February 29, 2008

Jacqueline Onciano Monterey County Planning Department 168 West Alisal St., Second Floor Salinas, CA 93901-2487

Comments on Rancho Cañada Village Draft EIR

Dear Ms. Onciano,

Our 10-year daughter Abigail has Cystic Fibrosis, a life-threatening lung disease. She is also due to begin Carmel Middle School this fall. CMS is located immediately next door to the proposed project site for the Rancho Canada subdivision. Concerned about having a large construction site so close to where Abigail would be attending school, we asked her CF doctor at Stanford about the potential risks. Dr. Richard Moss, Director of the Cystic Fibrosis Center at Stanford and a world-renown expert on pulmonary biology, was quite concerned about the potential risks to Abigail (and other children), and wrote the attached letter. We ask that Dr. Moss' letter be considered and responded to in the review process as though it were submitted directly to you.

To summarize Dr. Moss' letter, Aspergillus, silica and acrolein all constitute clear and present health dangers to Abigail, to all kids with asthma, and even to all healthy children and adults exposed to them.

Dr. Moss' letter raises for us a number of obvious concerns pertaining to the threats to our daughter's health that have not been addressed adequately or at all in the DEIR. These 'Air Quality' concerns include:

- 1. Is the Aspergillus mold found on the proposed construction site, and, if so, in what concentrations and in what distribution?
- 2. Is the Aspergillus mold found in the 100,000 cubic yards of fill scheduled to be trucked onto the construction site? If so, in what concentrations?
- 3. What is the expected dispersal pattern for airborne Aspergillus spores from disturbed soils, and in what concentrations?
- 4. Given that dispersal pattern, what is the expected rate of exposure to Aspergillus spores by children at CMS and the nearby community? How many new cases of asthma per 1,000 children would be projected given this rate of exposure? Can you model expected lung function degradation for existing cases of asthma and Cystic Fibrosis based on the projected exposure rate to Aspergillus?

- 5. What are the other plausible dispersal scenarios, and how would they impact Aspergillus exposure of CMS children and the nearby community per the questions raised in #4 above?
- 6. Please explain in detail construction techniques that will be used in the project that will mitigate Aspergillus exposure. Can the risk of Aspergillus exposure be reduced to zero?
- 7. Is ground silica found in the soils on the proposed construction site, and, if so, in what concentrations and in what distribution?
- 8. Is ground silica found in the 100,000 cubic yards of fill scheduled to be trucked onto the construction site? And, if so, in what concentrations?
- 9. What is the expected dispersal pattern for airborne silica from disturbed soils, and in what concentrations?
- 10. Given that dispersal pattern, what is the expected rate of exposure to silica by children at CMS and the nearby community? Can you model expected lung function degradation for existing cases of asthma and Cystic Fibrosis based on the projected exposure rate to silica? Can you model expected lung function degradation for currently healthy children based on the projected exposure rate to silica?
- 11. What are the other plausible dispersal scenarios, and how would they impact silica exposure by CMS children and the nearby community per the questions raised in #10 above?
- 12. Please explain in detail construction techniques that will be used in the project that will mitigate silica exposure. Can the risk of silica exposure be reduced to zero?
- 13. Are you aware that silicosis has killed and sickened a number of horses in Carmel Valley? We have been apprised of at least three local Carmel Valley stables that have had problems with silicosis. Obviously, silica is present in Carmel Valley soils in sufficient quantities to kill and sicken mammals far larger than CMS school children.
- 14. Acrolein and diesel exhaust emissions are mentioned in the DEIR, but are badly underestimated. For example, what are the expected rates of acrolein and diesel exhaust emissions from the 7,200 truck trips planned to bring in 100,000 cubic yards of dirt? What are the expected cumulative impacts not just on the construction site, but on the health of community members along the truck route (e.g., Carmel High School, whose athletic fields are immediately next to and downwind from Highway 1 where, presumably, the truck traffic will go.)
- 15. What is the expected dispersal pattern of acrolein and diesel exhaust emissions, and in what concentrations?
- 16. Given that dispersal pattern, what is the expected rate of exposure to acrolein and diesel exhaust by children at CMS and the nearby community? Can you model expected lung function degradation for existing cases of asthma and Cystic Fibrosis based on the projected exposure rate to acrolein and diesel exhaust? Can you model expected lung function degradation for currently healthy children based on the projected exposure rate to acrolein and diesel exhaust?



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February 5, 2008

Glenn and Elizabeth Robinson 61 Southbank Road Carmel Valley, CA 93924

Dear Glenn and Elizabeth,

Thank you for apprising me of the proposed construction next to Carmel Middle School, which Abigail will attend in the fall. I share your concerns. For children with cystic fibrosis like Abigail, for those with asthma, and, indeed, for any child, such close proximity to an active construction site can present serious risks to pulmonary health and well-being.

I have three specific concerns. First, ground silica is common in soils in California and routinely becomes airborne during construction, particularly when large amounts of fill are involved. Silica is a microscopic particle that can lodge itself deep inside the lungs, scarring lung tissue and decreasing lung function. Such silicosis is dangerous for anyone, but especially for those people, like Abigail, who already have impaired lung function and cannot tolerate further avoidable toxic or irritant exposures.

A second concern is the fungus Aspergillus, also commonly associated with construction sites where disturbed building materials or soil may release airborne spores of this mold. You mentioned the construction site abuts the Carmel River, an environment I would expect to be rich in the aspergillus mold. Aspergillus can provoke a variety of lung problems including asthma and more serious allergic reactions in people with pre-existing asthma or cystic fibrosis. This has been shown to have potentially serious consequences for people with cystic fibrosis.

Third, acrolein is a toxic component of diesel exhaust. While individual construction trucks likely do not pose a significant risk, a high concentration of diesel exhaust in close proximity to the school is of great concern, especially if the dispersal pattern is not favorable. Acrolein can cause such severe lung irritation that it was used as a chemical weapon during World War One. It is also a suspected carcinogen. As with silica and aspergillus, acrolein can be dangerous to anyone, but is of special concern to children with impaired lungs.

You are right to be concerned. Please feel free to share my remarks as you see fit; you may let people know that I have treated Abigail's cystic fibrosis for 10 years in my capacity as Director of Stanford University's Cystic Fibrosis Center.

Sincerely yours,

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