No. 264, Mexico has the obligation to ensure that flows in the New River meet established water quality standards at the international boundary. The proponent should evaluate the impact of the cooling system discharges on efforts by agencies in Mexico to comply with these New River water quality standards at the international boundary.

0017-3 (cont.)

Thank you for the opportunity to provide comments on the proposed projects. Please continue keeping us informed of the presidential permit process, and submit related information, public meeting notices, to my attention, and provide copies to our Yuma Project Manager, Mr. Al Goff, at P.O. Box 5737, Yuma, Arizona 85364, and our San Ysidro Project Manager, Mr. Dion McMicheaux, at 2225 Diary Mart Road, San Ysidro, California 92173. If you have any questions regarding this information, please call me at (915) 832-4740.

Sincerely,

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CC:

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July 30, 2004

By Electronic Mail and Overnight Delivery

Ellen Russell
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Re: Draft EIS for the Imperial - Mexicali 230-kV Transmission Lines

Dear Ms. Russell:

Enclosed please the comments of Baja California Power, Inc., ("BCP") on the Draft Environmental Impact Statement for the Imperial - Mexicali 230-kV Transmission Lines. If you have any questions, please contact Sean Kiernan of InterGen at (781) 993-3037.

Thank you for your consideration of BCP's comments.

Sincerely,

Eric J. Murdock

Counsel for Baja California Power, Inc.

Enclosures

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Comments of Baja California Power, Inc.,
on the Draft Environmental Impact Statement
For the Imperial - Mexicali 230-kv Transmission Lines

July 30, 2004

A. Introduction

Baja California Power, Inc., ("BCP") appreciates the opportunity to comment on the Draft Environmental Impact Statement ("DEIS") for the Imperial-Mexicali 230-kv Transmission Lines. BCP is the developer of one of the two transmission line projects that are the subject of the DEIS. As described in the DEIS, the BCP transmission line runs from the Imperial Valley substation to the U.S.-Mexico border where it connects to another transmission line extending south from the border to the La Rosita Power Complex ("LRPC").[1] BCP has worked cooperatively with the U.S. Department of Energy and the Bureau of Land Management (together, the "Agencies") to provide factual information regarding its transmission line project, as well as the configuration and operation of the LRPC, and looks forward cooperating further with the Agencies as appropriate to complete the final EIS.

Overall, BCP believes the DEIS presents a thorough and well-documented description and analysis of the environmental impacts associated with the transmission line projects. As is to be expected with any document of this length and complexity, the DEIS contains a few minor errors of fact and analysis. None of these errors materially affects the overall conclusions of the DEIS. Nonetheless, in the interest of accuracy and completeness, they should be corrected in the final EIS. The necessary corrections and clarifications are set forth in Appendix A to these comments.

[1] As also described in the DEIS, the LRPC consists of two separate power plants -- one owned and operated by Energia Azteca X ("EAX") and one owned and operated by Energia de Baja California ("EBC"). BCP, EAX, and EBC are corporate affiliates of InterGen.

There are also a few more significant issues that should be addressed in the final EIS. Most important, the discussion of environmental impacts should be revised to distinguish more accurately between environmental impacts properly attributable to the BCP transmission line and those that represent baseline environmental conditions. In particular, the presentation of impacts related to the "proposed action" should not include the export turbine at EAX plant, which would operate even in the absence of the BCP line. Rather, the EAX plant should be addressed, along with other existing and reasonably foreseeable sources, as part of the analysis of cumulative impacts. In addition, the final EIS should acknowledge more prominently the overall conservatism of the methodology used to estimate and evaluate environmental impacts from the transmission line projects, and in some cases a more realistic approach may be warranted. Finally, the discussion of the "technology" and "mitigation" alternatives with respect to power plant impacts should focus only on impacts from the BCP and TDM plants, and should include a more rigorous analysis of the technical feasibility and cost-effectiveness of these alternatives. It also should take into account mitigation measures already being implemented.

B. The analysis of environmental impacts should distinguish more accurately between project-related effects and baseline environmental conditions.

