CHAPTER 5

PROJECT ALTERNATIVES

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INTRODUCTION

This Draft EA identifies and compares the relative merits of alternatives to the proposed project as required by CEQA. Pursuant to CEQA Guidelines §15126.6(a), an EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.

An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. Thus, the rationale for selecting and modifying specific components of the proposed project is to generate feasible alternatives for analysis as compared to the proposed project. Consequently, the project alternatives identified in the following subsections are based, in part, on modifying major components of proposed amendments.

Additionally, pursuant to CEQA Guidelines §15126.6(e)(1), the specific alternative of "No Project" is also evaluated along with its potential adverse environmental impacts. The purpose of describing and analyzing a no project alternative is to allow decision-makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project.

It should be noted that SCAQMD Rule 110 - Rule Adoption Procedures to Assure Protection and Enhancement of the Environment, does not impose any greater requirements for a discussion of project alternatives in an EA prepared pursuant to SCAQMD's Certified Regulatory Program than is required for an EIR under standard CEQA provisions.

DESCRIPTION OF ALTERNATIVES

Four alternatives were identified and are described below. Except where specifically noted, the alternatives are identical to the proposed project. Where specific alternative modifications vary from the proposed project, the SCAQMD has made an effort to bring this to the reader's attention. Table 5-1 summarizes the alternatives relative to the proposed project.

It should be noted that during working group meetings and at the public workshop for the proposed project, the public has recommended specific alternatives to the proposal. For example, it was suggested that only those facilities expected to exceed their RTC holdings should be required to submit a Compliance Plan. While this EA does not specifically include that particular alternative, the potential environmental impacts of such an alternative to the proposed project are within the scope of the alternatives evaluation. Relative to the example, the evaluation considers alternatives ranging from requiring all RECLAIM facilities to submit Compliance Plans to eliminating the proposed Compliance Plan requirement altogether.

Table 5-1
Alternatives Description Summary

PROPOSED PROJECT	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
Isolate all existing power plants ≥ 50 MW; Limit trading	Isolate all existing power plants **regardless of size**; No change from proposed project	**No power plant isolation;** **No trading restriction**	No change from proposed project No change from proposed project	No change from proposed project No change from proposed project
Require Compliance Plan for power plants ≥ 50 MW and facilities ≥ 50 tons/year	Require Compliance Plan for **all RECLAIM facilities**	Require Compliance Plan for **power plants ≥ 50 MW only**	**No Compliance Plan** except existing orders of abatement or settlement agreements	No change from proposed project
Mitigation fee for power plants - deduct excess emissions from RTC holdings - sunsets 2004	No change from proposed project	No change from proposed project	**No deductions** from future allocations	No change from proposed project
AQIP for specified facilities - AQIP funded prior to mitigation fee program - sunsets 2004	No change from proposed project	**Any facility without access to mitigation fee program** can access AQIP	**No pre-funding** of AQIP	No change from proposed project
NOx credit generating rules: PR 1631, PR 1632, PR 1633, and PR 2507	No change from proposed project	**Extend the application date for MSERC projects by one year**	No change from proposed project	No change from proposed project
One-time 2001 NOx allocation increase	Not allowed	Not allowed	Not allowed	**Refineries only, up to 600 pounds**

Notes: 1) Table 5-1 references only key components of proposed project
2) Alternatives identical to proposed project except where noted
3) CEQA requires analysis of the "No Project" Alternative

No Project Alternative: As required by CEQA, this alternative contemplates taking no action. Under the No Project Alternative, the existing RECLAIM program would not be modified and PR 1631, PR 1632, PR 1633, and PR 2507 would not be adopted[1]. Pursuant to CEQA Guidelines §15126.6(e)(1), "The no project alternative analysis is not the baseline for

[1] For the purposes of this analysis, it is assumed under the No Project Alternative that PR 1631, PR 1632, PR 1633, and PR 2507 would not be adopted at this time. These rules, however, are being developed for the Governing Board's consideration irrespective of the proposed amendments to RECLAIM.

determining whether the proposed project's environmental impacts may be significant, unless it is identical to the existing environmental setting analysis, which does establish that baseline (see Section 15125)." For the purposes of this analysis, the No Project Alternative does not constitute the existing setting. The reason for this determination is that the existing setting is the environmental conditions as they exist at the time that the notice of preparation is published (CEQA Guidelines §15125(a), which for the proposed project was January 31, 2001. Subsequent to publishing the notice of preparation for the proposed project, on February 8, 2001, Governor Davis issued Executive Order #D-24-01, which requires air districts to modify emission limits as necessary to ensure that power generating facilities are not restricted in their ability to operate. This Executive Order is currently in effect and remains in effect until December 31, 2001.

The main implication of the fact that the existing setting does not include the Governor's Executive Order is that, relative to air quality, any exceedance of a power generating facility's annual allocation for 2001 would be a violation or a significant impact if the exceedance is greater than 55 pounds per day. With the Governor's Executive Order in effect, exceedances of a power generating facility's annual allocation would be allowed, as long as the owners/operators of the power generating facility paid a mitigation fee. The mitigation fee would then be used to obtain emission reductions from other sources that would not necessarily reduce emissions otherwise. To the extent that the mitigation fee may or may not obtain comparable emission reductions to make up the NOx emissions shortfall (NOx emissions increase) air quality impacts may or may not be significant. Because the Governor's Executive Order is now in effect, the comparison of the relative merits of the all project alternatives will be to the proposed project and in some cases to the No project Alternative, which includes the effect of the Governor's Executive Order.

