CPV Sentinel, LLC

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Mr. John Kessler
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

Re: CPV Sentinel Energy Project (Docket 07-AFC-08)

Dear Mr. Kessler:

I am writing in reference to the June 24, 2008 letter from Mr. Dan Patneaude of Mission Springs Water District ("MSWD") to you regarding the CPV Sentinel Energy Project ("CPVS"). Mr. Patneaude's responses to your questions are at best incomplete, and in some cases misleading. The following background information and responses to your questions provide a more complete and accurate assessment of our efforts to develop a water supply agreement for CPVS with MSWD, and the reasons that those efforts have failed in the past and are unlikely to be fruitful in the future.

Background

CPV Sentinel, LLC ("CPV Sentinel") has fully evaluated means by which secondary effluent from MSWD's Horton Wastewater Treatment Plant ("HWTP") could be developed into a recycled water supply to be used directly by CPVS or to offset CPVS's use of freshwater from the Mission Creek Sub Basin. In fact, the initial water supply plan set forth in the Application for Certification ("AFC") was based on such a proposal. Subsequent to filing the AFC, CPV Sentinel has continued to evaluate alternative proposals involving recycled water from HWTP, and has solicited ideas from MSWD to develop a feasible proposal.

To date, none of the alternatives evaluated have proven feasible. First, the proposals that have been evaluated suffer from a number of serious substantive defects from a practical, technical, environmental and/or regulatory perspective. Second, even if we were to overcome such substantive defects, experience suggests that the terms upon which MSWD would be willing to supply water to CPVS, combined with the costs of necessary infrastructure, would make any proposal economically unviable. Finally, it is not at all clear that MSWD is interested in entering into an agreement to supply water to CPVS. Certain staff and board members have been openly opposed to CPVS and the idea of supplying water to CPVS, and the board as a whole has been unable to develop a formal position on CPVS. The primary factors that have prevented development of a feasible proposal are discussed briefly below.

Environmental Considerations

The secondary effluent from HWTP has historically been recharged into the Mission Creek Sub Basin as a component of the groundwater supply of the Upper Coachella Valley Groundwater Basin. Moreover, MSWD has embarked on a plan to improve the secondary treatment processes to include nitrification/denitrification to remove potentially harmful nitrogen species from the wastewater effluent thereby improving the quality of this groundwater recharge. Thus, the secondary effluent is a historical

and anticipated future source of groundwater re-charge which would be eliminated if it were to be used to create a recycled water supply for CPVS. In addition, most of the proposals analyzed would require extensive pipelines, pumps and storage capacity, all of which have additional impacts on the environment.

HWTP Capacity Constraints

The current flow from the HWTP is approximately 1.3 million gallons per day (gpd), or an average of 902 gallons per minute (gpm). CPVS's peak flow requirement for a design summer day is 2.96 million gpd or 2059 gpm. Even if over the next several years the wastewater inflows to HWTP reached its current design capacity of 2 mgd, this is only an average of 1389 gpm. Since this supply would meet only 45% of the instantaneous makeup demand for CPVS, direct use of recycled water from HWTP would require addition of a storage tank farm with a capacity of approximately 30 million gallons to store recycled water to fully meet the potential demands of CPVS if dispatched under its power purchase agreement with Southern California Edison. This infrastructure would greatly increase the cost of developing CPVS, and would have previously unanalyzed environmental impacts.

Alternative Uses for HWTP Effluent

MSWD has indicated that it has future alternative plans for use of HWTP secondary effluent. Its Urban Water Management Plan and Reclaimed Water Feasibility study suggest that MSWD intends to develop a recycled water system to serve existing irrigation customers, including golf courses that utilize groundwater, and/or future development that may be approved for water service. The current downturn in housing starts notwithstanding, MSWD's service territory is within what has been, and will continue to be, one of the fastest growing regions of the state, and the demand for recycled water is expected to increase in the future. Furthermore, some of the alternative uses represent a more efficient use of the recycled water. The service of 1.3 MGD of recycled water to CPVS would meet approximately 45% of the flow requirements for makeup water at the power plant, which would yield a recycled water supply of approximately 250 acre-feet per year. In sharp contrast, the development of 1.3 MGD of recycled water to serve a golf course, such as the Palm Springs National Country Club or the Desert Dunes Golf Course, would yield a recycled water use of approximately 1,000 acre-feet per year.

