Docket Optical System - Blythe 2/ from Intervenor Wolf

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To: Docket Optical System
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TRAFFIC AND TRANSPORTATION

Testimony of Joseph F. Sheble III

I. Name: Joseph F. Sheble III

II. Purpose: The purpose of my testimony is to describe the impact the proposed plant will have on air navigation and safety, including the result of a change in traffic pattern of aircraft and the effect of wind shear on various forms of aircraft at low altitudes.

III. Qualifications:

I am an accident prevention and safety counselor with the FAA. I am also a professional pilot with the following certificates:

1. Single engine
2. Multi engine
3. Single engine instrument
4. Multi engine instrument
5. Single engine commercial instrument
6. Multi engine commercial instrument
7. Airline Transport Pilot
8. Single and multi engine sea
9. Single and multi engine sea commercial and instrument
10. Rotorcraft helicopter
11. Glider pilot

I am also rated in the following aircraft:

1. Single and multi-engine aircraft too numerous to mention.
2. Albatross twin engine sea plane.
3. CE5 Cessna Citation Jet

4. DC 3
5. Plus a large number of both single and multi engine sea planes

I am a Federal Aviation Administration flight instructor in all the above except rotorcraft, glider, CE5 and DC3.

I have a mechanic certificate with the FAA for airframe and powerplant.

I am an accident and safety prevention counselor for the FAA and an FAA Designated Flight Examiner authorized to give certificates in the following areas:

a. Single and multi engine
b. Single and multi engine instrument
c. Single and multi engine commercial
d. Single and multi engine Airline Transport License
e. Single and multi engine sea instrument
f. Single and multi engine sea commercial
g. Single an multi engine sea Airline Transport License

I received my instructor license at 18 and was the youngest FAA Flight examiner ever at the age of 23. I have instructed thousands of students and have performed even more qualifying exams. I presently have approximately 10,000 hours flight time. I started my career twenty years ago at the Blythe Airport and received most of the credentials there. I started a flight school in Bullhead City, Arizona in 1989 and now have three offices in different cities. I am very familiar with the Blythe Airport and the flight conditions around it.

FLIGHT PATTERN AT BLYTHE AIRPORT

A very real and extreme danger to aircraft will be created if the flight pattern is changed to require turning base to final on a right hand pattern. The FSA report states that most aircraft make about a one-mile pattern (FSA report page 4010-16). The plant is about a mile out. This would put an aircraft turning base to final directly over the cooling towers. An aircraft is not as stable in a banked turn as it would be in level flight. Additionally, a low wing aircraft in a turn has very poor field of vision on the outside of a turn because the wing is obscuring vision and a high wing aircraft is not much better. The aircraft would likely result in a dangerous area over the cooling towers during a banked configuration, thereby creating a dangerous condition.

Additionally, pilots have been making right hand patterns for many years and it would not be logical to think that every pilot who flies into Blythe Airport will remember to change patterns. This could cause two aircraft to hit head on while turning base to final.

I will write a letter to FAA Region and inform them of this safety problem if they receive a request to move to a right hand pattern.

THE FLIGHT CHARACTERISTICS OF AN AIRCRAFT EXPERIENCING WIND SHEAR

I have read the FSA, and specifically, FSA page 4.10-41. The up draft from the cooling towers described in the FSA would be considered wind shear.

Wind shear is any wind over 15 knots or any wind that will move an aircraft up at 500 feet per minute. After interpolating the number on FSA page 4.10-41 from 250 feet up to 325 feet, the result is placing the aircraft in wind shear.

Wind shear is very dangerous to an aircraft. It can cause the control surfaces to stall making the aircraft uncontrollable. If an aircraft encounters wind shear resulting in a stall at low altitudes, such as 350 feet, in all probability the aircraft will not have time to recover, and will crash. The problem is exacerbated if the pilot who is subjected to the condition is inexperienced.

The Blythe Airport is used by most flight schools in a two hundred mile radius to send their students on a "long cross-country" flight. A student pilot will not react from instinct or experience but will have to try to figure out what to do. In my opinion, a student pilot who experiences wind shear that results in a stall at 350 feet above the ground will not have enough time to recover before hitting the ground.

Mr. Luis Magana was an employee of mine so I have a first-hand account of the incident that occurred at Blythe on May 4, 2004. He was one of my best and most experienced instructors. I trust his account of the incident. He told me that if he had not been ready for the turbulence he might not have reacted fast enough to save the aircraft. I asked him to evaluate the incident as a flight instructor and opine whether a student pilot in the same situation would have been able to avoid a crash. He said, "I do not believe so."

Only the right wing of Mr. Magana's aircraft entered the up draft of the cooling towers. This rolled the aircraft on its side at a 40 to 50 degree angle, which is a very dangerous configuration to be in at 550 feet off the ground.