It should be noted that although the SCAQMD Governing Board has the option of taking no action, i.e., the No Project Alternative, this does not mean that there would be no changes to the RECLAIM program, particularly with reference to the power generating facilities. The Governor's Executive Order #D-24-01 requires air districts to modify emission limits as necessary to ensure that power generating facilities are not restricted in their ability to operate. This means that power-generating facilities would continue operating at higher than historical levels, thus potentially exceeding their annual allocations. The Governor's Order, however, expires December 31, 2001.

Alternative A: Alternative A contemplates isolating from the RECLAIM market all existing power producing facilities regardless of size, whereas the proposed project would isolate only those power producing facilities greater than or equal to 50 MW. Alternative A also differs from the proposed project by requiring all RECLAIM facilities to submit a Compliance Plan. For the purposes of this analysis to maximize potential adverse secondary environmental impacts, it is assumed that the Compliance Plan under this alternative requires installation of NOx control equipment to comply with annual allocations[2]. Purchasing RTCs would not be allowed to comply with annual allocation. NOx credit generating rules would still be used, however, to generate NOx credits, but they would most likely be used to fund the Mitigation Fee Program

[2] This assumption is for the informational purposes of the environmental analysis only. Facilities would not be required to install equipment based on this analysis, but rather must comply with all relevant rule provisions.

and the RECLAIM AQIP. The proposed project limits Compliance Plan submittal to power producing facilities greater than or equal to 50 MW and facilities with NOx emissions greater than or equal to 50 tons per year.

Alternative B: Unlike the proposed project, Alternative B would allow power producing facilities to remain within the RECLAIM trading market, thus RTC trading would not be restricted for these facilities. Alternative B would limit Compliance Plan submittal requirements only to power producing facilities greater than or equal to 50 MW. For the purposes of this analysis, it is assumed that the Compliance Plan under this alternative requires installation of NOx control equipment to comply with annual allocations. Purchasing RTCs to comply with annual allocation for facilities submitting Compliance Plans would only be allowed for these facilities when increasing production. Facilities with NOx emissions greater than or equal to 50 tons per year would not be required to prepare and submit a Compliance Plan. Under Alternative B, any facility without access to the mitigation fee program can access AQIP (the proposed project limits access to the AQIP to facilities with emissions less than or equal to six tons per year). As required under the proposed project, all facilities accessing the AQIP would be required to install BARCT.

Alternative B also includes minor modifications to the NOx credit generating rules. Under the proposed project, any person electing to generate MSERCs or ASCs must submit an application by 2004. Alternative B would extend by one year the date that applications would have to be filed. This would allow one additional years' worth of projects generating MSERCs or ASCs. As a result this alternative would result in more RTCs entering the RECLAIM trading market.

Alternative C: Alternative C would eliminate the requirement to prepare and submit a Compliance Plan altogether. Additionally, any exceedances of RTC holdings by power producing facilities participating in the proposed mitigation fee program would not be deducted from future year RTC holdings. Unlike the proposed project, Alternative C would not pre-fund the RECLAIM AQIP.

Alternative D: Alternative D is identical to the proposed project, except that refineries in the district would be given special consideration. In particular, refineries in California are currently in the process of making modifications to phase out the use of the oxygenate methyl tertiary butyl ether (MTBE) as required by the Governor's Executive Order #D-5-99, no later than December 31, 2002. Further, refineries must also make modifications to comply with new CARB Phase 3 reformulated gasoline specifications. Because these refinery projects are mandated by state law or through a Governor's Executive Order, and since these modifications have the potential to increase NOx emissions at the refineries, Alternative D would allow a one-time increase in a refinery's NOx emissions up to 600 pounds per day.

To qualify for the one-time NOx allocation increase, a refinery must demonstrate that projected NOx emission increases are a direct result of modifications solely to comply with state law and the Governor's Executive Order. Further, refineries will receive a one-time increase in their daily NOx emissions only in the amount necessary to offset daily NOx emission increases from the MTBE phase out and CARB Phase 3 reformulated gasoline projects. The analysis of

alternatives assumes, however, that all six of the major refineries[3] in the district will receive a one-time increase in their NOx emissions of 600 pounds per day each. RTCs for this one-time increase would be created administratively. The rationale for providing an additional one-time emission increase to a refinery's daily NOx emission is based on the potential emission reduction benefits that result from the lower emissions anticipated from on-road vehicles using CARB Phase 3 reformulated gasoline.

The allocation adjustment in this alternative is similar to the clean fuel adjustment to the starting allocation provision in Rule 2002(c)(12). This provision was incorporated into RECLAIM when it was first adopted to accommodate refinery modifications necessary to comply with mandated federal and CARB Phase 2 reformulated gasoline requirements.

