

**State of California
Energy Resources Conservation and Development Commission**

In the Matter of:)	Docket No. 08-AFC-4
)	
Application for Certification)	BRIEF IN RESPONSE TO
<u>for the Orange Grove Energy Project</u>)	ARCHIE MCPHEE'S TESTIMONY

At the conclusion of the December 19, 2008, evidentiary hearing the hearing officer for the Orange Grove Power Plant Project ("Orange Grove") directed parties to file briefs in response to the testimony of intervener Archie McPhee regarding the Orange Grove project's use of recycled water. Briefs must be filed no later than 3:00 p.m. on January 9, 2009.

INTRODUCTION

Intervener Archie McPhee makes two primary contentions which are repeated throughout his oral testimony presented during the evidentiary hearing and in letters submitted to the Committee in advance of the prefiling conference. These two contentions are as follows:

- 1) Staff's use of the term "recycled water" rather than "reclaimed water" is a means for the Orange Grove project to use an unsafe and hazardous water source for industrial use because, according to the intervener, there are no legal restrictions on the use of recycled water, whereas there are restrictions on reclaimed water.
- 2) The Orange Grove facility will not be using appropriately disinfected recycled/reclaimed water and this presents a human health risk.

Staff respectfully submits that, on both these contentions, the intervener is incorrect.

DISCUSSION

Code Sections Cited and Claims Made by Archie McPhee with Responses

Mr. McPhee's claims and citations from the transcript are quoted below in italics. Each claim is followed by staff's response.

CLAIM: *Recycled water may or may not be tertiary treated water but FPUD's standard wastewater treatment process is only capable of tertiary treated sewage water, also known as reclaimed water. (RT p. 105: 4-8.)*

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RESPONSE: The California Department of Public Health has set standards for recycled water use in regulations found in Title 22 of the California Code of Regulations. (Cal. Code Regs., tit. 22, §§ 60304, 60305, 60306, 60307.) Section 60306(a) states:

Recycled water used for industrial or commercial cooling or air conditioning that involves the use of a cooling tower, evaporative condenser, spraying or any mechanism that creates a mist shall be a disinfected tertiary recycled water.

It is undisputed that the Water Code and Title 22 allow for the widespread use of recycled water that has undergone tertiary treatment and disinfection. Such uses include all the proposed applications by the Orange Grove project. Condition of Certification Soil and Water 8 requires the applicant to comply with all recycled water use requirements established in Title 22 and Title 17 of the California Code of Regulations.

Orange Grove's Option Water Agreement dated December 10, 2007, and the Recycled Water agreement state that "Fallbrook agrees to provide recycled water which meets all requirements for Title 22 tertiary treated recycled water." (Covenant No. 4 Appendix 6.5-G.1 of the Application for Certification. See *also*, testimony of Cheryl Closson, RT, p 92: 18-25 and p. 93: 1-9.)

Regardless of whether the water is called recycled or reclaimed water, for such water to be widely used, it must be processed through modern primary, secondary, and/or tertiary treatment and disinfection following the strict standards of the California Department of Public Health. (Testimony of Cheryl Closson, RT. p 92: 18-25, p.93: 1-9. See *also*, the written testimony of Richard Jones and Joseph Stenger, Applicant's Exhibit 23.)

CLAIM: *Transportation of reclaimed water, A, the wastewater industry's transportation requirements for tertiary treated sewage water, reclaimed water, or if one prefers the term recycled water, is it must be transported in purple piping and labeled, contaminated, do not drink. Orange Grove Power and FPUD plan on violating this requirement by transporting tertiary treated sewage water by tanker truck. B, California Health Laws related to recycled, reclaimed water Section 13555.3, Separate Pipelines, part C (RT .p105: 15-25, p. 106: 1-2.)*

RESPONSE: In his November 27, 2008 letter and during his testimony at the evidentiary hearing, the intervener stated that recycled\reclaimed water must be delivered to private property by way of a separate purple pipeline and therefore the trucking of such water is prohibited. To support this claim, the intervener cited section 13555.2 and 13555.3(a) from the manual entitled, "California Health Laws Related to Recycled Water." This manual cites Health and Safety Code section 116815 as the regulatory source for the purple pipe requirement.

