

"...and justice for all."

January 25, 2016

The Honorable Kevin de Leon
Senate pro Tempore
State Capitol
Sacramento, California 95814

RE: DTSC AND DR WILLIAM BOSAN, DTSC, TOXICOLOGIST

Dear Senate pro tempore de Leon,

I write to bring to your attention a pattern of unacceptable conduct by Department of Toxic Substance Control (DTSC), specifically Dr. William Bosan, Toxicologist with DTSC. This information coupled with the release of the recent racist and derogatory emails using terms including "injun badge," "crackho hooker," and "Chop-chop Hop Sing, used by Dr. William Bosan, and other staff members, (refer to an article by Liza Tucker, Consumer Watchdog) illustrates the need for an investigation into whether such attitudes influence the outcome of investigations of toxic harm in communities. What I write here, I believe, demonstrates DTSC's indifference towards communities suffering from environmental contamination.

Dr. Bosan has ignored significant environmental contamination and its effects on communities, specifically children, which is illustrated by the attached copy of the transcript of his testimony in my own legal case. (Attachment 1)

This is not an isolated incident or a mere reasonable difference of opinion. Dr. Bosan has a pattern of ignoring the safety and health of the residents of California. Dr. Bosan has a record of dismissing the need for close assessment of the relationship between toxics in the environment and subsequent harm to the community when evidence of environmental contamination suggests otherwise.

DTSC should not be permitted to hide behind Dr Bosan's mathematical formula in which he mixes together data from collected samples and then averages them to make it appear that the level of toxics on the ground are far less than actually threatens people in specific locations. This allows him to claim that there is no danger to the surrounding community. This is similar to the blending of hazardous waste chemicals so that they are measured below the hazardous level in order to avoid the need for enforcement.

What follows is a list of instances where Dr. Bosan has consistently sided with industry via determinations of harmlessness that circumstances do not justify.

I begin with my own legal case filed in 2010. I co-represent plaintiffs, who have been exposed to lead and other injurious chemicals from the activities at the outdoor Redondo Beach Police Shooting Range located at 1513 Beryl Street in Redondo Beach, which is across the street from Towers Elementary School.

Dr. William Bosan, Toxicologist is a defense expert in *Stuver, et al v. City of Redondo Beach Police Department, et al, Los Angeles Superior Court Case# BC461376*, which is currently in arbitration. Here, Nicole Holmes who attended Towers Elementary School, located across the street from the Redondo Beach Police Range and was exposed to lead particles and fragments from the Redondo Beach Police Outdoor Shooting Range.

"As a child, I attended Towers elementary School and was exposed to lead while playing on the blacktop of the playground, drinking from the water fountains, playing in the grass, in the sandbox and leaning against the brick walls of the building. Silvery lead putty like substance was scattered all over the school property and was in plain sight and was everywhere. So much was present that I used to scrape it off the blacktop with coins from my pocket and mold it in my fingers. So much was visible that I used to scrape it off the ground with my shoes and tried to avoid touching it on the water fountains. I suffered greatly when coming down with a rare kidney disease in first grade called Nephritis. As a consequence of going to Towers Elementary School and living in Torrance on Arvada Street, I became sick with chronic kidney disease; bladder infections and I also have sinusitis. I had a lot of pain and missed a lot of school. I suffered with very bad pain in my kidneys, had a rash, nose bleeds and a scabby inner nose. I had blood in my urine,

fevers, fatigue, and had many drugs to take. I was not allowed to go in the sun as a child due to my condition. In 2013, I was sent to Mt Sinai School of Medicine, New York, Department of Preventive Medicine, and was given a Bone Lead Test by Dr. Andrew Todd showing elevated levels of lead."

In 2008, DTSC Senior Hazardous Waste Scientist, Roger Kintz, found over 800 bullet fragments at Towers Elementary School including in a sandbox, across the street from the outdoor Redondo Beach Police Range. Over 70 fragments were recovered on one home rooftop across the street from the range.

Dr William Bosan, DTSC, Toxicologist, was assigned to review the data. The following is condensed from his cross-examination on September 6, 2012 at DTSC Chatsworth Office.