Economic Considerations

The additional infrastructure necessary to implement any of the proposals that have been evaluated to date would dramatically increase the cost of developing the CPVS. Compounding the cost issue is MSWD's position that any proposal to develop recycled water from the HWTP via a treatment upgrade to tertiary treatment be considered only as part of a "package deal." Under such a proposal, MSWD would supply all of the water used by CPVS and CPV Sentinel would pay for multi-million dollar capital improvements to the MSWD potable water system, pay for recycled water system capacity far in excess of what is necessary to serve CPVS either directly or indirectly, and pay for all water used at the potable water rate of MSWD or potentially a higher rate established only for the CPVS. CPV Sentinel has been entirely unsuccessful at soliciting a proposal from MSWD for development of a recycled water supply independent of this "package deal" concept.

MSWD's Willingness to Serve

Notwithstanding certain statements to the contrary, even if all of the issues identified above could be overcome, MSWD's willingness to enter into a supply agreement with CPV Sentinel remains very unclear even after months of consideration. Other statements by staff and board members, and certainly many of their actions suggest that there is no interest whatsoever in entering into such an arrangement, and some of the other obstacles identified above may be a direct result of the lack of desire to serve the project in the first instance.

Specific examples of the obstacles described above are provided below in the context of responding to the specific questions responded to by Mr. Patneaude in his June 24, 2008 letter to you.

Responses to Specific Questions

1. Are they willing to serve reclaimed water to Sentinel?

The statements of Mr. Patneaude in his June 24, 2008 letter run contrary to the statements and actions of MSWD staff and board members over the past year and a half. During that period of time, CPV Sentinel remained continuously open to discussions with MSWD regarding a possible water supply agreement. While MSWD staff and board members have periodically engaged in discussions with CPV Sentinel, at other times staff and board members have expressed open opposition to CPVS and any proposal to serve it water. While the full MSWD board has never taken a formal position with respect to CPVS or MSWD's willingness to serve water to CPVS, the board rejected a proposal from two board members to form a two-member committee to discuss options and negotiate with CPV Sentinel. Certain board members have been openly hostile to CPVS and CPV Sentinel. MSWD staff remains essentially unchanged, and only one board member has changed during this time. Thus, notwithstanding the expression of interest set forth in the June 24, 2008 letter, past actions indicate that MSWD is either unable or unwilling to identify a feasible alternative for supplying water to CPVS and to develop an agreement for doing so.

Even when MSWD has engaged in discussions regarding a possible water supply arrangement, the terms proposed bring into question the sincerity of such discussions. For example, in December 2007 and January 2008 CPV Sentinel evaluated the potential to develop a recycled water supply for the Desert Dunes Golf Course from the HWTP as a substitute supply for the groundwater currently used by the golf course. In those discussions, MSWD suggested that CPV Sentinel would be obligated to pay for tertiary treatment upgrades for more than twice the flow requirements of the golf course, would have to pay for all distribution system improvements and would have to pay future O&M costs for the treatment facilities. Moreover, MSWD would have retained the right to discontinue recycled water service to the Desert Dunes Golf Course if at any time MSWD developed an alternative use for the recycled water. Finally, MSWD indicated that it would only pursue this development if CPV Sentinel agreed to purchase other water from MSWD (either potable water or groundwater exceeding drinking water standards for radionuclides). Other overtures by CPV Sentinel to MSWD have produced similarly unworkable responses from MSWD.

The inability or unwillingness of MSWD to enter into an agreement with CPV Sentinel, and the repeated criticism of CPVS by MSWD staff and board members, prompted CPV Sentinel to develop an alternative water supply plan that does not require action by MSWD. The current water supply plan does not result in any significant unmitigated environmental impacts and satisfies the CEC policy on the use of fresh water for power plant cooling. CPV Sentinel is working together with the Desert Water Agency ("DWA") to implement this plan, and both CPV Sentinel and DWA remain open to ideas from

MSWD that might be incorporated into the plan, such as water conservation within the MSWD service territory (a proposal that staff of MSWD have questioned because it might reduce revenues). However, any change in direction from the current water plan, even if a feasible alternative that addresses the factors outlined above could be identified, would result in schedule delays that CPV Sentinel cannot tolerate given its commitments to sell power in the summer of 2010.