0018-1

The DEIS defines the "no action" alternative as the denial of both of the transmission line permit applications, and states that "[u]nder the no action alternative, neither of the proposed transmission lines would be constructed and the environmental impacts associated with their construction and operation would not occur." DEIS at 2-1. Accordingly, the power plant impacts associated with the no action alternative should be zero. However, the DEIS presents the impacts associated with the no action alternative as those resulting from the operation of the three turbines at the EAX plant. See DEIS, Sections 4.2.3 and 4.3.3 and

Tables 4.2-1 and 4.3-1b. It appears that the DEIS takes this approach based on the fact that all three of the gas turbines at the EAX plant would operate even if the BCP transmission line permit were denied. See DEIS at 2-1. This fact does not justify singling out the EAX plant impacts as the no action scenario. There is no logical basis to treat the EAX plant any differently from any other existing power plant, industrial facility, or other source whose impacts comprise the baseline environmental conditions against which the project-related impacts are to be assessed. The impacts from the EAX plant are more properly addressed as part of the cumulative impacts analysis, along with the impacts from other existing and reasonably foreseeable sources.

The DEIS defines the proposed action as the issuance of Presidential permits for both of the transmission lines on the terms proposed by the applicants, and states that "[t]he impacts attributable to the preferred alternative would be those associated with the operation of the entire TDM plant, the EBC unit, and the EAX export unit, and the construction and operation of the proposed transmission lines." DEIS at 2-2. As the DEIS otherwise acknowledges, and as the district court expressly found, the EAX export turbine (as well as the other two EAX turbines) would have been built and would operate even if the BCP transmission line were never constructed or permitted. The DEIS nonetheless includes the EAX export turbine in its analysis of impacts attributable to the proposed action simply because the BCP line, if it is available, would be used to transmit at least a portion of the output from the EAX export turbine to the U.S. See id. This is not a valid basis for attributing the impacts from the operation of the EAX export turbine to the BCP transmission line. Under NEPA, an effect may be attributed to an action only if is "caused by" the action. See 40 C.F.R. § 1508.8(a), (b) (definitions of "direct" and "indirect" effects). The EAX export unit was not "caused by" the

0018-1 (cont.)

BCP line. The export turbine was part of the EAX plant design prior to any plans to build the BCP transmission line and unquestionably would be operated even in the absence of the BCP line. By including the EAX export unit in its analysis of impacts attributable to the BCP transmission line, the DEIS overstates the true impacts by a factor of two.[2]

This is not to say that the DEIS should not consider the impacts from all of the units at the LRPC. However, it is not appropriate, even for the sake of conservatism, to present the impacts of the proposed BCP line as the combined impacts from the EBC plant and the EAX export unit. This approach is misleading in at least two respects. First, it double counts the operations of the EAX export unit by including that unit under both the no action alternative and the proposed action alternative. More importantly, it largely fails to consider any scenario that is properly focused on impacts from just the proposed action -- i.e., the operation of the EBC plant alone or in combination with the operation of the TDM plant. None of the summary tables in Sections 4.2 and 4.3 present data under either of these two scenarios -- even though these are the scenarios that properly reflect the impacts from the proposed action. The final EIS should clearly distinguish genuine project-related impacts from impacts that form part of the baseline for the cumulative impacts analysis so the public and the decision-makers at DOE and BLM can understand the true environmental consequences of the permitting action under consideration. In particular, the summary tables in Sections 4.2 and 4.3 (and the corresponding

0018-1 (cont.)

[2] The recent decision of the U.S. Supreme Court in Department of Transportation v. Public Citizen, 541 U.S. __, Slip. Op. at 12-13 (June 7, 2004), makes clear that there must be a "reasonably close causal relation" between an agency action and an environmental effect, not just a "but for" causal relationship, before that effect is properly attributable to the action for purposes of NEPA analysis.

text) should be revised to include separate columns (and discussion) to present the relevant data for the EBC plant operating alone and the EBC plant operating together with the TDM plant.[3] 0018-1 (cont.)

C. The DEIS generally overstates the true magnitude and significance of environmental impacts attributable to the BCP transmission line project.