"We did not recommend further action on the Towers Elementary School. Whatever additional work was done or negotiated was not at the bequest or requirement of DTSC."

"DTSC did not do an investigation. What Roger Kintz went out—if he canvassed the neighborhood or if he collected samples, that's not a DTSC-approved investigation. There was no approved work plan. So I'm not aware of it."

"You're dealing with an investigator who has no background in site characterization. He's not a geologist. He's not a toxicologist. He has—he can't determine what's a significant health threat or not. So I really—you know, everybody is entitled to an opinion. And that's all I can tell you."

Q. If students were to take the fragments in the sandbox and chew on them, do you think that would be a lead hazard or health hazard?

A. "The fragments don't belong in the sandbox and as we discussed previously, because these are kindergarten-age children, we recommended that the sand be replaced."

Q. If I were to tell you that plaintiffs in this case—one of them has testified when they attended Towers Elementary School they unknowingly would chew on the fragments in the sandbox, do you believe that would be a health hazard?

A. Not necessarily.

Q. And why is that?

A. Again, it's a matter of bioavailability. A large fragment that somebody ingests is going to pass through the body pretty much intact."

THIS REALLY HAPPENED POISON.ORG

"A 4-year-old boy was diagnosed with viral gastroenteritis because of vomiting. Two days later, he was vomiting continuously and was listless and dehydrated. In the emergency room, he was given fluids, then admitted to the hospital. About ten hours later, he became agitated, stopped breathing, and was resuscitated. On x-ray, a heart-shaped foreign body was seen in his stomach so a blood lead level was requested. It was extremely elevated. Soon after, the child suffered severe brain damage and died. On autopsy, a metal charm that came with a pair of shoes was found in his stomach. His mother had no idea he had swallowed the charm." **Center for Disease control and Prevention-Minnesota 2006**

EVALUATION OF ARSENIC AS A CHEMICAL OF POTENTIAL CONCERN AT PROPOSED SCHOOL SITES IN LOS ANGELES, From a DTSC Report 2005

"A total of 19 sites, distributed throughout the greater Los Angeles area, were included for this analysis. Individual sample concentration ranged from non-detect (0.75 mg/kg or less) to 177 mg/kg."

LAUSD was able to use Dr Bosan's mathematical formula to escape potential liability at 19 school sites for Arsenic exposure. LAUSD has a history of purchasing contaminated sites for construction of schools: Edward Roybal Learning Center (formerly Belmont Learning Complex), Jefferson Middle School, South Gate, Carson and others.

"Schools White Paper, DTSC, October 14, 1999, a special report of the California Legislature's Joint Legislative Audit Committee addresses the school site acquisition process to attempt to discern how the system has allowed a minimum of nine Los Angeles public schools to be built on toxic lands."

WYLE LABORATORIES NORCO FACILITY SITE OCTOBER 3, From a DTSC Report 2005

"DTSC has approved the final cleanup plan for removing chemical vapors from the soil in the golden West Lane area northwest of the Wyle site. The cleanup is called a Removal Action Work plan, or RAW. The RAW includes putting small soil vapor extraction (SVE) wells at the cul-de-sac of Golden West Lane, and in the driveways of three residences. The SVE system will use a vacuum unit to pull the chemical vapors from the soil in the Golden West Lane area. These vapors come from contaminated groundwater that has moved offsite from Wyle."

The Center for Public Environmental Oversight, Mountain View, Ca in September 2004 reported that 500,000 gallons of trichloroethylene were released into the soil at the laboratory before 1961.

From an LA Times article April 4, 2005, "Dozens of families in one of the fastest-growing pockets of Riverside County have for years questioned whether toxic chemicals from a military contractor's former facility in Norco are seeping beneath their neighborhoods and causing serious health problems. On-site pollution, including trichloroethylene ground water levels 128 times the federal drinking water standard, came to the state's attention in 1999 when Wyle was testing its land in anticipation of selling the site."

"It's not an immediate threat to anybody's health," said state toxicologist Dr. Bill Bosan. "Our concern is from the long-term perspective-that means 30 years of exposure."