Health and Safety Code section 116815 states the following:

(a) All pipes installed above or below the ground, on and after June 1, 1993, that are designed to carry recycled water, shall be colored purple or distinctively wrapped with purple tape.

(b) Subdivision (a) shall apply only in areas served by a water supplier delivering water for municipal and industrial purposes, and in no event shall apply to any of the following: (1) Municipal or industrial facilities that have established a labeling or marking system for recycled water on their premises, as otherwise required by a local agency, that clearly distinguishes recycled water from potable water;. (2) Water delivered for agricultural use.

There is nothing in the section that prohibits the use of trucks to haul recycled water or restricts conveyance of recycled water only by pipes painted purple. The Orange Grove facility is not being served by a water supplier delivering recycled water via pipeline, therefore section 116815 does not apply to the offsite delivery via trucks. In this case, Orange Grove's water trucks will be serving the facility. In addition, there is nothing in the record to indicate trucking of recycled water is prohibited by any local law or ordinance. (See *also*, the written testimony of Richard Jones and Joseph Stenger, p. 2 of Applicant's Exhibit 23.)

CLAIM: *The only approved use of recycled water by the California Health Laws Related to Recycled Water, 1991 Edition, Sections 13552.4 and 13552.8 are: One, for irrigation, floor trap priming, cooling towers and air conditioning. This is the standard, normal recycled water. That's all it can be used for. (RT p.106: 19-25)*

RESPONSE: Again the intervener has cited to a manual on recycled water. The use of recycled water is determined according to the level of treatment and disinfection. The process which produces the cleanest type of recycled water and thus has the broadest available use is tertiary-treated water with disinfection.

The California Department of Public Health has set standards in regulations for recycled water use (Cal. Code Regs., tit. 22, §§ 60304, 60305, 60306, 60307). The following are appropriate uses for various types of recycled water under these sections: irrigation of food crops, parks, playgrounds, school yards, residential landscaping, cemeteries, freeway landscaping, golf courses, ornamental nurseries, pasture for animals, orchards, and vineyards. In addition, recycled water can be used for fishing or boating recreational impoundments, fish hatcheries, cooling towers and decorative fountains. Other allowable uses include flushing toilets and urinals, industrial process water, commercial laundries, making artificial snow, soil compaction, mixing concrete and flushing sanitary sewers. As is clear from Title 22, the use of recycled water for cooling towers and industrial processes is completely acceptable and is desirable as a means to reduce the use of potable water. Section 60306(a) of the regulations states:

“Recycled water used for industrial or commercial cooling or air conditioning that involves the use of a cooling tower, evaporative condenser, spraying or any mechanism that creates a mist shall be a disinfected tertiary recycled water.”

(Cal. Code Regs., tit. 22, § 60306, subd. (a).) It is undisputed that the Water Code and Title 22 allow for the widespread use of recycled water that has undergone tertiary treatment and disinfection. Such uses include all the proposed applications by the Orange Grove project.

CLAIM: *Now we have the 2001 Edition of Title 22 of the California Health Laws Related to Reclaimed Water, Section 607 stipulates, stipulates that recycled wastewater used for industrial water that comes in contact with workers as well as recycled water used for toiletry and other defined uses must be disinfected, tertiary water. (RT p. 107: 1-7)*

RESPONSE: It is unclear what section the intervener intended as there is no section 607 within Title 22. The California Department of Public Health has set standards for recycled water use (Cal. Code Regs., tit. 22, §§ 60304, 60305, 60306, 60307). Section 60306(a) of the regulations states:

“Recycled water used for industrial or commercial cooling or air conditioning that involves the use of a cooling tower, evaporative condenser, spraying or any mechanism that creates a mist shall be a disinfected tertiary recycled water.”