1. Magnitude of Power Plant Impacts

The DEIS contains numerous estimates and projections regarding impacts to the environment from the proposed actions -- in particular with respect to water use and air emissions from the new power plants in Mexico to which the transmission lines are connected. In nearly every instance, these figures are based on conservative assumptions. In some cases, the approach taken in the DEIS is overly conservative – to the point of misleading the reader -- and more realistic assumptions should be used in the final EIS. More generally, while the use of conservative assumptions is not necessarily inappropriate for many of the specific analyses of environmental impacts, the final EIS should make sure that readers of the document understand the extent of the conservatism built into that analysis, and point out that this approach likely overstates the actual environmental impacts of the transmission line projects. 0018-2

The follow is a listing of the more significant examples of conservatism underlying the analysis presented in the DEIS:

a. Capacity Factor. The power plant impacts described in the DEIS assume that the plants will operate at 100% capacity factor -- i.e., 24 hours a day, 7 days a week. In fact, no power plant operates at 100% capacity factor over the course of an entire year. At a 0018-3

[3] Attached as Appendix B to these comments are revised versions of the pertinent tables from Section 4.2 of the DEIS showing water quality data for these two "proposed action" scenarios. Because we did not have access to the data underlying the air modeling results presented in the DEIS, we were not in a position to prepare similar tables breaking out the modeled impacts associated with emissions from the EBC and TDM plants. Nonetheless, the final EIS should present the modeling results for the EBC and TDM plants operating individually and together.

minimum, periods of downtime must be scheduled for regular maintenance. In addition, there may be unexpected outages, and there may be periods where demand is not sufficient to call the unit into operation. For the LRPC, it is expected that the actual capacity factor will be on the order of 60%. As a result, all of the figures reported in the DEIS for the LRPC regarding total annual air emissions and water consumption are overstated across the board by approximately 40%.[4] 0018-3 (cont.)

b. Displacement Effects. The La Rosita and TDM plants are clean facilities with state of the art emissions controls. The air emissions from these facilities are lower than 70% of all power generating facilities serving the California grid (including most of the existing generating facilities located in Imperial County). When these plants are in operation, they very likely are displacing generating facilities whose emissions per megawatt-hour produced are significantly higher. The DEIS does not take into account these relative emission reductions resulting from the operation of the La Rosita and TDM plants. Although it is difficult to identify the specific facilities displaced by the Mexico plants, or to quantify the environmental impacts avoided as a result of such displacement, conceptually such avoided impacts offset at least in part the impacts from the operation of the Mexican power plants. 0018-4

c. Direct Particulate Emissions. The air quality analysis in the DEIS is based on an emission rate for fine particulates ("PM_{10}") of 52.3 pounds per hour for each 0018-5

[4] By the same token, the beneficial effects of wastewater treatment at the LRPC are likely somewhat overstated in the DEIS because they likewise are based on the assumption of water use -- and thus water treatment -- at a capacity factor of 100%. To the extent that the plants actually run less than 100% of the time, less water may be treated, and some of the secondary and tertiary treatment processes may be by-passed. However, although it may be possible to reduce the flow to the biological treatment plant somewhat during periods of reduced plant demand for water, the treatment plant must maintain a minimum flow at all times in order to sustain the biological processes and to be in a position to supply sufficient quantities treated water on short notice when the turbines are called into operation.

turbine at the LRPC. See DEIS, Appendix G-1. This emission rate was reflects the guarantees provided by the turbine vendor. Vendor guarantees for PM_{10} from gas-fired turbines are generally much higher than the actual emission rates to account for the limitations of the compliance testing methodologies -- which often produce significant variability in test results that is not representative of actual emissions. See Memorandum from Gary Rubenstein to Sean Kiernan, July 29, 2004, ("Rubenstein Memo") at 2.[5] Studies of test data from gas turbines comparable to those at the LRPC demonstrate that actual PM_{10} emissions from these units are on the order of 5 lbs/hr or less, with very little variability. Id. at 4-5. The actual annual emissions of PM_{10} from the EBC plant therefore are likely closer to 22 tons per year (even assuming a capacity factor of 100%), rather than the 238 ton per year figure presented in the DEIS. As a result, the air quality modeling results reported in the DEIS significantly overstate the actual effects of plant emissions on ambient concentrations of PM_{10}. 0018-5 (cont.)