COMPARISON OF THE ALTERNATIVES

The Initial Study identified environmental topics where the proposed project could cause significant adverse environmental impacts (i.e., air quality, energy resources, and hazards). Further analysis of these environmental topics in Chapter 4 of this Draft EA concluded that potentially significant adverse air quality impacts might result from construction activities and the proposed provisions that alter the way potential exceedances of power producing facilities' annual allocations are addressed. The relatively small increase in the use of natural gas and electricity was considered insignificant. Finally, though site-specific hazards analyses could not be performed for the project because project-specific characteristics at each affected RECLAIM facility are not known, based upon recent CEQA documents prepared by the SCAQMD as lead agency for projects using SCR and ammonia for NOx control, it was concluded that the additional use of ammonia for NOx control could result in significant adverse hazard impacts.

The following subsections briefly describe potential environmental impacts that may be generated by each project alternative. Each environmental topic summary contains a brief description of the environmental impacts for each project alternative compared to impacts resulting from implementing the proposed project. Table 5-2 compares the potential environmental impacts of the proposed alternatives relative to the proposed project.

Air Quality

The analysis in Chapter 4 identified two types of significant adverse air quality impacts from the proposed project: 1) construction emissions related to installation of SCR systems, ammonia or natural gas storage tanks, and associated ancillary equipment and piping and 2) a delay in NOx emission reductions exceeding 55 pounds per day resulting from allowing potential exceedance(s) of power producing facilities' annual allocations to be deducted from their RTC holdings two years into the future.

[3] The major refineries include, BP/ARCO, Chevron, Equilon (formerly Texaco), Mobil, Tosco (formerly Unocal), and Ultramar.

Table 5-2
Comparison of Alternatives

Topic	Proposed Project	No Project Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Air Quality						
Construction	Significant	Not significant	Significant > proposed project	Significant > proposed project	Significant < proposed project	Significant, equivalent to proposed project
Operational Emission Shortfall	Yes, Not Significant	Yes; > proposed project	Yes; < proposed project	Yes; < proposed project	Yes; > proposed project	Yes, equivalent to proposed project
Operational Delay in Reaching Program Endpoint	Yes, Significant	Yes, > the proposed project	Yes < the proposed project	Yes, equivalent to proposed project	Yes, > the proposed project	Yes, > the proposed project
Operational Localized	Not significant	Not significant < proposed project	Not significant	Not significant, > proposed project	Not significant, > proposed project	Not significant, equivalent to proposed project
Energy Impact	Not significant	Not significant < proposed project	Not significant equivalent to proposed project	Not significant > proposed project	Not significant equivalent to proposed project	Not significant equivalent to proposed project
Hazard Impacts	Significant	Not significant[1]	Significant > proposed project	Significant > proposed project	Significant < proposed project	Significant, equivalent to proposed project
Public Service Impacts	Not Significant	Not significant > proposed project	Not significant < proposed project	Not significant < proposed project	Not significant < proposed project	Not significant < proposed project

[1] In the context of the proposed project, hazard impacts of the No Project Alternative are considered to be insignificant. However, as part of the original 1993 CEQA analysis for the NOx RECLAIM Program, hazard impacts were concluded to be significant.
> equals greater than and < equals less than.

No Project Alternative

The No Project Alternative assumes that the proposed amendments to the RECLAIM program and the proposed pilot NOx credit generating rules would not be adopted. As already noted,

because of the ongoing energy crisis in California, power-generating facilities would continue operating at higher than historical levels. This assumption is based upon a number of factors, primarily implementation of the Governor's Executive Order #D-24-01 and other efforts currently being made by the state legislature and the Cal-ISO to continue providing electricity throughout the state to avoid rolling blackouts and minimize the potential for Stage 1, 2, or 3 Episodes. As a result, to the extent that power-generating facilities continued to participate in the RECLAIM trading market, RTC prices would remain high and RTC availability would remain low.

Under the No Project Alternative, any existing or currently planned construction emissions from installing control equipment would continue to occur because facilities would be expected to continue complying with their RECLAIM allocations. In particular for power-generating facilities, the SCAQMD has entered into an order of abatement with LADWP and a settlement agreement with AES, which establish a schedule for installing SCR equipment or repowering existing utility boilers. Repowering also requires installation of SCRs. These projects are not part of the proposed project and would occur regardless. Consequently, these projects are considered to be part of the existing setting. Additional construction emissions for power plants, as identified for the proposed project, would not occur because all power generating equipment would not be required to install BARCT, although they might have to install some type of controls to operate within their allocations. It is possible that additional construction emissions could occur from non-power generating facilities if they exceed their annual allocations. The reason for this conclusion is that, under the current program, facilities violating their annual allocations would likely be fined and required to enter into an Order of Abatement with the SCAQMD. The Order of Abatement would likely require control equipment installed on a schedule agreed upon by the SCAQMD and the violating facility. Finally, there would no be construction emissions from projects undertaken to generate MSERCs and ASCs because the NOx credit generating rules would not be adopted.

With regard to operational emissions, to the extent that non-power generating facilities continue to comply with their RECLAIM allocations, they would likely have to curtail production, modify operations to reduce emissions, or install control equipment, which would take time. If any of these non-power generating facilities exceed their annual allocations, they would likely become subject to an Order of Abatement which could require installation of control equipment on a specified schedule.

