue before us today is not how the facility was built, but how that facility was described in the permit application submitted to the Regional Board. A discharger has the burden of describing its treatment process in an application to the Regional Board.[11] That process must then be followed to ensure that there is no "bypass of facilities necessary to maintain compliance with the

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[11] Federal regulations require that an application include a line drawing of the water flow through the facility with a water balance, showing operations contributing wastewater to the effluent and treatment units. The water balance must show approximate average flows at intake and discharge points and between units, including treatment units. [40 CFR Section 122.21(g)(2).] Federal regulations also require that an application include a narrative identification of each type of process, operation or production area which contributes wastewater to the effluent for each outfall and a description of the treatment the wastewater receives. [40 CFR Section 122.21(g)(3).] If any of the discharges are intermittent or seasonal, the application must contain a description of the frequency, duration and flow rate of each discharge occurrance (except for stormwater runoff, spillage or leaks). [40 CFR Section 122.21(g)(4).]

The above-cited regulations regarding information to be contained in an NPDES permit application have been in effect since July 18, 1980. Prior to that time, persons with existing permits were required to submit a new application if facility expansions, production increases, or process modifications would result in new or substantially increased discharges of pollutants or a change in the nature of the discharge of pollutants. (See 44 Federal Register 32854, June 7, 1979; effective August 13, 1979.)

terms and conditions" of an order. To conclude otherwise presumes a clairvoyance on the part of a Regional Board which we find untenable.

We note that the 1979 diagram, which was part of the permit application upon which we rely, shows neither the existing storm basins nor a bypass line for use during emergencies. We anticipate an assertion by Unocal that this schematic was therefore quite simplified and not to be relied upon as indicating its full treatment process. However, a discharger must submit an application containing a description of the treatment process which it will use. Given this, it was reasonable for the Regional Board to conclude, and thus adopt the 1980 permit based on the conclusion, that all wastewater would be routed through the bioplant.

Before turning to the applications which were the bases for the 1985 permit, we note that on August 9, 1977 Unocal sent the Regional Board a report regarding problems it was encountering in complying with the permit's total coliform limitation. The report is accompanied by a schematic which states relative to the pipeline leading into the bioplant "2,500 gpm design; 2,000 gpm normal". The diagram also shows a channel around the bioplant and states relative to it "xs flow (over 2,500 gpm)". The description is certainly specific but it is not contained in the permit application and, even more significantly, the schematic itself is labeled "2/3/76 status". Therefore, it was appropriate for the Regional Board to conclude that this was not a description of the treatment process which was intended to be the basis for the 1980 permit.

In December 1980 and June 1981, Unocal submitted applications for renewal of its NPDES permit. Both applications included diagrams which showed a pipeline which could take wastewater around the bioplant and stated relative to that line "normally no flow." On its face, this appears to be

consistent with Unocal's 1979 permit application. However, in a letter dated April 30, 1982, Unocal responded to a Regional Board letter concerning bypassing of the wastewater treatment plant. Unocal's letter states in part:

> "We agreed that we would furnish to you additional information in three general areas: (1) our record with respect to bypasses; (2) our wastewater management practices, relative to bypasses; and (3) our untreated wastewater storage capability."

At a later point, the letter states:

> "Wastewater Management
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> The following is a random listing of factors involved in our management of wastewater, particularly with respect to periods of heavy rainfall.
>
> a. The nominal capacity of our treatment plant as a whole is 7000 gpm. The activated sludge system has a design capacity of 2500 gpm and a maximum feed (lift) pump hydraulic capacity of about 3700 gpm. Through the segregation of most of the treatment load into a small "phenolic process water" stream which is always treated in the trickling filter and activated sludge systems (see Attachment #1), we are normally able to meet our discharge limitations while discharging up to 4500 gpm of non-biotreated water in order to achieve a total rate of 7000 gpm."[12]

In light of the controversy which has followed, the letter could have stated more clearly that "discharging up to 4500 gpm of non-biotreated water" was occurring routinely during peak flow periods and not just during periods of heavy rainfall. However, we find that the description of the

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[12] Letter dated April 30, 1982 from A. L. Felderman, Chief Refinery Engineer, Union Oil Company of California to Mr. Steven C. Heikkila, California Regional Water Quality Control Board.

See also letter dated October 20, 1983, from A. L. Felderman, Chief Refinery Engineer, Union Oil Company of California to Mr. Michael D. Drennan, California Regional Water Quality Control Board. This letter referenced and included as an attachment a copy of the April 30, 1982 letter.

physical capacity of the different parts of the treatment facility was sufficient to put the Regional Board on notice that the permit applications for the 1985 permit indicated two waste streams going through two different treatment trains. If further clarification was needed, it was incumbent on the Regional Board to seek that clarification.

