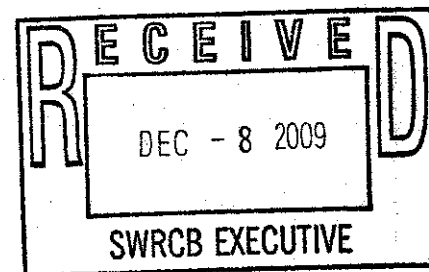




December 8, 2009

Ms. Jeanine Townsend
Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814



Subject: Comments on Changes to Draft Policy for Power Plant Cooling Policy

Dear Ms Townsend:

Tenera Environmental Inc. (Tenera) appreciates the opportunity to comment on the recent changes in the State Water Resources Control Board (State Board) draft Statewide Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling (Draft Policy) dated November 23, 2009. Tenera has been involved in conducting the recent studies on the effects of power plant cooling water intake systems at 17 of the 19 power plants covered by the Draft Policy and in the study of the effects of once-through cooling (OTC) for over 30 years. I personally have been very involved in the development of new policy for OTC through my participation in stakeholder and state employee workshops, and as a member of the Expert Review Panel providing input to the Board staff on the Draft Policy and early drafts of the Substitute Environmental Document (SED).

I will focus my comments on the changes in the November 23, 2009 draft from the draft Policy previously released on June 30, 2009. I provided comments on the previous draft of the policy and the associated SED, which I submitted after the noon deadline on September 30, 2009 (see attached September 30, 2009 letter). Also, as a scientist I will restrict my comments to certain technical aspects of the revisions to the Policy, specifically Section 2.C.3(d) relative to the use of Habitat Production Foregone for scaling restoration projects, and Section 4.B.1(b) the Track 2 monitoring requirements for using 200-micron mesh net.

Before commenting on these two specific aspects of the Policy I would like to make it clear that the only measurable environmental benefits from this Policy will arise as a result of the interim restoration measures that may preserve or create marine habitat. With the one exception, the member from Heal the Bay, there was a consensus among the members of the Expert Review Panel that fish populations would have much greater benefit from a policy that focused on habitat restoration and preservation than a policy that eliminated once-through cooling (OTC). Given the small intake volume of the coastal plants relative to the coastal source waters and the biology of fish populations there is almost no conceivable way that reducing or eliminating OTC will result in any measurable changes in California coastal fish populations. This has been well documented in several scientific studies, including a recent review by the Electric Power

Research Institute provided to the Board staff¹, and papers published in the scientific literature by EPA scientists^{2,3}.

My review of the comments from the various groups supporting the current draft policy or encouraging even stricter schedules and compliance levels showed that there were no supporting data for any of their statements regarding the impacts of OTC. All of the recent studies at the coastal power plants in California provide an unprecedented opportunity to review impacts on a large scale. One analysis we conducted and have continued to refine examined the cumulative impacts of entrainment by all of the coastal OTC facilities in southern California. Even for fishes that are exposed to entrainment for prolonged periods during their larval life stage, the total mortality across the entire area was less than one percent. This hardly qualifies as a "devastating" impact.

Commissioner Doduc asked me during the September workshop if there were monitoring data before the plants began operating to determine the impacts of OTC. At the time I stated that unfortunately there were no data. In hindsight, the more correct response would be that even if data existed it would be impossible to determine if any changes occurred since the overall impacts are so small. Analyses of long-term data on fish populations show that they respond to changes in the ocean environment and, for fishery species, changes in regulations. These factors and the availability of habitat have a much larger effect on fish populations than small changes in larval supply due to entrainment.

Section 2.C.3(d) Use of Habitat Production Foregone

The text in the Policy and the definition provided for Habitat Production Foregone (HPF) imply that the method is robust and can be used across a variety of habitats and for a large number of species. The method has actually only been used in scaling two projects and has several limitations.

First of all, the calculation is based on having an estimate of proportional mortality that expresses the loss as a proportion of an estimated source water population. This requires having an estimate of a source water population. Not all of the entrainment studies at California coastal plants have source water data and were designed to calculate estimates of proportional mortality. Additionally, there are no source water data for estimating proportional mortality for impingement losses. As a result, HPF has only been used to address entrainment losses.

Another limitation is having species that are associated as adults with specific habitats. HPF calculations need to be based on the actual area of adult habitat in the source water where

¹ Electric Power Research Institute (EPRI). 2007. Assessment of once-through cooling system impacts to California coastal fish and fisheries. EPRI, Palo Alto, CA. 132 pp.