(Cal. Code Regs., tit. 22, § 60306, subd. (a).) It is undisputed that the Water Code and Title 22 allow for the widespread use of recycled water that has undergone tertiary treatment and disinfection. Such uses include all the proposed applications by the Orange Grove project. Condition of Certification Soil and Water 8 requires the applicant to comply with all recycled water use requirements established in Title 22 and Title 17 of the California Code of Regulations.

Orange Grove’s Option Water Agreement dated December 10, 2007, and the Recycled Water agreement, states that “Fallbrook agrees to provide recycled water which meets all requirements for Title 22 tertiary treated recycled water. (Covenant No. 4 Appendix 6.5-G.1 of the Application for Certification. See also, the testimony of Cheryl Closson, RT, p. 92: 18-25, p. 93: 1-9)

CLAIM: *Section 60301 through 603.620 of Title 22 defines disinfected tertiary water as filtered, oxygenated, clarified and subsequently disinfected water which meets certain, strict specifications. The production of disinfected, not tertiary treated reclaimed water, disinfected tertiary reclaimed water requires specific and defined disinfection and filtration (RT p. 107: 18-25). FPUD cannot provide this quality of disinfected tertiary treated water, it can only provide reclaimed water, also known as tertiary treated sewage water. (RT p.108: 19-22)*

RESPONSE: As identified by the intervener, California Code of Regulations, title 22, section 60301.230, establishes the process for how tertiary treated recycled water must be disinfected and the testing methods for how the efficacy of the disinfection can be measured.

Condition of Certification Soil and Water 8 requires the applicant to comply with all recycled water use requirements established in Title 22 and Title 17 of the California Code of Regulations.

Orange Grove's Option Water Agreement dated December 10, 2007, and the Recycled Water agreement, state that "Fallbrook agrees to provide recycled water which meets all requirements for Title 22 tertiary treated recycled water. (Covenant No. 4 Appendix 6.5-G.1 of the Application for Certification. See *also*, the testimony of Cheryl Closson, RT p. 92: 18-25, p. 93: 1-9)

CLAIM: *California Health Laws Related to Reclaimed Water Section 13554.3 part c states that wastewater industry standards prevail if they are more restrictive to the transportation of recycled and/or reclaimed water. (RT p. 118: 6-10)*

RESPONSE: Mr. McPhee's statement is inaccurate. His reference to section 13554.3 is in error and should be to section 13555.3, part c, of the manual entitled, "California Health Laws Related to Reclaimed Water." Section 13555.3, part c, of the manual states, "This section does not preempt local regulation of the delivery of water for potable and nonpotable uses and any local governing body may adopt requirements which are more restrictive than the requirements of this section." There is nothing in the record to indicate trucking of recycled water is prohibited by any local law or ordinance. (See *also*, the written testimony of Richard Jones and Joseph Stenger, p. 2 of Applicant's Exhibit 23.)

CLAIM: *I think tertiary, disinfected tertiary recycled water would be preferred for some of the obvious uses. For example, for the cooling portion of the problem. (RT p. 129: 20-23)*

RESPONSE: On cross examination, Mr. McPhee agreed that disinfected tertiary recycled water would be preferred for facility cooling. This is the same type of water the Orange Grove project will be utilizing for some of the facility operations. (RT, p. 129: 20-23; Covenant No. 4 Appendix 6.5-G.1 of the Application for Certification; Testimony of Cheryl Closson, RT, p.92: 18-25, p. 93: 1-9. See *also*, the written testimony of Richard Jones and Joseph Stenger, Applicant's Exhibit 23).

CONCLUSION

The evidence before the Committee indicates that under Title 22, recycled water may be used for industrial purposes including cooling towers. Most importantly, there is no evidence to support intervener Archie McPhee's contention that, by using the term "recycled water," the applicant can somehow use an unsafe, unregulated or hazardous water source.

Date: January 9, 2009

Respectfully submitted,

_____/s/_____
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