The Regional Board argues that the parts of the letter quoted in our Order must be considered in light of the entire letter which largely concerned bypasses and more particularly, six specific bypass incidents which took place during 1980 through 1982. However, we note that discussion of the capacity of the bioplant and the discharge of non-biotreated waste is contained in a part of the letter entitled "Wastewater Management", not in the parts of the letter entitled "'Bypass' History" or "Wastewater 'Bypass'". Moreover, the discussion of the general operation and use of the different treatment facilities seems to be logically placed in the letter so as to report general wastewater management prior to a more detailed discussion of wastewater management during times of "bypasses". Therefore, we do not concur with the Regional Board's interpretation of the letter.

We thus conclude that the standard provision in the permit effective March 3, 1985 which prohibits the "bypass of facilities necessary to maintain compliance with the terms and conditions of the order" was not violated. The 1980 and 1981 permit applications which were the basis for the 1985 permit indicated a line which could take wastewater around the bioplant but stated there was "normally no flow" in the line. The April 30, 1982 letter clarified that "normally" the low-phenolic waste stream was to be routed through the bioplant, however, when the combined flows exceeded the capacity of the bioplant, some low-phenolic wastewater was to be routed around the

bioplant. The routing of wastewater around the bioplant following issuance of the March 1985 permit which was based on a report of the routing to the Regional Board in a permit application and a detailed clarification of that application was not, in and of itself, a violation of the standard provision in the 1985 permit. Rather, the provision was violated only during those times that such routing caused a violation of terms and conditions of the 1985 permit.

Before leaving this issue, we want to discuss an argument put forth by both the Regional Board and the Sierra Club alleging that the federal Ninth Circuit Court of Appeals recent decision in Sierra Club v. Union Oil Company of California, 813 F.2d 1480 (9th Cir. 1987) holds that the bioplant was a facility necessary to maintain compliance with the permit's effluent limitations. The Sierra Club cites the part of this decision which states:

> "The rest of the unsegregated stream is routed around the bioplant.... As a result, during heavy storms, the water released from the plant may contain pollutants in quantities greater than those allowed under the permit." [Slip op. at 10]

We note, however, that the Sierra Club only cites part of the Court's discussion of this matter. The Court also states in the same paragraph:

> "The biological treatment system has a design capacity of 2500 gallons per minute and is designed to provide treatment at all times to the segregated stream, and under normal weather conditions, to most of the unsegregated wastestream." (Slip op. at 10, emphasis added.)

The Court goes on to state, at page 21, that:

> "The record indicates that Union Oil's facilities were not adequate to handle heavy rainfall."

Therefore, although the Court concluded that the capacity of Unocal's storm basins was inadequate, we do not find that it determined that the bioplant was a "facility necessary to maintain compliance" for all of the low-phenolic wastestream. In fact, the Court acknowledges that not all of the low-phenolic wastestream goes through the bioplant under normal conditions. Nonetheless, although we do not rely on the Court of Appeals decision as the basis for our conclusion, we do agree with the Regional Board that this standard provision in the 1980 permit was violated as discussed above.

We have concluded that the provision in the 1980 permit which prohibits "the bypass of facilities necessary to maintain compliance with the terms and conditions of an order" has been violated because Unocal did not follow the treatment train which it described to the Regional Board in its application as the basis for adoption of the 1980 permit. Although the Regional Board did not abuse its discretion in referring such violations to the Attorney General for appropriate enforcement action, we believe that the Regional Board's receipt of a letter in 1982 which put it on notice of the limited capacity of the bioplant and the discharge of non-biotreated water should be considered by a court in determining appropriate civil monetary liability.

2. Contention: Unocal argues that both the Cease and Desist Order and Resolution of referral to the Attorney General are based in part on the incorrect conclusion that Unocal failed to report bypasses of untreated wastewater or bypassing of any treatment units as required by its NPDES permits.

Finding: The three relevant NPDES permits all contain a Self Monitoring Program, Part A, Section F.2 which states in part that "a report on

bypassing of untreated waste or bypassing of any treatment unit(s) shall be made which will include cause, time, and date, duration and estimated volume of waste bypassed, method used in estimating volume, and persons notified, for planned and/or unplanned bypass".

We agree with the Regional Board that this requirement is more specific than the bypass of untreated wastewater prohibition contained in the permit. Reports were to be made of the bypassing of any treatment unit and the reports were to cover both planned and/or unplanned bypasses. This provision was violated to the extent that Unocal reported in a permit application that certain wastewater flows were to be treated in specific treatment units and those flows were not sent through those treatment units and Unocal failed to report this to the Regional Board.