² Newbold S. C., R. Iovanna. 2007. Population level impacts of cooling water withdrawals on harvested fish stocks. *Environ. Sci. Technol.* 41:2108-14.

³ Newbold S. C., R. Iovanna. 2007. Effects of density-independent mortality on populations and ecosystems: application to cooling water withdrawals. *Ecological Applications* 17:390-406.

production occurs — NOT the entire area. An example of a 2,000 acre estuary is provided in the definition in the Policy. The HPF for gobies, a group of fishes that live on submerged mudflats, would be based on mudflat habitat that may only encompass 30% of the total source water area in the estuary, or 600 acres. In this case the correct HPF estimate is 102 acres or 175 of 600 — NOT 340 acres.

The definition also reads as if HPF can be calculated for all entrained species. This is not correct since in the many cases the larvae entrained may not even live as adults in the estuary. In addition, the proportional mortality estimates necessary for calculating HPF are typically only calculated for the most abundant larvae, which may only amount to five to ten species — NEVER all the entrained species. In most cases five to ten species with calculated proportional mortality estimates usually do not occupy the same habitats as adults. For example, in the example above, the affected species might include gobies that occupy mudflats as well as a fish that only occupies the habitat provided by rock jetty areas in the embayment. If the estimate of proportional mortality is high for that species, the estimate of HPF based on an average among species will be inflated even though that actual habitat may occupy a small proportion of the estuary.

Currently the draft Policy implies that HPF would be a preferred method for scaling interim restoration projects. I would recommend that reference to HPF be deleted as the method of restoration scaling should be chosen based on site-specific conditions such as the species affected, and data available on source populations, habitats, and currents.

Section 4.B.1(b) Track 2 Compliance Monitoring

The language in the draft Policy implies that Track 2 compliance would be based on achieving the required entrainment reduction level of 83.7% for meroplankton (fish and invertebrate larvae) based on monitoring using a 200-micron mesh net. The current language in the draft Policy would require new studies at all of the power plants in California sited in marine waters since all of the sampling for entrainment was done using 335-micron mesh. The designs for all of these studies were reviewed by scientists and staff of the various resource agencies. At several of the power plants, technical advisory groups including resource agency staff and independent scientists from academia were involved in the design of the studies. The work on the design of these studies from the advisory groups is reflected in a 2007 report published by the California Energy Commission⁴.

The sampling for the recent studies was focused largely on ichthyoplankton and later stage larvae of select invertebrates such as crabs, lobster, and squid. The sampling techniques used in the studies effectively sampled these later stage invertebrate meroplanktonic larvae. Sampling was not done with smaller mesh nets because they rapidly clog reducing the effectiveness of the

⁴ Steinbeck, J. R., J. Hedgepeth, P. Raimondi, G. Cailliet, and D. L. Mayer. 2007. Assessing power plant cooling water intake system entrainment impacts. Report to California Energy Commission. CEC-700-2007-010. 105 pp plus appendices.

net and affecting the quality of the sampling. Also, there is limited taxonomic knowledge of the early larval stages of many invertebrate limiting the ability to determine what is even being collected. There has also been a general recognition that the potential for impacts to invertebrates due to entrainment is very limited due to their large reproductive capacity. In addition, there is probably a high level of entrainment survival for many invertebrate larvae which, unlike delicate, soft-bodied larval fishes, have chitinous or calcareous shells that protect them from damage while passing through a cooling water system. Finally, the scientists involved in these studies realized that the large abundances of invertebrate larvae in the coastal waters allow the mortality due to entrainment to be estimated based on the volume of cooling water relative to the volume of the source water. Using this assumption there was no need to include sampling for smaller invertebrate meroplankton.

Tenera appreciates the opportunity to provide the above comments and the information in the Attachments that provide specific comments on the SED. If you have any questions with these comments, please feel free to contact me by e-mail or by phone at 805-541-0310.