RADIOACTIVE CONTAMINATION AT DAYTON CANYON FROM THE SANTA SUSANA FIELD LABORATORY
Committee to Bridge the Gap Report by Daniel Hirsch NOVEMBER 13, 2006

"Despite strenuous efforts by DTSC and contractors for the proposed developer of the Dayton Canyon property to obscure the fact, the radiological measurements made at the site demonstrate that it is contaminated with radioactivity from the Santa Susana field Laboratory (SSFL), the Atomic Energy Commission/Department of energy nuclear reactor testing facility nearby. Cesium-137 was found in the Dayton Canyon West area at levels on average twice that of local background.

Five of the fourteen samples taken in the area were "hotter" than the hottest of any measured value for local background."

"EPA established mean local background values. DTSC has decided to throw those out and instead use log-transformed averages...DTSC argues that the distribution of both background measurements and Dayton measurements are not normally distributed, and therefore justifies its trimming of high values by the use of log-transformed values. EPA disagrees."

"Dr Bosan cites as the basis for his taking these steps what he said to do this. In fact, the cited reference is merely a report on arsenic related to L.A. schools. It provides no justification to throw out the EPA mean values for radioactivity in local background...Thus; all four areas monitored for radioactivity offsite from SSFL have shown contamination: Brandeis Bardin Camp Institute, Sage Ranch, Runkle Ranch, and now Dayton Canyon. That's four for four."

TOXIC UPROAR AT EL PUENTE SCHOOL, SANTA BARBARA,
Santa Barbara Independent AUGUST 23, 2007

"In the early 1990's, a few years before El Puente moved to its current site, high levels of dangerous chemicals were found in the shallow groundwater on properties that once housed electronics companies and a diesel truck repair business. Now, years after the cleanup, the soil is still contaminated. Until recently, the state agency supervising the cleanup- the Central Coast Regional Water Quality control Board-was **unaware of the school's presence**. In addition to vinyl chloride, toxicologists have discovered another chemical in the area's soil called 1, 1-Dichloroethane. In the past, the chemical was used as a surgical anesthetic until researchers discovered that it can cause heart defects. The experts found 33 micrograms per liter of 1, 1-Dichloroethane-well surpassing the state's acceptable level of 5."

"There's not a reason to evacuate," said Bill Bosan, a toxicologist with the Human and Ecological Risk Division of the DTSC. "The potential risk is more for students who are at the site for four or five years, and definitely for teachers who might be there for 10, 20, or 30 years." (Bosan said he based his preliminary assessment on a mathematical formula involving the level of toxins in the ground and their distance from the school.)

TELEDYNE 03/26/2011

In 1982, Teledyne reported to the California Regional Water Quality Control Board (CRWQCB) that soil and groundwater were contaminated with solvents from an underground solvent storage tank. The State inspected the site and found that contaminants had migrated north of the site and affected approximately 50 private domestic wells.

E-mail from William Bosan to Tom Alo@waterboards.ca.gov: "Your email of February 11, 2011 stated that the risk-based concentrations (RBC) for vinyl chloride in ground water might not be protective of an indoor air worker. Today we discussed that you reviewed the soil gas data, and based on that data, there did not appear to be a risk to an indoor air worker. According to the Risk Assessment report, soil gas data were used to assess the risk to the various receptors. Groundwater data were used only where there was no soil gas data. Therefore, based on our conversation, we believe the RBC for vinyl chloride in groundwater is protective of an indoor air worker."

AUTUMNWOOD DEVELOPMENT-WILDOMAR, CALIFORNIA
CBS NEWS April 8, 2014

"California state toxic regulators and other officials allegedly doctored data in a preliminary investigation of a Wildomar housing complex to avoid pinpointing the source of an apparent health threat and any ensuing cleanup. Testing also showed chemicals detected in the groundwater, soil and soil gas were found in concentrations up to 1,000 times higher than in homes..."

DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DTSC) AUTUMNWOOD Report 2011

"...will oversee site assessment field work to evaluate the presence of contaminants in the subsurface at Amaryllis Court and surrounding residential properties in the Autumn wood Development in Wildomar, CA."

DTSC CONCLUSIONS

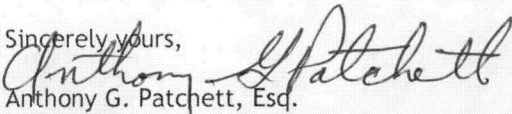
"No data were indicative of a significant hazardous substance release or a significant source of contamination in soil, groundwater or soil gas. VOCs in the subsurface were so low or minimal that no discernible impact could be detected in the indoor air."

Whether or not Dr. Bosan's attitude towards the Wildomar community may have influenced his findings remains unclear. In one derogatory email recently released by the DTSC, Dr Bosan asks a geologist if he is going to a Halloween office party dressed as a "Wildomarian." In others, he refers to a "Wildomarian dialect of doooo doooo."

In another email Dr Bosan tells his supervisor that NBC is working on a story in which Wildomar residents allege a DTSC cover up of dangerous chemicals in the soil. Dr Bosan tells his supervisor that he will get the community back, that he "will shove it up their [Wildomar residents] collective asses like a community enema."

Given Dr Bosan's views of certain communities and numerous examples of his sloppy work and unsubstantiated or erroneous conclusions, I urge the State Senate to take action to protect the residents of California. It is imperative that Dr. Bosan's scientific work on these cases be reviewed in an independent assessment and that he be fired from the DTSC. Likewise, it is my understanding that William Bosan and his colleague, geologist Theo Johnson, are not the only individuals at DTSC expressing racist and derogatory views of communities in emails. I ask that the Senate prevail upon the DTSC to release all such emails written by DTSC staff, and undertake a review of cases on which these individuals worked to see if their attitudes may have influenced outcomes on specific sites. Lastly, DTSC's practice of mixing sample measurements and "averaging" the results needs to be reviewed to determine whether this is a sound way to protect public health, or an excuse to save companies money and justify inaction on cleanups at sites that are linked to illnesses in surrounding communities.

Sincerely yours,



Anthony G. Patchett, Esq.

(Retired-Assistant Head DDA, LA County, Environmental Crimes/OSHA Division)

Attachment

Cc: US Department of Justice, Civil Rights Division, Federal Coordination and Compliance Section NWB
 Office of the Inspector General, Fraud Detection Office
 Governor Jerry Brown
 Attorney General Kamala Harris
 District Attorney Jackie Lacey
 Barbara Lee, Director, DTSC
 Judith Mitchell, SCAQMD
 Liza Tucker, Consumer Watchdog
 Tony Barboza, LA Times
 Penny Newman, Executive Director, Center for Community Action and Environmental Justice
 Daniel Hirsch, President, Committee to Bridge the Gap
 Rocketdyne Cleanup Coalition
 Dr. Nachman Brautbar, MD, Toxicologist
 Florence Gharibian (Retired-DTSC, Division Chief)
 Jim Tarr, President, Stonelion's Environmental Corporation
 Charles Lamoureux, President, ECMGroup,
 Thomas Tomka, Detective Services, (Retired-Supervising Inv. LADA Bureau of Inv)

ATTACHMENT #1

REDONDO BEACH POLICE DEPARTMENT OUTDOOR SHOOTING RANGE ACROSS THE STREET FROM TOWERS ELEMENTARY SCHOOL AND ADJACENT TO TORRANCE NEIGHBORHOOD. Stuver, et al v City of Redondo Beach, et al

DEPOSITION OF WILLIAM S. BOSAN, DTSC, Toxicologist, PhD, September 6, 2012, Cross examination by Anthony G. Patchett, co-counsel for plaintiffs:

Pg. 88:

Q. What do you mean by the term occasional to you? What is the greatest number?

A. I saw very few bullet fragments during my site visit, maybe five, total.

Q. Do you know how many bullet fragments were recovered from Towers Elementary School?

A. No idea.

Q. If I told you that over 800 bullet fragments were recovered from the school, do you believe that to be an occasional number?