The application which Unocal submitted in 1971 which was the basis for the NPDES permit which became effective on November 29, 1974 does not discuss the use, or non-use, of the bioplant facility since the bioplant system was not even designed until 1975. Therefore, there was no description of the bioplant as part of the treatment units and no violation of the reporting requirement in the 1974 permit when Unocal failed to report channeling of some wastewater around the bioplant.

As discussed earlier in this order, the application which was the basis for the permit issued in 1980 indicated that all wastewater would be routed through the bioplant for treatment prior to discharge. Therefore, to the extent wastewater was diverted around the bioplant while the 1980 permit was in effect without reporting it to the Regional Board, we agree with the Regional Board that a violation of the reporting requirements in the 1980 permit took place.

Unocal argues that the April 30, 1982 letter quoted in part above serves as a report of the "bypassing of any treatment unit" so as to satisfy the reporting requirement at least from that date onward. We do not agree. We have already concluded that the April 30, 1982 letter served as a clarification of the permit applications which preceded the 1985 permit. However, the letter reported a "material change" in the character of the discharge which could only be dealt with in the context of an amended application. (Water Code Section 13260.) We conclude that any routing of wastewater around the bioplant which took place after the 1985 permit was issued and which was consistent with the description of treatment in the April 30, 1982 letter was not required to be reported to the Regional Board. However, wastewater diverted around the bioplant while the 1980 permit was in effect had to be reported to the Regional Board.

Before turning to Unocal's final contention, we want to point out that although there was very definitely a violation of the reporting requirement in the 1980 permit, we believe that the Regional Board's receipt of the letter in 1982 which put it on notice of the limited capacity of the bioplant and of the discharge of non-biotreated water should be considered by a court in determining appropriate civil monetary liability.

3. Contention: Unocal asserts that the time schedule in the Cease and Desist Order for constructing necessary wastewater treatment system modifications is arbitrary and capricious and unsupported by evidence in the record.

Finding: The completion date set forth in Cease and Desist Order No. 86-11 for the construction of modifications to the treatment system is

July 1, 1988. Unocal states that the earliest reasonable date for completion of construction is ten months later, on May 1, 1989.

Our review of the record leads us to conclude that there is insufficient evidence to determine whether either of these dates are appropriate. However, we note that the Cease and Desist Order requires the submittal by May 1, 1987, of a time schedule for implementation of the selected alternative. The Regional Board should review the final completion date in light of the more detailed information which is now available for Regional Board consideration.

III. SUMMARY AND CONCLUSIONS

1. The petitioner did not violate the prohibition on bypass of untreated wastewater provision of its NPDES permits nor the prohibition on bypass of untreated waste provision of the Bays and Estuaries Policy.

2. The petitioner violated the standard provision in two of the permits regarding bypass of facilities necessary to maintain compliance with terms and conditions of a permit. These violations took place to the extent that the low-phenolic wastestream was routed around the bioplant from February 1980 to March 3, 1985. After March 3, 1985, the petitioner violated the standard provision only to the extent that such bypasses resulted in violation of effluent limitations or other terms and conditions of the permit.

3. The petitioner violated the bypass reporting requirements in its NPDES permits to the extent it failed to report bypassing of the bioplant which took place from March 1, 1980 to March 3, 1985.

4. The Regional Board must reconsider the question of an appropriate final date for construction of necessary wastewater treatment system modifications in light of Unocal's proposed time schedule for implementation of

modifications in light of Unocal's proposed time schedule for implementation of the selected alternative.

IV. ORDER

We hereby remand Cease and Desist Order No. 86-11 and Resolution No. 86-003 to the Regional Board for reconsideration. The Regional Board must either rescind the Cease and Desist Order and Resolution or revise them based on the effluent limitation violations and violations of the Basin Plan prohibition which Unocal did not challenge on appeal and based on the Standard Provision requiring a discharger to operate as efficiently as possible any facility installed to achieve compliance with waste discharge requirements. Unocal did not challenge the applicability of this provision. The revised Order and Resolution can also rely on the Standard Provision contained in two of the permits prohibiting bypass of facilities necessary to maintain compliance with terms and provisions of the permits. This provision was violated to the extent that all of the low-phenolic wastestream was not routed through the bioplant from February 1980 to March 3, 1985 and thereafter to the extent other permit terms were violated as a result of bypass of the bioplant. Finally, the revised Cease and Desist Order and Resolution can be based on the violations of the bypass reporting requirements which took place between March 1, 1980 and March 3, 1985.