Sincerely,

John Steinbeck
Vice President / Principal Scientist
Tenera Environmental

cc: Mr. Charles R. Hoppin – Chair, State Water Resources Control Board
Ms. Fran Spivey Weber – Vice Chair, State Water Resources Control Board
Ms. Tam Doduc – Member, State Water Resources Control Board
Mr. Arthur Baggett – Member, State Water Resources Control Board
Mr. Walter Pettit – Member, State Water Resources Control Board
Mr. Jonathan Bishop – State Water Resources Control Board
Mr. Dominic Gregorio – State Water Resources Control Board
Ms. Joanna Jensen – State Water Resources Control Board

w/ Attachment 1 – Letter from September 30, 2009 with Specific Comments on Supplemental Environmental Document



September 30, 2009

Ms. Jeanine Townsend
Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814

Subject: Comments on Draft Substitute Environmental Document for Power Plant
Cooling Policy

Dear Ms Townsend:

Tenera Environmental Inc. (Tenera) appreciates the opportunity to review and comment on the State Water Resources Control Board (State Board) draft Statewide Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling (Draft Policy) dated June 30, 2008 and its associated Supplemental Environmental Document (SED). As you are probably aware, Tenera has been involved in the study of the effects of once-through cooling (OTC) for over 30 years and also in conducting the recent studies on the effects of power plant cooling water intake systems at 17 of the 19 power plants covered by the Draft Policy. I personally have been very involved in the development of new policy for OTC through my participation in stakeholder and state employee workshops, and as a member of the Expert Review Panel that provided input to the Board staff on the Draft Policy and early drafts of the SED.

The Board staff should be commended for all of the work they have put into the most recent version of the SED which is much improved over earlier drafts. The Expert Review Panel set up by the SWRCB and implemented by the staff helped improve the process of Policy development. I am providing specific comments (Attachment 1) that may help further the process of policy development and may improve the final version of the SED. Although I could also provide a range of general comments on the current version of the SED, I will focus my comments on one specific aspect of the SED—the absence of any justification or documentation of the environmental benefits resulting from Policy implementation.

The absence of any documentation of the environmental benefits of the Policy is especially noteworthy because the recent studies on the levels of impingement mortality and entrainment at almost all of the power plants using OTC in California provide an unprecedented opportunity to examine the actual impacts throughout the state. This information directly addresses the questions of Chair Hoppin on the biological significance of the impacts. Chair Hoppin enquired as to the relative importance of the large numbers of entrained and impinged organisms presented in the SED. This is the

critical question and the recent IM&E studies provide considerable information to address this question regarding the relative importance of the IM&E levels at the plants.

Most of the studies at the facilities using OTC in the state utilized a sampling design that provided estimates of the numbers of organisms impinged and entrained, as presented in the SED, but also the source water populations of larval organisms. With these data the effects of entrainment on the source water populations affected can be directly estimated. These provide relative measures of the impacts that Chair Hoppin and others asked for. In addition, the reports of the studies at many of the facilities work through the original criteria developed by the EPA for determining if the levels of IM&E at a facility resulted in adverse environmental impacts to the populations. In addition to the EPA criteria, additional criteria are also evaluated that are more specific to the specific organisms and habitats potentially affected. The analyses at all of the facilities concluded that IM&E did not result in adverse environmental impacts to the populations.

The only relative measure of the impacts of OTC presented in the SED is the information on the cumulative effects study Tenera, in cooperation with MBC Applied Environmental Sciences, completed as part of the permitting requirements for the repowering of the AES Huntington Beach Generating Station. The study used the cooling water intake volumes of all the power plants in southern California to estimate the total impacts across the area. The worst case scenario for fish larvae exposed to entrainment at maximum cooling water flows for up to 40 days only resulted in additional mortality of 1.4 percent. The estimate using average cooling water flows over the past five-year period for larval exposures of 40 days was 0.8 percent. The mortality decreases proportionally with decreased periods of larval exposure. These are not significant levels of impact given that the natural mortality rates for the larval stages of most fishes exceed 99 percent.

The cumulative effects of IM&E on several fish populations were also analyzed by two EPA scientists.¹ The fishes they analyzed were all targets of commercial and recreational fisheries making those populations more susceptible to the losses from OTC. Their modeling was used to estimate that the populations were depressed by power plant IM&E by less than one percent in 10 of the 15 cases considered, between one and three percent in two cases, and between 20 and 80 percent in three cases. They concluded that IM&E losses were only of concern in the last three cases where the losses exceeded 20 percent. The largest effects of IM&E at California facilities is usually to non-harvested fishes at levels below the levels of the harvested fishes analyzed by Newbold and Iovanna and as a result probably represent very low risk to these populations.

¹Newbold, S. C. and R. Iovanna. 2007. Population level impacts of cooling water withdrawals on harvested fish stocks. *Environ. Sci. Technol.* 41:2,108-2,114.