Power generating facilities would continue to exert a large influence on the trading market. As a result, purchasing RTCs would be a limited compliance option for many facilities because of their high cost and scarcity. Under this alternative, it is expected that power producing facilities would continue to operate at higher than historical levels, thus producing the RECLAIM program emission reduction shortfall (increased emissions) as shown in Tables 3-1 and 3-2 in Chapter 3, which are expected to be greater than under the proposed project. Further, because of the Governor's Executive Order, it is anticipated that power-generating facilities would delay complying with their RECLAIM allocations, at least until the energy situation has eased. The programmatic ending allocation would likely be delayed beyond 2003 under the No Project Alternative only if RECLAIM participants violate their annual allocations to a substantial degree, which is likely to occur (see Tables 3-1 and3-2. As discussed throughout this document, emissions due to the unanticipated electricity crisis are likely to result in such a scenario.

Unlike the proposed project, the No Project Alternative does not require the SCAQMD to establish a mitigation fee or a RECLAIM AQIP to make up for the emission reductions foregone by power generating facilities operating at high levels, although Executive Order #D-24-01 does include a provision for establishing a mitigation fee. Consequently, under the No Project Alternative some type of mitigation fee would be in effect.

Although it was concluded in Chapter 4 that the use of non-stationary source credits would not result in adverse air quality impacts, it is acknowledged that the No Project Alternative would result in fewer MSERCs and ASCs converted to RTCs and entering the RECLAIM market because the currently proposed credit generating rules would not be adopted and the existing rules have not been approved by EPA. As a result, to the extent MSERCs or ASCs are used to comply with RECLAIM requirements, they would be obtained from existing credit generating rules.

Alternative A

Alternative A would require Compliance Plans for all RECLAIM facilities. As discussed in the description of Alternative A, for the purposes of the analysis of environmental impacts, it was assumed that facilities subject to the Compliance Plan requirement would install BARCT. As such, Alternative A would result in the highest levels of construction air quality impacts associated with the installation of BARCT equipment and ancillary control equipment.

Alternative A would likely have the greatest total emission reduction potential since the analysis assumes all BARCT equipment would be installed on all permitted NOx sources at RECLAIM facilities. However, because power generating facilities would continue to operate at higher than historical levels, it is likely there would still be a shortfall in emission reductions from the overall RECLAIM program, although this shortfall would not be as great as for the proposed project. The programmatic ending allocation after deducting the prior year exceedances would likely exceed 55 pounds per day and be delayed beyond 2003 under Alternative A because it contains the same provision as the proposed project that requires deducting potential exceedance(s) of power producing facilities' annual allocations from their annual allocation two years into the future.

Although all facilities would install feasible controls under Alternative A, because it is likely that emission reduction shortfalls (higher NOx emissions) would still occur due to penalty provisions, it is anticipated that non-power producing facilities would continue to purchase MSERCs and ASCs, converted to RTCs, to comply with their annual allocations, at least in the near-term. Because the proposed NOx credit generating rules are expected to generate a relatively small amount of NOx MSERCs and ASCs, it is likely that they would be used to approximately the same extent as they would be used under the proposed project. As already noted in Chapter 4, use of MSERCs and ASCs as RTCs to comply with RECLAIM allocations would not contribute to significant adverse localized air quality impacts.

Alternative B

Although Alternative B only requires a Compliance Plan (installation of BARCT equipment) for power generating facilities greater than equal to 50 MW, construction air quality impacts would

be equivalent to or slightly greater than those generated by the proposed project. The reason for this conclusion is that, even though the proposed project requires a Compliance Plan from facilities with emissions greater than or equal to 50 tons per year, these large facilities are not required to install BARCT equipment, as is also the case under Alternative B. This alternative, however, allows all non-power-generating facilities to access to the RECLAIM AQIP. Similar to the proposed project, all facilities accessing the RECLAIM AQIP must install BARCT equipment. Depending on what constitutes BARCT at these facilities, additional construction could occur resulting in slightly greater construction air quality impacts than the No project Alternative.

The net operational air quality effect of Alternative B would, in some respects, be similar to or slightly greater than the proposed project because potentially more facilities would have access to the RECLAIM AQIP. Similar to the proposed project, facilities accessing the RECLAIM AQIP would have to install BARCT equipment, which would further reduce NOx emissions. If a substantial number of facilities install BARCT equipment, demand for RTCs could drop slightly compared to the proposed project. All facilities could comply with their annual allocations through installing controls or purchasing RTCs (to the extent they are available). There would still be a NOx emission shortfall slightly smaller than the proposed project. However, in the short term, because there are no trading restrictions, power-generating facilities would continue to purchase NOx RTCs from the RECLAIM market until such time as control equipment has been installed on all equipment[4]. This means that the cost of RTCs would remain high and they would continue to be in low supply in the near term. As a result, it would likely be more difficult for small non-power generating facilities to obtain RTCs compared to the proposed program.