d. Formation of Secondary Particulates. To estimate the impacts from the formation of secondary particulates attributable to emissions from the power plants, the DEIS uses a conversion factor of 0.6 grams of NH_4NO_3 for each gram of nitrogen oxides. DEIS at 4-44. The 0.6 value is taken from a study by Stockwell of conditions in the San Joaquin Valley, where humidity – a critical factor in the formation of secondary particulates – is much higher than in the Imperial Valley. As a result, this conversion factor is overly conservative, and results in what the DEIS itself characterizes as a "gross overestimate." The DEIS acknowledges that a study specific to the Imperial Valley-Mexicali area (Chow and Watson) concludes that the ambient concentration of secondary particulates attributable to all sources is no more than 2 to 3 ug/m^3 for 24-hour measurements. Emissions from the power plants 0018-6

[5] A copy of the Rubenstein Memo is attached to these comments as Appendix C.

represent only a small fraction, less than one percent, of total NOx emissions in the Imperial Valley-Mexicali area. A simple extrapolation would indicate that the incremental increase in PM_{10} concentrations due to secondary formation from the power plant emissions is more than 30 times less than the 1.0 ug/m^3 figure yielded by the air modeling performed for the DEIS. Although the DEIS correctly concludes that the secondary formation of particulates from the power plants is "de minimis," the use of the Stockwell conversion factor and the resulting reference to a 1.0 ug/m^3 impact is highly misleading. It should be deleted from the final EIS and replaced with a more realistic analysis, based on the Chow and Watson study, to explain the conclusion that the secondary particulates attributable to emissions from the power plants have virtually no impact on ambient PM_{10} concentrations. 0018-6 (cont.)

e. Particulate Emissions from Exposed Salton Sea Lakebed. The DEIS notes that the reduced volume in the Salton Sea resulting from the power plant operations will have the effect of exposing a thin strip of land adjacent to the shoreline of the Salton Sea. The DEIS attempts to estimate the potential fugitive emissions of particulates caused by wind erosion of this exposed strip of lakebed by extrapolating from a study of fugitive dust emissions from the bed of Owens Lake, which has been completely dry since the late 1920s. See DEIS at 4-56. The DEIS concludes this analysis by stating that fugitive emissions of particulates from the exposed Salton Sea shoreline "could be estimated to be << 100tons/yr (<< 91 t/yr) as a result of the proposed action." Id. at 4-57. This statement gives the impression of a much larger potential impact than is supported by the analysis that precedes it. There is no basis for using a figure as large as 100 tons per year as the frame of reference for describing the magnitude of the potential fugitive particulate emissions from the Salton Sea shoreline. Two paragraphs earlier, the DEIS explains that a straight extrapolation from the Owens Lake study 0018-7

would yield an estimate of only 50 tons per year. Moreover, the DEIS goes on to note that this 50 ton per year figure itself likely represents an overestimate because the amount of dust produced per acre from an expansive and long-dry lakebed would be significantly higher than the amount of dust produced from a seven foot wide strip of land adjacent to a large water body. A more appropriate conclusion to draw from the analysis in the DEIS is that fugitive emissions of particulates from the exposed edge of the Salton Sea are likely to be significantly less than 50 tons per year. 0018-7 (cont.)

2. Environmental Significance of Power Plant Impacts

The DEIS not only overstates the magnitude of the air emissions and water consumption resulting from the power plant operations attributable to the transmission line projects, but in several instances (as noted below) it also overstates the environmental significance of these power plant impacts. The final EIS should be more careful in stating its conclusions to ensure that they are properly supported by the underlying data and analysis and are stated consistently throughout the document. 0018-8

a. "Adverse" Air Impacts. In the discussion of "unavoidable adverse impacts," the DEIS states that it is "likely" that ozone "would be secondarily produced due to the operation of the two plants." DEIS at 6-2. This statement is not consistent with the analysis of air quality impacts earlier in the DEIS, which indicates that the modeling of NOx emissions from the power plants showed that the operation of the power plant is likely to result in a slight reduction in ozone concentrations. See DEIS at 4-51. Although this conclusion may seem surprising, it appears to be based on a sound scientific methodology and should be presented consistently throughout the document. 0018-9

