

# **Ronald B. Ziman, MD, FACP, FAAN**

## **Neurology**

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16 September, 2013

Mr. Allen Elliot - SSFL Project Director  
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Dear Mr. Elliott,

I am a physician and resident of Bell Canyon, CA. Bell Canyon is to the immediate South of the SSFL, bordering the Southern Buffer Zone and in that regard, the nearest neighbor of the SSFL. Presently 90% of the watershed from the SSFL flows south into Bell Creek which winds its way throughout our neighborhood. The prevailing winds in this area are from North to South, blowing across the SSFL land, sweeping up material and carrying it into our community. We are exposed from all pathways to substances arising from the SSFL and subject to whatever its effects may be. If there is any community that is in the line of fire and to be affected by the contamination of SSFL it would be Bell Canyon. Our community is extremely grateful to DTSC, NASA, DOE and Boeing for all the cleanup efforts to date. Protection of the population is paramount. Without protection of the environment in which we all live, everyone becomes vulnerable.

Having read the Draft Environmental Impact Statement (DEIS) that NASA recently released, I am compelled to comment. I am deeply disturbed by its rationale, structure and conclusions. This document is severely limited and flawed. I recommend that it be rewritten and then resubmitted to the public for further comment. Among other things, your DEIS is in conflict with NEPA and CEQA. Further there are no alternatives besides "all or none," neither of which addresses the area appropriately and are definitely unsatisfactory to my community. How an EIS can actually recommend either placing the public and environment at serious health risk or have "no action" as the only other

alternative when a clean up is indicated and has been promised for years is beyond me. This appears to be bureaucracy at its worst.

The OIG report of 2/14/13 clearly stated that funding a \$200,000,000 clean up for SSFL may “not be feasible” and yet that is the very cleanup you are proposing. A less strict and perfectly acceptable EPA risk based cleanup standard is estimated by the OIG in their same report to cost \$80,000, a sum much more likely to be funded. Based on that, I can only conclude that NASA is not serious about doing any cleanup given that “no action” is the only other possible alternative presented if your “all” proposal is not funded.

In your own NASA National Environmental Policy Act; Santa Susana Field Laboratory Status report, (Source: Marshall Space Flight Center) of 8/2/13, you indicate that alternatives will be considered,

*“The DEIS will consider a range of alternative technologies that meet NASA's objectives to clean up soil and groundwater contamination at the portion of the SSFL site administered by NASA. Implementation of this Proposed Action would occur by implementing one Demolition Alternative and one or more Cleanup Technologies, from the following: (1) Soil Cleanup Technologies: Excavation and Offsite Disposal, Soil Washing, Soil Vapor Extraction, Ex Situ Treatment Using Land Farming, Ex Situ Treatment Using oxidation, In Situ Chemical Oxidation, In Situ Anaerobic or Aerobic Biological Treatment; (2) Groundwater Treatment Technologies: Pump and Treat, Vacuum Extraction, Heat Driven Extraction, In situ Chemical Oxidation, In situ Enhanced Bioremediation, and Monitored Natural Attenuation.*

*NEPA requires analysis of the “No Action” alternative which in this case means no environmental cleanup at the site and/or no demolition of test stands and ancillary structures on the NASA- administered property.”*

Paradoxically you also state in the same report that,

*“Based on comments from some members of the public, DTSC, Senator Boxer, and guidance from the White House's Council on Environmental Quality, the DEIS now considers only the strictest “Cleanup to Background” and the least effective “No Action” alternatives. All other cleanup alternatives, consistent with both the Scoping Process and the potential future use of the land, were specifically removed from the DEIS.”*

Nothing in the letter you received from the CEQ requires you to exclude other alternatives. It simply states alternatives need not be mandatorily included. I have to believe that Barbara Boxer, who has fought both for the environment and at the same time the “strictest cleanup ever” in the interest of public health, has been misled and is now working at odds with her own core environmental principles. Laying waste to 105 acres of earth is catastrophic and when of that magnitude will take decades, if not centuries, to heal. There will be multiple negative consequences, many likely unforeseen, to the public and the environment. These 2 incongruities, advocating for an overly strict and rigid clean up which will be harmful to all and at the same time representing oneself

as a defender of public health and the environment is irreconcilable. I will be contacting her about this very issue shortly.