In the near term Alternative B would have an equivalent or slightly lower emission shortfall compared to the proposed project. This conclusion is based upon two factors. First, to the extent that more non-power generating facilities have access to the AQIP and install BARCT equipment, programmatic NOx emissions would be slightly lower than would be the case for the proposed project. Second, Alternative B includes alternatives to the proposed credit generating rules (PR 1631, PR 1632, PR 1633, and PR 2507), which include an extension of up to one year the date that applications would have to be filed. This would allow one additional years' worth of projects generating MSERCs or ASCs, which would provide a small increase in total number of MSERCs and ASCs available to RECLAIM facilities. Even with the additional MSERCs and ASCs that could be generated under this alternative, it is still anticipated that there would be a NOx emission shortfall (NOx emission increase), but it would be slightly less than would occur under the proposed project.

In addition to the anticipated NOx emission shortfall (NOx emission increase) the programmatic ending allocation after deducting the prior year exceedances would likely exceed 55 pounds per day and be delayed beyond 2003 under Alternative B. The reason for this conclusion is that Alternative B contains the same provision as the proposed project that requires deducting

[4] Under the Order of Abatement between LADWP and the SCAQMD, LADWP has until December 1, 2008 to install control equipment at its Haynes Generating Station. Consequently, it is possible that power-generating facilities could continue exerting excessive influence on the RTC trading market at least until this time.

potential exceedance(s) of power producing facilities' annual allocations from their annual allocation two years into the future.

Under Alternative B it is likely that MSERCs and ASCs would be used to a greater extent than under the proposed project. This means that some facilities could purchase more RTCs generated from MSERCs or ASCs than would be the case under the proposed project. Use of MSERCs and ASCs would occur at the expense of controlling stationary source emissions. This has the potential to increase localized air quality impacts at affected facilities. As concluded in Chapter 4, use of RTCs obtained from MSERCs or ASCs, would not create localized air quality impacts. For the same reasons give in Chapter 4 (i.e., the proposed credit generating rules are expected to provide real, enforceable emission reductions in excess, or surplus; the proposed credit generating rules contain the 10 percent environmental benefit provision; the proposed NOx credit generating rules will also provide reductions of diesel emissions components other than NOx including PM10 and toxic air contaminant reduction benefits; etc.) the alternative credit generating rules are not expected to generate significant adverse localized impacts.

Alternative C

Since Alternative C does not require a Compliance Plan (installation of additional BARCT equipment) for any facilities, it is possible that little or no additional construction air quality impacts from installing BARCT at power-generating facilities would occur. Some construction emissions would still be anticipated, however, because, facilities accessing the RECLAIM AQIP would be required to install BARCT equipment, as is required under the proposed project. It is expected that construction air quality impacts for Alternative C would be less than for the proposed project, but greater than for the No project alternative.

With regard to operational emissions, there are two components of Alternative C that would be expected to contribute to a greater emission reduction shortfall (higher overall NOx emissions) for the RECLAIM program compared to the proposed project. First, by not requiring Compliance Plans (installation of BARCT equipment on all power generating equipment), if no additional actions are undertaken by the RECLAIM facility NOx emission reductions would not occur, as is the case for the proposed project.[5] Further, since Alternative C does not require deducting current allocation exceedances from future allocations, emission reductions would not occur in future years to the extent they would under the proposed program, which requires deducting current allocation exceedances from allocations two years in the future. Removing the requirement to deduct excess emissions could result in foregone NOx emission reductions that would otherwise be required under the existing RECLAIM rules. Alternative C would also result in a substantial relaxation of requirements compared to the existing RECLAIM program, which requires deducting current allocation exceedances from the next year's allocation. This means that Alternative C would result in a much higher overall NOx emissions than the No Project Alternative and a greater delay in achieving the year 2003 endpoint.

Because it is anticipated that Alternative C would generate a greater emission reduction shortfall than the proposed project, the demand for MSERCs and ASCs would likely be greater because of

[5] In reality, however, it is likely that a facility would take some action to avoid violating its annual allocations such as installing control equipment, modifying operations, or curtailing production.

the greater emission reduction shortfall. Therefore, it is expected that MSERCs and ASCs would be used at approximately the same extent compared to the proposed project. However, as already indicated only a relatively small and finite number of MSERCs and ASCs would be generated through the proposed credit generating rules, so all of these credits would likely be used. As already indicated in Chapter 4, use of MSERCs and ASCs would not generate significant adverse localized impacts.

Alternative D

Construction air quality impacts from Alternative D would be identical to the proposed project because all of the same facilities would have to install BARCT. Construction emissions from modifications to comply with CARB Phase 3 requirements would occur at refineries, but these emission are unrelated to the proposed project. To the extent, however, that construction to install control equipment and construction related to reformulated gasoline requirements occur concurrently, there is the potential for this alternative to generate greater cumulative construction air quality impacts.

The net operational air quality effect of Alternative D would be similar, in some respects, to the proposed project because of the assumption used here that all facilities required to submit a Compliance Plan would install BARCT. Similar to the proposed project, structural buyers accessing the RECLAIM AQIP, e.g., non-power generating facilities with emissions less than six tons per year, etc., would have to install BARCT equipment, which would further reduce NOx emissions. All non-power generating facilities could comply with their annual allocations through installing controls or purchasing RTCs (to the extent they are available).