Large impacts in the range of those considered by Newbold and Iovanna do occur at some power plant locations, but these occur to small forage fishes that are not targeted by commercial and recreational fisheries. Examples at two facilities were included in the information I presented at the September 16, 2009 workshop. As I stated in my presentation, over 40 percent of the total fish larvae entrained by power plants in the state are species of gobies, predominately arrow goby. Data from recent studies when compared with results from studies conducted over 20 years ago at the Encina and South Bay power plants indicate that even high levels of entrainment at these plants have not affected the goby populations in these locations.

At the South Bay Power Plant, estimates of goby entrainment from sampling done in 2001 were approximately the same as estimates from entrainment studies done in 1979-1980. While this type of comparison cannot be used to determine the long-term effects of entrainment by the South Bay cooling water system since there are no data from before plant operation for comparison, it might indicate that no large-scale declines in the adult spawning stock have occurred over the time period between the two studies when the plant was operating. This conclusion is supported by results from a study of fishes in San Diego Bay showing increased abundances of gobies over 1994-1999, a period when the plant was operating.

The source water for the Encina Power Station intake is Agua Hedionda Lagoon. The intake volume relative to the volume of the source water in the lagoon is larger than any other location in the state resulting in the complete turnover of the lagoon water in less than two days when the plant is operating at full power. Despite the seemingly large potential for impacts to the lagoon, studies done over the past several years have shown that the lagoon supports a fish community and densities of gobies in mudflat areas that were similar or higher than other embayments without a power plant intake. Also, recent entrainment studies (2004-2005) showed that concentrations of goby larvae were approximately five times higher than concentrations measured during a previous entrainment study in 1979.

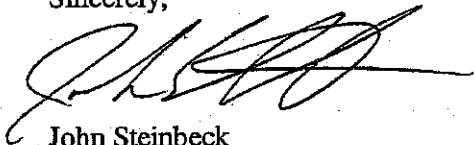
At the September 16, 2009 workshop Board member Doduc asked me if there were data from these locations prior to plant operation that presumably would help substantiate the conclusions that the plants are not affecting these fishes. At the workshop I answered that there were no data available. I have since realized that the question was not appropriate for these and other fishes that have populations that are regulated by available habitat. Gobies occupy burrows in the mud and sandy areas of San Diego Bay, Agua Hedionda Lagoon, and other embayments in California. Only a finite number of gobies can occupy the available habitat and therefore the expectation would be that the populations would be relatively stable over time unless there were changes in the available habitat. Unless there were changes in the available habitat the expectation would be consistent levels of larval production over time as observed from the two studies. The results from both south San Diego Bay and Agua Hedionda Lagoon indicate

that implementing the SED Policy provisions and requirements will provide no benefit to fishes such as gobies that have populations that are primarily limited by the availability of habitat.

The absence of significant benefits resulting from the implementation of a state policy that effectively eliminates OTC in California was recognized and discussed by the scientists on the Expert Review Panel providing input to the State Board staff on development of the supporting information for the policy. That was why a majority of the members of the Expert Panel supported the idea of implementing a fee for use of the State's waters based on cooling water intake volumes with the funds being used for restoration projects that would ultimately provide more benefit to the fish populations in the state than reducing the use of OTC. This approach would also have the benefit of encouraging reduced water use and upgrading of older more inefficient plants.

Tenera appreciates the opportunity to provide the above comments and recommendations. Additional specific comments regarding the draft Policy for your consideration are attached (Attachment 1). If you have any questions with these comments, please feel free to contact me at 805-541-0310.

Sincerely,



John Steinbeck
Vice President / Principal Scientist
Tenera Environmental

cc: Mr. Charles R. Hoppin – State Water Resources Control Board
Ms. Tam Dudoc – State Water Resources Control Board
Ms. Fran Spivey Weber – State Water Resources Control Board
Mr. Jonathan Bishop – State Water Resources Control Board
Mr. Dominic Gregorio – State Water Resources Control Board
Ms. Joanna Jensen – State Water Resources Control Board