The last paragraph of the CEQ is critical to the process, yet it appears that NASA, while placing great weight on 1 sentence, completely ignored the last paragraph. To quote (emphasis added):

*“As to assisting the State and NASA in moving forward cooperatively, is fully consistent with CEQ regulations for NASA and the State to coordinate their environmental reviews to the greatest extent possible. CEQ would recommend such coordination while allowing NASA to retain the integrity of its NEPA decision making authority. CEQ would propose that the State and NASA conduct face-to-face meetings with the goal of establishing an updated cleanup timetable. During the process of working on the timetable, the State and NASA will also be able to resolve other issues, including (1) what information, including any site characterization information, NASA and the State can provide each other to facilitate NASA’s NEPA process and the State’s California Environmental Quality Act (CEQA) work; (2) how the NEPA and CEQA processes will work together; (3) What the State’s timeline is for the CEQA process; and (4) whether an extension for completion of the cleanup could assist in facilitating coordination among the NASA and State efforts. CEQ would be pleased to assist NASA, the STATE and the Committee as appropriate in fostering this coordination.”*

The reasons quoted in the report to exclude alternatives relate to what I assume to be political pressure associated with Senator Boxer’s and the CEQ’s letter. Yet the CEQ letter clearly states, as quoted above, that the timeline can and should be subject to negotiation. Senator Boxer’s letter doesn’t even mention the 2017 date or give a timeline by which the cleanup is completed. The Consent Order of 2010 indicates that the cleanup methods should be in place by 2017, but to expect cleanup to be complete by then is not realistic and yet appears to be driving the process. The apparent rationale to remove rather than treat soil directly relates to the “self imposed” 2017 deadline for clean up. There is no reason the cleanup must be completed by 2017 other than an agreement between NASA and DTSC (the AOC) that includes a mechanism for modification and is severable. Mutual agreement of the parties is the only requirement. Mutual agreement is conveniently ignored despite it being part of the CEQ letter to Senator Boxer. Similarly the emphasis of coordination between NASA and the State to optimize the CEQA and NEPA processes also included in the letter and quoted above are “forgotten.”

As outlined on the timeline the NASA DEIS, CEQA and NEPA are all uncoordinated and disconnected. This is the worst of all worlds, like ships passing in the night, never to see each other or be able to interact. While the land is destroyed, including its archeological resources, and the test stands are dismantled, erasing the space history that is so rich and comprehensive at the SSFL (from the Redstone and Atlas rockets to landing men on the moon and the space shuttle), the very laws and their associated report mechanisms designed to protect haven’t even been drafted or considered before destruction occurs. By the time there is a document addressing what to preserve, all will have been removed. What logic is there in that? Is that taking your charge and responsibility as stewards of

space and its history seriously and responsibly? It appears that the very processes that are intended to be coordinated have purposely been disconnected. There is no other explanation for your blatantly ignoring the law and the advice given in the CEQ's letter quoted above.

How can one know what to preserve if the end use of the land has not yet been determined. NASA has made no attempt to balance the financial costs, cultural costs and costs to the environment, all mandated by NEPA and CEQA. Though it may be expedient to tear everything out, including the ground itself, creating a Tabla Rasa, it would seem, given the rich resources that exist there, rather than a Tabla Rasa, NASA, California, and future generations would be better served to preserve the physical monuments to this history. How does anyone know what to preserve if there is no discussion about ultimate long term land use?

The Alpha, Bravo and Coca test stands should all be preserved. They each represent a unique part of the history of the cold war and later the space age where all are inextricably linked. Some of the test stands are considered to qualify for registration in the National Registry of Historic Sites, yet this is ignored. The Burro Flats Cave and its acknowledged remarkably rich and exquisitely preserved paintings, currently registered, is placed in jeopardy by the clean up. Other caves and known sites are similarly put in harms way for no reason. This wanton "scorched earth policy" is beyond any rationale. To me and my neighbors, it appears to be almost cruel and vindictive. Who are you hurting other than the environment, the people and future generations of Americans and foreign visitors who should be educated, see, learn and understand this amazing and diverse history? All these resources: the test stand and significant associated structures, Indian sacred sites, TCPs and archeological areas could and should be preserved within the AOCs. I am shocked at the apparent disrespect and irreverence of NASA and the US Government, ignoring all safeguards to protect tangible treasures of prior millennia. The ancient Chumash people gazed at the stars, recorded their observations and dreamed of visiting. Ironically, within steps of their past, what would have appeared to them to be fire-spitting "gods" were conceived that actually transport man to the heavens.