Under Alternative D, however, the NOx emission allocations would be substantially artificially inflated by the one-time daily NOx emission increases allowed at the six major refineries in the district. Since these RTCs would not necessarily be based on real or surplus emission reductions, the NOx emission reduction shortfall would not necessarily be as great as for the proposed project, but achieving the programmatic endpoint would likely take longer because greater emission reductions would have to occur to achieve the same NOx emission endpoint compared to the proposed project.

Facilities would install feasible controls under Alternative D to the same extent that would occur under the proposed project. Demand for RTCs in the overall RECLAIM market would be approximately equivalent to the proposed project because, even though there is an infusion of RTCs into the program, these would be used only by the refineries to offset potential NOx emission increases resulting from modifications to comply with CARB Phase 3 reformulated gasoline specifications, mandated by state law. Because the proposed NOx credit generating rules are expected to generate a relatively small amount of NOx MSERCs and ASCs, it is likely that they would be used to approximately the same extent as they would be used under the proposed project. As already noted in Chapter 4, use of MSERCs and ASCs as RTCs to comply with RECLAIM allocations would not contribute to significant adverse localized air quality impacts.

Energy Resources

As indicated in Chapter 4, the amount of natural gas and electricity that may be used for emission credit generation projects is considered insignificant for the following reasons. First, the amounts of natural gas and energy use are negligible relative to existing and projected uses. Additionally, use of these energy resources would result in a concurrent reduction in other energy resources (i.e., diesel fuel) while improving air quality. Further, the proposed project is being undertaken in part to provide power generating facilities greater flexibility in complying with existing air quality regulations to allow them to contribute maximum electricity output to the state power grid, thus helping to ease the current shortage of electricity supplies.

No Project Alternative

As discussed above, the No Project Alternative assumes that PR 1631, PR 1632, PR 1633, and PR 2507 would not be adopted. As a result, no additional demand for energy resources from NOx credit generating rules would occur. Therefore, the No Project Alternative would have less impact on energy resources than the proposed project.

Alternative A

Since Alternative A includes the same proposed NOx credit generating rules and these proposed are the primary source of potential adverse energy impacts, energy impacts would be equivalent to those identified for the proposed project. As indicated in the comparison of effects on air quality from implementing Alternative A compared to the proposed project, it is likely that MSERC and ASC demand from Alternative A would be equivalent to the proposed project. As a result energy impacts from implementing Alternative A would be equivalent to the energy impacts anticipated for the proposed project, that is, they would be insignificant.

Alternative B

Since it is expected that Alternative B would also result in an emission reduction shortfall (increased NOx emissions), it is assumed that credits generated by the alternative credit generating rules would be used to the extent they are available. It was further assumed that the alternative credit generating rules could only generate a relatively small finite number of additional MSERCs and ASCs compared to the proposed credit generating rules and all of them would likely be used. Consequently, it is expected that Alternative B would generate slightly greater energy impacts than the proposed project. Energy impacts from this alternative, however, would be insignificant.

Alternative C

As for the other alternatives and the proposed project, energy impacts are anticipated to be generated primarily by the proposed NOx credit generating rules. It is anticipated that all MSERCs and ASCs generated under the proposed credit generating rules would be used to minimize any shortfalls in complying with the RECLAIM allocations. Therefore, Alternative C would have energy impacts equivalent to the proposed project, that is, insignificant energy impacts.

Alternative D

As for the other alternatives and the proposed project, energy impacts are anticipated to be generated primarily by the proposed NOx credit generating rules. It is anticipated that all MSERCs and ASCs generated under the proposed credit generating rules would be used to minimize any shortfalls in complying with the RECLAIM allocations. Therefore, Alternative D would have energy impacts equivalent to the proposed project, that is, insignificant energy impacts.

Hazards

The analysis in Chapter 4 identified potential hazards risks associated with increased transport, storage, and use of ammonia to be significant. The reason for this conclusion is that, in the event of an accidental release of ammonia either offsite during transport or onsite during storage, handling, or use, substantial numbers of the local population could be exposed to concentrations exceeding the hazard significance threshold for ammonia, 200 ppm. Although site-specific analyses were not performed, this conclusion is based on conclusions regarding hazard impacts in CEQA documents prepared by the SCAQMD as lead agency for SCR projects at several power generating facilities in the district.

No Project Alternative

The No Project Alternative assumes that no additional SCR equipment would be installed than originally anticipated for the RECLAIM program. The CEQA document prepared for the NOx and SOx RECLAIM program prior to its adoption concluded that hazard impacts (called risk of upset at that time) from the transport, storage and use of ammonia would be significant. The No Project Alternative would not create any new significant adverse hazard impacts or make the previously analyzed significant adverse hazard impact substantially worse so, relative to the proposed project, hazard impacts for the No Project Alternative would not be considered significant.

Alternative A

By requiring Compliance Plans (installation of BARCT equipment) for all RECLAIM facilities, Alternative A has the potential to substantially increase the number of SCR units at RECLAIM facilities in the district compared to the proposed project, resulting in a much greater use of ammonia for NOx control. As such, Alternative A, like the proposed project, would also be expected to generate significant adverse hazard impacts from the transport, storage, and use of ammonia, but to a greater extent than the proposed project.