w/ Attachment 1 – Specific Comments on Supplemental Environmental Document

Attachment 1 – Specific Comments on SED

Section 1.0 Introduction		
1	pg. 1, par. 3	States that OTC presents a “considerable and chronic stressor. . .” to aquatic ecosystems without presenting any evidence that this is true, other than statements that the impacts are recognized as significant by state and federal agencies.
2	pg. 1, par. 4	States that “Policy adopts appropriate technology-based standards. . .”, but there is very little information presented relative to technology-based methods for reducing IM&E. The policy for the most part eliminates OTC at all fossil facilities since compliance includes screening zooplankton down to 200 microns in size. There are no technologies available that would provide for screening of small zooplankton, and therefore, the feasibility of using Track 2 for compliance is virtually eliminated.
3	pg. 2, par. 4	States that the policy addresses an “ongoing, critical impact . . .” without presenting any evidence to support the statement. See Comment 1.
4	pg. 2, par. 4	States that the existing BPJ approach represents a “considerable resource burden. . .”, but doesn’t consider the economic burden the proposed policy places on the utilities and citizens of California. No evidence is provided of the burden on resources.
5	pg. 2 par. 5	Section 316(b) of CWA includes a statement that BTA is required for “minimizing adverse environmental impact.” This seems to require some assessment of the existence of an adverse environmental impact (AEI). Analyses of AEI from recent IM&E studies done in southern California indicate that there is no evidence of AEI using criteria established by EPA.
6	pg. 4 par. 3	It would be useful to indicate that Track 1 and 2 are options under the Phase I Rule so there isn’t any confusion with the use of Track 1 and 2 under the proposed policy.
7	pg. 7, par. 4	Does not include industrial use as one of the beneficial uses listed under Porter-Cologne.
8	pg. 8, par. 5	This text implies that the EPA draft guidance for evaluating 316(b) is out of date due to “the more accurate methods available to quantify the true nature of these impacts.” In contrast to this statement, the methods and analyses used to quantify the effects of CWIS on marine organisms have actually changed very little over the decades since the first studies were conducted in the 1970s. The guidance actually lays out a methodology for a very thorough assessment of the potential for AEI that was used recently in assessing the effects of the LADWP facilities in southern California. The problem was the inconsistent quality of some of the earlier studies, not the guidance.
9	pg. 9, par. 2	The text here seems to imply that the threshold for determining AEI has been lowered due to the Riverkeeper I and II decisions by implying that any CWIS results in some impairment or stress. Again, the guidance on AEI presented a reasonable approach for these determinations and does not include showing as stated “that any impacts must be shown to have deleterious effects. . .”
10	pg. 9, par. 5	The appellate court decision on the restoration plan for Moss Landing Power Plant is described but no further mention is made until pg. 76 where the restoration package is again described. There is no discussion of how the decisions for the Moss Landing Power Plant restoration plan or the restoration package for Huntington Beach Generating Station are affected under the proposed policy. If these were acceptable mitigation for impacts at these facilities, why is it unacceptable at other facilities?

Section 2.0 Background

11	pg. 29, par. 2-4	Discussion of entrainment equates the small size of the organisms with susceptibility to mortality. Also, the assumption used in most of the studies of 100 percent mortality is discussed. Although this assumption has been used in most of the studies in California, the assumption was meant to apply to fish eggs and larvae, which are soft-bodied and particularly susceptible to many of the factors mentioned in these paragraphs. The assumption was never meant to apply to other planktonic organisms, such as phytoplankton or zooplankton, which have hardened shells. For these organisms, the rates of survival undoubtedly vary among species but it could be very high. The EPA has correctly focused the concerns regarding entrainment on fish and shellfish larvae which have much more limited distributions and capacities for reproduction than phytoplankton and zooplankton. The logic of this approach is based on the concept of adverse environmental impacts (AEI) that focus IM&E studies on organisms with some potential for AEI and not on life forms with little or any potential for AEI.
12	pg. 30, par. 1	Impingement at the Diablo Canyon Power Plant not only is less than impingement at SONGS but it also has the lowest estimated impingement rates of any power plant in the state. The policy presents the entrainment effects based on estimates of habitat production foregone (HPF) without any context as to why the effects are presented as area instead of numbers. It is important to provide some context for the estimates since the methodology includes several important assumptions. There is also no way to compare the effects of Diablo Canyon with other facilities where estimates of HPF are not provided.
13	pg. 30, par. 3	The estimates of impingement for South Bay Power Plant are not correct. The estimate using design flow was 350,000 fishes, not 390,000. The impingement and entrainment estimates presented for this plant are the design flow estimates even though the plant has a low capacity factor resulting in low average daily flow rates.
14	pg. 33, Sec. 2.3.1 Cumulative Impacts	The first paragraph in this section seems to confuse the issue of cumulative impacts. The first sentence defines it in the context of multiple power plants withdrawing from the same water body, while the second presents the more conventional definition of impacts due to multiple stressors. One of the concerns with multiple stressors is synergistic effects that might result from the interaction of multiple toxicants. This does not apply to impingement and entrainment where the effects of multiple power plants would be strictly additive. The study by MBC and Tenera cited in this section demonstrates the low potential for impacts due to OTC. The estimate cited in the draft policy is misleading since this was the maximum estimated entrainment mortality provided in the report which would only occur for species with larvae that were susceptible to entrainment for a period of 40 days. Even the maximum reported estimate of 1.4 percent demonstrates the low potential for adverse environmental impacts since it is hard to conceive of a situation where this level of additional mortality would pose any risk to a population. The estimated mortality decreases proportionally with shorter larval durations that are more representative of the estimates from the studies conducted in southern California. The estimates were recalculated using the average annual flows at the plant resulting in a maximum mortality rate of less than one percent.