The cleanup of soil is astronomical (pun intended) with unfortunate and irreparable astronomical consequences. 80,000 truck trips to transport soil removed from 105 acres with the demolition debris of multiple structures added. Removal of this soil unavoidably removes all the plants and biota. Seeding with native plant species sounds all well and good, but no one knows if the natives will grow in soil with different biota and chemical characteristics that comes from another area. How inviting will this barren soil be for non-natives? Where is the soil coming from? That is not known at this time. Is there even enough soil to obtain that would replace 30% of what was removed? The 30% is a maximal amount. It could turn out to be less. What are the consequences to this? Where are they addressed in the DEIS?

Erosion from wind and rain will be substantial and unavoidable. Dust, not only from the trucks but from the prevailing north to south winds will carry infectious Valley Fever organisms (Coccidioidomycosis) and other pathogens into neighboring inhabited areas.

Outbreaks of Valley Fever increase even after an earthquake. Removing plants and soil, and then replacing only part of the soil while hoping that native rather than non invasive species will grow and take hold in time to avoid disease is wishful thinking at best. As a physician I have had the unfortunate experience of caring for those with Valley Fever. Once acquired it is present for life and can kill despite the most aggressive treatment. For those who develop involvement of the central nervous system it is not only incurable, but results in the need for continuous treatments with toxic medications that are painful to administer directly into the spinal fluid. This is no minor matter. I have not seen this discussed anywhere in the NASA DEIS despite the fact that coccidioidomycosis is endemic in the San Fernando Valley and I am sure in the SSFL soils as well. Has it even been looked for there?

There are other organisms of concern that are also not discussed. Stagnant pools related to improper drainage from the extensive soil excavation enhance breeding for mosquito transmitted viral diseases such as Avian Flu and West Nile Virus. This impact is similarly ignored. The risk of other illnesses, such as equine encephalitis, will likely rise, not only for horses, but also people. Flies breeding in the stagnant pools carry parasites and other diseases. None of this was addressed in the DEIS. Changes in topography and water related soil erosion will choke the streams and creeks that come off the SSFL mountain into neighboring areas. Multiple deleterious and unforeseen consequences related to alteration of the stream beds have not been considered.

The topography will be completely altered and with it the surface water flow and percolation needed to recharge ground water. The aquifers have not been adequately characterized and we are already seeing the "law of unintended consequences" related to the GWIM and pumping at the WS-09A well on NASA's property. The aquifer's water is being purposefully removed to lower the water table to dry the seeps and springs. Now Bell Creek, an historically perennial creek, is dry. Its well developed canopy with rich understory is not just in jeopardy, but dying. What will be its fate and state after erosion chokes the creek and the groundwater recharge is altered in unknown ways? How will these changes impact the character of the creek? Will it be better or will it destroy this fragile and beautiful habitat? What consequences will occur to the animals that use the creek and its water as part of their habitual migration? Has this really been investigated and adequately addressed in the DEIS? I not only think not, I know not, it has not.

The SSFL is a critical point within the migration pathways connecting the coastal range to the inland forests and other wilderness areas. How will the animals fare when the land has been denuded, the plants eliminated, the soil biota completely changed and surface water and groundwater hydrology altered in ways that are not predictable? Open moon-space does not sustain the animals. It is not habitable for them any more than it would have been for the Chumash ancestors. No good will come of this cleanup as far as the animals and plants are concerned -- so much for the environmental concerns that are central to the title and purpose of this report.

How can mitigation of impacts be addressed when alternatives are not even included for consideration? Titling this document an "Environmental Impact Report (EIS)" has never

been truer, but all the impacts are negative without considering any alternative mitigation that is normally included to protect the people and the environment. A supposed goal of government is to protect and preserve the environment for posterity. The proposed actions are going to do just the opposite.