Alternative B

Since Alternative B only requires a Compliance Plan (installation of BARCT equipment) from power generating facilities, it is expected to have equivalent hazard impacts from these types of facilities compared to the proposed project. Facilities with emissions greater than or equal to 50 tons per year would not have to prepare a Compliance Plan, so they would not be required to install BARCT to any greater extent than under the proposed project. They could continue to

comply with their annual allocations through purchasing RTCs, to the extent they are available, curtailing production, or changing to lower emitting operations. However, more facilities have the potential to take advantage of the RECLAIM AQIP compared to the proposed project. Further, any facility taking advantage of the RECLAIM AQIP must install control equipment. Therefore, to the extent that BARCT for these facilities consists of SCR, this alternative could generate greater hazard impacts from greater use of ammonia used for NOx control than the proposed project.

Alternative C

Alternative C does not require a Compliance Plan (installation of BARCT equipment) for any RECLAIM facilities, although installation of BARCT equipment pursuant to any existing orders of abatement or settlement agreements would continue to be required. Alternative C still requires facilities taking advantage of the RECLAIM AQIP provision to install BARCT. This means that, to the extent that BARCT for AQIP consists of SCR, hazard impacts from transport, storage, or use of ammonia would be slightly greater than the No Project Alternative, but less than the proposed project. Because there is a slight increase in ammonia use, hazard impacts for Alternative C are considered to be significant.

Alternative D

The analysis in Chapter 4 identified potential hazards risks associated with increased transport, storage, and use of ammonia to be significant. The reason for this conclusion is that, in the event of an accidental release of ammonia either offsite during transport or onsite during storage, handling, or use, substantial numbers of the local population could be exposed to concentrations exceeding the hazard significance threshold for ammonia, 200 ppm. Alternative D is expected to generate equivalent hazard impacts compared to the proposed project because it contains most of the same requirements.

Public Services

No Project Alternative

As indicated in Table 3-1, to supply energy to ease the current energy crisis in California, power-generating facilities are expected to increase power generation compared to historical levels, thereby substantially increasing future NOx emissions reduction shortfalls. To the extent that power-generating facilities curtail production to limit future NOx emission shortfalls, rolling blackouts could result. The current efforts to increase future electricity supplies, i.e., current projects to retrofit or repower existing electricity generating facilities in the Basin, the anticipated increase in electricity generators, and other proposals to secure reliable long-term energy supplies, etc., should help minimize the possibility of rolling blackouts in the future. Since the proposed project is expected to minimize the possibility of future NOx emission reduction shortfalls, it is considered to result in fewer or less severe potential adverse impacts to public services than the No Project Alternative.

Alternative A

Like the proposed project, it is anticipated that Alternative A will create beneficial effects on public services such as police and fire departments, schools, etc., by generating real and surplus credits that will serve to reduce future NOx emission shortfalls. Since Alternative A may result in greater NOx emission reductions because BARCT is expected to be installed to a greater extent than for the proposed project, it is anticipated it will generate a slightly smaller NOx emission reduction shortfall than the proposed project. Compared to the No Project Alternative, Alternative A will substantially reduce the possibility of rolling blackouts in the future, which will reduce potential adverse impacts to public services in the district.

Consequently, for the reasons identified in the preceding paragraph along with the current projects to retrofit or repower existing electricity generating facilities in the district, the anticipated increase in electricity generators and other proposals to secure reliable long-term energy supplies from the power generators, it is not expected that the Alternative A will exacerbate the current energy crisis, including the possibility of rolling blackouts. Therefore, significant adverse impacts to public services are not expected.

Alternative B

Alternative B would extend by one year the date that applications for NOx emission reduction projects would have to be filed. This would allow one additional years' worth of projects generating MSERCs or ASCs. As a result this alternative would result in more RTCs entering the RECLAIM trading market. By generating additional real and surplus credits, Alternative B would be expected to reduce future NOx emission shortfalls to a slightly greater extent than the proposed project. Compared to the No Project Alternative, Alternative B will substantially reduce the possibility of rolling blackouts in the future, which will reduce potential adverse impacts to public services in the district.

Consequently, for the reasons identified in the preceding paragraph along with the current projects to retrofit or repower existing electricity generating facilities in the district, the anticipated increase in electricity generators and other proposals to secure reliable long-term energy supplies from the power generators, it is not expected that the Alternative B will exacerbate the current energy crisis, including the possibility of rolling blackouts. Therefore, significant adverse impacts to public services are not expected.

Alternative C

Since Alternative C would not require deducting exceedances of a facility's current annual allocation from future annual allocations, future NOx emission reduction shortfalls would likely be less than they would be compared to the proposed project. For this reason, along with the current projects to retrofit or repower existing electricity generating facilities in the Basin, the anticipated increase in electricity generators and other proposals to secure reliable long-term energy supplies from the power generators, it is not expected that the Alternative C will exacerbate the current energy crisis, including the possibility of rolling blackouts. Therefore, significant adverse impacts to public services are not expected.