A. I would basically say where did you find those? If they are all up on the rooftops where they don't do their normal cleaning procedures, it doesn't really matter because you don't have exposure.

Pg. 89:

Q. Were you aware that approximately 200 fragments were found on rooftops in the surrounding neighborhood of homes?

A. I have the same level of concern that I would or had for Towers Elementary School.

Q. You indicated that you didn't see the need for an "Imminent and Substantial Endangerment" Order. Is that correct?

A. Correct.

Q. Were you aware that Sharon Fain and Roger Kintz took to defense attorney Carmen Trutanich an Imminent and Substantial Order and he refused to sign it?

A. No, I am not.

Q. If they had taken that order to a defense attorney, would you want to be concerned as to why they felt there was a need for an Imminent and Substantial Endangerment Order to be signed?

A. I wasn't privy to that Order, so I can't really comment on what the basis of that order was.

Q. You've indicated before that you have investigated sites for lead exposure; is that correct?

A. Yes

Q. Is lead harmful to children?

Pg. 90:

A. It can be.

Q. Were you aware that DTSC recommended for their Site Assessment that samples be taken within 300 yards of the site of the Range?

A. I don't recall.

Pg. 94:

Q. Were you aware that Enrique Baeza, DTSC, brought an environmental consultant to determine the lead contamination in the neighborhood and found over 17 homes contaminated in excess of one million dollars?

A. I was not aware of it.

Q. The fact that somebody from DTSC believed the contamination in the neighborhood was so severe that their estimate was at least one million dollars to clean up the contamination in the neighborhood.

Pg. 95:

A. I really can't respond to that One, you're dealing with an investigator who has no background in site characterization. He's not a geologist. He's not a toxicologist. He has-he can't determine what's a significant health threat or not. So I really-you know, everybody is entitled to an opinion. And that's all I can tell you. .

Q. Is there a reason you never inspected the range itself?

Pg. 96:

A. I wasn't evaluating the range. I was brought in to evaluate the school.

Q. Wouldn't you want to evaluate the range in order to evaluate the school?

A. That was not my function.

Q. So what occurred at the range and how lead fragments were escaping the range was of no concern to you?

A. Basically we saw or observed lead fragments at the school. That was obviously a concern because we recommended further action. My concern was I was brought in to evaluate the school's part of the schools group-schools unit. My focus, my evaluation, my investigation was focused on the school.

Pg. 97:

Q. Do you believe that lead dust could escape the range?

A. I'm sure there is lead dust associated with the range. How far it goes. I really couldn't tell you.

Pg. 99:

Q. Lead poisoning is a serious disorder that can affect anyone at any age, although young children are at highest risk and have been the focus of most educational efforts about lead poisoning. Do you agree with that?

Pg. 100:

A. I think lead poisoning is-can be a problem for children.
Q. How about for senior citizens?

A. I don't think it's as much of a concern for adults as it is for children. Primary reason is children are still developing. So in terms of the brain and IQ, it's a little more of a concern for us.

Pg. 102:

Q. Does the report contain evidence of samples that have high lead levels?

A. The samples were actual fragments, so, of course, the fragments-lead fragments are going to be high in lead.

Q. And is that a health concern for students and for residents that live in the surrounding neighborhood?

A. No. A lead fragment, in and of itself, is not going to pose a hazard.

Q. When does it become a hazard?

A. As I discussed earlier, when you have things like lead-based paint, and you-they are readily bioavailable, those things are really a problem and a concern to us. Something the size of a fingernail that someone ingests doesn't necessarily mean they are going to cause lead poisoning and likely won't.

Pg. 103:

Q. If students were to take the fragments in the sandbox and chew on them, do you think that would be a lead hazard or health hazard?

A. The fragments don't belong in the sandbox and as we discussed previously, because these are kindergarten-age children, we recommended that the sand be replaced.

Q. If I were to tell you that plaintiffs in this case-one of them has testified when they attended Towers Elementary School they unknowingly would chew on the fragments in the sandbox, do you believe that would be a health hazard?