b. MCLs as Water Quality Benchmarks. The DEIS uses EPA's published maximum contaminant levels ("MCLs") as a benchmark to evaluate the quality of the New River with respect to several constituents. DEIS at 3-15, 3-22. MCLs are standards for drinking water. The New River is not a viable source of drinking water due to adverse water quality conditions entirely unrelated to any operation of the power plants. The final EIS should make clear that use of MCLs to evaluate New River water quality is therefore highly conservative. 0018-10

c. Salton Sea Salinity Impacts. The DEIS states that "[g]iven the uncertainties related to the restoration activities at the Salton Sea, the long-term magnitude and significance of these impacts is difficult to quantify." In particular, the DEIS does not account for the effects of the Salton Sea Restoration Project in its analysis of cumulative impacts because the details of the project "are still under development." DEIS at 5-18. It appears, however, that the restoration activities may not be as uncertain as the DEIS indicates. According to the Environmental Assessment for the Mexicali II Wastewater Treatment Plant (one of the documents referenced in the DEIS), in April 2003, the Salton Sea Authority Board of Directors endorsed moving forward with the so-called "North Lake" plan to improve the Salton Sea. The plan involves "creating and managing an ocean-like lake in the North Basin of the Sea by constructing a dam mid-way across the current Sea. Extensive shallow water habitat would be created using stepped ponds in the South of the Sea. The plan also includes desalinization of Imperial Valley rivers." Even if the Restoration Project's potential improvements to the Salton Sea cannot currently be quantified, the final EIS at least should point out that the Restoration Project was tasked to consider a reduction in inflows to the Sea of 540,000 acre-ft/yr. The reduction in inflow to the Sea due to operation of the power plants is a 0018-11

small fraction of this amount. Thus, if the Restoration Project succeeds in achieving its objectives, on a cumulative basis the impacts of the proposed actions on the Salton Sea would be effectively eliminated. 0018-11 (cont.)

d. Brawley Wetlands. The summary section of the DEIS (which could be the only section of the report that many persons will read) states that "[i]ncreases in TDS and selenium concentrations could cause adverse impacts to the wetland system." DEIS at S-28. This conclusion is contrary to the analysis presented in the main body of the report. Although this same statement is repeated in Section 4.4.4.4.2, it is qualified immediately thereafter by the observation that the higher concentrations of TDS and selenium "should not exceed the tolerance of wetland plants, whereas the changes in the other water quality parameters could be beneficial." Id. at 4-25. The DEIS elsewhere states that "[i]t is also anticipated that the changes in water depth and water quality would not affect the ability to operate and maintain the Brawley wetland that has been constructed adjacent to the New River." Id. at 4-66. After discussing the negligible impacts of the increased TDS concentration on the specific plants in the Brawley wetland in the next paragraph, the DEIS goes on to state that "[t]he small change in salinity compared with the no action alternative and the small probability of exceeding salinity tolerances of the wetland plants indicate that implementing the proposed action using the wet cooling alternative is unlikely to affect the wetland area at Brawley." Id. Finally, further down on the same page, the DEIS notes that "[n]o data were available for selenium concentrations in sediments or water at the Brawley wetland; therefore, there was no evaluation of impacts to wetland vegetation. Since the total load of selenium to the New River is reduced by operation of the power plants, and flow rate reductions from power plant water use would 0018-12

not likely reduce water depth in the stretch of the river that supplies water to the Brawley wetland, adverse impacts to vegetation are not expected." Id. 0018-12 (cont.)

D. The analysis of the "technology" and "mitigation" alternatives should focus only the impacts actually resulting from the transmission line projects, and should consider more critically the technical feasibility and cost-effectiveness of these alternatives.