Alternative D

Alternative D would allow a one-time increase in a refinery's NOx emissions up to 600 pounds per day. This one-time increase would be used only by the six refineries in the district to offset emissions from modifications to comply with CARB Phase 3 reformulated gasoline specifications, mandated by state law. As a result, Alternative D would have a slightly lower NOx emission reduction shortfall than the proposed project. For this reason, along with the current projects to retrofit or repower existing electricity generating facilities in the district, the anticipated increase in electricity generators and other proposals to secure reliable long-term energy supplies from the power generators, it is not expected that the Alternative D will exacerbate the current energy crisis, including the possibility of rolling blackouts. Therefore, significant adverse impacts to public services are not expected.

CONCLUSION

CEQA Guidelines §15126.6 (d) requires a CEQA document to include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. The preceding comparison of the relative merits of the each of the proposed project alternatives compared to the proposed project is consistent with this CEQA provision.

Pursuant to CEQA Guidelines §15126.6(e)(2), if the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. To the extent that the No Project Alternative does not require additional installation of BARCT equipment at RECLAIM facilities. However, to the extent that facilities exceed their annual allocations, they may become subject to orders of abatements, which would likely require installation of BARCT. As a result, minor construction air quality impacts would be expected to occur, but would likely not exceed any significance thresholds. Similarly, since the No Project Alternative also assumes none of the credit generating rules would be adopted, there would not be an additional demand for energy. Therefore, the No Project Alternative would not generate any significant secondary adverse impact compared to the proposed project.

From an operational air quality perspective, the No Project Alternative does nothing to address the potential emission reduction shortfall (increased NOx emissions) caused primarily by power generating facilities operating at higher than historical levels. This emission reduction shortfall is addressed in two ways by the proposed project. First, it requires installation of BARCT equipment, which would likely produce greater NOx emission reductions than the current RECLAIM program (No Project Alternative). Second, unlike the proposed project the No Project Alternative does not include NOx credit generating rules, which provide emission reductions that would not otherwise occur. Consequently, the No Project Alternative is not considered to be the environmentally superior alternative, with respect to operational air quality.

Alternative A would likely achieve the greatest emission reductions (the smallest emission reduction shortfall) since it requires all RECLAIM facilities to submit Compliance Plans (i.e., all feasible controls at all RECLAIM facilities). Alternative A, however, would potentially generate greater construction air quality impacts. Further, Alternative A would likely create greater hazard impacts than the proposed project because more ammonia would be used for NOx control. Alternative A would generate equivalent energy impacts compared to the proposed project because in both cases MSERCs and ASCs from the NOx credit generating rules would be

used to generate RTCs to address the anticipated emission reduction shortfall. Finally, Alternative A, could, to a certain extent, undermine the original objective of the RECLAIM program; i.e., the flexibility inherent to a market-based regulatory program to the extent it results in greater installation of BARCT equipment.

Alternative B allows more facilities to gain access to the RECLAIM AQIP than is allowed under the proposed project. Because facilities accessing the RECLAIM AQIP must install BARCT equipment, Alternative B could have slightly greater construction air quality impacts. Similarly, it is expected that Alternative B could produce slightly greater air quality benefits, i.e., a slightly lower NOx emissions shortfall, than the proposed project. Energy impacts would be slightly greater than the proposed project because of the alternative NOx credit generating rules' provision that allows an additional year to submit credit-generating applications. Hazard impacts, however, would be slightly worse because of the potential for increased ammonia use. In the short term, because there are no trading restrictions, power-generating facilities would continue to purchase NOx RTCs from the RECLAIM market until such time as control equipment is installed on all equipment. This means that the cost of RTCs would remain high and they would continue to be in low supply. As a result, Alternative B would not meet the project objective of stabilizing the RTC trading market by lowering the price of RTCs while increasing their availability.

Alternative C would generate construction air quality, energy, and hazard impacts similar to the No Project Alternative because it does not impose any additional control equipment requirements. With regard to operational emissions, there are two components of Alternative C that would be expected to contribute to a greater emission reduction shortfall (higher overall NOx emissions) for the RECLAIM program compared to the proposed project: no requirement to install additional BARCT equipment and Alternative C does not require deducting current allocation exceedances from future allocations. Alternative C would result in a substantial relaxation of requirements compared to the existing RECLAIM program as well because the existing RECLAIM program requires deducting exceedances of the current annual allocation from the next year's allocation. This means that Alternative C would result in a much greater emissions reduction shortfall (higher overall NOx emissions) than the No Project Alternative.

Alternative D would provide a one-time increase in a refinery's NOx emissions up to 600 pounds per day to fund refinery projects necessary to comply with CARB phase 3 reformulated gasoline projects. RTCs to fund the refineries' one-time increase in their annual allocation would be generated by the proposed NOx credit generating rules, so these RTCs would be considered real and surplus. Under Alternative D, however, the NOx emission allocations would be substantially artificially inflated by the one-time daily NOx emission increases allowed at the six major refineries in the district. Since these RTCs would not necessarily be based on real or surplus emission reductions, the NOx emission reduction shortfall would not necessarily be as great as for the proposed project, but achieving the programmatic endpoint would likely take longer because greater emission reductions would have to occur to achieve the same NOx emission endpoint compared to the proposed project.

Based upon the above considerations, the proposed project more effectively attains the project objectives, generating the fewest or less significant adverse environmental impacts.

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