2. What quantity or portion of Sentinel's water demands could be supplied as reclaimed water by the WSD?

As discussed above, the current supply of wastewater from HWTP is not adequate to meet the need of CPVS, and there are competing potential uses for recycled water that would achieve more efficient use of the potential supply. Alternatively, if CPV Sentinel were to meet all of its water demands from the currently available wastewater supply, and no alternative uses were developed by MSWD, it would require development of significant storage capacity in addition to treatment and transport infrastructure. The original AFC reported a cost impact of $20 million for the pipeline and tank farm. More recent cost estimates by CPV Sentinel for this added infrastructure (not including the cost to upgrade HWTP to tertiary treatment) is in the $25 million range. In addition, the lower water quality recycled water could substantially increase the costs of the CPVS on-site water treatment systems, including the zero liquid ("ZLD") discharge system. Although we have not obtained detailed water quality information on the HWTP effluent, CPV Sentinel's engineering and water treatment specialists have estimated the quality characteristics of the wastewater based upon the quality of MSWD potable water and the typical changes that occur in the sewer return and treatment systems. That analysis suggests that that the lower water quality represented by HWTP effluent treated to tertiary levels would increase the costs of on-site treatment systems by approximately $20 million, bringing the total cost for direct use of HWTP wastewater into the range of approximately $45 million.

In addition to the significant cost impact, there would be additional environmental impacts of building an approximately six-mile pipeline, adding a 30 million gallon tank farm, and depriving the Mission Creek Sub Basin of up to 1,100 acre-feet per year of return flow represented by the current beneficial percolation recharge of the HWTP wastewater into this Sub Basin. The original AFC conclusion remains, that this alternative would not allow Sentinel to achieve one of its objectives of supplying competitively priced electricity and also results in increased and significant environmental impacts. This thus remains not a feasible alternative.

3. If so, what would be the point of interconnection?

The cost estimates presented in the AFC, and above, presume that the point of connection would be the HWTP.

4. What would be the associated capital costs for facilities that would remain owned by the WD that should be paid by Sentinel (such as a proportional capital cost for tertiary treatment improvements or facility capacity charges for any infrastructure owned by the WD)?

During prior discussions with MSWD, a tertiary treatment system cost for the future increased HWTP capacity was estimated by MSWD to be $3 million. However, MSWD has insisted upon a package deal including potable water system improvements of up to $10 million, and might insist on the ownership of pipelines to serve CPVS. CPV Sentinel's consultant engineers have estimated the approximately six-mile long pipeline from HWTP to CPVS to cost approximately $5 million, but the actual cost could be higher and would depend upon whether right-of-way purchases are needed and whether road cut and paving costs would be incurred. Also, the route crosses two seasonal washes and may require

directional drilling rather than trenching to avoid impacting sensitive areas. Pumping facilities would also have to be included. The cost estimate of $1.37 million provided by MSWD is unrealistically low.

5. Do the WDs have plans to expand the distribution system (pipelines) in a manner that could contribute to serving Sentinel? If so, please explain where to, and to what extent it would be co-funded?

Due to conflicting statements of MSWD on this point, CPV Sentinel lacks adequate information to respond to this question. We point out, however, that MSWD did not respond to the question either. Instead, MSWD discussed some alternative water supply concepts for CPVS, which are addressed below:

A. Wells 28 and 30. It is clear that MSWD would like to rid itself of its troublesome Wells 28 and 30, which have produced high uranium readings on occasion. MSWD suggests a proposal under which it would sell CPV Sentinel fresh water from existing MSWD potable water wells 28 and 30 in lieu of CPV Sentinel having its own wells on-site. For various reasons, not the least of which is MSWD's historical unwillingness to negotiate an economically viable agreement, this proposal is not feasible.