1. Alternative Technologies

The DEIS considers two kinds of alternative technologies to reduce environmental impacts from the operation of the power plants -- oxidizing catalysts to limit emission of carbon monoxide ("CO") and some form of dry cooling to reduce the consumption of water. The analysis of these alternatives in the final EIS should be modified in several respects. First, and perhaps most important, the discussion in the DEIS is almost entirely theoretical. The district court precluded the Agencies from considering the fact the transmission lines have been built and are operating, but it did not preclude the Agencies from considering the fact that the Mexican power plants have been built and have commenced commercial operations. See DEIS at A-79. Nonetheless, the DEIS describes the use of these alternative technologies in general terms as if the TDM and EBC plants were still in the design phase and the issue were simply whether these technologies could be worked into the design.[6] Rather, the technical feasibility, costs, and effectiveness of these technologies must be considered in the context of a retrofit to an existing plant. A retrofit presents additional technical and practical challenges, and additional costs (including the opportunity cost of down time for the physical installation.) The 0018-13

[6] The DEIS generally describes the power plants as if they had not yet been built. See, e.g., DEIS at 2-28 ("All generating units at both power plants would operate in a combined cycle mode and would be fueled by natural gas . . . .") (emphasis added). As noted, this approach is not required by the district court's remedy ruling and may be misleading to readers of the document. The final EIS should acknowledge that that the plants have been constructed and have commenced operation.

analysis needs to address issues such as whether the existing designs can physically accommodate a retrofit -- i.e., is there is enough space to install oxidizing catalyst equipment or enough properly situated land to accommodate the dry cooling equipment? -- and how a retrofit may affect vendor guarantees for the other equipment at the plant that are critical to the financing of the projects. The final EIS also should include information as to the likely costs of a retrofit installation of the technologies under consideration to give the public and the agency decision makers a basis on which to judge the cost effectiveness of such measures.

In particular, contrary to the suggestion of some commenters, the retrofit of a dry or parallel wet-dry cooling system at the LRPC would present major technical problems and would entail very significant costs. Parallel wet-dry cooling is not a proven retrofit technology. Such a system has been installed as a retrofit on only a single plant in the United States -- the 37 MW Streeter plant in Cedar Falls, Iowa. This facility does not provide a model for the retrofit of parallel wet-dry cooling at the LRPC. The dry tower required for the Streeter plant was relatively small due to the modest generating capacity of the plant and because the cooling system requirements were less demanding given the appreciably colder climate compared to Mexicali. Several acres of dry cooling towers would be required for the LRPC. These structures would need to be located close to the generating facilities where their performance would be negatively affected by the vagaries of the wind, and their interaction with the plant buildings, neither of which factors could have been considered as part of the original plant design. See Letter Report from Burns Engineering, Inc., "Retrofitting a Parallel Wet-Dry Cooling System to the La Rosita Power Complex," July 29, 2004, at 5.[7] In addition, the cost to retrofit a parallel wet-dry cooling system -- which include not just the initial capital costs, but

0018-13 (cont.)

[7] A copy of this report is attached to these comments as Appendix D.

also the costs for engineering and design work, the cost of lost power sales during down time required for the installation, and the ongoing additional operation and maintenance costs (including the energy penalty associated with less efficient air cooling) -- are likely far higher than projected by some commenters. See id. at 4.

Second, the discussion of the environmental consequences of the alternative technologies should provide a proper context for evaluating whether the actual benefits of these technologies could possibly warrant the significant costs and uncertainties of attempting to employ them. Moreover, such discussion must focus on the TDM and EBC plants alone (or in the case of CO catalyst, just the EBC plant), as they are the only ones where the use of such technologies might be induced by means of a condition on the transmission line permits. For example, the discussion of CO catalyst in Section 4.3.5.1 of the DEIS simply refers to table 4.3-4 for information regarding potential CO reductions. DEIS at 4-57. Table 4.3-4 shows the reduction in CO assuming the use of oxidizing catalyst at all four LRPC turbines, rather than just the EBC plant. Even then, what the table shows -- and what should be stated expressly in the text as well -- is that effect of CO emissions from the power plants on ambient CO are already so small (less than 1% of the significance level) that there would be no justification for devoting additional resources to reduce these already negligible impacts.

0018-13 (cont.)