A. Not necessarily.

Q. And why is that?

A. Again, it's a matter of bioavailability. A large fragment that somebody ingests is going to pass through the body pretty much intact.

Pg. 104:

Q. If that same plaintiff were to-has testified that he observed other children in the sandbox with Wonder bread sandwiches and having a grayish stain on their mouth, would that indicate there's circumstantial evidence that other children were also eating lead fragments?

A. No

Q. Do you believe there's any way that children surrounding-or living in the surrounding area and residents in the surrounding area over a period of time would be subject to long-term lead exposure?

A. Any children in any residence can be exposed to long term lead exposure, not just something like a lead fragment. You know, you've got to look at what's in the house. If you have lead-based paint, lead-based paint on the exterior of the house, amendments to soil, there's a lot of sources to lead that one can be exposed to.

Pg. 105:

Q. Do you find any other source for lead in the surrounding community other than the Redondo Beach Police Range?

- A. While I haven't looked through the entire community or investigated it, I'm sure there are multiple sources of lead, primarily from automobiles from use of leaded gasoline, lead-based paint.
- Q. Were you aware there was a cleanup at Towers elementary School?

A. Yes.

- Q. Were you aware there was a cleanup at the Redondo Beach Range?

A. Not aware of the Redondo Beach Range.

- Q. Were you aware there was a cleanup at Dominguez Park?

Pg. 106:

A. Not aware of that.

- Q. Were you aware there was a cleanup of Beryl Street outside of the range?

A. Not aware of that.

- Q. And if there was cleanup at all those places and there was no cleanup in the residential neighborhood, can you explain why DTSC did not order a cleanup of the neighborhood?

A. We did not recommend further action on the Towers Elementary School. Whatever additional work was done or negotiated was not at the bequest or requirement of DTSC.

- Q. What did DTSC require?

A. I guess you'd call it good housekeeping practices in terms of the hardscape area. Based on the result of the investigation and all the soil sampling that was conducted, levels of lead detected in soil didn't warrant any further action or cleanup.

- Q. You indicated you were involved in the Chatsworth Park Range cleanup?

Pg. 107:

A. Yes

- Q. Is that range still open?

A. No, it hasn't been for years.

- Q. The Highland Park Shooting Range, you were involved in that, too?

A. Yes.

- Q. Is that range still open?

A. No, that range is closed.

- Q. The only range that you know that is open that you have done an investigation on is the Redondo Beach Police Range?

Pg. 108:

A. I have not investigated the Redondo Beach Range. I investigated Towers Elementary School, was involved in the evaluation of the data for that investigation. I have not been involved with the range.

- Q. Are you familiar with the concept of "disposal" by abandonment?

A. I am not a disposal expert. I don't evaluate whether something is hazardous and where it should be disposed of. My role at DTSC is to evaluate potential health risks or threats to human health in the environment.

Pg. 109:

Q. Do you believe lead is a toxic air contaminant?

A. State of California believes it's a toxic air contaminant.

Pg. 116:

Q. Was a Risk Assessment done of the surrounding neighborhood adjacent to the range?

A. Not to my knowledge.

Q. Do you know why, Doctor?

A. Because we'd had no investigation of the surrounding neighborhood.

Q. Did you read in the report that Roger Kintz did an investigation of the neighborhood and found over 70 fragments on one roof alone?

Pg. 117:

A. To my knowledge, DTSC did not do an investigation. What Roger Kintz went out—if he canvassed the neighborhood or if he collected samples, that's not a DTSC-approved investigation? There was no approved work plan. So I'm not aware of it.

Q. Are you saying what Roger Kintz and Enrique Baeza did was not approved by DTSC?

A. I saw no work plan. They go out and collect samples. I mean—they can do whatever they like. That does not constitute a DTSC investigation.

Pg. 121:

Q. Does the report indicate that Enrique Baeza believes this was disposal by abandonment?

A. I don't recall seeing that, and-that term really doesn't mean anything to me.

Pg. 129:

Q. Just to be clear, have you ever reviewed another governmental outdoor range in a residential neighborhood similar to Redondo Beach Police Range

A. No