What of the damage to our roads, the predicted fatalities along the routes, the potential for contamination from trucks, the diesel pollution from the trucks themselves and the multiple deleterious impacts they will have on the neighborhoods and its inhabitants as they go through? All negative health and property impacts directly related to the way the cleanup is proposed, the dimension of which is multiplied further because of the arbitrary 2017 goal of soil cleanup. Actually the soil is really not being cleaned. It is being moved to another location, contaminating and polluting along its travel route, exposing ever more people to hazardous materials and then ultimately contaminating another area. Where is the justice to the community or the environment from this action? Add to this the cumulative burdens from Boeing's and DOE's cleanup efforts. How do you spell disaster? Answer: NASA DEIS.

The "decontaminated," scarred and damaged land left behind would clearly be subject to "recontamination" as a result of the less strict clean up standards being applied to the adjacent Boeing owned property. Contamination will obviously be transported by air and water to properties neighboring Boeing including the NASA owned area at the SSFL as well as neighborhoods surrounding the SSFL, Bell Canyon among them.

To be applying 2 different cleanup standards within the same overall property makes no sense. This AOC defined NASA cleanup is to an impractical standard that has never been done anywhere else in the world – and probably never will be again. It is an arbitrary and impractical standard relative to public health and the environment. This cleanup standard is without justification. Simply put, it is irrational. In the name of clean up that has no rational basis you are destroying that which you are charged to protect and preserve. You are proposing to remove everything, destroying the environment and its unique history and irreplaceable archeology and, at the same time putting public health at risk. How can those who authored this document or those who have presented it maintain a straight face? What is needed is a rational, scientifically sound, risk based clean up.

If I were to grade my property I would need to file a grading plan and water drainage plan with Ventura County. Yet we are presented with a plan involving an area hundreds of times larger than my lot, to be "graded" in an indefinite way. There really is no grading plan or drainage plan. It is not known if soil meeting the impossibly strict cleanup standards can be located to replace a mere fraction of what is to be removed. Considering the severity of the consequences, how can this all simply be allowed to happen? Alternative methods must be considered to effect a practical level of clean up that is risk based, not based on an arbitrary and overly strict standard that is beyond any clean up done anywhere in the world.

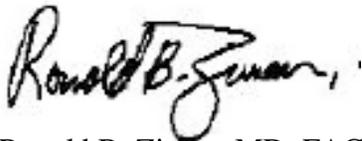
SB990 was struck down in part because of its arbitrary and unreasonably strict standards that are without peer. The AOCs are partly based on SB990. Applying the same

reasoning as was applied to SB990, the AOCs themselves are at risk to be invalidated on the same grounds. Rather than undoing all the years of work that have ultimately brought us to where we are, I propose that the AOCs be preserved -- unlike what the DEIS is proposing for the NASA portion of SSFL. I propose that they be modified to incorporate risk based cleanup standards. The arbitrary 2017 completion date should be renegotiated as indicated by the CEQ, or at the least affirmed the 2010 Consent Order which requires that methods be in place by then. It is unrealistic to expect the completion of soil cleanup by 2017 and NASA should not be held to that. A realistic, achievable deadline should be renegotiated. Clean up can proceed over however many years with alternative sometimes serial in situ and ex situ techniques applied to the soil that would be far less destructive to the environmental, cultural and historical resources.

Inherent in NEPA and CEQA is the end use. That should define the risk based cleanup standard. Ultimate use is being completely ignored in this DEIS. Given the fact that NEPA and CEQA have not even been started, let alone completed, there is no way to consider those documents' recommendations in this plan. As I said in the beginning, the process has been perverted by disconnecting NEPA and CEQA from the DEIS and the elimination of all but the 2 most extreme options.

Preserving SSFL's cultural and historic resources creates the opportunity for the SSFL to become an open "space" park, allowing the wildlife corridor, the Chumash archeological sites, sacred sites and TCPs and our monuments to missile development and space exploration to be seen and admired. The preserved Chumash sacred sites serendipitously prophesize NASA's later use of the same land. Such an open "space" park gives further opportunity to showcase a living demonstration laboratory for innovative, experimental and proven decontamination strategies and techniques under the administration of the National Park Service. Academic institutions could become involved under a competitive system to apply their ingenuity to further the decontamination effort. Properly structured, financial resources could be identified and admission fees instituted to help sustain it. This plan illustrates responsible government leadership to protect both the environment and the people. This would be applauded as the Federal Government exhibiting demonstrable vision in its stewardship of this special land and preservation of its unique cultural, historical and environmental resources.

Sincerely,



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