The same is true with respect to the use of dry cooling (or wet-dry cooling) to reduce water consumption. The DEIS states that the impacts to the Salton Sea from dry cooling system would be "much less" than those estimated for the proposed action, and refers the reader to Table 4.2-7. DEIS at 4-26. This statement creates the erroneous impression that the use of dry cooling could produce significant environmental benefits in terms of water quality. As noted above, Table 4.2-7 does not even show the proper "proposed action" scenario -- the

EBC plant together with the TDM plant -- so the reader cannot readily identify the actual potential reduction in water consumption. Moreover, simply stating the number of gallons of water that might be saved from evaporation does not provide adequate context for evaluation. The DEIS elsewhere notes that even at the rates of water consumption associated with the wet cooling systems current in use at the plants, the impacts to the Salton Sea are de minimis -- perhaps accelerating by a few days (over a period of more than 30 years) the point in time at which salinity levels in the Sea might reach the critical concentration of 60,000 mg/l. Even if this impact were reduced by 90%, it could not reasonably justify the cost and technical uncertainty of a dry cooling (or wet-dry cooling) retrofit. Moreover, the discussion of the alternative cooling technologies fails to acknowledge that a reduction in the amount of water used for cooling purposes also would reduce the amount of wastewater that would need to be treated by the power plants, therefore also would reduce the water quality benefits associated with removal of pollutants that otherwise would reach the New River and the Salton Sea. 0018-13 (cont.)

2. Mitigation

The DEIS considers potential off-site measures for mitigating impacts from air emissions from the power plants, specifically in the form of emission reductions from other sources to offset emissions from the power plants. Unfortunately, like the discussion about alternative technologies, the discussion in the DEIS about mitigation is not properly focused on the emissions that properly could be the subject of a mitigation requirement in connection with the approval of the transmission lines, and does not provide an adequate context for assessing the cost-effectiveness of the various mitigation measures that are identified. The final EIS should remedy these deficiencies. 0018-14

As an initial matter, any consideration of mitigation should be limited solely to significant, adverse impacts attributable to the operation of the EBC and TDM plants. As noted above, these are the only facilities whose impacts could be said to be caused by the transmission line approvals. All three turbines at the EAX plant would operate regardless of whether the BCP transmission line is permitted to operate. A mitigation condition imposed in connection with the issuance of a federal permit must be reasonably related to the impacts associated with the action for which the permit is sought.[8] The Agencies thus have no legal authority to condition the approval of the BCP line on mitigation measures to address impacts from the EAX plant, just as they would have no legal authority to condition such approval on mitigation measures to address impacts from any other existing source in Mexicali or Imperial County. 0018-14 (cont.)

The discussion of mitigation also should include a more rigorous assessment of the cost-effectiveness of the measures under consideration. The DEIS states that mitigation of power plant air impacts could be cost effective and "viable" but does not provide any analysis to support such a conclusion. See DEIS at S-31 and 4-58. For the most part, the discussion of mitigation measures in the DEIS is vague about which pollutants could be offset and in what quantities. Cost figures are provided for some of the measures considered, but without any indication of the quantity of emissions that would be offset by such measures, so that it not possible even to approximate the costs per ton of emissions offset. Where the DEIS does provide an indication of the scope of the mitigation measures that would be required to offset power plant emissions, it is apparent that the costs of mitigating air impacts are wholly out of 0018-15

[8] See, e.g., U.S. v. Mango, 199 F.3d 85, 93 (2d Cir. 1999) (holding that conditions imposed in a permit for the discharge of fill material must be reasonably related to the discharge and cannot be used to regulate the larger activity giving rise to the discharge); NRDC v. EPA, 859 F.2d 156, (DC Cir. 1988) (same).

proportion to the minimal environmental benefits, particularly when the analysis is properly focused solely on emissions from the EBC and TDM plants. The DEIS indicates that paving approximately 23 miles of roads in Imperial County could reduce PM_{10} emissions by about 650 tons (presumably, per year). DEIS at 4-59. This figure is substantially larger than the projected annual emissions of PM_{10} from the EBC plant and the TDM plant, which together total only 494 tons per year.[9] Even if the number of road miles to be paved were reduced proportionately, the cost of such an effort would clearly run into the tens of millions of dollars. Costs of this magnitude are not justified when the impacts of power plant emissions of PM_{10} already are demonstrated not to exceed the EPA significance levels used as a benchmark in the DEIS.[10]

0018-15 (ont.)