If wind shear and/or turbulence created by the cooling tower causes an up draft to affect only one wing, it can cause the aircraft to be put into a 90 degree angle. In my professional opinion this is not recoverable at 325 feet above ground because the aircraft must slide out of the draft before it can right itself. It is my opinion based on the numbers disclosed in the FSA report, that sufficient wind shear will cause such an event to happen and that an accident under the described conditions will be only a matter of time.

I have read Mr. Nordberg's account of an incident that he had in a Lear Jet 45 at about the same time as the incident experienced by Mr. Magana. One aircraft was following the other one. Mr. Nordberg reported that he encountered moderate to severe turbulence. Mr. Nordberg is qualified to report turbulence as he is a test pilot for Lear Jet. Both of these pilots were on a 5.5 degree glide slope, which put them about 550 feet above the cooling towers. It is my opinion that the turbulence experienced by these men would have been worse had they been at the regular traffic pattern of 325 feet. Additionally, it is my understanding that the plant was not in full operation at the time of these incidents.

Mr. Magana reported that the turbulence was only moderate thirty minutes later. It appears that the severe updraft is not constant but as far as aviation is concerned, we have only two categories of safety, safe and not safe. There is nothing in between.

RELATIONSHIP OF BP II TO BP I

At the present time approximately one-half the aircraft at Blythe Airport are turning inside the

plant on a down wind to base, and not going through the turbulence and wind shear that BPI I is discharging. If BP II is built, more aircraft will be placed in the dangerous position of flying through the discharge of the cooling towers from BP I. This is because BP II is cutting off down wind to base for most aircraft except for some very slow aircraft that would be able to cut inside of BPII and still have time to line up with the runway.

INACCURACIES IN MR. MORRIS' TESTIMONY

Despite Mr. Morris' testimony to the contrary, the turbulence resulting from the cooling towers is not moderate. Any up draft that is high enough to be rated as wind shear is not moderate. The FSA Report establishes that the updraft constitutes wind shear.

It is completely incorrect to state that an updraft will not cause a loss in altitude. An aircraft that is rolled onto its side will definitely lose altitude.

The plant does not create the same turbulence as mother nature. I have been flying in and out of the Blythe Airport for 20 years and prior to the construction of BP I, I have never encountered wind shear or severe turbulence at the end of runway 26 unless there was a thunder storm in the area around the airport. The main reason is the uniform color of the white sand around the airport. Although thermals occur over the black mountains around the valley, the thermals are too far from the airport to affect it.

An aircraft will not stabilize itself in hazardous conditions by correcting its attitude from a 40 to 90 degree bank at 325 feet before hitting the ground. The problem is exacerbated in the context of an inexperienced pilot.

FP&L GRAPHS ARE NOT COMPLETE AND ARE MISLEADING

FP&L graphs related to BPII are misleading. They show only wind that is blowing away from the airport. Additionally, the graphs suggest the ambient temperature to be the same as the temperature of the discharge from the cooling towers. In reality, however, the ambient temperature will much lower most of the time, resulting in greater plume speed.

STATE OF CALIFORNIA
State Energy Resources
Conservation and Development Committee

In the Matter of:	Docket No. 02-AFC-1
Application for Certification for the BLYTHE ENERGY PROJECT -PHASE II	**DECLARATION OF JOSEPH F. SHEBLE III**

I, JOSEPH F. SHEBLE III, declare as follows:

1. I prepared the attached testimony relating to Traffic and Transportation for the Blythe Energy Project, Phase II (California Energy Commission Docket Number 02-AFC-1).
2. My qualifications to give the testimony are contained at Section III.
3. It is my professional opinion that the attached prepared testimony is valid and accurate with respect to the issues that it addresses.
4. I am personally familiar with the facts and conclusions related in the attached prepared testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and that this declaration was executed at Kingman, Arizona, on July 22, 2005.

STATE OF CALIFORNIA
State Energy Resources
Conservation and Development Committee

In the Matter of:	Docket No. 02-AFC-1
Application for Certification for the BLYTHE ENERGY PROJECT -PHASE II	**PROOF OF SERVICE**

I, Veronica MacMillan, declare that on July 22, 2005, I deposited copies of the attached TRAFFIC AND TRANSPORTATION TESTIMONY OF JOSEPH F. SHEBLE III in the United States mail at Palm Desert, California, with first class postage thereon fully prepaid, and via email, addressed to the following:

CALIFORNIA ENERGY COMMISSION

DOCKET UNIT, MS-4

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I declare under penalty of perjury that the foregoing is true and correct and that this declaration was executed this 22nd day of July, 2005, at Palm Desert, California.

_____

Veronica MacMillan