Wells 28 and 30 are located remotely from the CPVS, and would require a new pipeline of approximately 6.4 miles in length at an estimated cost to CPV Sentinel of approximately $6 million. In addition, CPV Sentinel would be required to install two new wells for MSWD, which, based on recent drilling experience in this area, would cost approximately $3 million. Depending on the price at which MSWD would sell this water to CPV Sentinel, the overall cost penalty for this alternative would be approximately $10 million or more. CPV Sentinel would also be exposed to future arbitrary cost increases, as MSWD could re-set its water rate to CPV Sentinel at any time in the future merely by majority vote of its board. In addition, should water supplies be interrupted by equipment failure, CPV Sentinel would be reliant upon MSWD to repair wells and the pipeline, exposing CPV Sentinel to significant cost penalties under its power purchase agreement with Southern California Edison. Furthermore, this alternative would include the additional environmental impact of building a six mile pipeline.

B. Recharge HWTP tertiary effluent at Sentinel site. The details of this proposed alternative are not entirely clear, but on its face it presents a number of economic and environmental hurdles (assuming again that a viable agreement could even be reached with MSWD). The potential costs associated with this alternative are substantial, and would include a 6-mile pipeline, upgrading HWTP to tertiary treatment, potentially increased ZLD system costs, and additional cost and permitting risk of percolation ponds or injection wells at the CPVS site. In addition to the uncertainty associated with relocating the Sub Basin re-charge from its current location at HWTP to the CPVS sight, there are a number of other potentially fatal environmental issues associated with this proposal. CPVS is surrounded by several wind turbine installations. Percolation ponds could attract migratory birds/water foul with the resulting potential for bird kills by wind turbines. Alternatively, reverse osmosis treatment of tertiary wastewater would likely be required for new injection wells.

6. What would be the unit cost of purchasing reclaimed water ($/AF or equivalent)?

This answer cannot be determined

7. When would reclaimed water be available to Sentinel and at what initial and projected rates of flow (projecting when reclaimed water supply would be adequate to meet all project demands and defined in units of mgd available by month and AF/year)?

Projections of future reclaimed water flows from the HWTP are uncertain, but as discussed above, it is clear that the wastewater flows at the time CPVS is required to begin operations in 2010 are only a fraction of the water flows needed. Other logical uses of recycled water, if developed, would likely mean that no recycled water would be available to meet CPVS demands. Moreover, no recycled water is presently produced and the secondary effluent is presently fully utilized for beneficial recharge of the Sub Basin.

8. What are historical monthly and annual supplies and demands of reclaimed water over the past 5 years?

No recycled water has been produced in the past five years. All secondary effluent has been delivered by MSWD for recharge in the Sub Basin. Secondary effluent supplies have ranged between 1.3 and 1.5 MGD.

9. Could they provide water quality data for the reclaimed water supply, with particular attention to TDS and silica?

CPV Sentinel does not have this information.

We appreciate this opportunity to provide you additional information regarding this important aspect of CPVS. If you have any questions regarding this matter, please do not hesitate to call me.

Very truly yours,

Mark Turner
Project Manager

Cc: Bill Pfanner, CEC
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STATE OF CALIFORNIA
ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

In the Matter of:	)	Docket No. 07-AFC-3
	)	
Application for Certification,	)	**ELECTRONIC PROOF OF SERVICE**
for the CPV SENTINEL ENERGY PROJECT	)	**LIST**
	)	
	)	(October 15, 2007]
	)	

☒ Transmission via electronic mail and by depositing one original signed document with FedEx overnight mail delivery service at Costa Mesa, California with delivery fees thereon fully prepaid and addressed to the following:

DOCKET UNIT

CALIFORNIA ENERGY COMMISSION
Attn: DOCKET NO. 07-AFC-3
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CPV SENTINEL ENERGY PROJECT
CEC Docket No. 07-AFC-3

DECLARATION OF SERVICE

I, Paul Kihm, declare that on July 9, 2008, I deposited a copy of the attached:

LETTER FROM MARK TURNER TO JOHN KESSLER, DATED JULY 9, 2008

with FedEx overnight mail delivery service at Costa Mesa, California with delivery fees thereon fully prepaid and addressed to the California Energy Commission. I further declare that transmission via electronic mail was consistent with the requirements of California Code of Regulations, title 20, sections 1209, 1209.5, and 1210. All electronic copies were sent to all those identified on the Proof of Service List above.

I declare under penalty of perjury that the foregoing is true and correct. Executed on July 9, 2008, at Costa Mesa, California.

Paul Kihm