Finally, the analysis of the mitigation alternative in the final EIS must account for the measures already taken or planned to mitigate air quality impacts from the power plants. In response to concerns expressed about air emissions from the LRPC, InterGen committed voluntarily to install SCR on all three of the EAX turbines. SCR already is installed and operating on the EAX export unit, and is scheduled to be installed and operating at the other two EAX turbines by March of 2005. According to the data shown on Table 4.3-1a, the installation of SCR just on these last two EAX units will result in NOx reductions of 1720 tons

0018-16

[9] Moreover, as noted above, the PM_{10} emission projections for the EBC plant used in the DEIS are far higher than the likely actual emissions.

[10] A number of commenters have criticized the DEIS's use of these EPA significance levels, asserting that they are "not applicable" to power plants. It is true that these significance levels serve a particular regulatory function in connection with the program for permitting of new sources under the Clean Air Act and that this permitting program does not does not apply to sources located in Mexico. As the DEIS makes clear, however, the significance levels are cited not as regulatory requirements but solely as benchmarks to assist the reader to assess the significance of the effects that emissions from the power plants may have on ambient air quality. See DEIS at 4-52 - 4-53. Because the significance levels have been established with reference to human health effects, they provide a useful and appropriate context for evaluating the air quality impacts described in the DEIS.

per year. The installation of SCR on the EAX export unit will result in additional NOx reductions of 860 tons per year. These reductions will completely offset the NOx emissions from the EBC plant, which are only 136 tons per year. The remaining NOx reductions from these EAX units (approximately 2400 tons per year) would be sufficient to offset the projected PM_{10} emissions from the EBC plant at a ratio of more than 10 to 1.[11] Moreover, as noted above, the actual PM_{10} emissions from the EBC plant are likely to be far less than the projected figure of 238 tons per year. The emission reductions resulting from the installation of SCR on the three EAX turbines are thus more than sufficient to offset fully the emissions from the EBC plant.

0018-16 (cont.)

E. Conclusion

The DEIS generally provides a thorough and well-documented description and analysis of the environmental impacts associated with the proposed transmission line projects. Nonetheless, in addition to correcting several minor errors of fact and analysis, the final EIS should supplement or refine the discussion of several issues. In particular, the final EIS should (a) more clearly distinguish the impacts attributable to the transmission line projects from the baseline environmental conditions, (b) acknowledge more clearly (and in some cases eliminate) the conservatism inherent in much of the methodology used to assess the environmental

[11] In its comments on the DEIS, the Border Power Plant working Group endorsed the concept of "cross pollutant offsetting" between NOx and PM_{10}, at a ratio of only 1 to 1. See BPPWG Comments on Draft EIS at 10 (Comment 11). In addition, as explained in the DEIS, NOx emitted from the power plants (and other sources) may interact with ammonia in the ambient air produce particulates in the form of ammonium nitrate. See DEIS at 4-44 to 4-45. The DEIS used a NOx-to-particulate conversion factor of 1.0 to 0.6 to estimate an upper bound impact on ambient concentrations of PM_{10} from the secondary formation of particulates attributable to emissions from the power plants. Id. As noted above, this conversion factor is overly conservative and results in a "gross overestimate." However, even if this conversion factor were reduced by a factor of six (to 0.1), a reduction in NOx emissions of 2400 tons per year would completely offset the projected PM_{10} emissions from the EBC plant.

impacts, and (c) revise the discussion of the "technology" and "mitigation" alternatives to focus only on the impacts from the BCP and TDM plants, and analyze more rigorously the technical feasibility and cost-effectiveness of these alternatives.

List of Appendices

Appendix A	-	Corrections and Clarifications
Appendix B	-	Revised Tables
Appendix C	-	Memorandum from Gary Rubenstein to Sean Kiernan, July 29, 2004
Appendix D	-	Letter Report from Burns Engineering, Inc., "Retrofitting a Parallel Wet-Dry Cooling System to the La Rosita Power Complex," July 29, 2004

APPENDIX A