14 CLIMATE CHANGE ADAPTATION 28 COASTAL IMPACTS DURING HURRICANES

36 GEO-IMPACTS OF WILDFIRES 44 LANDSLIDES DRIVEN BY EXTREME EVENTS

MAY // JUNE 2019

 VENTS

 VENTS

Earthquake Devastates Nepal, Killing More Than 1,900





'Paradise Is Gone': California Fires Devastate Communities

> Massive Typhoon Yolanda Rips Through Philippines



Defining Chutzpah By John P. Bachner



A geoprofessional firm — let's call it Gentz & Loess (G&L) — was retained by the U.S. Environmental Protection Agency (EPA) to estimate the level and kind of contamination at a Comprehensive Environmental Response, Compensation, and Liability Act ("Superfund") site, and evaluate alternative measures for remediation. That would be no easy task: The site was a swamp where dozens of chemical drums were visible. Nothing was known about subsurface conditions.

CAN

The G&L project manager — Bob Donald — called for an extensive subsurface exploration to learn what might be lurking below ground level. As such, Bob's first challenge was providing access for the drilling rigs needed to make borings and retrieve samples for laboratory testing. The best alternative, he believed, was constructing what he specified as a temporary road composed of "clean, well-graded gravel."

Bob retained an experienced constructor to excavate and grade the roadway, and a highly regarded civil-engineering firm to observe fill placement. Being mindful of

appropriate professional conduct, Bob was on site when the test-boring program was about to begin. He was startled to see that the fill used for the access road, instead of being the clean, well-graded gravel he had specified, comprised slag that the excavation/ grading constructor had obtained from a nearby steel smelter. "Stop everything," he said, not quietly and not in the friendliest tone, and directed the civil engineer's field representative to have the slag tested "now." The test results were disconcerting: The slag was contaminated with flue dust ("baghouse dust") picked up by precipitators from the smelter stacks. The flue dust was rich in lead, arsenic, and other hazardous chemicals.

Because the hazardous substances had been imported to the site, Bob was required to notify the EPA and the state's department of environmental protection (DEP). State DEP personnel were particularly concerned because they had allowed use of the same slag as road base at other locations. The EPA representatives Bob met with told him to resolve the problem, adding, "We're not paying for this."

Bob realized that destructive litigation would probably occur if he were unable to resolve the problem quickly and completely. He devised a plan that would require chutzpah to effect. Realizing what likely would occur if he were unable to achieve the plan, summoning chutzpah was not that difficult. The plan: Meet separately and convincingly with representatives of the steel smelter, the earth-moving constructor, the civil-engineering firm, and the state DEP.

Bob's first meeting — with steelsmelter representatives — went well. Assuming a take-charge attitude, he pointed out that, under the Resource Conservation and Recovery Act (RCRA), the mill was permanently responsible for its hazardous waste; allowing someone to take hazardous waste off its premises did not alter that responsibility. The steel-smelter representatives were concerned. "How can we help? What can we do?" they asked. Bob told them.

Next, Bob met with the CEO of the excavation/grading constructor, who seemed somewhat unimpressed about the seriousness of the situation. To emphasize the seriousness of the situation, Bob did something he had almost never done before: He pounded the table, stood, pointed his forefinger at the CEO's nose, and said in a genuinely ominous manner, "You have enough experience to know the difference between well-graded gravel and the polluted slag you imported." Taken aback, the CEO said, "No worries. I'll help." And he meant it.

Third on the list were representatives of the civil-engineering firm: its project manager and regional vice president. Theatrics were unnecessary. They knew that they had performed poorly; that their field representative should have known the difference between clean, well-graded gravel and slag.

Finally, in his meeting with state representatives, Bob pointed out that, because they had permitted use of the contaminated slag on as many as seven other projects, the department should be anxious to cooperate in site clean-up. "We are," they said. "Absolutely!"

Now, with all four parties on board, Bob called for a joint meeting to identify a least-cost solution and assign appropriate responsibility.

Identifying a least-cost solution was the most difficult part of the plan: Experimentation was required. But it paid off. Bob and representatives of the civil-engineering firm and DEP discovered that flue dust could be separated from dry slag using screens. Accordingly, they spread a geotextile on the site, then excavated the slag fill from the swamp and placed it on the geotextile to dry. Once the fill dried, they separated it from the flue dust. They moved the dust to a permitted hazardous-waste facility, and took the "clean" slag - an inert substance — to a municipal solid-waste facility. The excavation/grading constructor agreed to excavate the

slag, screen it, and haul the hazardous dust to an authorized location. The civil-engineering firm agreed to provide the necessary observation, and, the steel smelter agreed to pay for off-site hauling and disposal of the slag and toxic dust.

Representatives of the four entities all expressed their thanks to Bob. Because of his powerful leadership, not only was the "fix" completely successful, each party — except for the steel smelter was able to escape the situation by contributing services rather than cash. And on somewhat of a "high" from his show of charisma, Bob asked his firm's client — the EPA — for a substantial extra, to compensate G&L for Bob's time. And, believe it or not, the EPA agreed!

Eventually, Bob was able to holster his chutzpah and return to the original project, as mild-mannered as usual. Ironically, the only chemicals found were those in the slag and surface drums; the subsoils were uncontaminated.

One can only imagine what the outcome would have been had Bob decided to "let things take their course." 🛐

JOHN PHILIP BACHNER is an independent consultant who has been working with geoprofessionals since 1969. He is the author of more than 250 books, manuals, and guides, many of which he's focused on professionalliability loss prevention. He is the author and presenter of "Write Right" and other BackYard Seminars he has delivered to some 50,000 geoprofessionals. He is also the creator and staff leader of Fundamentals of Professional Practice, a renowned, six-month educational program that boasts more than 2,000 geoprofessional alumni, some 150 or more of whom are today the CEOs of the firms that sent them through the course years before. Members of the Geo-Institute of ASCE receive a \$1,000 discount on FOPP tuition. Contact John at john@bachner.com.