Section 3.0 Issues and Alternatives		
15	pg. 42, Sec. 3.1	States that the USEPA has not provided any clear indication "as to its intent to revise or reissue the suspended Phase II Rule . . ." In fact, the EPA has notified EPRI and other stakeholders of its intent to reissue the rule.
16	pg. 43, par. 5	The very inconsistencies between Regional Boards presented in this paragraph demonstrate the wisdom of the case-by-case BPJ approach. The declines in several populations of fish in the San Francisco Bay-Delta region that have resulted in listing species under the ESA and CESA are issues specific to that region. The same issues do not apply in southern California and other areas of the state just as entrapment of sea turtles does not occur in the San Francisco Bay-Delta region.
17	pg. 44, par. 4 and 5	As noted in Comment 16, the issues relative to 316(b) vary among plants. While it may be expedient to implement a statewide BTA standard relative to the technology aspect of 316(b), the BTA necessary to minimize AEI will vary among plants.
18	Pg. 51, Discussion	<p>The Discussion for Section 3.4 states that "A facility's CUR is not necessarily indicative of the impact it may have on the aquatic environment . . ." This statement is not accurate. Total entrainment has a high correlation with CUR as measured by cooling flow when comparing plants located in similar areas. By including all the plants in the analysis the correlation is low because of differences in larval concentrations between embayments and coastal sites and northern and southern California. When separated out the correlation is very high.</p> <p>This argument also seems to be based on the fact that the concentration of organisms in the source water is not constant throughout the year. This was thoroughly discussed by the Expert Panel. The panel was in general agreement that the policy should focus on the plants that withdraw large volumes of seawater and have high CUR. We also discussed having smaller capacity units calculate CUR using a seasonally weighted average that would account for regional variation in ichthyoplankton abundance. The Panel also agreed that there were enough entrainment data statewide to allow calculation of a seasonally adjusted CUR. This would allow more flexibility for operating plants that are only used during periods of peak demand. Since these plants only operate a small percentage of the time (and this was thoroughly discussed by the Expert Panel) it is not clear how the draft policy could make the statement that these plants do not "cause appreciably less harm than a high capacity facility." This statement is contradicted on pg. 56 of the document which states "that the number of organisms entrained is more or less proportional to the water volume withdrawn through the intake structure . . ." By adopting this approach the policy places the greatest burden on the least efficient units that are the least able to justify retrofitting and have the lowest levels of impingement and entrainment due to their limited CUR.</p>
19	Pg. 61, Sec. 3.7	Is there any basis for selecting the level of reduction at 93 percent? None seems to be provided.
20	Pg. 77, par. 3	The statement that habitat production foregone (HPF) can address losses across all habitat types is not true. HPF is really only applicable to species where the habitat associated with adult production can be identified. The approach is problematic for fishes such as northern anchovy that release eggs into the water column.
21	Pg. 81, par. 2	Incomplete sentence.
22	Pg. 81, par. 3	Paragraph repeated on page 82.
23	Pg. 81, par. 4	Table number missing.

Section 4.0 Environmental Effects and Mitigation

24	pg. 91, Sec. 4.2	Issue areas are presented that need to be addressed as part of the CEQA review of the policy, but Issue 4 – Biological Resources is not addressed in the following sections. It seems that the benefits of the policy would be included in this section. The implication that there are no effects of the policy on Biological Resources is not correct since the potential increases in greenhouse gases resulting from the policy may have a much more deleterious effect on fish populations than any potential benefits resulting from reduction in OTC.
25	pg. 107, Sec 4.12	As noted in Comment 24 above, the potential for Cumulative and Long-Term Impacts of the policy could be significant and definitely should be discussed.